## University of Illinois Annual Register 1916-1917



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## OF ILLINOIS

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# University of Illinois 

## ANNUAL REGISTER 1916-1917

General Announcements, 1917-1918
Faculty and Courses, 1916-1917
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# THE UNIVERSITY CALENDAR 

1916-1917-1918

FIRST SEMESTER, 1916-1917

Sept. 11-15, Mon. to Fri.
Sept. 12, Tues.
Sept. 13, Wed.
Sept. 18, 19, Mon., Tues.
Sept. 18, Mon.
7 p. m.
Sept. 20, Wed.
4 p. m.
Sept. 20-22, Wed. to Fri.
Sept. 23, Sat.
Sept. 25, Mon.

Sept. 25-28, Mon. to Thurs.
Sept. 28, Thurs.
Sept. 30, Sat., 5 p. m.
Oct. 2, Mon.
Oct. 4, Wed.
Oct. 5, Thurs.
Oct. 14, Sat.
Oct. 16, Mon.
Oct. 20, Fri., 5 p. m.
Nov. 6, Mon., 5 p. m.
Nov. 17-19, Fri. to Sun.
Nov. 18, Sat., 5 p. m.
Nov. 23-25, Thurs. to Sat.
Nov. 27-29, Mon. to Wed.
Nov. 30, Thurs.
Dec. 3, Sun.
Dec. 4, Mon.
Dec. 8, Fri.
Dec. 12, Tues.
Dec. 19, Tues., 8 p. m.

## Entrance examinations

Quarterly meeting of the Board of Trustees
Scholarship examinations for second nominees

## Registration Days

Registration, School of Pharmacy
Examination for exemption from Rhetoric 1

## Instruction begur

Freshman convocation
Entrance examinations, departments in Chicago
Assignments in the Brigade posted (Engineering Building, first door, west end)
Military drill (Mil. 2) and Hygiene lectures (P. T. 1a and 9) begun
Registration, School of Pharmacy
Examinations for removal of conditions, College of Medicine
Registration, College of Medicine
Latest day for rebates in fuil and for change of studylist without fee
Senate meeting
Registration, College of Dentistry
Registration closes, College of Medicine
Registration closes, College of Dentistry
Assignment of vacant scholarships in agriculture and household science
Latest day for removal of "incompletes"
Russian Symphony Orchestra
Latest day for announcement of subjects of all undergraduate and graduate theses
Alumni home coming
Latest day for rebates of one-half fees
High school conference
Engineering inspection trips
Household science inspection trip
Thanksgiving day
Illinois day
Senate meeting
St. Louis Symphony Orchestra
Junior promenade
Quarterly meeting of the Board of Trustees
Christmas concert

Dec. 21, Thurs., 11 a. m.
Dec. 30, Sat., 5 p. m.

Jan. 3, Wed., 1 p. m.
Jan. 8-20
Jan. 15-27
Jan. 22, Mon.
Jan. 24-27, Wed. to Sat.
Jan. 25, Thurs.
Jan. 29-Feb. 2, Mon. to Fri.
Jan. 29-Feb. 3, Mon. to Sat.
Feb. 1, Thursday
Feb. 3, Sat.

## Holiday recess begun

Latest day for submission of outlines of theses by candidates for professional degrees in engineering

## Instruction resumed

Short courses in ceramic engineering and highway engineering
Short courses in agriculture and household science
Minneapolis Symphony Orchestra
Entrance examinations
Semester examinations begun
Semester examinations, College of Dentistry
Short course in business
Semester examinations, College of Medicine

## Semester examinations ended

First Semester ends, School of Pharmacy

## SECOND SEMESTER, 1916-1917

Feb. 5, 6, Mon., Tues.
Feb. 5, Mon.
Feb. 5-10, Mon. to Sat.
Feb. 7, Wed., 8 a. m.
Feb. 12, Mon.
Feb. 17, Sat., 5 p. m.
Feb. 22, Thurs.
Feb. 23, Fri.
March 2, Fri.
March 9, Fri., 5 p. m.
March 13, Tues.
March 26, Mon.
March 31, Sat., 5 p. m.
April 2, Mon.
April 5, Thurs., 11 a. m.
April 5-11
April 7, Sat., 5 p. m.
April 10, Tues., 12 m .
May 12, Sat., 12 m.
May, between 15 and 31,

May $17-19$, Thurs. to Sat.
May 18, Fri., evening
May 19, Sat.
May 30, Wed.

Registration Days
Registration, School of Pharmacy
Senate meeting
Library inspection ${ }^{7}$ trip

## Instruction begun

Lincoln day
Latest day for rebates in full and for change of studylist without fee
Washington day
Military ball
University day
Annual band concert
Latest day for removal of "incompletes" and for removal by seniors of first semester failures
Annual meeting of the Board of Trustees
New York Symphony Orchestra
Latest day for filing of completed theses by candidates for professional degrees in engineering
Senate meeting
Easter recess begun
Geology inspection trip
Animal husbandry inspection trip
Latest day for rebates of one-half fees

## Instruction resumed

Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses
Hazelton prize drill
Annual inspection
Company competitive drill
Public school art exhibit
Interscholastic oratorical contest
Interscholastic athletic meet
Military day

May 31, Thurs., 8 a. m.
June 1, Fri., 12 m .
June 2, Sat., 12 m .
June 4, Mon.
June 6, Wed.
June 7, Thurs.
June 10, Sun.
June 11, Mon.
June 12, Tues.
June 13, Wed.

June 18, Mon.
June 19, Tues.
July 7, 14, 21, 28, Sat.
Aug. 9, 10, Thurs., Fri.

Final examinations begun
Latest day for acceptance of undergraduate theses
Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses
Senate meeting
Final examinations ended, School of Pharmacy
Final examinations ended
Baccalaureate address
Class day
Senior ball
Alumni day
Quarterly meeting of the Board of Trustees
Forty-sixth Annual Commencement

## SUMMER SESSION, 1917

Registration Day
Instruction begun
Entrance examinations
Final examinations

## FIRST SEMESTER, 1917-1918

Sept. 10-14, Mon. to Fri.
Sept. 11, Tues.
Sept. 12, Wed.
Sept. 17-18, Mon., Tues.
Sept. 17, Mon.
7 p. m.
Sept. 19, Wed., 8 a.m.
4 p. m.
Sept. 20-22, Thurs. to Sat.
Sept. 22, Sat.
Sept. 24, Mon.
Sept. 26-29, Wed. to Sat.
Sept. 27, Thurs.
Sept. 29, Sat., 5 p. m.
Oct. 1, Mon., 4 p. m.
Oct. 1-2, Mon., Tues.
Oct. 2, Tues.
Oct. 6, Sat.
Oct. 12, Fri.
Oct. 13, Sat.
Oct. 19, Fri.
Oct. 28-30, Fri. to Sun.
Nov. 5, Mon., 5 p. m.

Entrance examinations
Quarterly meeting of the Board of Trustees
Scholarship examination for second nominees
Registration Days
Registration, School of Pharmacy
Examination for exemption from Rhetoric 1
Instruction begun
Freshman convocation
Entrance examinations, departments in Chicago
Assignments in the Brigade posted (Engineering Building, first floor, west end)
Military Drill (Mil. 2) and Hygiene lectures (P. T. 1a and 9) begun
Examinations for removal of conditions, College of Medicine
Registration, College of Medicine
Latest date for rebates in full and for change of studylist without fee
Senate meeting
Instruction begun, College of Medicine
Registration, College of Dentistry
Instruction begun, School of Pharmacy
Registration closes, College of Medicine
Assignment of vacant scholarships in agriculture and household science
Registration closes, College of Dentistry
Latest date for removal of "incompletes"
Alumni home coming
Latest day for announcement of subjects for all undergraduate and graduate theses

Nov. 8-10, Thurs. to Sat. Engineering inspection trips

Nov. 17, Sat.
Nov. 20-28
Nov. 22-24, Thurs. to Sat.
Nov. 29, Thurs.
Dec. 3, Mon.
Dec. 7, Fri., 8 p. m.
Dec. 11, Tues.

$$
8 \text { p. m. }
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Dec. 15, Sat.
Dec. 21, Fri.,

Latest date for rebates of one-half fees
Mining inspection trip
High school conference
Household science inspection trip
Thanksgiving day
Illinois day
Senate meeting
Iowa-Minnesota-Mllinois debates
Junior promenade
Quarterly meeting of the Board of Trustees
Christmas concert
Holiday recess begun, School of Pharmacy
Holiday recess begun
Holiday recess begun, College of Dentistry
Holiday recess begun, College of Medicine
Dec. 31, Mon., $\quad 5 \mathrm{p} . \mathrm{m}$. Latest day for submission of outlines of theses by candidates for professional degrees in engineering
Jan. 3, Thurs., $\quad$ 8:30 a. m. Instruction resumed, College of Dentistry
Jan. 3, Thurs., 1 p. m. Instruction resumed
Jan. 7-19
Jan. 14-26
Jan. 24, Thurs.
Jan. 28-Feb. 1, Mon. to Fri.
Jan. 30-Feb. 2, Wed. to Sat.
Jan. 31, Thurs.

Short courses in ceramic engineering and highway engineering
Short course in household science
Semester examinations begun
Short course in business
Entrance examinations
Semester examinations ended

## SECOND SEMESTER, 1917-1918

Feb. 4, 5, Mon., Tues.
Feb. 4, Mon.
Feb. 4-8, Mon. to Fri.
Feb. 4-9, Mon. to Sat.
Feb. 6, Wed., 8 a.m.
Feb. 9, Sat.
Feb. 11, Mon.

Feb. 12, Tues.
Feb. 16, Sat.
Feb. 22, Fri.
March 1, Fri.
March 2, Sat.
March 8, Fri.
March 12, Tues.
March 15, Fri.
March 28, Thurs. 11 a m.

Registration Days
Senate meeting
Semester examinations, College of Dentistry
Semester examinations, College of Medicine
Instruction begun
First Semester ends, School of Pharmacy
Second Semester, College of Dentistry and School of Pharmacy
Second Semester, College of Medicine
Lincoln day
Last day for rebates in full and for change of studylist without fee
Washington day
Military ball
Annual band concert
University day
Latest day for removal of incompletes and for removal by seniors of first semester failures
Annual meeting of the Board of Trustees
Midwest League debate
Easter recess begun

March 29-April 1
April 1, Mon., 5 p. m.

April 1-7
April 2, Tues. 1 p. m.
April 6, Sat., 5 p. m.
April 8, Mon.
April 16, Tues.
April 24, Wed.
May 3, Fri.
May 9-11, Thurs. to Sat.
May 10, Fri.
May 11, Sat.
12 m.

May, between 15 and 31

May 27, Mon.
May 30, Thurs.
May 31, Fri., June 1, Sat.,

12 m.

June 3, Mon.
June 5, Wed.
June 7, Fri.
June 8, Sat.
June 9, Sun.
June 10, Mon.
8:30 p. m.
June 11, Tues.
$10 \mathrm{a} . \mathrm{m}$.
June 12, Wed.

Chemistry inspection trip
Latest day for filing of completed theses by candidates for professional degrees in engineering
Senate meeting
Geology inspection trip
Instruction resumed
Latest day for rebates of one-half fees
Animal husbandry inspection trip
Railway inspection trip
Commencement, School of Pharmacy
Northern Oratorical League contest
Public school art exhibit
Interscholastic oratorical contest
Interscholastic athletic meet
Latest day for the receipt by the Dean of the Graduate School of certified copies of doctors' theses
Hazelton prize drill
Annual inspection
Company competitive drill
Final examinations begun, Colleges of Medicine and Dentistry
Military Day
8 a.m. Final ezaminations begun
Class day, College of Dentistry
Latest day for acceptance of undergraduate theses
Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses
Senate meeting
Final examinations ended, School of Pharmacy
Final examinations ended
Final examinations ended, College of Medicine
Class day and alumni meeting, College of Medicine
Baccalaureate address
Class day
Senior ball
Alumni day
Quarterly meeting of the Board of Trustees
Forty-seventh Annual Commencement

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THE SUMMER SESSION, 1917
Kendric Charles Babcock, Ph.D., LL.D., Director
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## PART I <br> GENERAL INFORMATION

## LOCATION

The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 126 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies partly within the corporate limits of the city of Urbana and partly within the corporate limits of the city of Champaign. The two municipalities form one community of about twenty-nine thousand inhabitants. The city halls of the two towns are two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana post office maintains a sub-station at the University, located in the Library Building.

## Urbana-Champaign

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

In matters pertaining to health, conditions are good. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense.

The University has no dormitories, but the number of boarding houses is large, and there are sixty-three residence halls erected by fraternities, sororities, and local clubs.

There are thirty-three churches, representing thirteen denominations, and a number of students' religious associations, leagues, and guilds, including Young Men's and Young Women's Christian Associations.

Under a special State law, the liquor traffic has been barred from all territory within a radius of four miles from the University.

## Railway Connections

The University is connected with neighboring cities in Illinois, including Bloomington, Danville, Decatur, Peoria, and Springfield, and also with St. Louis, by the electric interurban lines of the Illinois Traction System.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad, being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria \& Eastern Division of the "Big Four" route, as well as by the division of the Wabash Railway which connects Kansas City and St. Louis with Detroit and Buffalo.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley and the Inman in Champaign and the Columbian in Urbana being the largest.

## HISTORY

## 1862. The Morrill Land Grant

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose 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 mechanical arts, * * * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about $\$ 649,000$.

## Location chosen

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and $\$ 100,000$ in county bonds. To this the Illinois Central Railroad added $\$ 50,000$ in freight.

## 1867. Incorporation

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, ex officio members and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an ex officio member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)

## 1867. Dr. Gregory Regent

On March 12, 1867, John Milton Gregory, LL.D., was elected Regent of the University. On April 1, 1867, Dr. Gregory accepted the position and entered on his duties. He served as Regent until September 1, 1880.

## 1868. The University opened

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and two professors. During the first term another instructor was added, and the number of students increased to 77-all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

## 1868-69. The first laboratories

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.
1870. Pioneer shop instruction

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the first shop instruction given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

## 1870. Wonien admitted

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

## 1873. First reorganization of the Board of Trustees

At this time the number of members was reduced from thirty-two (see 1867 above) to eleven-the Governor and the President of the State Board of Agriculture, ex officio, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)
1877. Authority to confer degrees received

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislative gave the University authority to confer degrees and issue diplomas.

## 1880-81. Dr. Peabody Regent

In June, 1880, Regent Gregory's resignation was accepted to take effect September 1, 1880, and Selim Hobart Peabody, A.B., Ph.D., Professor of Mechanical Engineering and Physics, was made Regent protempore. At the next annual meeting, in March, 1881, he was elected Regent.

## 1885. Change of name

In this year the General Assembly changed the name of the institution from the Illinois Industrial University to the University of Illinois.

## 1885. The State Laboratory of Natural History transferred to the University

See page 414.
1887. Second reorganization of the Board of Trustees

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an ex officio member. There are now, therefore, three ex officio and nine elective members. (For the previous organization of the Board see 1867 and 1873 above.)

## 1887. The Agricultural Experiment Station established at the University

See page 409.
1890. Additional Federal endowment

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862 . Under this enactment each such college or university received the first year $\$ 15,000$, the second year $\$ 16,000$, and in each succeeding year a sum larger by $\$ 1,000$ than the amount of the preceding year, until the amount reached $\$ 25,000$; this sum was to be paid yearly thereafter.

## 1891. Dr. Burrill Acting Regent

In June, 1891, Regent Peabody's resignation was accepted, to take effect September 1, and in August, Thomas Jonathan Burrill, A.M., Ph.D., Professor of Botany and Horticulture, was appointed Acting Regent. Dr. Burrill served in this capacity until September, 1894.

## 1892. The Graduate School

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

## 1894. The Summer Session

The first Summer Session of the University was authorized by a vote of the Trustees on March 3, 1894, and was opened in June of that year.

## 1894. Dr. Draper President

On April 13, 1894, Andrew Sloan Draper, LL.D., was elected Regent. He accepted May 10, 1894. On August 1, his title was changed to President. Dr. Draper entered upon his duties on August 1, 1894. He served until June, $190 \%$.

## 1896. The School of Pharmacy

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois.

## 1897. The College of Medicine

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustces March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912, but was re-opened on February 12, 1913.)
1897. The School of Music

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and cnlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

## 1897. The State Water Survey authorized

See page 416.

## 1897. The Library School

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University, the Director of that school was appointed Librarian of the University Library, and the Library School was opened.

## 1897. The College of Law

Pursuant to an action of the Board of Trustces, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to College of Law.
1899. The State Entomologist's office permanently established at the University

See page 415.
1900. Courses in Business Administration

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration. (See also 1915 below.)

## 1901. The College of Dentistry

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to College of Dentistry on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912, but was re-opened on October 1, 1913.)
1903. The Board of Examiners in Accountancy created

See page 419.
1903. The Engineering Experiment Station established

See page 412.

## 1904. Dr. James President

On March 9, 1904, President Draper's resignation was accepted, to take effect July 1. On August 23, 1904, Edmund Janes James, Ph.D., LL.D., was elected President. He accepted on August 26, 1904, and entered upon his duties in the fall of that year.

## 1905. The School of Education

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

## 1905. The State Geological Survey established

See page 417.

## 1906. Adams Fund

This fund was created by an act of Congress dated March 16, 1906, and provides for an appropriation of $\$ 5,000$ for the year ending June 30, 1906, and an increase of $\$ 2,000$ a year for five years. The present appropriation to the University under the Adams Act, is, therefore, $\$ 15,000$ a year. Its use is limited to the necessary expenses of original research and experimental work in agriculture.

## 1907. Nelson Fund

This fund was created by an act of Congress dated March 4, 1907, and carried with it an appropriation of $\$ 5,000$ for the fiscal year ending June 30,1908 , and an annual increase of $\$ 5,000$ for four years. The present appropriation to the University under the Nelson Act is, therefore, $\$ 25,000$ per year. Its uses are identical with those of the Morrill Fund.

1906-7. The School of Railway Engineering and Administration
On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration.

1906-7. The Graduate School organized as a separate faculty
The General Assembly appropriated $\$ 50,000$ for the Graduate School, and the Executive Faculty of that school was organized.

## 1911. The Mill Tax

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State should be set apart as a fund for the maintenance of the University.

## 1911. Cooperative Investigation of Illinois Coal Problems

See page 420.

## 1912. The Colleges of Meaicine and Dentistry discontinued

The Colleges of Medicine and Dentistry were discontintued on June 30, 1912.

## 1913. The Colleges of Medicine and Dentistry reopened

On February 12, 1913, the Board of Trustees accepted the gift of the capital stock of the College of Physicians and Surgeons, donated to the University by the alumni and other friends of medical education in Chicago, and the College of Medicine was reopened.

The College of Dentistry was reopened on October 1, 1913.

## 1913. The College of Liberal Arts and Sciences

In this year the College of Literature and Arts and the College of Science were united to form the College of Liberal Arts and Sciences.

## 1915. The College of Commerce and Business Administration

The Courses in Business Administration, organized in 1900, were erected into a separate College of Commerce and Business Administration.

## EQUIPMENT

## BUILDINGS AND GROUNDS

The land occupied by the University embraces 236 acres, besides a farm of 949 acres. There are at the present time some fifty-one buildings on the campus.

## Liberal Arts Group

University Hall (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

Lincoln Hall (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. This building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, education, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archeology, and the Museum of European Culture.

## General Science Group

The Laboratory of Physics (erected 1909) is a three-story fireproof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings is 125 feet. The lecture room has a seating capacity of two hundred sixtytwo. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing contains about thirty smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building.

The Chemistry Laboratory (original structure erected 1901-2; addition 1914-15) is a brick building. The original structure is of slow burning construction, and the addition, which will have five stories available, fireproof. The total available floor area is about 164,000 square feet. The ground plan is a hollow square, the extreme dimensions of which are 230 feet along the front, and 200 feet along the sides. The center court contains the lecture amphitheatre, which seats 390 . The side wings of the building contain the general student laboratories, while the center portions of both old and new structures are occupied by offices, class and seminar rooms, library, museums, supply rooms, and graduate research laboratories. The main store room is in the basement under the lecture room. In this building are also located the offices and laboratories of the State Water Survey and the department of bacteriology.

Natural History Hall (old part erected 1892; addition 1909) covers a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the State Natural History Survey, and the office of the State Entomologist. A fireproof museum 51 feet by 63 feet
in size, equipped with fireproof and dustproof cases, occupies the center of the building.

The Botany Annex (erected 1914) is a greenhouse laboratory covering 5,000 square feet, divided into compartments that are severally provided with devices for controlling humidity and temperature within close limits for exact experimentation in the fields of plant physiology and pathology. To this laboratory is attached a reconstructed two-story dwelling, giving working and class rooms for use in connection with the experiments conducted under glass.

The Ecological Laboratory (remodeled and reconstructed in 1914 from a residence at 1210 Springfield avenue) is equipped for the experimental study of the relations of animals to environment.

The Vivariam (erected 1915-16) occupies the block south of the Illinois Traction System tracks, between Wright and Sixth streets, the main facade of the building being toward Healey street. The scheme involves a main building containing eight laboratories, one office, and store rooms, with supplementary greenhouses at each end, and a head house serving two greenhouses, together with two screened houses. The main building is a brick structure, two stories high, connected to the head house by a one story passage from the main corridor. The building is occupied by the departments of zoology and entomology.

The Entomology Building (erected 1905 for the use of the State Entomologist and his staff) is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. It contains the office of horticultural inspection, a stenographer's room, rooms for the assistant inspectors and insectary assistants, and a large fireproof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

The Astronomical Observatory (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter. An adjacent building with a 15 -foot dome was erected in 1914.

## Commerce and Business Administration

The Commerce Building (erected 1912) is a fireproof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet; it provides class rooms, offices, and laboratories for the work in business administration. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak. The Administration Building (see page 56) is a second unit of this building and will eventually be occupied by this College.

## Engineering Group

Engineering Hall (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a floor area of 47,000 square feet. The first and second floors are occupied by the offices and recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the Dean of the College of Engineering and Director of the Enginecring Experiment Station, and by offices, recitation, and drafting rooms of the department of mechanical engineering. A portion of the third floor and all of the fourth floor are occupied by the department of architecture.

The Electrical Engineering Laboratory (erected 1898) is a two-story brick building with floor area of 18,000 square feet. The basement contains the departmental
shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

The Mechanical Engineering Laboratory (erected 1905) is a brick building with a frontage of 120 feet and a total depth of 182 feet, which during the present year has been changed in the interior to provide for a basement with an elevated or mezzanine operating floor, giving a floor area for laboratory purposes of 28,000 square feet. On the mezzanine floor will be mounted all of the principal equipment in the laboratory; in the basement auxiliary apparatus will be housed. The front section is two stories high and together with the two-story addition to the south contains offices, lecture and computation rooms, a lavatory, and an instrument room. The main laboratory is divided into three bays, each approximately 40 feet wide. The middle bay is provided with a ten-ton, three-motor traveling crane, and the north bay with a five-ton hand-operated traveling crane. In the basement two flumes, each three feet deep by four feet wide and 120 feet long, together with a storage reservoir having a capacity of 7,000 gallons, provide for the measurement and storage of water.

The Laboratory of Applied Mechanics (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing the hydraulics laboratory.

The Road Materials Laboratory (erected 1910) is a two-story brick building containing the laboratories, recitation rooms, and offices of the department of civil engineering, which are closely associated with the work of testing materials used in road construction, and with researches in the development of such materials.

The Ceramic Engineering Kiln House (erected 1912) connects with the ceramic engineering building. It has a floor area of 11,200 square feet, and contains the kilns, furnaces, and heavy machines for working clays.

The Mining Engineering Laboratory (erected 1912) is a one-story building having a floor area of 3,600 square feet. It contains a chemical laboratory for the department of mining engineering, and a Mine Rescue Station equipped and arranged for training men in the methods of mine rescue work.

The Ceramic Engineering Building (erected 1915-16) is a three-story structure, $188 \times 65$ feet, of fireproof construction, built of texture brick and polychrome terra cotta. The front of the building is decorated with colored tile panels. The roof is of Spanish tile, and the floor of the halls and corridors of clay tile. The structure is intended to present modern achievement in the use of ceramic structural materials. The third floor is occupied by the State Geological Survey and about one-third of the first floor by the department of applied mechanics. The main portion of the building is utilized by the recitation rooms, laboratories, and offices of the department of ceramic engineering.

The Locomotive Testing Laboratory (erected 1912) is a fireproof building with brick walls, 117 feet long and 42 feet wide, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass through a "transite" (or asbestos board) duct to a large fan which forces them through a
reinforced concrete cinder separator; the separator removes the cinders and discharges the gases into the air through a brick stack eight feet in height.

The Transportation Building (erected 1912) is a three-story fireproof building of brick trimmed with stone. The dimensions of the building are $65 \times 189$ feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor by the department of general engineering drawing.

The Metal Shops (erected 1902) occupy a one-story brick building with a floor area of 12,000 square feet, containing four office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a twenty-horsepower electric motor. A three-ton traveling crane of ten-foot span covers the center of the floor for the entire length.

The Wood Shop (erected 1901-2) and the Foundry (added 1904) occupy a brick building which has a floor area of 16,000 square feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures and exhibition purposes. The part devoted to the foundry has a molding floor $35 \times 80$ feet, traversed by a five-ton traveling crane, and a basement room for the storage of materials.

## Agricultural Group

The Agricultural Building (erected 1900) consists of four separate structures, built around a court and connected by corridors. The court was enclosed in 1912 and divided into five large class rooms. The main building, three stories in height, contains cffices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, and horticulture; the chemical laboratory of the Experiment station; administration rooms; and assembly room (Morrow Hall) with a seating capacity of 500 . The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for class rooms and laboratories. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres.

The Agronomy Building (erected 1904-5) is a brick and slate structure 50 by 100 feet. It contains a field laboratory and storage room for crop work.

The Agronomy Greenhouse (erected 1900, rebuilt 1912) consists of two glass structures covering a total floor space of 6,500 square feet, and a service building equipped with research and photographic laboratories.

The Agronomy Barn (erected 1915) is a wooden structure 36 by 70 feet, designed as a service and storage building for the field work of the department of agronomy.

The Animal Husbandry Callle Feeding Plant has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining, with a storage barn 44 by 72 feet and an experimental silo.

The Farm Mechanics Building (erected 1906-7) is a three-story brick structure, containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of $\$ 16,000$ worth of farm machinery, lent the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

The Bcef Cattle Building (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 fect; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

The Cattle Feeding Plant (erected 1915-16) is of brick and wood construction, located on the axis of Fourth street, south of the "Farm Lane." The lower part is a fireproof structure, 300 feet long, open to the south. The feeding lots are paved with brick and extend out some 30 feet from the building line. The plant is used as a storage place for feed for the animal husbandry department, and the upper stories are constructed as an elevator with large grain bins, where several tons of grain can be elevated, preparatory to grinding, shipping, or feeding. In connection with the plant is a corn crib of the capacity of 12,000 bushels. The four silos to the north are $16 \times 70$ and open into the feed room of the plant. They are of three different materials: tile, concrete, and brick.

The Experimental Dairy Barns (erected 1912) comprise a round barn 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are frame construction on brick walls with solid floors of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height, and contains office, shop, coal room, dairy room, and four sleeping rooms for employees.

The Sheep Barn is a wooden structure consisting of a main barn 36 by 90 feet, and a shed, opening to the south, 25 by 100 feet in size. A six-foot aisle, lined by pens on each side, runs through the center of the barn. This building besides accommodating the University flock is used for experimental work. Its location and construction insures dry footing and ample light and ventilation throughout the year.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and two large barns on the South Farm.

The Stock Pavilion (erected 1913) is a fireproof building 54 feet high on the front and 148 feet deep with circular ends 92 feet in diameter and 20 feet high. The total ground area is 30,000 square feet, and the show arena is 216 feet long and 65 feet wide. Seats of concrete provide accommodations for 2,000 . Arrangements are to be made providing for a division of the arena into three parts, giving three separate judging rooms for instructional purposes. The building also contains class rooms and offices. Stabling will be provided in a separate structure. The exterior is of brick and terra cotta, renaissance in design, the frieze being enriched with medallions of animal heads.

The Genetics Building (erected 1915-16) is a one-story brick structure (located on Farm Lane and Mathews Avenue) housing the laboratories, offices, and animal rooms of the genetics department of the Agricultural College. The work carried on in this building is done principally by graduate students.

The Horticulture Building (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests, and contains sorting rooms, storage rooms, and a laboratory for the mixing of spraying materials and othe: operations in connection with the horticultural work.

The Horticulture Greenhouse Group (erected 1912-13) includes (1) a floricultural group and (2) a vegetable and plant breeding group.
(1) The Floriculture Greenhouse Group (erected 1912-13) consists of a two-story and basement service building 93 by 37 feet, and the following glass structures: four houses each 105 by 28 feet, three houses each 105 by 35 feet, one corridor house 139 by 10 feet, one storage house 50 by 12 feet, and a palm house 80 by 40 feet. The service building is of hollow tile and cement construction, and contains labor-
atories, lecture room, herbarium room, offices, and seminar room, as well as potting, storage, and work rooms.
(2) The Vegetable and Plant Breeding Greenhouse Group (erected 1912-13) consists of a glass house for vegetable growing 105 by 28 feet, two houses for plant breeding each approximately 80 by 30 feet, a wire house 80 by 30 feet, and a two-story and basement service building 82 by 36 fect, containing laboratories, work rooms, class rooms, offices, and storage rooms. The type of construction of this building is the same as that of the floriculture service building.

## Law Building

The Law Building (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room. In the basement are the lockers, the students' reading room, and a court room for the Law Clubs.

## Buildings for General University Use

The Administration Building (erected 1914-15) is a three-story and basement fireproof building of brick and stone. It is 153 feet long and $66 \frac{1}{2}$ feet deep with a one-story annex, 48 feet by 42 feet, with a total floor area of 36,000 square feet; it contains the rooms of the Board of Trustees and the offices of the President, the Registrar, the Comptroller, the Supervising Architect, the Dean of Men, the High School Visitor, the Adviser to Foreign Students, and the Alumni Association, and the Information and Stenographic Bureau. This building is the second unit of the Commerce Building, and will eventually be occupied by that College.

The Library Building (erected 1896-97; an addition to the stack room erected 1914) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 141 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station post office. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian and assistant librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University-Literature and Arts, Science, Agriculture, and Engineering.

The 1 udilorium (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200, a memorial vestibule, and a four-manual organ. All general University exercises and convocations are held in this building.

The Men's Gymnasium (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains also the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University Athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physicial director and the instructors in athletics. The entire second floor is one room, fitted up with modern appliances for gymnastic exercises.

The third floor contains an elevated running track, 15 laps to the mile, banked on the turns to secure speed and comfort in running.

The Gynnasium Annex (erected in 1889-90) has a clear floor space of 15,000 square feet in one hall.

The Armory (erected 1914-15) comprises a drill room with a clear area of 200x400 feet and a height of 98 feet at the center, the roof being carried by fourteen threehinged steel arches. The sides are of hollow tile and the ends, supported by columns, are of steel, glass, tile, and concrete, with wood frames and sashes. The drill floor is of sufficient area to permit the maneuvering of an entire battalion of the cadet brigade. Provision has been made for the addition of the balcony around the drill floor with seats for 3,000 and for the addition of three-story facades along the sides flanked by towers at each end. This will provide space for company rooms, locker rooms, shooting tubes, and class rooms.

The Woman's Building (erected 1905; addition 1912) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the women's gymnasium. On the lower floor there are swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students. The addition is a three-story fireproof building with basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonnade with towers on the front and two smaller colonnades on the north and south of the inner court. The addition is similar to the old building in finish and supplements the working space of the departments using it. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second fioor. There are also offices for the Dean of Women and the Director of the Courses in Household Science, laboratories, social rooms, and space for the expansion of gymnasium work.

## The President's House

The President's House (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

## Service Buildings

The Central Heat and Power Plant (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horsepower. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horsepower. These two stations furnish steam for heating and power to all buildings on the campus. A power plant containing a 250 -kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125 kilowatt direct connected Westinghouse engine and generator, and a 100 -kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick and concrete tunnels and clay and concrete conduits. Altogether there are now 6,275 feet of tunnels and 3,800 feet of conduit for the distribution of steam, and 7,000 feet of conduit for the distribution of electricity. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

The Pumping Station of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8 -inch wells, 145 feet deep, and one 12 -inch well 148 feet deep supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

## BUILDINGS IN CHICAGO

The College of Medicine Building, in which are housed all the departments except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ton feet deep and five stories high, fronting on three streets. The building contains three lecture rooms with a seating capacity of two hundred each; a clinical amphitheater with a seating capacity of over three hundred; an assembly hall with a seating capacity of seven hundred; besides recitation rooms. It also contains laboratories for physiology, chemistry, materia medica, therapeutics, and microscopical and chemical diagnosis, each accommodating from fifty to one hundred students at a time.

A three-story annex to the main building contains the laboratories used by the departments of pathology, bacteriology, and chemistry. All of these laboratories have outside light and are furnished with work tables, desks, lockers, and the necessary apparatus. There is a supply of microscopes, lenses, and oil immersions, and a projection apparatus for the illustration of lectures by means of stereopticon views.

The College of Dentistry is housed in a six-story building containing three amphitheaters, recitation rooms and lecture rooms, laboratories, dissecting rooms, a clinical operating room, and an infirmary. A parior is provided for the use of the women students. The building adjoins that of the College of Medicine.

The School of Pharmacy.-In December, 1915, the University purchased for the School the property located at the corner of Wood and Flournoy streets and comprizing eight city lots with two large brick buildings, connected by a fireproof cen. tral stairway tower. The new quarters were occupied in June, 1916.

## LIBRARIES

## (For the Library Staff see page 33.)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana and also the libraries of the College of Medicine and the School of Pharmacy in Chicago.

On December 1, 1916, the contents of the several libraries were as follows:

| In Urbana: | Volumes | Pamplutets | Maps |
| :---: | :---: | :---: | :---: |
| General library, including departmental collections. State Laboratory of Natural History library. | $\begin{array}{r} 347,807 \\ 8,580 \end{array}$ | $\begin{aligned} & 39,968 \\ & 44,444 \end{aligned}$ | 1.993 199 |
| State Geological Survey library..................... | 1,825 | 4,690 | 1,045 |
| In Chicago: |  |  |  |
| College of Medicine library. | $\begin{array}{r} 17,668 \\ 3,240 \end{array}$ | $\begin{aligned} & 3,105 \\ & 1,000 \end{aligned}$ | ...... 8 |
| Total in the University. | 379,220 | 93,207 | 3,145 |

The Library is housed, for the most part, in the Library building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct
access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition advanced students have the use of the seminar libraries. Over 3,000 periodicals are currently received.

As a part of the Library are included several special collections: The University of Illinois collection, incluđing printed material illustrating the history of the University: about 300 volumes. College Publication collection, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 5,500 volumes. Thesis collection, a complete file of the original copies of the theses presented for graduation from the University of Illinois, bound and filed by years: 2,160 volumes. The Collection of School Reporis, a catalogued collection of school reports, courses of study, and other documents published by public school authorities throughout the United States. The Dziutzko collection of Library Economy, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets. The Dittenberger Collection of the Classics, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items. The Heyne coilection purchased by the University in 1909, the philological library of Professor Moritz Heyne of the University of Göttingen: about 5,000 items, principally on German philology and literature. The Karsten collection, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. The Grober collection, purchased in 1912, the entire library of the late Professor Gustav Grober, of Strasburg: 6,300 titles, principally on the Romance languages. The Vahlen collection, purchased in 1913, the entire classical library of the late Professor Johannes Vahlen, of Berlin: 10,000 volumes. The Aron collection, purchased in 1913, the pedagogical library of the late Dr. R. Aron, of Berlin: 20,000 volumes. The Carl Martin James collection, 1,030 volumes relating to statistics and similar subjects, presented in 1915 by President Edmund J. James. The D. C. Greene collection, presented in 1915 by Professor E. B. Greene: 219 volumes of books and newspapers relating to Japan. The Rattermann collection, of GermanAmerican literature and history, purchased in 1915: 7,000 volumes. The Amanda K. Casad collection, relating to history, economics, politics, and education, presented in 1916 by President Edmund J. James: 1,732 volumes. The Constance BarlowSmith collection of musical scores: manuscript, books, and portraits, presented in 1916 by Mrs. Constance Barlow-Smith.

A number of departmental and college libraries and reading rooms are maintained in various buildings on the campus; these libraries do not necessarily contain all the books in the respective subjects. In some instances they are primarily for the use of the graduate students and advanced undergraduate students in the departments using the respective buildings. The principal departmental libraries and reading rooms are the following:

Name of Library<br>Philosophy, Psychology, and Education Classics<br>Modern Languages<br>English<br>History and Political Science<br>Economics and Sociology<br>Natural History<br>Law<br>Commerce Reading Room<br>Architecture, Ricker Library of<br>Agriculture Reading Room<br>Chemistry<br>Physics<br>Mathematics<br>Railway Engineering and Mining<br>Engineering

| Location | Volumes |
| :--- | ---: |
| Lincoln Hall | 15,497 |
| Lincoln Hall | 22,986 |
| Lincoln Hall | 27,161 |
| Lincoln Fall | 16,170 |
| Lincoln Hall | 20,000 |
| Lincoln Hall | 24,182 |
| Natural History Building | 2,377 |
| Law Building Building | 21,376 |
| Commerce Buid | 1,622 |
| Engineering Building | 4,534 |
| Agricultural Buiding | 8,830 |
| Chemistry Building | 10,500 |
| Physics Building | 5,455 |
| Natural History Building | 4,521 |
| Transportation Building | 2,043 |
| Engineering Building |  |

Mason Library of Western History. The library of western history eollected by Edward G. Mason, Esq., long president of the Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

## MUSEUMS AND COLLECTIONS

## College of Liberal Arts and Sciences

## Liberal Arts Group

Art.-A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the Auditorium foyer. Numerous pieces are now in the studios of the department of art and design in University Hall, and others are in the corridors and class rooms of University Hall, Lincoln Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish, Spanish and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

Classical Archeology and Art.-This museum is located in Rooms 402, 404, and 406 Lincoln Hall, and contains casts and photographs of works of Greek and Roman sculpture; originals and models of Babylonian, Greek, and Roman antiquities; and many objects from the finds of the Egypt Exploration Fund, received through the generosity of Mr. W. G. Hibbard, Jr., of Chicago; museum coins; thirty Greek papyri; Babylonian tablets; and 1,020 photographs of historic sites and archeological remains in Greece, Italy, and other parts of the ancient world. Over 1,600 slides belonging to the department of the classics are also available. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons, and Saturday mornings.

Educaiion.-In Room 417 University Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a collection of apparatus for the school laboratory.

European Culture.-The Museum of European Culture is in the north wing of Lincoln Hall. The collection consists of easts of Romanesque, Gothic, and Renaissance seulpture; color reproductions of masterpieces of painting; originals and facsimiles of medieval manuscripts, and early printed books; early maps of the world; peasant costumes in full size and in small costume manikins; models of ships; theater models and prints of theaters and actors; replicas of seals; reproductions of prehistorie antiquities, of early ivory carving, of runic inscriptions, of early musical instruments, and of arms and armor; and part of the Hibbard collection of 318 old coins, presented by Mr. William G. Hibbard in 1916. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons, and Saturday mornings.

## Science Group

Botany.-The herbarium contains about 100,000 sheets of mounted specimens. It is representative of the higher plants and fungi of Champaign County and of the State, and forms a collection for the general flora of the United States. Through recent aequisition of the herbaria of the late Dr. Frederick Brendel of Peoria, the
late Dr. W. Welsch of Mascoutah, the late Dr. Jacob Schneck of Mount Carmel, and Professor W. E. Andrews of Pana, and the earlier gift of the large personal herbarium of Mrs. Agnes Chase, its value for students of Illinois flora has been largely increased. Because of the interest of the late Professor Burrill and his special students, Clinton, Earle, Seymour, and others, in the study of parasitic fungi, the part of the herbarium devoted to the representation of plants of this group is rich in material records of investigation. This group was greatly enriched by the Stevens collection of Porto Rican fungi, fourteen thousand numbers, presented by Professor F. L. Stevens in 1916. The published "exsiccatae" in this group are well represented. The recent gift of her personal set of the Phycotheca Boreali-Americana by Mrs. Mary S. Snyder has increased the reference value of the herbarium for students of algae, of which it represents over 2,000 named species.

Entomology.-The entomology collections of the University include a reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, given to the University by the executors of the estate of the late Andreas Bolter of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which contain 330,000 pinned insects and 26,000 vials and bottles of specimens in alcohol, mainly from Illinois.

Geology.-The department has adequate working collections which illustrate the principal phases of geology, including 10,000 hand specimens of rocks, 2,500 thin sections for microscopic study, over 12,000 minerals, and 60,000 fossils. In the corridors of the Natural History Building are exhibits of gems and precious stones, meteorites, polished ornamental stones, and specimens illustrating geologic structures, and the principal types of rocks, minerals, and fossils. The collections available for advanced students include those of Tyler McWhorter, Hertzer, and the greater part of the specimens collected both privately and for the State Geological Survey by A. H. Worthen.

Geography.-The geography collection consists of a complete file of the United States topographic maps; a collection of U. S. Geological Survey folios; combined contour maps representing the physiographic provinces of the United States; a collection of foreign topographic maps; rainfall and vegetation maps; relief models of all the continents and of smaller areas; and several thousand lantern slides.

Zoology. -The zoology collections illustrate the work in zoology and present a synoptical view of the zoology of the State. Most of them are placed in the museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons. There are also a collection of mounted birds; the Barnum collection of birds' eggs; a collection of nests and eggs of Illinois birds; a series of mounted skins of larger species of cold-blooded vertebrates, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts: alcoholic specimens of all classes and orders of Mollusca, and dissections showing the internal anatomy of typical forms; several thousand shells, belonging to more than 2,000 species. (The collection of the Illinois aquatic species is nearly complete.) Several hundred dried specimens and alcoholics, and a series of Blaschka glass models of the lower invertebrates; several sets of Ziegler wax models and series of sections and other preparations showing the embryology of vertebrates and invertebrates.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

## College of Commerce and Business Administration

Commerce.-For its courses in industrial economics and commerce the University has a collection of the materials of commerce; lanterns and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating phases of commerce and industry. Most of the articles constituting the commercial museum are the gifts of the Philadelphia Commercial Museum and of private manufacturing and mercantile establishments.

## College of Engineering

The several departments of the College of Engineering possess collections of historic materials drawn from their respective fields of practise. The department of railway engineering maintains exhibits of track rails typifying practise since the beginning of railway construction; many details employed in car and locomotive construction, historic and modern; and an extensive collection of photographs and prints. The department of mechanical engineering is the custodian of a $600 \mathrm{~h} . \mathrm{p}$. vertical triple-expansion engine, direct connected to an electric generator, a lype of machine in common use for power station service twenty years ago. The departments of civil engineering and theoretical and applied mechanics maintain exhibits of tested specimens and structures.

All such material occupies temporary locations. No especially appointed building designed for its reception has thus far been provided.

## College of Agriculture

The agricultural departments maintain collections illustrative of their work; among which are specimens of standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of investigations with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, under the College of Agriculture, in Part II.

## Library School

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of labor-saving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

# ADMINISTRATION 

## GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members ex officio. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Vice-President, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the coileges and Directors of the schools.

The President is the administrative head of the University.
The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Vice-President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common tisage or by rule of the Senate and cannot be conveniently laid over until the next meeting of the Senate, the Council may act upon the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

## DEPARTMENTS AND COURSES

For the purpose of administration the University is divided into several colleges and schools. These are not educationally separate, but are interdependent and form a single unit.

The colleges and schools are as follows:
I. The College of Liberal Arts and Sciences
II. The College of Commerce and Business Administration
III. The College of Engineering
IV. The College of Agriculture
V. The Graduate School
VI. The Library School
VII. The School of Music
VIII. The School of Education
IX. The School of Railway Engincering and Administration
X. The College of Law
XI. The One-year Medical College
XII. The College of Medicine
XIII. The College of Dentistry
XIV. The School of Pharmacy

The College of Liberal Arts and Sciences offers curriculums in:-(1) Philosophy and arts, including (a) the ancient classical languages; (b) the Romance languages; (c) the Germanic languages; (d) the English language and literature, including rhetoric and public speaking; (e) comparative literature; (f) comparative philology; (g) mathematics; (h) the political and social sciences: history, economics, political science, sociology; (i) Philosophical subjects: philosophy, psychology, education; (j) art and design. (2) General Science, affording opportunity to specialize in (a) astronomy; (b) geology, including mineralogy and geography; (c) physics; (d) chemistry; (e) botany, including bacteriology; (f) zoology; (g) entomology; (h) physioiogy. By the grouping of certain subjects students in this College are also offcred opportunities for specific vocational and professional training as follows: (1) tcaching and school administration; (2) journalism; (3) chemistry; (4) chemical engincering; (5) household science and household administration; (6) library administration; (7) law (combined course); (8) medicinc (combined course); (9) engineering (combined course).

The College of Commerce and Business Administration offers curriculums in:(1) General business; (2) commercial and civic secretarial service; (3) banking; (4) insurance; (5) accountancy; (6) general railway administration; (7) railway transportation; (8) commercial teaching; (9) foreign commerce; (10) industrial administration; (11) commerce and law.

The College of Engineering offers curriculums in:-(1) architecture; (2) architectural engineering; (3) ceramic engineering; (4) civil enginecring; (5) electrical engincering; (6) mechanical engineering; (7) mining enginecring; (8) municipal and sanitary engineering; (9) railway civil engineering; (10) railway electrical engineering; (11) railway mechanical engincering.

The College of $A$ griculture offers curriculums in:-(1) agronomy; (2) horticulture, floriculture, and landscape gardening; (3) animal husbandry; (4) dairy husbandry; (5) household science; (6) agricultural extension.

Military science and physical training are provided in all the undergraduate colleges in Urbana.

The Graduate School offers courses in:-philology, including the classical languages, Romance languages, Germanic languages, and English; mathematics; political and social sciences, including history, economics, sociology, and political science; philosophy, including psychology and cducation; physical sciences, including physics, chemistry, astronomy, and geology; biology, including botany, zoology, entomology, physiology, and bacteriology; enginecring, including architecture, architectural engineering, ceramic engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering; agriculture, including agronomy, animal husbandry, dairy husbandry, genetics, horticulture and floriculture, and household science.

The Library School offers a professional curriculum of two years in preparation for the librarianship, leading to the degrec of Bachelor of Library Science.

The School of Music offers curriculums in vocal and instrumental music, leading to the degree of Bachelor of Music, and provides training in public school methods in music.

The School of Education cnrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

The School of Raikwy Engineering and Administration offers curriculums leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also curriculums in railway transportation and in railway administration, leading to the degree of Bachelor of Arts.

The College of Lazv offers a curriculum of three years leading to the degree of Bachelor of Laws.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.)

The One-year Medical College offers a curriculum in medicine in Urbana.
The College of Medicine (Chicago) requires for admission two years of college work in liberal arts and sciences, and offers a four-year curriculum; at the end of the first two years the degree of Bachelor of Science is conferred, and at the end of the four years the degree of Doctor of Medicine. The first year's work in medicine may be taken in the One-Year Medical College at Urbana.

The College of Dentistry (Chicago) offers in 1916-17 a three-year curriculum leading to the degree of Doctor of Dental Surgery. There is offered, also, in 1916-17, a four-year dental curriculum. Beginning in 1917-18 this four-year curriculum will be the only one offered. The new four-year curriculum leads to the same degree as the three-year curriculum which it displaces, namely, Doctor of Dental Surgery.

The School of Pharmacy (Chicago) offers a curriculum of two years leading to the degree of Graduate in Pharmacy, and a curriculum of three years leading to the degree of Pharmaceutical Chemist.

The Summer Session, of eight weeks, offered in 1916, courses in accountancy, agriculture, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, household science, Latin, library science, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technics, music, physical training for men and for women, physics, political science, psychology, rhetoric, sociology, and zoology.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

## ADMISSION

## GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age. Candidates for admission to the College of Dentistry (Chicago) must be eighteen, and candidates for admission to the School of Pharmacy (Chicago) must be seventeen years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1917, September 17), or at the beginning of the spring semester (in 1918, February 4). Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the undergraduate departments, including the colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, and Agriculture, and the School of Music, amounting in each case to 15 units of high-school work, are stated in detail immediately below.

The requirements for the Professional Departments are as follows:
For the College of Law, in addition to 15 units $^{1}$ of high-school credit, two years ( 60 semester hours) ${ }^{2}$ of college work in arts, letters, and science in an institution having standards equal to those of the University of Illinois. (See page 203.)

For the Library School, a bachelor's degree in arts, letters, and science from an institution having standards equal to those of the University of Illinois. (See page 185.)

For the College of Medicine (Chicago), in addition to 15 units ${ }^{1}$ of high-school credit, two years ( 60 semester hours) ${ }^{2}$ of college work in an institution having standards equal to those of the University of Illinois. (See page 207.)

For the College of Dentistry (Chicago), 15 units $^{1}$ of preparatory work in an accredited high school or academy or a state normal school, made up as follows: English, 3 units; mathematics, 2 units; physics, 1 unit; electives from lists B and C (see pages 68-69), 6 units; free electives, 3 units. (See page 232.)

For the School of Pharmacy (Chicago), graduation from an accredited high school with 15 acceptable units. ${ }^{1}$ (See page 241.)

The School of Music requires collegiate standing in Piano, Voice, or Violin-that is, the equivalent of three years of preparatory study.

## ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES High School Graduation

A candidate for admission by certificate must be a graduate of an accredited high school or other accredited school.

[^9]An applicant who has not been graduated from an accredited school must pass entrance examinations in the following subjects, amounting to 5 units: ${ }^{1}$


The remaining 10 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from any accredited school.

## Number of Units Required

Fifteen units of high school or other secondary-school work, in acceptable subjects (see Lists A, B, and C below), must be offered by every candidate.

No conditions are permitted. In other words, every student must offer at the time of admission 15 units in acceptable subjects, including the 6 units specifically prescribed for the undergraduate colleges (see List A below). It is provided, however, that a student who offers 15 acceptable units, including the 6 units of List A, but is deficient not to exceed 2 units in subjects prescribed only for the college or curriculum which he wishes to enter, may be admitted in that college or curriculum to courses for which he is fully prepared, subject to the requirement that the deficiencies in question shall be removed before he may register for a second year's work.

A student with deficiencies is not matriculated and must pay a tuition fee of $\$ 7.50$ a semester in addition to the regular incidental fee of $\$ 12.00$ a semester.

## Prescribed Subjects Summary

The 15 units offered for admission must include:
I. Certain subjects prescribed alike for all curriculums (see List A below)

6 units
II. Certain subjects prescribed in addition for the individual curriculum which the student wishes to enter.

1 to 4 units
III. Enough electives from List $B$ (below) to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, a total of 12 units. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
V. Three additional unils, which may be chosen either from the list of List B or from the list of additional electives, List $C$ (below).

5 to 2 units

Total.
15 units

## Detailed Statement

## I. Units Prescribed for All Curriculums

Of the 15 units required, the following 6 units, constituting List A, are prescribed for admission to the freshman class in all the undergraduate curriculums of the University, and no substitutes are accepted:

LIST A

| English (composition and literature). | 3 units |
| :---: | :---: |
| Algebra. | 1 unit |
| Plane geometry. | 1 unit |
| Physics, or chemistry, or botany, work. | 1 unit |
| Total | 6 units |

[^10]
## II. Additional Prescriptions for Individual Curriculums

Of the 9 units that remain, certain others are prescribed for admission to individual curriculums, and in cach case no substitutes are accepted for the curriculum in question. These additional prescriptions are as follows:
For the College of Liberal Arts and Sciences for the General Curriculum in Liberal Arts and Sciences, the curriculums in Journalism, Household Science, ${ }^{1}$ and Medicine, and the Curriculum preliminary to Law-
Latin, Greek, French, German, or Spanish (both units in the same

Science. . . . ...............................................................
German of French. . $\dddot{d} \dddot{\text { Sciences }}$ for the curriculum in Chemical Engineer-
or College of Liberal Arts and Sciences for the curriculum in Chemical Engineer-ing-
Science. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 unit
German. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 units
For the College of Commerce and Business AdministrationONE OF THE FOLLOWING OPTIONS



For the College of Engineering-
Advanced algebra $1 / 2$ unit
$1 / 2$ unit
Solid and spherical geometry.

For the School of Music-
Latin, Greek. French, German, or Spanish (both units in the same language)
2 units
Music.
2 units

## III. Electives from List $B$

Enough electives must be chosen from List B below to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, a total of 12 units.

It will be seen that the number of such electives from List $B$ required for the several curriculums is as follows:


[^11]| Civics. | 18 or | 36 weeks | 1/2-1 |
| :---: | :---: | :---: | :---: |
| Economics and economic history | 18 or | 36 weeks | 1/2-1 |
| Commercial geography. | 18 or | 36 weeks | 1/2-1 |
| Astronomy |  | 18 weeks | 1/2 |
| Geology. | 18 or | 36 weeks | 1/2-1 |
| Physiography | 18 or | 36 weeks | 1/2-1 |
| Physiology.. | 18 or | 36 weeks | 1/2-1 |
| Zoology. | 18 or | 36 weeks | 1/2-1 |
| Botany. | 18 or | 36 weeks | 1/2-1 |
| Physics. | 36 to | 72 weeks | 1-2 |
| Chemistry | 36 to | 72 weeks | 1-2 |
| IV. Additional Electives: List $C$ |  |  |  |
| The remaining 3 units may be chosen either | ove | or from | C: |
| LIST C ${ }^{1}$ |  |  | Units |
| Agriculture. | 36 to | 108 weeks | 1-3 |
| Bookkeeping. |  | 36 weeks | 1 |
| Business Law. |  | 18 weeks | 1/2 |
| Domestic Science | 36 to | 72 weeks | 1-2 |
| Drawing, art and design. | 18 or | 36 weeks | 1/2-1 |
| Drawing, mechanical. | 18 or | 36 weeks | 1/2-1 |
| Manual training ${ }^{2}$. | 36 to | 72 weeks | 1-2 |
| Music. . . . . | 36 to | 72 weeks | 1-2 |

## Summary by Courses

The requirements stated above may be summarized by colleges and curriculums as follows:
For the College of Liberal Arts and Sciences for the General Curriculum in Liberal Arts and Sciences, the curriculums in Journalisin, Househoid Science, ${ }^{314}$ and Medicine, ${ }^{3}$ and the Curriculum preliminary to Law:
I. List A (prescribed for all curriculums)

6 units
II. Special prescription for these curriculums- Latin, Greek, French, German, or Spanish (both units in the same language) ..... 4 units
IV. Electives from either List B or List C . ..... 15 units
For the College of Liberal Arts and Sciences for the curriculum in Chemistry::
I. List A (prescribed for all curriculums). ..... 6 units
II. Special prescriptious for this curriculum-
Science...........
III. Electives from List B ..... 2 units
IV. Electives from either List B or List C. ..... 3 units
Total. ..... 15 units
For the College of Liberal Arts and Sciences for the curriculum in Chemical Engineer-ing: ${ }^{3}$
I. List A (prescribed for all curriculums) 6 units II. Special prescriptions for this curriculum- ..... 1 unitScience.1 unit
III. Electives from List B ..... 3 units
IV. Electives from either List B or List C. ..... 3 units
Total ..... 15 units
For the College of Commerce and Business Administration: ${ }^{3}$
OPTION A
I. List A (prescribed for all curriculums) ..... 6 units
II. Special prescription for this College under this option-
II. Special prescription for this College under this option-Latin, Greek, French, German, or Spanish (both units in the sameIII. Electives from List B
2 units
IV. Electives from either List $\ddot{B}$ or $\dddot{L} \dot{\text { ist }} \ddot{C}$. ..... 3 units
Total.15 units

[^12]OPTION B
I. List A (prescribed for all curriculums) ..... 6 units
II. Special prescriptions for this College under this option-
Advanced algebra.............. ..... $1 / 2$ unit
$1 / 2$ unit
III. Electives from List B ..... 5 units
IV. Electives from either List B or List C15 units
OPTION C
I. List A (prescribed for all curriculums) 6 units
II. Special prescription for this College under this option-
Science. . ................................................................... 1 unit
III. Electives from List B ..... 5 units
IV. Electives from either List B or List C ..... 3 units
Total. ..... 15 units
For the College of Engineering:
I. List A (prescribed for all curriculums). 6 units
II. Special prescriptions for this College-
Advanced algebra...........
Solid and spherical geometry. ..... 3/2 unit ..... $1 / 2$ unit
III. Electives from List B
3 units
3 units
IV. Electives from either List $B$ or List C .15 units
For the College of Agriculture:
I. List A (prescribed for all curriculums) 6 units
II. Special prescription for this College-
Science. . 1 unit
III. Electives from List B ..... 5 units
IV. Electives from either List B or List C. ..... 3 units
Total. 15 units
For the School of Music:
I. List A (prescribed for all curriculums) ..... 6 units
II. Special prescriptions for this School-
Latin, Greek, French, German, or Spanish (both units in the samelanguage)
${ }_{2}{ }_{2}$ units
Music
III. Electives from List $\ddot{B}$ ..... 2 units
IV. Electives from either List B or List C. ..... 3 units
Total ..... 15 units

## METHODS OF ADMISSION

The credits required for admission to the undergraduate departments, as detailed above, may be secured:
(a) By examination.
(b) By certificate from an accredited high school or other secondary school.
(c) By transfer from another university or college of recognized standing.

## (A) ADMISSION BY EXAMINATION I. The University Entrance Examinations

The University entrance examinations are given at the University in Urbana (in Room 100 Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in January and February, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examination cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on page 82.

For programs of these three sets of examinations for 1917-18 see pages 74-75.

## II. The Examinations of the College Entrance Examination Board

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent or higher, will be accepted for admission in any subject in the lists on pages 67,68 and 69 in the amounts there specified as being acceptable. Thesc examinations will be held during the week of June 18-23, 1917.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River, and at points on the Mississippi River, must be received by the Secretary of the Board at least two weeks in advance of the examinations, that is, on or before Monday, June 4, 1917; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the cxaminations; that is, on or before Monday, May 28, 1917; and applications for examination outside of the United States and Canada must be received at least five weeks in advance of the examinations; that is, on or before Monday, May 14, 1917.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only upon the payment of $\$ 5.00$ in addition to the usual fee.

The examination fee is $\$ 5.00$ for all candidates examined at points in the United States and Canada, and $\$ 15.00$ for all candidates examined outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1917, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

## III. The New York Regents' Examinations

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

## (B) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University by certificate from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent to the Registrar for approval as soon as possible after the close of the high school year in June. Certificates received at the University after September 14 (in 1917) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

## Accredited Schools

The High School Visitor of the University visits and inspects, on request, high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of Accredited Schools, correct to January 1, 1917, see page 75. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University.

Entrance credits will also be accepted on certificate from the following sources:

1. From schools accredited by the North Central Association of Colleges and Secondary Schools.
2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
3. From schools approved by the New England College Entrance Certificate Board.
4. From high schools and academies registered by the Regents of the University of the State of New York.
5. From the state normal schools of lllinois and other state normal schools having equal requirements for graduation.

## Foreign Students

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Adviser to Foreign Students, Room 153, Administration Building.

## Examination in Rhetoric I

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in rhetoric (Rhetoric 2) may be excused from the first semester's work (Rhetoric 1). An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1917, September 17). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

## (C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects prescribed for all colleges or by individual colleges as indicated above (pages 67 to 70 ).

For admission to advanced standing by transfer of college credits see page 73 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

## ADMISSION AS SPECLAL STUDENTS

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and abii.ty to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular college in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of $\$ 7.50$ a semester in addition to the regular incidental fee of $\$ 12.00$ a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

## Special Requirements of the Colleges and Schools

The College of Liberal Arts and Sciences requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

The College of Engineering requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

The College of Agriculture will receive non-matriculants twenty-one years old or over, provided that if deficient in English as measured by the requirements for matriculation they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

The Library School requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work. In order that action may be taken on such applications before registration day, they should generally be presented not later than July 1.

It is the practise of this School to admit as special students only those persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the lacking requirements for entrance, such as approved library or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the course prescribed for those who are candidates for the degree of Bachelor of Library Science, or failing that, as much of the prescribed work as they are prepared for.

## ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

1. By examination-Advanced standing is granted only by examination unless the applicant is from an approved school.
2. By transfer of credits-Credits may be accepted for advanced standing from another university or a college or a junior college of recognized standing or from a state normal school. An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

Examinations for advanced standing are given without fee if taken within 60 days after matriculation; if taken later, a fee of $\$ 5.00$ is charged for each examination.

## PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 100, Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in January and February, shortly before the opening of the spring semester; and in July, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 82-84.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 156 Administration Building.

## Entrance Examinations, July, 1917

| History | . |
| :---: | :---: |
| Civics | uly 7, 10:00 a.m. |
| Physiology, $1 / 2$ u | ., July 14, 8:00 a.m. |
| Commercial geograph | Sat., July 14, 8:00 a.m. |
| Algebra, 1 unit or $11 / 2$ units | Sat., July 14, 10:00 a.m. |
| Plane geometry, 1 unit. | Sat., July 21, 8:00 a.m. |
| Solid and spherical geomet | uly $21,10: 00 \mathrm{a} . \mathrm{m}$. |
| English literature, 2 units. | uly 28, 8:00 a.m. |
| English composition, 1 uni | uly 28, 10:00 a.m. |
| Latin, $1,2,3$, or 4 | uly 28, 8:00 a.m. |
| German, 1, 2 , | uly 28, 8:00 a. |

The time for examinations in agriculture, astronomy, bookkeeping, botany, ${ }^{3}$ business law, chemistry, ${ }^{3}$ domestic science, drawing (freehand or mechanical), economics and economic history, the fourth unit in English, French, geology, Greek, music, physics, ${ }^{3}$ Spanish, trigonometry, and zoology, ${ }^{3}$ will be arranged with candidates.

## Fall Examinations, September, 1917

| Chemistry, 1 unit or | n., Sept. 10, 1:00 p.m. |
| :---: | :---: |
| Geology | on., Sept. 10, 1:00 p.m. |
| Astronomy, 1/2 unit | Mon., Sept. 10, 3:30 p.m. |
| Trigonometry, $1 / 2$ u | Mon., Sept. 10, 3:30 p.m. |
| History, 1, 2, 3, or 4 units | Tues., Sept. 11, 8:00 a.m. |
| English literature, 2 units | Tues., Sept. 11, 1:00 p.m. |
| English composition, 1 | Tues., Sept. 11, 3:30 p.m. |
| Latin, 1st unit, or 2 d unit, or | Wed., Sept. 12, 8:00 a.m. |
| Physics, 1 unit ${ }^{3}$ | Wed., Sept. 12, 8:00 a.m. |
| Physical geography, $1 / 2$ unit or 1 unit ${ }^{2}$ | Wed., Sept. 12, 10:30 a.m. |
| Algebra, 1 unit or $11 / 2$ uni | Wed., Sept. 12, 1:00 p.m. |
| Civics, $1 / 2$ unit or 1 unit | Wed., Sept. 12, 3:30 p.m. |
| Economics and economic history, $1 / 2$ | Wed., Sept. 12, 3:30 p.m. |
| Geometry, plane, 1 unit. | Thurs., Sept. 13, 8:00 a.m. |
| Geometry, solid and spherical, $1 / 2$ unit. | Thurs., Sept. 13, 10:30 a.m. |
| Physiology, $1 / 2$ unit or 1 unit ${ }^{2}$ | Thurs., Sept. 13, 10:30 a.m. |
| German, 1st unit, or 2 d unit, or both | Thurs., Sept. 13, 1:00 p.m. |
| German, 3d unit, or 4th unit, or | Thurs., Sept. 13, 3:30 p.m. |
| French, 1st unit, or 2d unit, or both. | Thurs., Sept. 13, 1:00 p.m. |
| French, 3d unit, or 4th unit, or both | Thurs., Sept. 13, 3:30 p.m. |
| Spanish, 1st unit, or 2 d unit, or both | Thurs., Sept. 13, 1:00 p.m. |
| Business law, $1 / 2$ unit. | Thurs., Sept. 13, 1:00 p.m. |
| Commercial geography, $1 / 2$ unit or 1 un | Thurs., Sept. 13, 3:30 p.m. |
| Latin, 3d unit, or 4th unit, or both | Fri., Sept. 14, 8:00 a.m. |
| Bookkeeping, 1 unit | Fri., Sept. 14, 8:00 a.m. |
| Botany, $1 / 2$ unit or 1 unit ${ }^{3}$ | Fri., Sept. 14, 8:00 a.m. |
| Zoology, $1 / 2$ unit or $1 u^{\text {unit }}{ }^{8}$ | Fri., Sept. 14, 10:30 a.m. |

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

[^13]
## Mid-Year Examinations, January and February, 1918

| Chemistry, 1 unit | ed., Jan. 30, 8:00 a.m. |
| :---: | :---: |
| Geology, $1 / 2$ unit or 1 unit | Jan. 30, 8:00 a.m. |
| Astronomy, 1/2 unit. | Wed., Jan. 30, 10:30 a.m. |
| Trigonometry, $1 / 2$ unit | Wed., Jan. 30, 10:30 a.m. |
| History, 1, 2, or 3 units ${ }^{2}$ | Wed., Jan. 30, 1:00 p.m. |
| English literature, 2 units | Thurs., Jan. 31, 8:00 a.m. |
| English composition, 1 | Thurs., Jan. 31, 10:30 a.m. |
| Latin, 1st unit, or 2 d unit, or both | Thurs., Jan. 31, 1:00 p.m. |
| Physics, 1 unit $^{1}$ | Thurs., Jan. 31, 1:00 p.m. |
| Physical geography, $1 / 2$ unit or 1 unit ${ }^{2}$ | Thurs., Jan. 31, 3:30 p.m. |
| Algebra, 1 unit or $11 / 2$ units. | Fri., Feb. 1, 8:00 a.m. |
| Civics, 1/2 unit or 1 unit | Fri., Feb. 1, 10:30 a.m. |
| Economics and economic history, $1 / 2$ | Fri., Feb. 1, 10:30 a.m |
| Geometry, plane, 1 unit. | Fri., Feb. 1, 1:00 p.m |
| Geometry, solid and spherical, | Fri., Feb. 1, 3:30 p.m. |
| Physiology, $1 / 2$ unit or 1 uni ${ }_{\text {c }}$ | Fri., Feb. 1, 3:30 p.m. |
| German, 1st unit, or 2d unit, or | Sat., Feb. 2, 8:00 a.m. |
| German, 3d unit, or 4th unit, or both | Sat., Feb. 2, 10:30 a.m. |
| French, 1st unit, or 2 d unit, or both | Sat., Feb. 2, 8:00 a.m. |
| French, 3d unit, or 4th unit, or both. | Sat., Feb. 2, 10:30 a.m. |
| Spanish, 1st unit, or 2 d unit, or both. | Sat., Feb. 2, 8:00 a.m. |
| Business law, 1/2 unit. | Sat., Feb. 2, 8:00 a.m. |
| Commercial geography, $1 / 2$ | Sat., Feb. 2, 10:30 a.m. |
| Latin, 3d unit, or 4th unit, or both | Sat., Feb. 2, 1:00 p.m. |
| Bookkeeping, 1 unit. | Sat., Feb. 2, 1:00 p.m. |
| Botany, $1 / 2$ unit or 1 unit 1 | Sat., Feb. 2, 1:00 p.m |
| Zoology, $1 / 2$ unit or 1 unit | Sat., Feb. 2, 3:30 p |

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

## LIST OF ACCREDITED SCHOOLS

(Correct to January 1, 1917.)
The following high schools, having all the prescribed units, and enough others to make up the required iotal of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.

The High School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address The High School Visitor, in care of the University of Illinois.

FULLY ACCREDITED SCHOOLS

| School | Superintendent | Principal |
| :---: | :---: | :---: |
| Abingdon | A. C. Butler | Ira M. Wrigley |
| Albion | Lee V. Matheney | M. E. Steele |
| Aledo | F. N. Taylor | Olive Hostetler |
| High School Drury Academy |  | G. F. Baumeister |
| Altamont | S. J. ${ }^{\text {McComis }}$ | R. W. Valentine |
| Alton |  |  |
| High School | R. A. Haight | B. C. Richardson |
| Alvin (Ross Tp.) |  | C. L. K. EAton |
| Amboy Tp. |  | C.L. KNECHLES |
| AnNA |  | co. . Bradiex |
| High School | C. A. McGinnis | C. A. Harper |
| Union Academy |  | W. O. Shewmaker |

[^14]
## School Superintendent

Arcola Tp.
Arlington Heights Tp.
Armington (Hitlle Tp.)
Artilur Tp.
Ashland
Ashley T
Ashton
Assumption Tp.
Astoria
Atlanta
ATwood Tp.
augusta
C. H. Dixon
O. A. Fackler
H. M. Anderson

Daniel Shirck

Augustana College Academy (Rock 1sland)
Aurors
East High School
West Higin School
Jennings Seminary
Austin High School (Chicago)
Averyvilee High School (Peoria)
Avon Tp.
Barrington
BARRy
Batavia
Beardstown
Belleville Tp.
Bellflower Tṕ.
Belvidere
Bement Tp.
Benton Tp.
Biggsville Tp.
Bismarck Tp.
Bloomington
High School
St. Josery's Academy
St. Mary's High School
Bloom Tr. (Chicago Heights)
Blue Island Tp.
Bowen High Sciool (Chicago)
Bradford
Briadley Poly. Inst. (Peoria)
BRIDGEPORT Tp.
Buda Tp.
Businele
Bykon
Cairo
High School
Summer High School
Calumet High School (Chicago)
Cambridge
Camp Point
Canton
C. M. Bardwell
S. K. McDowell
J. D. Shoop
E. S. Smith

Vail Cordell
H. C. Storm
H. G. Russell

Carbondale
So. Ill. Nor. Univ. H. S.
Carlinville
Carl Schurz High School (Chicago) Wm. Farris
Carlyle
Carmi Trp.
Carrollton
Carterville
Carthage
High School
Carthage Col. Acad.
Casey Tr.
Central High School (Peoria)
Catlin
Centraila Tp.
Champaign
Charleston
Chatiam
Chatsworth Tp.
Cienoa
Chester
Chilcago
Austin
BOWEN
Calumet
Carl Sciurz
Crane R. T. (Tecil.)
Englewood
Fenger
Harrison Tecie.
liyde Park

## Principal

S. R. Allen
O. R. Zoll

Olga Hofacker
G. E. Clendenen

Annie Neale
II. A. Ritcher

Laura Hobart
J. O. Stanberry
C. A. Whiteside

Margaret McCune
G. W. Sutton
A. R. Matheny
J. Mauritzsun
K. D. Waldo
K. C. Merricik

Bertila Barber
Geo. II. RDCKwood

Gertrude Harvey
E. Ruth Tippie
A. A. Rei

Mrs. H. G. Russell
H. G. Schmidt

Dean M. Inman
John E. Aimon
Harry B. Much
C. W. Houk
C. C. Sims
R. Arlyn Williams

William Wallis
Sister M. Madeliene
Rev. M. Weldon
E. L. Boyer
J. E. Lenon

Editil Wiggle
Chas. I. Parker
T. C. Burgess, Dir.
O. M. Eastman
C. B. Boules

## Beulah Harvey

Marjorie Hull
Geo. A. Peterson
J. C. Lewis

Grant Beebe
Wm. B. Mathews
Verona Rockivell
V. G. Heller
F. G. Warren

Walter F. Slocum
Mima Maxey
Jos. Gersbacher
David N. Crist
J. L. Corzine
E. G. Marshall
H. D. Hoover, Pres.

Wm. G. Thompson
W. T. VanBuskirk

Ethel E.vert
Eston V. Tubbs
Lottie Siwitzer
E. B. Fresinwater
G. P. Cimpman
L. C. Smith

Maude Fairfield
E. R. Sayire

Geo. II. Rockwood
C. E. De Butts

Grant Beebe
Walter F. Slocum
W. J. Bartholf

1. E. Armstrong

Thos. G. Hill
Frani I. Morse
Hiram B. Loomis

School
Superintendent
Lake View
Lane Tech.
Lucy Flower Tech.
McKinley
Marshall
Medill
Morgan Park
Parker
Phillifs
SENn
Tilden
Tuley
Waller
Chicago Private Scilools
F. W. Parker School

Harvard School
Kenwood Institute
Latin School
Loyola Academy
Morgan Park Preparatory Schools
North Park College Acadeny
St. Ignatius Academy
Starrett School for Girls
University High School
Chicago Heights
Bloom TP. High School
Chillicothe Tp.
Chrisman Tp.
Cicero
J. Sterling Morton Tp.

Clayton
Clinton
W. H. Brewster
H. H. Edmunds

Colfax P. M. Hoke

Collinsville Tp.
Crane, R. T. (Tech.) H. S. (Chicago)J. D. Shoop
Crystal Lake H. A. Dean
Dallas City
Danville
Decatur
Deerfield Township High School
Dekalb Tp.
Delavan
L. C. French
G. P. RANDLE
J. O. Englemann

Des Plaines (Maine Tp.)
Divernon Tp
DIXON
High School
North Dixon High Scfiool
Downer's Grove
C. I. Bixler
H. H. Hagen
G. C. Butler

Drury Academy (Aledo)
Drunmer Tp. (Gibson Cily)
Dundee
DuQuoin Tp.
Divight TP.
Earlville
East High School (Aurora)
East Moline Tp.
East St. Louis
Edinburg
Edwardsville
Effingham
Eldorado Tp.
Elgin
High School
Elgin Jr. College and Academy
Elizabeth James M. Gunthrop
Elmhurst
High School Wm. H. Eisenman
Evangelical Proseminar
Elmwood Tp.
Elpaso Union
Englewood High School (Chicago) J. D. Shoop
Equality Tp.
Eureka
Township High School
College Prep. School
Evangelical Proseminar (Elmhurst)
Evanston
Township High School
Evanston Academy
Fairbury Tp.
Fairfield
Farmer City (Moore Tp.)
Farmington
Fenger High School (Cilicryo)
H. D. Willard
J. H. Inmean
J. D. Shoop

## Principal

B. Frank Brown
W. J. Bogan

Dora Welis
Geo. M. Clayberg
Louis J. Blocis
Avon S. Hall
Lewis L. Hall
WM. B. Owen
Spencer R. Smith
Benj. F. Buck
Edivard F. Stearns
Franiklin P. Fisk
J. E. Adams

Flora J. Cooke
J. J. Schobinger

Medora H. Googins, Dean
R. P. Bates

Simon Nicholas, S.J.
Harry D. Abells
C. J. WII SON

Geo. J. Leahy, S. J.
Mrs. Mary G. White
F. W. Johnson
E. L. Boyer
H. H. Baumgardner
P. M. Watson
H. V. Churcii

Margaret Howard
Everett L. Walters
Lida J. Smith
A. E. Arent
W. J. Bartholf
C. E. Smalley

Max Harris
W. C. BaEr

Thomas Deam
R. L. Sandwick
C. W. Whitten
H. V. Porter
C. M. Himel
J. O. Hufe
H. C. Fiester

Helen Brown
Imanuel Harbich
H. T. McKinney

Mollie D. Butts
J. G. Stull
C. A. Brothers

Nellie L. Smitif
K. D. Waldo
E. D. Abbott
H. J. Alvis

Grace Read
R. C. Sayre

Frank C. Bruce
J. E. Raiburn
W. L. Goble

Ernest P. Clark, Dcan
V. C. Plummer

Daniel Irion, Dir.
C. C. Condit

Carl b. Moore
James E. Armstrong
J. B. Boswell
F. D. Thomson

Honta S. Bredin
Daniel Irion, Dir.
W. F. Beardsley

Edward W. Marcellus
E. W. Powers
K. O. Hollard

Geo. E. Anspaugit
Ester Hedquist
Thos. G. Hill

## School

Ferry Hall (Lake Forest)
Fisher
Flora (Harter-Stanford Tp.)
Forrest Tp.
Freeport
Fulton
Galena
Galesburg
Galva
Gardner Tp.
Geneseo Tp.
Geneva
Genoa
Georgetown Tp.
Gibson City (Drummer Tp.)
Godrrey (Monticello Seminary)
Granite City
Greenfield
Greenup
Green Valley
Greenview
Greenville
Griggsville
Hall Tp. (Spring Valley)
Hamilton
harien Consolidated Sciool
Harrisburg Tp.
Harrison Technical High School (Chicago)
Harter-Stanford Tp. (Flora)
Harvard
Harvard School (Chicago)
Harvey (Thornton Tp.)
Havana
Hebron
Henry
Herrin Tp.
Herscher Tp.
Heyworth
Highland
Highland Park
Hillsboro
Hinckley
Hindsboro Union
Hindsdale Tp.
Hittle Tp. (Armington)
Homer Tp.
Hoopeston
Hume Tp.
Hutsonville Tp.
Hyde Park High School (Chicago) J. D. Shoop
Illinois Woman's Col. Acad.
(Jacksonville)
Illiopolis
Industry Tp.
Jacksonville
Higi School
Ill. Woman's Col. Acad.
Routt College Academy
Whipple Academy
Jennings Seminary (Aurora)
Jerseyville Tp.
Joinston City
John Swaney School ( McNabb )
Joint Tp. (Tiskilwa)
joliet
TOWNSilip Higil School
St. Francis Academy
J. Sterling Morton Tp. (Cicero)

Kankakee
Kansas
Keithsburg
Kenilworth (New Trier Tp.)
Kenwood Institute (Chicago)
Kewanee
Kinmundy
Knonville
Higil School
St. Alban's School
Lacon Union
LaGrange (Lyons Tp.)
LaHarpe

## Superintendent

F. L. Lowman
S. E. Raines
H. V. Baldwin

Katherine H. Obey
W. L. Steele
F. U. White
H. M. Coultrap
O. E. Taylor
L. P. Frohardt

Walter C. Suft
Ward N. Black
J. Earl. Hiett
J. P. Scheid
A. W. Niedermeyer

Theo. C. Moore
J. A. Jounston
ockford)
J. D. Shoop
J. H. Light
T. E. Savage
M. S. Hamm
W. E. King

Roy Schofield
C. L. Dietz
H. J. Beckemeyer

Omar Caswell.
O. V. Schaeffer
C. O. Klontz
W. P. Sullivan
H. A. Perrin
F.d. Harwood
F. N. Tracy
R. B. Henley
R. C. Hiett
W. R. Curtis

Laura Fisher
G. G. Lafferty
R. A. Scheer

Justin A. Stewart

## Principal

John W. Richards
Rutil B. King
S. J. Curlee

Dean Parrill
L. A. Fulwider

Mrs. Pearl B. Flatt
L. G. Myers
A. W. Willis

Margaret Jacobson
E. F. Bоотн
F. J. Mabrey

Lucy E. Church
Louise Stupp
O. P. Rees
H. T. McKinney

Martina C. Erickson
W. F. Coolidge

Daniel Gray
Hortense Wickard
Henrietta Evans
Hazel Alkire
Alex Long
Lois A. Browne
E. L. Bost

Philena Clark
Earl M. Pallett
Harry Taylor
Frank L. Morse
S. J. Curlee

Chas. O. Haskell
J. J. Schobinger
L. W. Smith

Clara Hoyt
Louise Schmidt
Emma Ponzer
H. G. Spear

Mildred Bond
Mamie E. Graff
J. M. Avery

Emma Richardson
Margaret Gerkin
C. E. Douglass

Olga V. Hofacker
G. B. Weisiger
W. R. Lowery
T. D. Foster
J. A. Alexander

Hiram B. Loomis
Jos. R. Harker, Pres.
Louise Gates
R. H. Malcomson
T. W. Calligan

Jos. R. Harker, Pres.
Rev. J. W. Crowe, Pres.
C. H. Givan

Bertha Barber
D. R. Henry

Henry C. Kessler
E. D. IAlvrence
J. T. Myers
J. Stanley Brown

Sister M. Faustina
H. V. Church
E. E. Richards

Ruth Linder
Helen E. Ream
H. E. Brown

Medora H. Googins, Dean
Ira P. Rinker
Frank C. Ferguson
C. E. Larson

Rev. L. B. Hastings
Wilihelmina Schrieber
G. H. Wilkinson

Jane Robertson

## School

Superintendent
Lake Forest

## Lake Forest Academy

Ferry Hall
Lake View High School (Chicago) J. D. Shoor
Lanark
Lane Technical High School (Chicago)
H. Martin
T.D. Shoop

LaSalle-Peru Tp. (LaSalle)
Latin School (Chicago)
Lawrenceville Tp.
Lemont Tp.
LENA
LeRoy
Lewistown
Lexington
Libertyville
Lincoln
Litchfield
Lockport Tp.
Loda
Lovington Tp.
McHenry
McKinley High School (Chicago)
Mclean
McLeansboro
McNabs (John Sueaney School)
Macomb
High School
Western Ill. Nor. Acad.
Madison
magnolia
Maine Tp. (Des Plaines)
Mansfield
Manteno Tp.
Manual Training High School (Peoria)
Marengo
Marion Tp.
Marissa Tp.
Maroa Tp.
Marseilles
Marshall High School (Chicago)
Marshall Tp.
Martinsville
Mason City
Mattoon
Maywood (Proviso Tp.)
Mazon Tp.
Medill High School (Chicago)
Mendon Tp.
Mendota Tp.
Metamora Tp.
Metropolis
Milford Tp.
Minonk
Moline
Momence
Monmouth
Monticello Tp.
Monticello Seminary (Godfrey)
Moore Tp. (Farmer City)
Morgan Park High School (Chicago)
Morgan Park Preparatory Schools
(Chicago)
Morris
Morrison
Morrisonville
Morton Tp.
Mound City
Mounds Tr.
Mt. Carmel
Mit. Carroll High School Frances Shimer School
Mt. Morris
High School
Mt. Morris Col. Acad.
Mt. Pulaski Tp.
Mt. Sterling
Mt. Vernon Tp.
Moweaqua
MURPHYSBORO Tp.
F. P. Donner
T. F. McLamarraif
C. B. Smith

Theodore F. Fieker
F. L. Holch

Wm. H. Hawkes
D. H. Wells
P. T. Walters
A. Edgar Nye
J. D. Shoop
J. J. Hagan

Louis Uhe
A. L. Mangun
J. W. Jackson

Urban McDonald
Lloyd Gohn
E.'A. Gardner
L. R. Blohm
E. A. Collins
J. D. Shoop

Harvey M. Nickels
G. A. Buzzard
J. F. Wiley
J. D. Shoop
G. A. Hillier
F. A. Schrader
H. W. McCulloch

Guy R. French
Lewis A. Mahoney
T. R. Johnsion
L. L. Caldwell H. D. Ellis
J. D. Shoop

## S

E. D. Martin
W. E. Weaver
P. A. Tate
C. L. McCabe
A. S. Anderson
J. H. Browning

Ira R. Hendrickson
M. L. Test
M. L. McManus

Principal
John W. Richards
Marion Coats
B. Frank Brown

Floy Painter
W. J. Bogan
T. J. McCormack
R. P. Bates

Geo. B. Williams
D. L. O'Sullivan
C. G. Kelley

Effie Markwell
Wm. C. Wilson
L. Leila Renner
F. L. Holch

Bert Hudgins
J. C. Wiedrich

Arvid P. Zetterberg
Ethel L. Chapman
L. W. Chatham
P. J. Dorr

Geo. M. Clayberg
Belle Fairfield
O. H. Epperson
E. D. Lawrence
B. H. Watt
W. P. Morgan, Pres.
H. H. Janssen

Sadie B. Ellis
C. M. Himel

Ethel A. Ranson
John W. Carrington
W. N. Brown
C. H. Herbal hheimer

Oren Coleman
A. H. Fillers

Erna Reller
F. A. Bauman

Louis J. Block
W. E. Harnish

Harry La Ryan
Nettie C. Jences
H. B. Black
J. E. Witmer
A. D. Phillips

Avon S. Hall
Ruth H. Fraser
K. M. Snapp
J. J. Thompson

Mrs. Rose Cutting
Pearl Hickman
Gretchen Schiffbauer
E. P. Nutting
V. T. Smith
D. T. Petty

Gladys Eade
Martina C. Erickson
Geo. E. Anspaugh
John H. Heil
Harry D. Abells
G. E. Round

Mae E. Grandon
Cora Maxfield
T. L. Cook

Mary Roberson
F. W. Prowdley
J. T. Dorris

Edna V. Amborn
W. P. McKee, Dean
J. F. Noffsinger
L. F. Fulwiler

Agnes Olson
Silas Echols
R. M. Uphoff
G. J. Koons

## School

Naperville
High School
Northwestern Col. Acad.
Nashville
Neoga Tp.
Newmin Tp.
Newton
New Trier Tp. (Kenilworth)
Nokomis
Normal
High School
Univ. High Scirool
North High School (Dixon)
North Park College Academy
(Chicago)
Norihwestern College Academy (Naperville)
Oakland Tp.
Oak Park and River Forest Tp. (Oak Park)
Oblong Tp.
Odell
Olney Tp.
Onarga
Township High School
Grand Ppairie Seminary
Oregon
Ottawa Tp.
Palatine Tp.
Palestine Tp.
Pana TP.
Paris
Parker High School (Chicago)
F. W. Parker School (Chicago)

Pawnee Tp.
PawPaw
Paxton Tp.
Pecatonica
Pekin
Peoria
Academy of Our Lady
Averyville High School
Bradley Polytechnic Inst.
Central Higii School
Manual Tr. II igh School
Peotone
Petersburg
Phillips High School (Chicago)
Pittsfield
Plano
Polo
Pontiac Tp.
Princeton
Princeville
PROPHETSTOWN
Proviso Tp. (Maywood)
Quincy
High Scirool.
St. Mary's Academy
Rantovi.
Raymond
Richmond
Ridgefarm Tp.
Riverside 'Tp.
Robinson 'TP.
Rocifle Tp.
Rock Falls
ROCKFORD
High School
Harlem Consolidated Sciool
St. Thomas School
ROCK ISLAND
High Sciool
Augustana Col. Acad.
Villa de Ciiantal
Rollo Consolidated
ROODIIOUSE
Roseville Tp.
Rossville
Rushvilee
Rutland 'TP.
ST. Anne
St. Cilarles

Superintendent
O. A. Waterman
W. C. Fairweather
C. E. Girilard
W. P. Thacker
C. F. Miller
II. H. Hagen
M. V. Lanthorn
F. G. TAyLor
T. J. Beecifer
J. D. Shoop

Gayle HIUFFORD
A. E. Truax

Robt. Smith

## A. W. Beasley

J. M. Wilson
H. D. Eicigelberg
J. D. Shoop
R. R. Kinmejll
H. L. Tate
C. H. Anderson
W. M. Loy
H. L. Barr

Chas. M. Gill
W. A. Justice
C. W. Yerkes

Oswell Treadway
A. F. Ames
E. O. Phares
R. G. Jones
E. C. Fisher
J. F. Pursifull
I. A. Smothers
C. E. Knapp
E. L. Kimball
M. F. McAuley

Principal
V. Blanche Graham
C. J. Atrig
W. W. Krumsiek
W. L. HAGEN
J. H. Trinkle
E. M. J.ASPER
II. E. Brown

OWEN B. Wrigit
Mildred Felmley
R. W. Pringle

Helen Brown
C. J. Wilson
C. J. Attig
H. E. Kanrr
M. R. McDaniel
V. I. Brolvn

Helen Lyons
H. W. Hostettler
S. E. Le Marr

Hubert Phillips
Sue L. Wilson
Chas. H. Kingman
A. B. Morris
D. B. Fager
W. E. Andrews
J. R. Everett

William B. Owen
Flora J. Cooke
W. B. Rose

Grace Currier
O. J. Bainum

Sara Marks
Raymond Allison
Sister Marietta
H. E. ILER
T. C. Furgess, Dir.
W. T. VanBuskirk
W. N. Brown
J. M. Wilson

Beulah M. Wood
Spencer R. Smith
Miss Glenn Griggs
Mr. Coble
Elsie English
Arthur Verner
W. R. Spurrier

Orpha Johnson
Cecelia Whelpley
J. E. Witmer

Zens L. Smithi
Mother Mary Petra
R. W. Tink
C. A. Garst

Pearl Marsden
E. R. Spencer
G. J. Mueller
J. O. Marberry

Herman Wimmer
Luella Cowing
C. P. Briggis

Eari M. Pallett
Sister M. Gabriella
A. J. Burton
J. Mauritzson

Sister F. Borgia
Alfred Tate
S. T. Wallage
M. P. Wilkins

Ott Worley
Laura Knowles
Lillian A. Purkhiser
Lillian Waring
Mary Langwill

## School

St. Elmo
St. Francis Academy (Joliet)
St. Ignatius Acadeny
St. Mary's Higis School (Bloomington)
St. Thomas School (Rockford)

Salem
Sandwica
Savanna Tp
SAYBROOK
Senn High School (Chicago)
Sherfield
Shelbyville
Shiebdon
Sidell. Tp.
SOUTIERRN ILlinois NORMAL UNiv.
Hagh School (Carbondale)
Sparta Tp.
Springrield
Higu School
Ursuline Academy
Spring Valley
Hall TP.
Stanford
Staunton
Steri.ing Tp.
Stockl.and Tr.
Stockion
Stonington
Streator Tp.
Stronghurst
Sullivan Tp.
Sycamore
Taylorville Tp.
Tiornron Tp. (Harvey)
Tilden High School (Chicogo)
Tiskilwa (Joint Tp.)
Tolono
Toluca TP.
Toulon Tp.
Tuley High School (Chicago)
Tuscola Tp.
Union Academy (Anna)
University High School (Chicago)
URbana
Ursuline Acadeay (Springfield)
Vandalia
Vermilion Grove
Vermilion Academy
VERMONT
Vienina Tp.
Villa de Chantal (Rock Island)
Villa Grove Tp.
Virden Tp.
Virginia
Waller Higit School (Chicago)
Walnut
WARREN
Warsaw
Washburn Tp.
WASHINGTON
Waterloo
Watseka
Waukegan Tp.
Waverly Tp.
Wenona
West Chicago
West High School (Aurora)
Western Illinois State Normal
(Macomb)
Westeren Military Academy* (Allon)
Westrieid Tp.
Westyalle Tp.
WHEATON
High School
College Academy
Whipple Academy (Jacksonville)
White Hall
Wilailngton
Winchester
WOOD RIVER
WOODSIOCK
W YoMing
Yorkville

## Superintendent

Ernest T. Jackson
H. J. Blue
W. W. Woonbury
E. M. Deem
J. D. Shoor

Lewis C. Robey
A. F. LyLE
J. H. Armitage
H. S. Magill, Jr.
C. W. Moore

Wm. E. Eccles
J. C. Myers
G. E. Lowry
W. S. Pope
O. E. Peterson
J. D. Shoor

Mellie John
J. D. Shoof
A. P. Johnson
J. F. Hickman
J. R. Bouton
H. S. Stice
J. D. Shoop

Rufus Grigsby
R. I. Lewis
L. Falryax

Paul Smith
Glenn O. Brown
L. W. Haviland

Harold Tice
H. H. Kirkpatrick
S. K. McDowell
J. B. Russell
J. B. Hendricks
J. W. Bedell

Chas. W. Smith
G. A. Smith
R. W. Bardwell
C. W. Pratt
F. W. Ackerman

## Principal

L. Glenn McCormace

Sister M. Faústina
Geo. J. Leahy, S.J.
REN, M. Weldon
Sister M. Gabriella
Robt. Worthington
Maud Webster
W. F. Martin

Jessie Paterson
Benj: F. Buck
Lewis C. Robey
I. B. Potter

Grace Randali.
V. W. Mcimtire
F. G. Watren
E. O. Bottenfield
I. M. Allen

Moilier Antonia
E. L. Bost

Mrs. C. W. Moore
E. A. Muir
E. T. Ausin
F. L. Bennett

Joins Guentier
Miklam Post
W. D. Waldrip

Myrtle Hastings
T. H. Finley
A. G. Umbreit
R. G. Beals

Edward F. Stearne
J. T. Meyers

Elizabeti Donaldson
F. W. Nictiols

Eugene Mendenhall.
Franklin P. Fisk
J. C. Hammond
W. O. Shewmaker
F. W. Johnson
M. L. Flaningam

Mother Antonia
E. M. Augspurger
J. B. Bearson

Marie R. Way
M. T. VanCleve

Sister Mary Agnes
H. L. Dyar

Clyde Slone
Laura Mason
J. E. A.dams
E. A. Lansche
F. M. Foster

Mr. Bardeus
E. W. Zeppenfild
V. G. Catlin
C. H. Strucemeyer
R. L. Lorton
W. C. Knoelk
I. W. Ragland

Waldo T. Johnson
Ruth Closson
K. C. Merrick
W. P. Morgan, Pres.

Geo. D. Eaton
C. E. Bates

Sherman Cass
Ella M. Gregg
WM. F. Rice
C. H. Givan
W. D. Sterrett

Olive L. Wells
C. E. Russell.

Jessic E. Jewett
A. Lauder

Russell. H. Yankie

## PARTIALLY ACCREDITED SCHOOLS

School

## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum num ber of credits assigned is shown by the description of subjects below.

1. Agriculture.-Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.
2. Algebra. One and one-half units.- Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals, quadratic equations and equations reducible to quadratic form, surds, theory of exponents, proportion and variation, logarithms, and the analysis and solution of problems involving these principles.

Algebra, One unit.-Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals of second order, fractional exponents, variation and proportion, quadratics, including completing the square and simultaneous equations having one quadratic and one linear equation and quadratic systems of simple form.

See High School Manual for detailed outline of first year of algebra. Students desiring to continue their stiddy of mathematics in the University will need to present one and one-half units of algebra.
3. Astronomy. - In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.
4. Bookkeeping.-The unit of work in bookkeeping for college entrance should consist of a working knowledge of both single and double entry bookkeeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in wbich the uses of the ordinary bookkeeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.
5. Botany.-A familiar acquaintance with the general structure of plants and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.
6. Business Law.-The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's Elements of Commercial Law, Burdick's Business Law, and White's Elements of Commercial Law.
7. Chemistry.-The instruction must include both text-book and laboratory work. The work should be so arranged that as least one-half of the time shall be given to the laboratory. The course as is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.
8. Civics.-Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the usual high-school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.
9. Commercial Geograpiyy.-The amount and character of the work accepted in this subject is indicated by the scope of such books as Redway's Commercial Geography, Adam's smaller book on the same subject, the text-books of Brigham, or Robinson, or Trotter's work.
10. Domestic Science.- (a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work). Of the foregoing (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.
11. Drawing.-Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.
12. Economics.-The principles of economics, with economic history, as given in any good clementary text-book.
13. EnGlish Composition and Rhetoric.-Correct spelling, capitalization, punctuation, paragraphing, idiom and definition; the elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.
14. English Literature.-(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an exanination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.
I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Virgil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.
II. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.
III. Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe or Quentin Durward; Hawthorne's House of Seven Gables; Dickens' David Copperfield or Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.
IV. Bunyan's Pilgrim's Progress, Part I; Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humorists; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden or selection from Huxley's Lay Sermons; Stevenson's Inland Voyage and Travels with a Donkey.
V. Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Viliage; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series) Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, Whittier's Snow Bound; Macaulay's Lays of Ancient Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, Fow They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Herve Riel, Pheidippides, My Last Duchess, Up at a Villa-Down in the City.
(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.
(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1917 the books will be selected from the list below. The examination will he of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's Macbeth; Milton's Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

The work outlined in (a), (b), and (c) counts for two units.
(d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.
15. French, First year's work.-Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read. Second year's work.-Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read. Third year's work. - Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics. Fourth year's work.-Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.
16. GEOLOGY.-For one unit, the equivalent of a year's work as conducted in first-class high schools. Such a course includes the thoro study of one of the more abbreviated modern text-books of geology, a generous amount of laboratory work on specimens, maps, models, etc., and wherever possible, several field trips. When available, laboratory note-books should be presented.
17. GEOMETRY.-(a) Plane Geometry. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.
(b) Solid and Spherical Geometry. Applications to the solution of original exercises are emphasized.
18. German.-Pupils should be trained to understand spoken German and to reproduce freely in writing and orally what has been read. A thoro knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years. First year's work.-At the end of the year pupiis should be able to read intelligently and with accurate pronounciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may be memorized. Elementary grammar should be mastered up to the subjunctive. Easy prose composition rather than the writing of forms will be the test of this grammatical work in entrance examinations. Second year's work. Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself to conversational treatment in the class room. The recitations should afford constant oral and written drill on the elementary grammar of the previous year. The beginner's book should be completed, but more importance is attached to accuracy and facility in simpie modes of expression than to a theoretical knowledge of advanced syntax. Third year's work. - Most of the time should still be devoted to modern prose. There should be some work in advanced prose com-position-based on German models-and the recitations should continue to afford abundant oral practise. Pupils ought by this time to understand spoken German. Fourth year's work. - At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty, and be able to express himself orally or in writing with readiness and accuracy. Work in composition should take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.
19. Greek, Firsl year's work. -The exercises in any of the beginning books, and one book of the Anabasis or its equivalent. Second year's work. - Two additional books of the Anabasis and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year, Third year's work. - Three additional books of the Iliad, three of the Odyssey, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.
20. History. - One, two, or three units may be presented, to be chosen from the following list: Ancient history to 800 A. D., one unit; Medieval and modern history, one unit; English history, onehalf or one unit; American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full y year of high-school work.
21. Latin, First year's work.-Such lenowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories. Second year's work.-Four books of Caesar's Gallic War, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text. Third year's work. -Six orations of Cicero; the ability to write simple Latin based on the text; the simpler historical references and the fundamental facts of Latin syntax. Fourth year's work.-Six books of Virgil's Aeneid, with histcry and mythology; the scansion of hexameter verse.
22. Manual Training.-The requirement for one unit is the equivalent of 360 forty-minute periods in manual training following the syllabus prepared by the manual-training section of the High School Conference.
23. MUSIC. - At the present time, only a few high schools are accredited in music, and credit is therefore given in most cases by examination at the University. As fast as possible, schools offering acceptable work in music will be accredited therefor. In the examination for two units in piano. students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerry, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. In the examination for two units in voice, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and modern composers. In the examination for two units in violin, students are required to play the following or the equivalent: Gordon's' Foundation Studies; Hermann's Scale Studies; Wahlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel; Duet; selections from Weiss and Blumenstengel; miscellaneous pieces by Dancla, Papini, Weidig, Sitt, etc.
24. Physics.-One year's high-school work covering the elements of physical science as presented in the best of the current high-school text-books of physics. Laboratory practise in elementary quantitative experiments should accompany the text-book work. The candidates' laboratory notebook will be considered as part of the examination.
25. Physical Geograpiy.-One year's work, fully covering such a text-book as those of R. S. Tarr and W. M. Davis. It is assumed that the recitations have been accompanied by several hours of laboratory work per week on various types of maps, models, etc., as well as by field excursions. Laboratory note-books should be presented for inspection.
26. Physiology.-For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.
27. Spanish, First year's work.-Elementary grammar, including thoro drill in the irregular verbs; careful training in pronounciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation. Second year's work. - In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.
28. Trigonometry.- The work should cover the field of plane trigonometry, as given in standard text-books, including the solution of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.
29. Zoology.-The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

## GRADUATION-FIRST DEGREES

## THE BACHELOR'S DEGREE

A bachelor's degree is conferred on any student who satisfactorily completes the curriculum described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

## Residence Requirement

If the studefit is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

## Number of Hours Regitired

A candidate for a bachelor's degree must pass in the subjects marked prescribed in his chosen curriculum, and must conform to the directions given in connection with that curriculum in regard to electives. In the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the curriculum as laid down.

In order to" receive his bachelor's degree a student must have secured grades of not less than 75 in subjects aggregating at least three-fourths of the work, prescribed or elective, required for such degree.

## Military Science and Physical Training

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take the course in physical training, must elect instead an equivalent number of hours in other subjects.

## Thesis

In all cases in which a thesis is required, ${ }^{1}$ the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the curriculum for which a degree is expected. The thesis must be presented upon regulation paper; it is deposited in the library of the University.

## Second Bachelor's Degree

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the curriculum offered for the second degree includes at least 30 semester hours not counted for the first degree.
${ }^{1}$ See requirements for graduation in the various colleges.

## LIST OF FIRST DEGREES

1. The degree of Bachelor of Arts is conferred on those who complete a curriculum in literature and arts, or certain curriculums in science, in the College of Liberal Arts and Sciences.
2. The degree of Bachelor of Science is conferred on those who complete a curriculum in the College of Engineering, in the College of Commerce and Business Administration, or in the College of Agriculture. This degree is conferred on a graduate of the College of Liberal Arts and Sciences who completes a curriculum in chemistry and may be conferred on graduates from other curriculums in this College on recommendation of the faculty. It may also be conferred on students who offer two years of acceptable college work for admission to the College of Miedicine and complete the two years of scientific work in medical subjects and subjects preparatory to medicine which are offered in the Junior College; on the completion of the two additional years in clinical work offered in the Senior College, such students may receive the degree of Doctor of Medicine.
3. The degree of Bachelor of Laws is conferred on those who complete the curriculum in the College of Law.
4. The degree of Doctor of Law is conferred on those who complete the curriculum in the College of Law, satisfying certain special requirements additional to those for the degree of Bachelor of Laws.
5. The degree of Bachelor of Library Science is conferred on those who complete the curriculum in the Library School.
6. The degree of BACHELOR of Music is conferred on those who complete one of the curriculums in the School of Music.
7. The degree of Doctor of Medicine is conferred on those who complete the curriculum in the College of Medicine.
8. The degree of Doctor of Dental Surgery is conferred on those who complete the curriculum in the College of Dentistry.

9, 10. The degree of Graduate in Pharmacy, or of Pharmaceutical Chemist, is conferred on those who complete the shorter and the longer curriculums, respectively, in the School of Pharmacy.

## HONORS AND COMPETITIONS

## UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors.

## Preliminary Honors

Preliminary Honors are assigned at the completion of the sophomore year on the basis of the average of the grades received during the freshman and sophomore years in all studies except military and physical training. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. A failure in any subject disqualifies a student from receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

## Final and Special Honors

(Candidates for the Degrees of B.S., B.Mus., LL.B., and B.L.S.)
Final Honors are assigned on graduation on the basis of the average grades received during the junior and senior years. The number of persons to whom final honors are awarded may not exceed one-tenth of the membership of the senior class. A failure in any subject during the junior and senior years disqualifies a student from receiving these honors. Final honors are designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors.

Special Honors are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the senior year, has received a grade of less than eighty per cent in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

## The Degree of Eachelor of Arts with Honors

The faculty of the College of Liberal Arts and Sciences have been authorized to recommend candidates for the degree of Bachelor of Arts with honors in a particular subject. Candidates for the degree with honors will be recommended by the faculty under the following conditions:
(1) The student must have completed the work offered for his major with an average of not less than 90 .
(2) He must have completed the work offered for his minor with an average of not less than 85 .
(3) Each candidate is required to present a thesis in his major subject.
(4) Especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.

The purpose of these honors is not to encourage premature speciaization but to give special recognition to students who have pursued with success corrclated courses of study, and to emphasize the importance, for scholarship in any subject, of thoro training in other related subjectss. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

Candidates for the degree of Bachelor of Science in the College of Liberal Arts and Sciences are eligible for final and special honors under the regulations stated on page 87.

## Freshman Honors <br> (College of Liberal Arts and Sciences)

At the close of each yedr a list is prepared of those members of the freshman class in the College of Liberal Arts and Sciences who have made an especially good record in scholarship. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

## List of Honors

The names of the students who received honors under the foregoing regulations during the academic year 1915-16 are published in Part VI of this Register.

## DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold watch-fob is presented to every speaker who represents the University, either in debate of in oratory.

The I. M. I. Debating League consists of the Universities of Illinois, Minnesota, and Iowa. It holds a debate at each university on the first Friday in Decermber.

The Midwest Debaiting League consists of the Universities of Illinois, Miehigan, and Wisconsin. It holds a debate at each university on the third Friday in March.

The Northern Oratorical League, consisting of Northwestern University, Oberlin College, and the state Universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contests for 1917 will be held on May 4, at Minneapolis, Minnesota. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

The Intercollegiate Peace Association holds annual state and inter-state oratorical contests to which representatives of this University are eligible. Orations mist be iupon some phase of the peace question. Cash prizes are offered in both contests.

A Freshman-Sophomore Debate and an Inter-Society Declamation Contest are held yearly.

## The Interscholastic Oratorical Prize

A medal of the value of twenty dollars, and two medals of the value of ten dollars, each, are offered annually by the University to the high schools of the State for the best orations delivered in a competitive contest between their rep-
resentatives. This contest takes place in the spring at the time of the interscholastic athletic meet-in 1917, on May 18.

## THE THACHER HOWLAND GUILD MEMORIAL PRIZE

Friends and admirers of Thacher Howland Guild, instructor and associate in English, 1904-14, have endowed the Thacher Howland Guild Memorial Prize, an annual prize of $\$ 25$, to be given to the undergraduate student submitting the poem or one-act play which in the opinion of a committec appointed by the department of English shows the greatest originality and literary merit; provided that the award may be withheld in any year if no production deemed worthy of a prize is submitted. The name of the winner of this prize is printed in the commencement program.

## ST. PATRÍCK'S DAY PRIZ̈E

Division One of the Ancient Order of Hibernians offered in the spring of 1916 and again in 1917 a prize of $\$ 50$ for the best essay by an undergraduate or a graduate student of the University of Illinois on a subject connected with ancient Irish literature, history, or archeology. The essays must be submitted one month before Commencement Day; the prize is awarded at Commencement.

## THE BRYAN PRIZE

In 1908 Mr. William Jennings Bryan gave to the University the sum of two hundred fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand nor more than six thousand words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1917.

## BNAI BPRITH PRIZES

The Champaigni and Urbana lodge of the Independent Order of B'nai B'rith has donated to the University the sum of fifty dollats, to be awarded in prizes to students of the University for essays on Jewish subjects. The sün named is the third of five annual contributions to be given for this purpose. For information in regard to the conditions governing the awarding of the prizes, address the Registrar, University of Illinois, Urbana, tilinois.

## ARCHITECTURE

## The Francis J. Plym Fellowship in Architecture

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897; the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is $\$ 1,000$, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the Department of Architecture.

## The Joseph C. Llewellyn Prize in Architectural Engineering

In June, 1913; Mr. Joseph C. Llewellyn, of Chicago; á graduate of the University of the class of 1877 , established, for a period of four years, a prize of fifty dollars per annum for a problem in design, the competition being limited to students in architectural engineering.

## The American Institute of Architects Medal

The American Institute of Architects offers annually a medal for award to the senior in the department of architecture whose development during the four years' course is the most consistent and best. In making the award the scholarship in all work is considered.

## The Scarab Medal in Architecture

The Scarab Society of the department of architecture offers annually a bronze medal to be awarded during the second semester for the best solution of a problem in architectural design, the competition being limited to students in architecture.

The Prize in Architecture of the American Academy in Rome is open for competition among qualified undergraduates and graduates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and renaissance architecture.

## MILITARY CONTESTS AND PRIZES

## The University Bronze Medals

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practice are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (See Part VI.)

## The University Gold Medal

The Board of Trustees provides annually a gold medal which is to be awarded at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 85, and three semesters' work in Military 2 with a grade of not less than 90; and he must have an average standing of not less than 80 per cent in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The award is made for excellence in the same details as in the Hazleton contest.

## The Hazleton Prize Medal

Captain W. C. Hazleton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness.
2. Execution of the school of the soldier, without arms.
3. Manual of arms, with and without numbers.

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the fact, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

## LECTURES AND OTHER GENERAL EXERCISES

A part of the instruction afforded by the University to its students is given through the medium of lectures by distinguished men and women from outside the University faculty and by means of exhibitions, recitals, and other exercises distinct from the regular courses of instruction. A partial list of these exercises for the calendar year 1916 follows. Lectures by members of the University faculty are excluded from this list.

## GENERAL UNIVERSITY EXERCISES

## Convocations

Feb. 16. University Convocation: Address by George S. Eddy: "The present world situation."
Apr. 19. University Convocation: Dedication of the Chemistry Laboratory. Address by Dr. W. R. Whitney, Columbia University.
Sept. 20. Annual Convocation for Freshmen.
Oct. 18. University Convocation: Addresses by Dean H. W. Ballantine and Dean Fanny C. Gates.

## General University Lectures

Feb. 14. Dr. Jose M. Galvez, University of Chile: "Removing the barrier of language."
Feb. 21. Mr. Norman Angell, London: "America's future foreign policy."
Feb. 24. Mr. L. B. Kitchell: "Glacier National Park."
Mar. 29. Mr. Lorado Taft, Art Institute, Chicago: "The sculpture of the Gothic and French renaissance."
Apr. 5. Mr. Lorado Taft: "Modern French sculpture."
May 1. Mr. C. N. Hunt: "Yellowstone Park."
May 2. Miss Irene Manvy, "Hospital experiences at the front in France."
May 3. Mr. Lorado Taft: "Modern German sculpture."
May 8. Hon. John Barrett, Director-General, Pan American Union: "South American banking."
May 9. Professor Grant Showerman, University of Wisconsin: "The modest modernist" (under the auspices of Phi Beta Kappa and Sigma Xi).
May 15. Mr. Lorado Taft: "American sculpture."
May 25. Mr. Burr McIntosh.
Oct. 17. Judge J. R. Bane: "The character of Abraham Lincoln."
Nov. 9. Professor A. G. VanHecke, Louvain, Belgium: "Life in the camp of the refugees."
Nov. 27. Mr. Lorado Taft: "The processes of sculpture."
Dec. 12. Mr. Lorado Taft: "The Greek tradition in sculpture."
The Star Lecture Course
Jan. 18. Admiral Robert E. Perry.
Feb. 9. Fritz Kreisler.
Mar. 14. Isabella G. Beecher.

Apr. 4. Madame Julia Claussen.
Nov. 8. Madame Johanna Gadski.
Dec. 1. Evan Williams.

## University Orchestral Cóncerts

Mar. 22. The New York Symphony Orchestrá.
Apr. 10. The New York Philharmonic Orchestra.
May 10. The Minneapolis Syìpïioñì Oŕchestra.
Oct. 20. The Russian Symphony Orchestra.
Dec. 4. The St. Louis Symphony Orchestra.

## Exhibitions

Jan. 10-14. Arcìitéctural Exhibition. Student drawings exhibited at Washington, D. C., in connection with the annual convention of the American Institute of Architects.
Jan. 17-27. Art Exhibit. Paintings and drawings by faculty members.
Mar. 12-27. Museum of European Culture Exibitit. Collection of manuscripts and historical documents lent by Dr. B. L. Riese of Chicago.
Mar. 19-Apr. 1. Library Exhibit. Colléction of alphabets, books, maps, and music for the blind.
Mar. 20-24. Architectural ExHibition. Preliminary dräwings of the Plym Fellowship in Architecture.
Mar. 27-31. Architectural Exhibition. Student work by the ten leading schools of architecture.
Apr. 10-14. Architectural Exhibition. Private colléction of etchings loaned by Mr. J. Andre Smith of New York City.
Apr. 10-15. Art Exeibit. Collection of etchings, woodblock prints, and monotypes, by the print makers of Los Angeles, California.
Apr. 16. Floral Exhibit. Exhibition of floral arrangemerits by the class in floral arrangements.
May 1-5. Architectural Exhibition. Winning drawings for the Scarab medal in Architecture.
May 11-13. Public School Art Exhibit.
May 11-20. Student Art Exhibit.
May 12. Railway Open House. An exhibit of the laboratories for Railway Engineering, including the locomotive laboratory and the test cars, under the management of the Railway Club.
May 15-24. Architectural Exhibition. Drawings of Mr. Roger C. Kirchhoff, winner of the Plym Fellowship in Architecture.
May 15-24. Architectural Exhibition. Work done by students in the department of architecture.
Sept. 25-29. Architectural Exhibition. Summer work done by the faculty.
Sept. 26-29. Vegetable Exhibit.
Oct. 2-6. Architectural Exhibition. Work done by freshmen in the depártment of architecture.
Oct. 15. M. E. Open House. An exhibit of apparatus and appliances under the management of the Student Branch of the American Society of Mecharical Engineers.
Nov. 12. Chrysanthemum Show.
Nov. 12-27. Art Exhibit. American Paintings.
Dec. 5-16. Library Exhibit. Books for Christmas bilying.
Dec. 13-15. Fruit and Vegetable Exhibit.

## Entertainments

Feb. 8. Post Exam Jubilee.
Feb. 11. Literary Sacieties' Dramatic Union: "A Winter's Tale."
Feb. 17. Dramatic Reading: Madame Guerin (under the auspices of the Alliance Francaise), "Three victims of the French Revolution: Madame Roland, Marie Antoinette and Charlotte Corday."
Feb. 18 and Mar. 5. Players' Club: "You Never Can Tell."
Mar. 4. University Band Concert.
Mar. 11. Sir Johnston Forbes Robertson and his English Company: "The Passing of the Third Floor Back," "Hamlet."
Mar. 31. Illinois-Michigan Debate.
Apr. 12. Choral and Orchestral Society Concert: "A Tale of Old Japan."
Apr. 15. Illinois Union Opera: "I'm Neutral."
May 11. May Pole Dance and Girls' Stunt Show.
May 12. Interscholastic Oratorical Contest. Glee and Mandolin Club Concert.
May 13. Interscholaṣfic Circus.
May 24. Concert, University Choristers.
May 26. Mask and Bauble: "As You Like It."
June 10. Band Promenade Concert.
Nov. 13. Player's Club: "Rosalind." "The Workhouse Ward."
Nov. 17-18. Mask and Bauble: "A Pair of Sixes."
Nov. 22. Theatre de la Renaissance Francaise en Amerique: "Le Jeu de 1'Amour et du Hassard."
Nov. 24. Deutsche Verein: "Der Dummkopf."
Dec. 8. Illinois-Minnesota Debate.
Dec. 19. Christmas Concert, Choral and Orchestral Society.
The Eddy Lectures Under the Auspices of the University Christian Associations
Feb. 17-20. George Sherwood Eddy, Y. M. C. A. Secretary for Asia: "Ambition, a man's main motive." "The challenge of honest doubt." "Fight for character." "The Christian solution of life."

## The Annual Bon Durant Lectures

Mar. 26-31. President H. O. Pritchard, Eureka College: "What did Jesus teach about God?" "What did Jesus teach about man?" "What did Jesus teach about sin?" "What did Jesus teach about the kingdom?" "What did Jesus teach about discipleship?" "What did Jesus teach about himself?"

## Short Courses and Conventions

Jan. 10-22. Short Course in Ceramic Engineering.
Jan. 10-22. Short Course in Highway Engineering.
Jan. 17-28 and Jan. 31-Feb. 5. Shart Courses in Household Science.

## Addresses Before the School for Housekeepers

Jan. 17-21. Mrs. T. Vernette Morse, Chicago: "Value of an art Education in community and individual life." "Home furnishings and decorations as an element in character building." "Correlation of community interests and recreation movements." "Related yocations of the home, school, and business world." "Results of commercializing home occupations."
Jan. 18-21. Mrs. E. W. DovoHo, Chicago: Four lectures and demonstrations on foods.

Jan. 20-21. Mrs. Cecil F. Baker, Chicago: "Draping and design," " Market problems in buying clothing."
Jan. 22. Mrs. H. M. Dunlap, Savoy: "Problems in furnishing in the transition from the old home to the new."
Jan. 24. Mrs. Sam Curry, Camp Point: "The call of the farm woman."
Mrs. Anna D. Livingston, Poplar Grove: "The flower garden as a factor in the home beautiful."
Jan. 25. Mrs. J. H. Watkins, Kankakee: "Town versus country life for the retired farmer."
Jan. 26. Miss Eva Benefiel, Kankakee: "Exhibits at county fairs as aids in the educational development of a community."
Jan. 26. Miss Anna May Price, Springfield: "The children's hour."
Jan. 27. Miss M. Anna Wilson, Champaign: "Home economics work of the Young Women's Christian Association."
Mrs. Fred L. Hatch, Spring Grove: "Home economics work of the federated clubs."
Miss Laura Gonterman, Edwardsville: "Home economics work of the State Fair School."
Mrs. H. A. McKeene, Springfield: "Home economics work of the Farmers' Institute."
Jan. 31-Feb. 5. Course for Bakers
Dr. C. H. Bailey, St. Paul: Twelve lectures and demonstrations on flours and bread.
Jan. 25. Convention of American Water Works Association.
Jan. 31-Feb. 5. Short Course in Business.
Feb. 23-24. Illinois State Electrical Association.
Mar. 8-10. Drainage Conference.
Apr. 6-8. Illinois Country Press Conference.
Apr. 18-21. Annual Meeting of the American Chemical Society.
May 5-6. Annual Meeting of the Business Officers of Middle Western Universities.
June 20-23. Better Community Conference.
Mr. Graham Taylor, Chicago Commons: "The spirit of social service."
Mr. Sidney A. Teller, Director of Stanford Park, Chicago: "Recreational life of the community."
Mr. William A. Wirt, Superintendent of Schools, Gary, Indiana: "A balanced load program for child welfare agencies."
Meeting Illinols Farmers' Hall of Fame: Unveiling of portrait of B. F. Harris I.
Hon. Carl Vrooman, Assistant Secretary of Agriculture: "The new agriculture."
Mr. Homer Tice, Author of Tice Road Law: "The social significance of good roads."
Mr. Warren H. Wilson, New York City and Shailer Mathews, President of the Federal Council of the Churches of Christ of America: "Religion and the Common Life."
Mr. Harry A. Wheeler, First President of Chamber of Commerce of the United States: "American ideals in commerce."
Mr. Lorado Taft, Art Institute, Chicago: American ideals in art."
Nov. 13-17. State Convention of Illinois Federation of Women's Clubs.
Dec. 7-8. Convention of Illinois Municipal League.

## THE COLLEGE OF LIBERAL ARTS AND SCIENCES

College Assemblies
Jan. 13. Mr. A. W. Douglas, Vice President, Simmons Hardware Co.: "The preparation which business affords for public life."
Feb. 4. Mr. John Masefield: "Literature as a career."
Mar. 9. Dean Henry M. Bates, University of Michigan Law School: "The profession of law, its development, present day criticisms, and needed readjustments."
Apr. 6. Mr. James Shermerhorn, Editor of the Detroit Times: "Testing the beatitudes; a twentieth century adventure in journalism."
Nov. 23. Professor Joel Stebbins: "Measuring the light of the stars."
Dec. 14. Professor Jacob Kunz: "Recent light on the ultimate construction of matter."

## College Lectures.

Jan. 10. Mr. Francis Grierson: "How I developed my gift of improvisation." "The Awakening," with improvisations on the piano.
Feb. 22-28. Professor A. J. Carnoy, University of Louvain, Belgium: "Races and languages of Belgium." "History of Belgium." "Belgian literature."
Mar. 6-10. Dr. James Brown Scott, Secretary, Carnegie Endowment for International Peace: "Conditions of national and international peace."
Mar. 16. Mr. G. Lowes Dickinson, Cambridge University: "International reconstruction after the war."
Apr. 4-10. Professor Kuno Meyer, University of Berlin; Director of Irish Learning, Dublin: "Celtic and Arthurian romance." "Celtic elements in Great Britain and Ireland." "Celtic influences in other European languages." "Early Irish civilization." "Ancient Irish literature." Ancient Welsh literature." "Celtic influences in other literatures."

## Chemistry

May 1-5. Professor M. A. Rosanoff, University of Pittsburgh: "The kinetics of some organic reactions." "Theory of fractional distillation."

## Classics

Apr. 17. Professor Henry Browne, University College, Dublin: "Classical and medieval architectural requirements."

## Education

Mar. 21. Principal J. B. Davis, Grand Rapids, Michigan: "Vocational and moral guidance: a nine years experiment."
Apr. 17-18. Professor E. P. Cubberley, Stanford University: "The rural problems and the county unit," "Recent developments in the high schools of California." "The nature of the superintendent's work."
Apr. 18. Superintendent H. B. Wilson, Topeka, Kansas: "The superintendent's chief business."
Nov. 22. President W. A. Jessur, University of Iowa: "School administration."

## English

Apr. 13. Professor James O'Neill, Head of the Department of Public Speaking, University of Wisconsin: "Public speaking as an academic discipline."
Yune 5. Professor Ernest Bernbaum, Harvard: "The French Revolution and the English sentimentalists."

## Romance Languages

Jan. 11. Mr. Francis Grierson: "Reminiscences of French poets."
May 18. Professor Ernest H: Wilikins, University of Chicago: "Lorenzo de Medici and his circle."
Dec. 11. Professor Henri David, University of Chicago: "La comedie de La Fontaine."

## Sociology

Feb. 10. Mr. Sidney A. Teller, Director, Stanford Park, Chicago: "The playground movement in Amcrica."

## THE COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Apr. 4-6 Miss Anna E. Reese, J. J. Badenoch Co., Chicago: "Grain exchanges and the grading and warehousing of grain." "The transportation, marketing and price of grain." "Effects of the war on marketing grain and grain products."
May 9-12. Professor Moritz J. Bonn, University of Munich: "International trade." "International credit."

## THE COLLEGE OF ENGINEERING

## College Assemblies

Jan. 26. Mr. K. Llewellyn, National Tube Company, Chicago: "The making of tubes." (Moving picture lecture).
Feb. 10. C. H. Benjamin, Dean of the College of Engincering, Purdue University, Lafayette, Indiana: "Perpetual motion."
Feb. 16. S. T. Henry, (University of Illinois, '01), Vice-President, McGraw-Hill Publishing Company, New York: "The business side of engineering."
Feb. 22. E. A. Hirchсоск, Power Sales Engineer, E. W. Clark \& Company, Management Corporation, Columbus, Ohio: "Hydro-electric devclopments in the south."
Mar. 6. Dr. Edward P. Hyde, Director Nela Research Laboratory, Cleveland, Ohis: "The modern attack on the lighting problems."
Mar. 8. Mr. H. M. Biebel, Pittsburgh, Pennsylvania: "Electrical enginearing design."
Mar. 9. Mr. Benjamin Brooks, Engineer, International Clay Products Bureau, Kansas City, Missouri: "Clay products as applied to sewerage and sanitation."
Mar. 16. Mr. E. C. Lowe, Senior member of firm Lowe \& Bollenbacher, Chicago, "Church architecture."
Mar. 29. Mr. H. I. Smith, Mining Engineer, U. S. Bureau of Mines, University of Illinois. "Mining concentration and metallurgy of copper."
Mar. 30. Mr. R. W. Lindsey, Chief Chemist, Pratt and Lambert, Inc., Buffalo, New York: "The manufacture of varnish."
Apr. 3. Professor W. S. Franklin, formerly of Lehigh University: "Some needed additions to the subject matter of theoretical mechanics as presented to engincering students."
Apr. 4. Professor W. S. Franklin: "The second law of thermodynamics from a vividly physical point of view." "The limitations of one-to-one correspondence in physics."
Apr. 5. Professor W. S. Franklin: "Some needed additions to the subject matter of theoretical mechanics as presented to engineering students."
Apr. 6. Professor W. S. Franklin: "Electric waves." "Some mechanical analogies in electricity and magnetism."

Apr. 7. Professor W. S. Franklin: "Some Phenomena of fluid motion and the curved flight of a baseball." "The educational problems of an industrial community."
Apr. 12. Mr. Irving Fellner, Publicity Manager, Kawneer Manufacturing Company, Niles, Michigan: "The manufacture of store fronts."

## Addresses Before the Freshman Class

Jan. 26. Mr. Llewellyn, National Tube Company, Chicago: "Processes of manufacture of butt and lap weld pipe."
Feb. 16. Mr. S. T. Henry, Vice-President of the McGraw Publishing Company, New York: "If I were a freshman again."
Feb. 23. Films "Concrete on the farm." "Automobile construction." (Overland Company).
Mar. 15. Films. "Mining of asphalt in Trinidad and the making of roads."
May 10. Motion Films. "Processes of manufacture of Ford automobiles."

## Architecture

Mar. 30. Mr. R. D. Lindsey, Chief Chemist, Pratt and Lambert Company, Buffalo, New York: "The manufacture and uses of paints and varnishes."
April 12. Mr. Irving Fellner, Publicity Manager, Kawneer Manufacturing Company, Niles, Michigan: "The design and construction of store fronts."
Nov. 23. Mr. E. A. Sterling, National Lumber Manufacturer's Assn.: "Wood."

## Ceramic Engineering

May 24. Mr. A. E. Huckins, Manager, Sheldon Brick and Building Supply Company, Urbana, Illinois: "Problems of the face brick salesman."

## Civil Engineering

Mar. 3. Mr. H. R. Thomas, Associated with the Railroad Track Tests of the Joint Committee of the American Railroad Engineering Association and the American Society of Civil Enginecrs. Urbana, Illinois: "Methods of testing railroad tracks for stresses."
Apr. 21. Mr. A. F. Robinson, Bridge Engineer, Atchison, Topeka \& Santa Fe Railroad, Chicago: "Selection of bridge types."

## Electrical Engineering

Mr. C. R. Underhill, Chief Electrical Engineer, Acme Wire Company, New Haven, Connecticut: "Electrical magnets."
E. C. Higgins, Educational Department, Western Electric Company, Chicago. "The establishment of a transcontinental telephone line."

## Mining Engineering

Mar. 29. Mr. H. I. Smith, Mining Engineer, Bureau of Mines, Urbana, Illinois: "Anthracite mining and preparation."
Nov. 10. Dr. H. M. Bane: "Mining in Siberia."

## Mechanical Engineering

Jan. 13. Mr. O. A. Monnett, American Radiator Company, Chicago: "Smokeless combustion."
Jan. 20. Mr. W. A. Blonck, Blonck \& Company, Engineers, Chicago. "Boiler practise in the United States and foreign countries."

## Railway Engineering

Mr. W. H. Hauser, Mechanical Engineer, Chicago and Eastern Illinois Railroad, Danville, Illinois: "Opportunities for technical graduates in railway service."

## THE COLLEGE OF AGRICULTURE

## Agricultural Extension

Jan. 6. Mr. J. C. Thorpe, President Illinois Motor Company, Urbana: "Care and operation of automobiles."
Jan. 10. Mr. J. V. Stevenson, Streator: "The farmer of today."
Mar. 8. Hon. A. N. Abbott, Morrison: "Constructive influences in Illinois agriculture."
May 24. Mr. J. V. Stevenson, Streator: "The conduct of an agricultural student after graduation."

## Agronomy

Jan. 25. Mr. H. Mendelsorn, Great Western Sugar Company: "Sugar beet industry of Colorado."
Mar. 14. Mr. C. H. Oathout, Consulting Agriculturist of Champaign County, Illinois: "The work of the county adviser."

## Animal Husbandry

Feb. 10, 11, and 12. Dr. Lafayette B. Mendel, Yale University, New Haven, Connecticut: "General features of growth." "Changes in the food supply and their relation to nutrition." "Modifications and abnormalities of growth." "Some problems of growth."
Apr. 6. Mr. T. W. Jerrems, President of the Chicago Live Stock Exchange: "Functions of a commission man."
Apr. 13. Mr. J. E. Poole of the Chicago Live Stock World and the Breeder's Gazette: "Live stock market reporting."
May 16. Mr. W. S. Corsa, Whitehall, Illinois: "Conducting public sales of pure-bred live stock."
May 18. Mr. S. T. Kiddoo, Vice-president of the Chicago Live Stock Exchange Bank: "Cattle financing."
May 23. Mr. L. L. Heller of the National Wool Warehouse and Storage Company, Chicago: "Wool marketing."

Landscape Gardening
Jan. 20. Tom Bendelow, Chicago: "Public golf courses and golf."
Mar. 9. George E. Burnap, Washington, D. C.: "The new landscape architecture."

## Landscape Architecture

Nov. 14. Mr. Thomas H. Mawson, London: "The replanning of Athens, Greece."

## THE LIBRARY SCHOOL

Jan. 4-5. Dr. E. C. Richardson, Princeton University Library: "Paleography as a study for librarians." "Unusual methods of work used in Princeton university library."
Mar. 20. Miss Frances Cullen, New York City: "Artistic book binding."
Apr. 27-28. Dr. Arthur E. Bostwick, Librarian, St. Louis Public Library: "The love of books as a basis for librarianship"; "A message to beginners."
May 19-20. Miss Harriet A. Wood, School Librarian, Portland Public Library: "The school library department" (two lectures).
Sept. 25. Mrs. IdA A. Kidder, Librarian of the Oregon State Agricultural College: "The work of the Oregon State Agricultural College Library."

Nov. 14. Miss Lutie E. Stearns, formerly of the Wisconsin Library Commission: "The Library and the Ideal Democracy."
Nov. 21. Miss May Massee, Editor of the American Library Association Rooklist: "The A. L. A. Booklist's selection for small libraries."

## THE COLLEGE OF LAW

Mar. 8. Dr. J. B. Scott, Secretary, Carnegie Endowment for International Peace: Annual address before the Order of the Coif.
Mar. 24. Hon. George H. Wilson: "The legislature and the making of laws."
Nov. 22. Mr. Fletcher Dobyns, Chicago: "Trial of jury cases."

## THE SCHOOL OF MUSIC

Jan. 19. Dr. Mannes and Mrs. Mannes, New York: Recital.
Oct. 30. Mrs. Alma Webster Powell, Brooklyn, New York. Lecture-recital.
Dec. 11. Mr. Theodore Spiering: Violin recital.

## THE SUMMER SESSION

June 20. Summer School Convocation.
June 26-Aug. 4. Dr. George A. L. Sarton, University of Ghent: "The history of science and civilization during the fifteenth and sixteenth centuries."
June 26-July 7. Mr. I. B. Stoughton Holborn, Oxford University: "Athenian life and our own." "The world's greatest drama: Attic tragedy." "Socialism and individuaiism: Athens and Sparta." "The charm of the fourth century sculpture." "Religion in Athens." "The contrast between classical and medieval art." "Greek philosophy and modern popular thought." "How to approach Browning." "The veiled personality." "Browning's optimism."
June 29-July 1. Professor Vaughan McCaughey, College of Hawaii: "Polynesia." "The natural history of Hawaii." "Hawaiian songs and legends."
July 5-6. Coburn Players: "The Yellow Jacket." "The Taming of the Shrew." "The Merchant of Venice."
July 10-20. Mr. Archer B. Hulbert, Mariette College: "The geography and psychology of the Alleghaney barrier." "The paths of buffalo and Indian around and through the Alleghanies." "The grand advance from the Pennsylvania breeding-ground." "Through the portal of Cumberland Gap to the blue-grass region of Kentucky." "The Potomac route from Braddock's road."
July 31. Professor A. H. Upham, Miami University: "A century of books for children."
Aug. 6. Dr. M. C. Tanquary, Crocker Land Expedition: "The Crocker Land Expedition."

# ASSOCIATIONS, SOCIETIES, AND CLUBS 

## GENERAL ORGANIZATIONS

## The Alumni Association

The Alumni Association is the general organization of the alumni of the University. The Association maintains an office at the University and publishes a periodical, the Alumni Quarterly and Fortnightly Notes. The alumni of the College of Medicine, the College of Dentistry, the School of Pharmacy, and the Library School have formed departmental organizations. Forty-one local alumni associations have been organized: thirteen in Illinois, two each in California, Missouri, New York, Ohio and Wisconsin, one each in Colorado, the District of Columbia, Idaho, Indiana, Iowa, Massachusetts, Michigan, Minnesota, North Dakota, Oregon, Pennsylvania, Tennessee, Texas, Utah, Washington, Brazil, India, and Japan. Regular University of Illinois alumni luncheons are held in fifteen cities. (See the Directory of Alumni Associations at the end of this volume.)

## University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members.

## The Student Council

The Student Council, consisting of eight seniors and seven juniors, elected annually, has charge of certain undergraduate student activities.

## The Woman's League

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magizines for the Woman's Building.

## Students' Hospital Fund

The Students' Mutual Benefit Hospital Fund provides ward hospital care for members who become ill and need such care for a period not to exceed four weeks during any semester. Members pay $\$ 1.00$ a semester. The Dean of Men is the Trustee of the Fund.

## Literary Societies

The Adelphic, Ionian, and Phlomathean societies for men, and the Alethenai, Athenian, Illiola, and Gregorian societies for women, meet weekly, on Fridays, and the Jamesonian Society (for women) on Tuesdays, throughout term time.

## The Christian Associations

The present membership of the Young Men's Christian Association is 404. The Association building furnishes free, for the use of all students, lounging room and library, game rooms, parlors, organization rooms for committee meetings, correspondence tables, and check room. The building also contains dormitories to accommodate ninety men. A cafeteria, whose manager is on the pay roli of the Association, serves 450 to 500 persons daily. Religious meetings for men are held occasionally on Sunday afternoon. Thursday evening meetings are addressed by prominent faculty members on ethical topics. Student-led classes in Bible Study are promoted, the teachers receiving training in normal groups. An employment bureau managed by a special secretary, who maintains office hours every afternoon in the Association building, endeavors to help students to find work.

The Y. W. C. A. is housed in the Hannah McKinley building. Dormitory space is provided for fifty young women. There are parlors on the first floor for use of the women rooming in the house, a large assembly room, pianos, organization rooms, and correspondence tables. A bowling alley and modern dining room are in the basement. There are 427 members of the Y. W. C. A. In 1915-16 there were 540 young women enrolled in voluntary Bible Study and 99 in study of missions and social service. An employment bureau is maintained at the Y. W. C. A. to help University women to find employment.

At the opening of the college year the Associations endeavor to help new students to find desirable rooming and boarding places. A copy of the Students' Handbook, giving information about Urbana and Champaign, the University, and the various college organizations and activities will be sent free to prospective students. For this handbook or for further information address the general secretary of either Association.

## HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

## Phi Beta Kappa

Each year a certain number of the ranking students of the senior class in the College of Liberal Arts and Sciences are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

## The Phi Bela Kappa Prize

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of $\$ 25.00$ to that member of Gamma Chapter who at his graduation from the College of Liberal Arts and Sciences gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa

Society, University of Illinois. The committee will not be limited in its award to those who have submitted papers specifically for this purpose or have otherwise given formal notice of candidacy. Special consideration will be given to theses deposited in the College Office by candidates for honors in the various departments.

## Sigma Xi

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

## Other Honorary and Professional Societies

Alpha Chi Sigma (Chemistry); Alpha Delta Sigma (Advertising); Alpha Gamma Rho (Agriculture); Alpha Kappa Psi (Commerce); Alpha Rho Chi (Architecture); Alpha Zeta (Agriculture); Beta Gamma Sigma (Commerce); Delta Sigma Rho (Oratory); Eta Kappa Nu (Electrical Engineering); Farm House (Agriculture); Gamma Alpha (Scientific); Graphomen (Journalism); Kappa Delta Pi (Education); Keramos (Ceramic Engineering); Ma-Wan-Da (Men's Senior Society); Medui (Pre-Medical); Omicron Nu (Household Science); Phi Delta Psi (Women's Senior Society); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Kappa (Educational); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemistry); Pi Tau Sigma (Mechanical Engineering); Psi Mu (Architecture); Sachem (Men's Junior Society); Scabbard and Blade (Military); Scarab (Architecture); Sigma Delta Chi (Journalism); Sigma Mu Rho (Medical); Sigma Tau (Engineering); Tau Beta Pi (Engineering); Triangle (Civil Engineering); Tribe of Illini ("I'" Men); U. L. A. S. (Landscape Architecture).

## CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following.

In the College of Liberal Arts and Sciences: The Botanical Club, le Cercle Francais, el Circulo Espanol, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Classical Club, der Deutsche Verein, the English Journal Club, the Geological Journal Club, the History Club, the Mathematical Club, the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, the Romance Journal Club, the Scandinavian Club, the Zoological Club.

In the College of Commerce and Business Administration: The Commercial Club.

In the College of Engineering: The Architectural Club, the Ceramic Engineering Club, the Civil Engineering Society, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Student Branch of the American Society of Mechanical Engineers, the Student Branch of the American Institute of Mining Engineers, the Physics Colloquium, the Railway Club.

In the Cohlege of Agriculture: The Agricultural Club, the Horticultural Club, the Houschold Science Club, the Landscape Gardeners' Club.

In the School of Music: The University Choral and Orchestral Society, the University Glee and Mandolin Club, the University Military Band.

In the Library School: The Library Club.
In the Law Scriol: Inns of Court.

## FRATERNITIES, SOCIETIES, AND CLUBS

National Fraternities.-Acacia; Alpha Chi Rho; Alpha Delta Phi; Alpha Kappa Psi; Alpha Sigma Phi; Alpha Tau Omega; Beta Phi; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Alpha Psi; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Eta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Kappa Tau; Phi Sigma Kappa; Psi Upsilon; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Chi; Theta Delta Chi; Zeta Beta Tau; Zeta Psi.

Sororities.-Achoth; Alpha Chi Omega; Alpha Delta Pi; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Gamma; Gamma Phi Beta; Kappa Alpha Theta; Kappa Kappa Gamma; Pi Beta Phi; Sigma Kappa.

Local Clubs.-Acanthus; Beta Pi; Beta Upsilon; Chi Beta; Chi Delta; Ilus; Iris; Psi Deita.

Interfraternity Organizations.-Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Helmet; Yo Ma; Phi Delta Psi; Ku Klux Klan.

## OTHER ORGANIZATIONS

Other students' societies include the following: Arkansas Club; Bushnell Guild; Chinese Students' Club; Beta Upsilon (Congregational guild); Comitatus (Democratic Club); Cosmopolitan Club; Culver Club; Dixie Club; Easterners' Club; Egyptian Club; H. H. Club; Hindusthani Association; Illinois Drama Federation; Inter-Collegiate Prohibition Association; Ivrim; Japanese Students' Club; Kansas Club; Komenian Society; Lambda Epsilon Phi (Republican Club); Lambkins' Club (interfraternity dramatic club); Lincoln League; Mask and Bauble (dramatic); Motorcycle Club; Scribblers' Club; Sewanee Circle; Shomeez (interfraternity Missouri club); Sigma Delta Theta (M. E.); Student Council.

## UNDERGRADUATE SCHOLARSHIPS


#### Abstract

(For circulars giving more detailed information concerning scholarships, apply to the Registrar of the University.)


## COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 and embodied in the General School Law of 1909 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible for a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee ( $\$ 10.00$, payable once, on entrance) and the incidental fee ( $\$ 24.00$ a year) for four years in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, the College of Medicine, the College of Dentistry, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University, and upon such branches of study as the President may select, is held upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for the examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship). Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 80 per cent, exclusive of grades in military science and physical training.

## GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee as early in the spring
as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nomince is then required, under the statute, (1) to pass the scholarship examination-the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent; (2) to meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class; and (3) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1917, September 12).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.

## SCHOLARSHIPS IN CERAMIC ENGINEERING

The University offers annually, to each county in the State, one scholarship, awarded on the nomination of the Illinois Clay Workers' Association, to applicants who intend to follow the curriculum in Ceramic Engineering. These scholarships are good for four years and relieve the student from the payment of the matriculation fee ( $\$ 10.00$, payable once, on entrance) and the incidental fee ( $\$ 24.00$ a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet in full, before entering, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

## SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of agriculture in the College of Agriculture and one for prospective students of household science in the College of Liberal Arts and Sciences or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in household science upon the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible, and no person will be assigned a scholarship unless his name is received by the Registrar of the University on or before the registration days of the semester with which the scholarship is to begin.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible to appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible to appointment as special students (in the College of Agriculture) at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the
scholarship at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee ( $\$ 10.00$, payable once, on matriculation), the incidental fee ( $\$ 24.00$ a year), and (in the case of special students) the tuition fee ( $\$ 15.00$ a year). If, before a scholarship expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled the term of the scholarship may be extended to four years from the date of the student's matriculation.

## THOMAS J. SMITH SCHOLARSHIPS IN MUSIC

Captain Thomas J. Smith, of Champaign, Illinois, on September 17, 1914, conveyed to the Board of Trustees of the University of Illinois certain farm lands in Champaign County, in consideration whereof the Board of Trustees agreed to erect, as soon as might be feasible, a building for the music departments of the University of Illinois, to be known as the Tina Weedon Smith Memorial Building, and further to grant annually in the University of Illinois four (4) free scholarships in the music departments "for young women who may seek a musical education but who are unable to pay the customary charges for instruction in music"; these scholarships to be assigned by way of preference to candidates from Champaign County, but in case there are no candidates from said county to be assigned to young women from other counties in Illinois.

## Regulations:

(1.) These scholarships shall be good for one year and shall exempt their holders during this period from matriculation, incidental, and music fees.
(2.) A person who during her year of tenure of one of these scholarships shall make an average grade of 85 in all subjects shall be eligible to reappointment to it for a second year, and on the same basis may be reappointed for a third year and a fourth year.
(3.) Each applicant for original appointment to one of these scholarships shall present a recommendation from the principal of a high school accredited to the University of Illinois, certifying that she is a graduate of the said high school, that she is a student of ability and promise, and that in the judgment of the principal of the high school she is unable to pay the customary charges for instruction in music.
(4.) Each applicant for original appointment to one of these scholarships shall pass the University entrance examinations in the following subjects: English composition and rhetoric, 1 unit; algebra, 1 unit; Latin or French or German, 2 units; music, 2 units; these examinations to be taken with the regular fall entrance examinations of the University. The scholarships shall be awarded to the candidates from Champaign County who make the highest average grade in these four examinations. In case the number of successful candidates from Champaign County is fewer than the number of available scholarships, the remaining scholarships shall be awarded to the candidates from other counties in Illinois having the highest average grade in these four examinations. But no scholarship shall be awarded to any candidate who fails to make a passing grade (70) in any one of the four subjects of the examination.
(5.) A candidate for original appointment must also satisfy in full the entrance requirements of the School of Music as stated in the University catalog, and must matriculate in that School for the fall semester immediately succeeding the examination.
(6.) No person who has attended the University of Illinois shall be eligible for appointment to these scholarships.

## JOSEPH T. RYERSON AND SON SCHOLARSHIPS

## (Mechanical or Railway Engineering)

The Joseph T. Ryerson and Son Scholarships of the American Railway Master Mechanics' Association, two in number, provide each for an annual stipend of $\$ 300.00$ to be paid to the beneficiary during the four years of his attendance in an engineering course at the University of Illinois, the University of Wisconsin, or Purdue University. Competitive examinations for these scholarships are conducted by the three universities in turn. The next appointment will be made for September, 1919, and the examination will be conducted in June, 1919, by the University of Illinois. Practical railroad experience is considered in the selection of candidates. Beneficiaries are expected to spend two years after graduation in the mechanical department of some railroad, and when financially able to do so to refund in convenient sums the amount of the scholarship for the benefit of others. For further information address Jos. W. Taylor, Secretary of the American Railway Master Mechanics' Association, 1112 Karpen Building, Chicago, or the registrar of any one of the three universities concerned.

## MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practise are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

## OTHER SCHOLARSHIPS

[^15]
## BENEFICIARY AID

## EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, Emeritus, gave the University the sum of $\$ 12,000$, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars ( $\$ 50$ ); the maximum loan is one hundred and fifty dollars ( $\$ 150$ ) to a junior, and two hundred dollars $(\$ 200)$ to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

## CLASS OF 1895 LOAN FUND

A fund of $\$ 100.00$ was established by the class of 1905 , to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the benefit of the fund is open only to students who, at the time of application, are members of the freshman class. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

## GRADUATE CLUB LOAN FUND

A fund of $\$ 75$ was established by the members of the Graduate Club in 1907 1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

## WOMAN'S LEAGUE LOAN FUND

In December, 1910, the Woman's League of the University gave to the University the sum of $\$ 409.44$ to be known as the Woman's League Loan Fund. This fund is available for any woman matriculated in the University and is administered in the same way as the Snyder Loan Fund.

## WILLIAM B. M'KINLEY LOAN FUND

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than $\$ 12,000$, this amount as it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students upon their own personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at 5 per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to the Chairman of the Loan Fund Committee.

## HENRY STRONG LOAN FUND

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1916-17 offered the University $\$ 250$ to be loaned to self-supporting students of high scholastic attainments. The loan bears interest at 4 per cent and is payable within one year after graduation. The fund has been loaned to two students, each of whom received $\$ 125$.

## MARGARET LANGE JAMES LOAN FUND

In 1915 President Edmund J. James established the Margaret Lange James Loan Fund in memory of his wife. The original fund $(\$ 5,000)$ given by President James has been supplemented by gifts from other persons, and the fund now amounts to about $\$ 5,650$.

Loans from this fund may be made to matriculated students, preferably women, who have been in residence at the University at least one year, who have attained at least junior standing, and who are at the time of application students in residence, who have declared their intention to graduate. In recommending loans, only students of promise and good scholastic standing are considered, and, other things being equal, preference is given to those who are the farthest along in their University work. A loan is not recommended for any student who is believed to be financially or morally delinquent in any respect.

Applicants for loans are required to offer security other than their own signatures, and no member of the faculty or other person directly connected with the University is accepted as security for any student loan.

Loans bear interest until maturity at 5 per cent, payable semi-annually. The maximum time for which notes may be drawn is two years from the thirtieth day of June next following the student's regular time of graduation. Bank discount is charged for the time until the thirtieth day of June next following the date of the note. Interest at 7 per cent is charged on all notes not paid at maturity.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

## FEES AND EXPENSES

GENERAL FEES
All University fees are payable each semester in advance.
Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, Agriculture and Law, and Library School
Matriculation Fee. Each student not holding a scholarship, upon satisfy- ing the requirements for admission to the University, pays the matricu- lation fee of. ..... $\$ 10.00$
Incidental Fee. All students, excepting those holding scholarships, pay each semester, an incidental fee of. ..... 12.00
Tuition Fee. Students conditioned on entrance requirements, and special students, except special students (in agriculture or household science) holding scholarships, pay each semester, a tuition fee of ..... 7.50Laboratory Fees. Each student working in laboratories, or in the draftingor engineering classes, is required to pay a fee varying from $\$ 0.50$ to$\$ 10.00$, to cover materials and apparatus used and breakages or dam-ages. (For a list of Laboratory Fees, see page 112.)
Deposit for Military Uniform. Male students, citizens of the United States, under 25 years of age, entering the University as freshmen or sopho- mores, make a deposit to cover the cost of the required military uni- form ${ }^{1}$ of ..... 14.20
Listener's Fee. Persons not connected with the University who attend classes as listeners, pay for each course, each semester ..... 7.50
Late Registration Fee. A former student who enters after the Registration Days in either semester must pay a late registration fee of. ..... 1.00
Change Fee. For every change of study-list made later than the tenth day of instruction of either semester a fee of $\$ 1.00$ is charged, except that the total charge for the rearrangement authorized on any one change- slip shall not exceed $\$ 2.00$ ..... 1.00
Special Examination Fee. For any special examination, except examina- tions for advanced standing taken within sixty days after matriculation, the fee is ..... 5.00
Diploma Fee ..... 5.00
School of Music
College Courses
Matriculated students, residents of Illinois, pay, each semester, the inci-dental fee$\$ 12.00$
Non-matriculated students, residents of Illinois, registered for the coursein Public School Methods, as outlined on page 189, pay, each semester:
(1) The incidental fee. ..... \$12.00
(2) The tuition fee ..... 7.50

[^16]All other students (including matriculated students not residents of Illinois and all conditioned and special students), pay, each semester:
If they take music only, special music fees, as follows:
For two lessons a week . $\$ 32.50$
For one lesson a week ..... 19.50
For harmony, counterpoint, fugue, etc ..... 9.00
If they take, in addition to music, subjects in other departments:
(1) The incidental fee .....  12.00
(2) Unless matriculated, the tuition fee ..... 7.50
(3) Special music fees, as follows:
For two lessons a week. .....  $\$ 25.00$
For one lesson a week. ..... 15.00
(4) For harmony, counterpoint, fugue, etc. ..... 9.00
Preparatory Courses
Students taking music only pay, each semester, special music fees as follows:For two lessons a week. $\$ 19.50$
For one lesson a week ..... 11.00
Students taking, in addition to music, subjects in other departments pay, eachsemester:
(1) The incidental fee .....  $\$ 12.00$
(2) Unless matriculated, the tuition fee ..... 7.50
(3) Special music fees, as follows:
For two lessons a week ..... $\$ 15.00$
For one lesson a week. ..... 8.50
Additional
Use of a piano for practise one hour a day, each semester. .....  3.00
Additional hours at the same rate.
Use of organ for practise one hour a day:
For one semester .....  $\$ 20.00$
For one-half semester ..... 10.00
Special students, taking music only, may enter classes in physical training on paying each semester ..... 7.50
Diploma fee ..... 5.00
College of Medicine
Freshman Year
Matriculation ${ }^{1}$ ..... $\$ 10.00$
Registration ..... 5.00
Laboratory ..... 30.00
General Tuition ..... 120.00
Total ..... $\$ 165.00$
Sophomore Year
Registration ..... $\$ 5.00$
Laboratory ..... 35.00
General Tuition ..... 120.00
Total. ..... $\$ 160.00$

[^17]

[^18]
${ }^{1}$ Maximum $\$ 10.00$.


## AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for undergraduate students attending at Urbana, exclusive of books, clothing, railroad fare, laboratory fees, if any, and small miscellaneous needs:

| Semester fees ${ }^{1}$ | . \$ 24.00 to | 24.00 |
| :---: | :---: | :---: |
| Room rent for each student (two in room) | 72.00 to | 80.00 |
| Table board in boarding houses and clubs | 162.00 to | 200.00 |
| Washing. | 20.00 to | 30.00 |
| Total. | . $\$ 272.00$ to $\$$ | 334.00 |
| Board and room in private house, a week. | . $\$ 5.50$ to \$ | 6.50 |

In addition to the foregoing, freshmen pay a matriculation fee of $\$ 10.00$, and the men are required to buy a cadet uniform and equipment, which costs $\$ 20.95$. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about $\$ 18.00$.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than $\$ 375.00$ to $\$ 500.00$. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fee, see page 104.

## Board and Rooms

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

Prospective zoomen students and iheir parents are invited to correspond with the Dean of Women in regard to suitable places.

[^19]
## PART II <br> THE COLLEGES AND SCHOOLS

(1)

## If $74+31$

2-2


## THE COLLEGE OF LIBERAL ARTS AND SCIENCES

For a description of the buildings used by this College, see page 51 ; for museums and collections belonging to it (classical art and archeology, education, European culture, botany, entomology, geology, and zoology), see pages $60-62$; for a summary of its courses, see page 63; for clubs and societies auxiliary to its curriculums see page 102; for fees, see page 110 .

## ORGANIZATION

The organization of the College of Liberal Arts and Sciences, in which are merged the former College of Literature and Arts and College of Science, became fully effective on July 1, 1913, following an action of the Board of Trustees taken on July 5,1912 . In September, 1916, a new schedule of requirements for admission to the College of Liberal Arts and Sciences went into full operation. Changes in the requirements for graduation with the degree of Bachelor of Arts have been worked out by the Faculty and approved by the Board of Trustees. These are described on pages 118-120.

## PURPOSE

The purpose of the College of Liberal Arts and Sciences is, first, to secure to its students a liberal education including both the humanities and the sciences; second, to furnish especially arranged curriculums preparatory to later professional and technical studies by which good students may ordinarily obtain in six years both the degree in arts and a professional degree in law or medicine, or a technical degree in engineering; and, third, to provide certain highly specialized curriculums in applied science (particuiarly chemistry), journalism, and household science. The degree of Bachelor of Arts is conferred upon the completion of all these curriculums, except those in applied science, for which the degree of Bachelor of Science is given.

Under the modified elective system a student who desires to prepare for teaching may specialize to a considerable extent in the subject which he wishes to teach and may also find time for courses in education and related subjects of interest to teachers. Such students should, as a rule, continue their preparation in the Graduate School.

Students who desire to devote a considerable part of their undergraduate study to specific preparation for some calling other than teaching may select courses in law, medicine, dentistry, journalism, or applied chemistry, or household administration, in accordance with curricula given in detail in the following pages.

## ADMISSION

See the statement of the entrance requirements of the University, pages 66-84.

## SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 72.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, tho unable to meet the formal requirements
for entrance, are substantially prepared for work of college grade, and have a specific and clearly defined purpose in their study.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

A. University Requirements.-Each candidate must meet the general university requirements with respect to registration and residence, and must also secure credit in approved courses amounting to one hundred thirty hours, an hour being one class period a week for one semester. Each class period presupposes two hours preparation by the student, or the equivalent in the laboratory or drawing room.
B. Prescribed Subjects.-Rhetoric 1-2; Physical Training 1-2 and 1a for men; Physical Training 7a-7b and 9 for women; Military Science 1 and 2 for men.
C. Group Requirements.-Every candidate must offer the minimum of work specified in each of the following groups:
I. English.-The offering in this group must include at least a one-semester course in literature.
II. Foreign Languages and Literatures (exclusive of courses in translation).

If a student has offered but two units of a foreign language for entrance to the University, he must pursue the study of foreign language through two year-courses or the equivalent. If he has offered for entrance three of more units of foreign language, he must continue the study of foreign language through one year of his college course.

Note: Candidates for the degree who have not offered Greek or Latin or French or German for entrance must offer one of these languages for graduation.
III. History, Political and Social Science.-History, economics, political science, sociology: 8 hours.
IV. Mathematics and Physical Science.-Mathematics, astronomy (courses with college mathematics as prerequisites), physics, chemistry: 8 hours.
V. Botany, including bacteriology, entomology, geology, physiology, zoology: 8 hours.
VI. Education, philosophy, psychology: 6 hours, of which 3 shall be in philosophy or psychology.
D. Major Subjects.-Each candidate must select some subject as his major. A major consists of courses amounting to 20 hours chosen from among those designated by a department and approved by the faculty of the college. Such courses are to be exclusive of those elementary or beginning courses which are open to freshmen, and inclusive of some distinctly advanced work. At least five hours of the work accepted for a major must have been done in residence at this University and included within the maximum credits allowed in any one division. See the statements regarding majors under departmental announcements in Part III.

The subjects at present recognized as majors in this college are: Astronomy, bacteriology, botany, chemistry, classics, education, economics, English, entomology, French, geology, German, Germanic languages, Greek, history, household science, Latin, mathematics, philosophy, physiology, physics, political science, psychology, Romance languages, sociology, zoology.
E. Minor Subjects.-Each candidate must offer, in addition to his major, a minor of 20 hours in one or more allied subjects designated by the major department and approved by the faculty of the college. At least 8 hours must be offered in one subject. See the statements regarding minors under departmental announcements in Part III.

## F. Elective Subjects.-

1. Not more than 40 hours in any one subject may be counted for graduation, cxcept: (a) in special curriculums approved by the faculty of the
college; (b) when a student is writing a thesis, he may count, in addition to the 40 hours, the hours of the course in which he does his thesis work; (c) in the department of English a student may talie 40 hours in addition to Rhetoric 1-2.

Note: The total credit in art and design is limited to 20 hours.
2. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours for one semester, he must stay in the class during one semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.
3. A limited amount of credit toward the degree of Bachelor of Arts is ordinarily given for courses offered in other colleges and schools of this University, as follows:

## Electives in other Colleges and Schools

College of Agriculture:
Agricultural Extension 1 (High School Agriculture).
Agronomy 9 (Soil Physics), 11 (Soil Biology), 12 (Soil Fertility), 22 (Plant Breeding). Animal Husbandry 7 and 31 (Animal Nutrition), 30 (Genetics).
Dairy Husbandry 11, 12a-12b (Dairy Bacteriology).
Horticulture 9 (Forestry), 12 (Horticultural Evolution), 36 (History of Landscape Gardening), 37a (Civic Design), 42 (Landscape Design).
The total credit allowed in agricultural courses may not exceed 14 hours except to students who do major work in entomology, who may be allowed 20 hours to be chosen from the above courses with the addition of Agronomy 7 and 25 , and Horticulture 1a, 1b, 2, 3, 6 and 7.

## College of Commerce and Business Administration:

Accountancy 1a-1b (Principles of Accounting), 13 (Municipal Accounting)
Business Organization 1 (Business Organization), 9 (Commercial and Civic Organizations).
Business Law 1a-1b (Commercial Law,-no credit given to students in the combined arts-law curriculum).
Economics, all courses except 9, 14, 15, 32, 34.
Transportation 1 (U. S. Transportation System), 2 (Transportation Policy).
The total credit allowed for courses in Commerce may not exceed 40 hours.

## College of Engineering:

Architecture 13, 14, 15, 16 (History of Architecture), 31, 32 (Architectural Drawing); Civil Engineering 27 and 28 or 33 and 34 (Surveying), 94 (Highway Administration); Drawing, General Engineering 1 (Elements of Drafting); 2 (Descriptive Geometry); Electrical Engineering 4 and 64 or 8 and 68 ; Mechanical Engineering 11, 12 (Thermodynamics), 30 (Mechanics of Machinery); Mechanics, Theoretical and Applied, all courses. The total credit allowed in engineering courses may not exceed 24 hours.

## College of Law:

A student who has Senior standing in the College of Liberal Arts and Sciences may take and count the first full year of law work for thirty hours of credit toward the degree of Bachelor of Arts, or, if he takes and successfully carries less than the full amount, it shall be counted only hour for hour toward the degree of Bachelor of $A \mathrm{rts}$.

Law 14 (Carriers), 24 (Municipal Corporations), 28 (Insurance), and 34 (Public Utilities), are open to students majoring in political science or economics who have had a previous course in law or political science involving the study of cases.

Courses in law may not be taken before the senior year by students enrolled in this College, and in no case may the total credit for law courses exceed 30 hours.

## Library School:

Library Science 2a-2b or 12 (Reference), 7 (History of Libraries), 9 (Bookmaking) 13a-13b (Public Documents).

## School of Music:

The total credit allowed for courses in music may not exceed 16 hours. At least one-half the credit must be taken in courses in the history and theory of music (1-14 inclusive). Credit may be allowed in practical music for courses preceded by Music 3 and 4 and exclusive of courses open to freshmen to an amount not to exceed one-half of the total allowed any student. No credit will be allowed for courses in public school music.

## Physical Training:

Not to exceed 5 semester hours for men and 7 semester hours for women.
Military Science and Tactics: Military Science 1 and 2.
G. Bachelor's Thesis: A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as part of the work in some course for which the student is registered. The presentation of a thesis is specifically required of all candidates for the honor degree.
H. Optional Degree of Bachelor of Science: Students who do major work in one of the subjects in Groups IV or V, or in Household Science, on petition to and recommendation of the faculty may be graduated with the degree of Bachelor of Science instead of Bachelor of Arts.

## ARRANGEMENT OF COURSES

## First Year

Subjects Prescribed for Freshmen
The following subjects must be taken during the freshman year: Rhetoric 1-2, ${ }^{1}$ three hours each semester; Military 2, one hour each semester, and Military 1, one hour second semester (for men); Physical Training (Physical Training 1-2 and 1a for men; $7 \mathrm{a}-7 \mathrm{~b}$ and 9 for women). Students who enter for the General Science Curriculum should take Chemistry 1, unless chemistry has been accepted for admission.

## Freshman Electives

The following subjects are open to freshmen. The total amount including military and physical training taken in any semester is limited to eighteen hours and should not be less than fifteen.

## First Semester

$$
\text { I. English } 10^{2}(3){ }^{3} \text { Rhetoric } 1 \text { (3). }
$$

II. French $1 \mathrm{a}(4)$ or $1 \mathrm{~b}(4)$ or $2 \mathrm{a}(4)$; German 1 (4) or $2(4)$ or 4 (4) or 5 (4);

[^20]Greek 1a (4) or 7 (3); Latin 6 (4), 1a (4) or 2a (4); Spanish 1a (4) or 2a (3) or 3a (2); Italian 1a (3).
III. Mathematics 2 (3) and 4 (2).
IV. Economics 7 (3) and 26 (3); History 1a ( 4 ) or 2a (3).
V. Botany $1^{1}(5), 4 \mathrm{~d}$ (3); Chemistry $1^{2}$ (5) or $1 \mathrm{a}^{2}(3)$; Entomology 1a (2); 4 (3), 15 (3); Geology $1^{2}$ (5), 3 (5), 14 (3), $35^{2}$ (5); Physics $7 \mathrm{a}^{3}$ and $8 \mathrm{a}^{3}$ (5); Zoology $1^{2}$ (5).
Household Science 2 (2) or 7 a (2).
Library Science 12 (2).
Art and Design 1 (3).
Second Semester
I. English $11^{4}(3)^{5}$; Rhetoric 1 (3) or 2 (3).
II. French $1 \mathrm{a}(4)$ or $1 \mathrm{~b}(4)$ or $2 \mathrm{~b}(4)$; German $1(4)$ or $3(4)$ or $4(4)$ or 5 (4) or 6 (4) or 7 (4); Greek 1 b (4), 4 (4), or 6 (3); Latin 1 (4), or 2 b (4); Spanish 1a (4) or $1 \mathrm{~b}(4)$ or $2 \mathrm{~b}(3)$ or 3 b (2); Italian 1 b (3).
III. Mathematics 2 (3), 4 (2) 6 (5).
IV. Economics 22 (3) and 27 (3); History 1b (4) or 2b (3).
V. Astronomy 4 (5); Botany $1^{1}$ (5), 2b (5), 3b (5), 4 (3), 4a (5), 4b (5), 4c (5); Chemistry $1^{2}(5)$ or $1 a^{2}(3)$ or 2 a (5); Entomology 1 b (2), 4 (3), 16 (2) Geology $3^{2}$ (5), 12 (5), 23 (5), $35^{2}$ (5); Physics $7 b^{3}$ and $8 b^{3}$ (5); Physiology 4 (5); Zoology 2 (5), $1^{2}(5)$, or 16 (2).

Household Science 1 (3). ${ }^{6}$
Art and Design 1 (3), 2 (2).

## Second Year

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

## Election

Aside from the subjects prescribed for the first two years, each student selects with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

## CURRICULUM IN JOURNALISM

Students who are preparing for reportorial, literary, or editorial work in journalism should take their major work in English, and make up their study schedules from the following suggested curriculum. With the consent of the adviser, other studies may, for purposes of specialization, be substituted for those suggested. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.

Students in journalism with major in English are subject to the requirements of the Genera! Curriculum in Liberal Arts and Sciences.

[^21]
# Curriculum in Journalisra ${ }^{1}$ 

> (Major in English)
> FIRST YEAR

FIRST SEMESTER
Prescribed Subjects Hours ${ }^{2}$
Rhet. 1-Rhetoric and Themes. . . . . . . . . .... 3
Phys. Tr. 1 and 1a-Gymnasium and Hy-
Military 2 gianilitary Drill.............................. 1
Total. ........................................ . . 5

## Suggested Electives

Eng. 10-Introduction to Literature-or
science..................................... 3 or 5
Foreign language ............................................ 4
Hist. 1a-Continental European History..... 4
Lib. 12—General Reference. ................... . 2

SECOND SEMESTER

## Prescribed Subjects

Hours ${ }^{2}$

$$
\text { Rhet. 2-Rhetoric and Themes . . . . . . . . . . . . } 3
$$

Phys Tr. 2-Gymnasium.................................. 1
Mil, 1-Drill Regulations. . . . . . . . . . . . . . . . . . . 1
Mil. $2 \mathrm{~b}-\mathrm{Military}$ Drill. . . . . . . . . . . . . . . . . . . . . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
Suggested Electives
Eng. 11-Introduction to Literature-or
science.... . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign language. . . . . . . . . . . . . . . . . . . . 4
Hist. 1 b -Continental European History...... . 4

## SECOND YEAR

Prescribed Subjects Prescribed Subjects
Mil. 2c-Military Drill.
1

## Suggested Electives

Eng. 1-Survey of English Literature-or
science............................. 3 or 4 or 5
Eng. 12-American Literature................... 2
Foreign language continued.
2
4
Hist 3a-History of United States............. ${ }^{3}$
Pol. Sc. 1-American National Government
or Econ. 1-Principles of Economics........
Rhet. 12-News Writing.

## THIRD AND FOURTH YEARS

Study lists for these years should be selected from the following list with regard to proper sequence.

Econ. 5, or 10 , or 12 a-Public Finance, or Corporation Management, or Labor Problems............................................ 3
English 27 and 21, or 33 or 45-History of Journalism; The Bible; or Literature from 1789 to 1837; or Modern Drama...... 2 or 3
History 21 -U.S. since 1877 , or 26 -The Latin
American Colonies. . . . . . . . . . . . . . . . . . . . . . . . 3
Language. .......................................... ${ }^{4}$
Philosophy 1-Logic, and Phil. 9-Political Ethics, or Pol. Sci. 5-Const. Law
Poi. Sci. 14 - Political Parties, or Pol. Sci. 2 or 2 or 4-Municipal Gov't. ........................
Psychology 1 Introd. to Psychology............ 3
Rhet. $6,15,26,28$-Short Story, Editorials and Special Articles, Editorial Practise,
Newspaper Problems.

Bus. Org. and Op. 10-Organization and Operation of Newspaper Publishing.

2
Econ. 11, or 13, or 21 Industrial Consolidation, or Econ. Hist. of Europe, or Socialism and Social Reform. .3 or 2
English, 28 and 24 or 3 or 5-Hist. of Journalism, Victorian Period, Milton, Shakespeare............................... 2 or 3
History $17,27,29$ Hist. of Illinois, Latin
America, The Far East. . . . . . . . . . . . . . 3 or 2
Language.
Philosophy 2 - Introd. to Phil. ....................... 3
Pol. Sci. 18, or 28-Contemporary Politics.................................... 3 or 2
Psychology 1-Introd. to Psychology . $\ldots .$.
Rhet. 16, 17, 27, 29-Editorials and Special Articles, Advanced Composition. Editorial Practise, Making a Country Newspaper
Sociology 9 -.......................................... 2 . 3

## CURRICULUM PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thoro course in the humanities and the sciences. As a foundation for the study and practise of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology.

[^22]
## Suggested two years Curriculum Preparatory to Law

FIRST YEAR


The courses in military and physical training, Rhetoric 1-2, and eight hours in foreign language are required of freshmen in the College of Liberal Arts and Sciences. Latin is strongly urged for all students intending to study law; but those who have not had the necessary preparation for college courses in Latin should substitute a modern language, preferably French or German.

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. A student who has senior standing in the College of Liberal Arts and Sciences and who has earned at least 30 hours in this college may take and count the first full year of law work for thirty hours of credit toward the degree of Bachelor of Arts, or, if he takes and successfully carries less than the full amount it shall be counted only hour for hour toward the degree of Bachelor of Arts. Students are not permitted to take this work in law until their senior year. If the student is also a candidate for the degree of LL.B., or J.D., he should in his fourth year register in the College of Law, pay the usual fee of that College, and file a copy of his study-list with the adviser for seniors in this College.

The degree of Bachelor of Arts is conferred at the close of the fourth year of the combined course provided that all the requirements for the degree are met at that time.

Students admitted to this University from other institutions may count the above courses in law for the degree of Bachelor of Arts only on condition of completing at least 30 hours' work in residence in subjects offered by the College of Liberal Arts and Sciences.

## HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of four classes of students: (a) those students who desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a speciality of household science for the purpose of teaching the subject in secondary schools and colleges; (c) those students who wish some knowledge of the principles underlying household administration and institutional management; (d) those students who are interested in the work of dietitians.

The suggested curriculums for teachers and for institutional workers are outlined below. The first three years of the curriculum as outlined for teachers give a scientific basis for the work of the dietitian.

[^23]Students who hold scholarships in household science must make this subject their major along one of the lines indicated above and take each semester at least four hours in household science or in subjects required for admission to courses in household science.

Students who major in household science in the College of Liberal Arts and Sciences must also satisfy the other requirements for the degree of Bachelor of Arts in so far as these are not covered in the curriculums given below.

## Suggested Curriculum for Teachers of Household Science FIRST YEAR

FIRST SEMLSTER
Chem. 1-Inorganic Chemistry or . . . Hours ${ }^{1}$
Chem. 1a々Inorganic Chemistry...............
Foreign language........................................ 4
H. Sci. 2-Home Arch. and Sanitation. ...... 2

Rhet. 1-Rhetoric and Themes................... 3
Phys. Tr. 7-Phyṣical Training. . . . . . . . . . . . . . 1
Phys. Tr. 9—Hygiene. ........................... . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . 14 or $\overline{16}$
SECOND
SECOND YEAR


THIRD YEAR
Hist. 1 1-Continental European Hist. or 3 Bact. 5-Bacteriology $\ldots$...................... ${ }^{5} 5$
Hist. 3a-History of the U. S.......... 4 or 3
H. Sci. 19—Dress Design. ......................... 3

Physiol. 4-General Physiology . . . . . . . . . . . . . 5

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 or $\overline{11}$

## Electives

Philos. 1-Logic. . ................................ . 3
Psychol. 1-Introduction to Psychology ....... 3
SECOND SEMESTER

> Chem. $2 a$-Inorg. Chem. and Qual. Anal. .... 5
> Foreign language. . .............................. 4
> H. Sci. $1^{3-}$-Principles of the Selection and Pre-
> paration of Food. . . ......................... ${ }^{3}$
> Rhet. 2-Rhetoric and Themes..................... 3
> Phys. Tr. 7-Physical Training. ................. 1
A. \& D. 12-Applied Design.................... 2

Bot. 1-General Botany or Zool. 1-General

Chem. 9 c -Organic Synthesis. ..................... 2
Eng. 2-Survey of English Literature. .......... 4
Total............................................. $\mathbf{1 8}^{-18}$

Hist. 1 b --Continental European Hist. or Hist.
H. Sci. 3-Home Decoration................... . . 2
H. Sci. 5—Dietetics . . . . . . . . . . . . . . . . . . . . . . . . 3
H. Sci. 12-Clothing. . . . . . . . . . . . . . . . . . . . . . . . 3

Total........................ . . . . . . . . . . . 17 or $\overline{16}$

## Electives

Econ. 2-Principles of Economics. .............. 3
H. Sci. 14-Problems in the Preparation and

Service of Food. . . ......................... 3
Philos. 2-Introduction to Philosophy.......... 3
Psychol. 2-General Psychology................. . 3
FOURTH YEAR

Educ. 1 -Introduction to Education. ......... ${ }^{4}$
H. Sci. 13-Hist. of Home Economics. .......... 2

Total. . . . . . . ..................................... . . 11

## Electives

Educ. 16 -Social Education...................... 3
English, advanced
Educ. 10-Technique of Teaching.............. 3
H. Sci. 11-Teachers' Course . . . . . . . . . . . . . . . . 3

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad$

## Electives

English, advanced
H. Sci. 10-Home Management . . . . . . . . . . . . . 2
H. Sci, 17-Problems in Textiles . . . . . . . . . . . . . . . . 3

Public Speaking 2-Oral Expression.............. 2
Sociol. 7-Social Problems of the Rural Community.
H. Sci. 18-Lunch Room Management. . . . . . . 5

Public Speaking 1-Oral Expression. . . . . . . . . 2
Sociol. 1-Principles of Sociology.

3

Suggested Curriculum in Household Administration FIRST YEAR

| FIRST YEAR |  |
| :---: | :---: |
| FIRST SEMESTER | SECOND SEMESTER |
| Chem, 1-Inorganic Chemistry or. . . . . . . . . . ${ }_{5}$ | Hours ${ }^{1}$ <br> Chem, 2a-Inorg, Chem, and Qual. Anal...... 5 |
| Chem. 12-Inorganic Chemistry. . . . . . . . . . . . . . 3 | Foreign language. . . . . . . . . . . . . . . . . . . . . . 4 |
| Foreign Language. . . . . . . . . . . . . . . . . . . . . . 4 | H. Sci. $1^{3}$-Principles of the Selection and |
| H. Sci. 2-Home Arch. and Sanitation. . . . . . 2 | Preparation of Food. T $^{\text {. . . . . . . . . . . . . . . . } 3} 3$ |
| Rhet. 1-Rhetoric and Themes............... 3 | Rhet. 2-Rhetoric and Themes............... . 3 |
| Phys. Tr. 7-Physsical Training. | Phys. Tr. 7-Physical Training |
| Phys. Tr. 9-Hygiene. . . . . . . . . . . . . . . . . . . . . 1 1 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 |
| SECOND YEAR |  |
| A. \& D. 1-Free Hand Drawing.............. 3 | A. \& D. 12-Applied Design. . . . . . . . . . . . . . . 2 |
| Foreign language or English 1................ 4 | Bot. 1-General Botany or |
| H. Sci. 6-Economic Uses of Food. . . . . . . . . . 3 | Zool. 1-General Zoology |
| H. Sci. 7-Textiles. ... . . . . . . . . . . . . . . . . . . . 2 | Foreign language or English 2 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 | Total. |
| Electives Electives |  |
| A. \& D. 19-History of the Fine Arts. . . . . . . 2 | A. \& D. 20-History of the Fine Arts |
| Chem. 13a4-Agricultural Analysis or | Chem. ${ }^{4-}$-Organic Chemistry and.. . |
| Econ. 26-Economic Resources....... 5.5 or 3 | Chem. 9c-Organic Synthesis or |
| Hist. 1a-Continental European Hist. or Hist. | Econ. 22-Econ. Hist. of U. S. . . . . . . 2 or 3 |
| 3a-History of the U. S...... . . . . . . . . . 4 or 3 Lib. Sci. 12-General Reference | Hist. 1b-Continental European Hist. or Hist. 3 b -History of the U. S. ......... 4 or 3 |
| THIRD YEAR |  |
| Econ. 1-Principles of Economi | H. Sci. 3-Home Decoration. . . . . . . . . . . . . . . . 2 |
| H. Sci. 19-Dress Design. | H. Sci. 5-Dietetics. . . . . . . . . . . . . . . . . . . . . . 3 |
| Physiol. 4-General Physiology.............. . . 5 | H. Sci. 12-Clothing. |
|  | Total |
| Electives Eleclives |  |
| Electives | Bact. 5-Introduction to Bacteriology. |
| English | H. Sci. 10-Home Management. |
| H. Sci. 14-Problems in the Preparation and | Philos. 2-Introduction to Philosophy. |
| Service of Food. . . . . . . . . . . . . . . . . . . . . . 3 | Pol. Sci. 3-State and Local Government. |
| Psychol. 1-Introduction to Psychology...... 3 | Pol. Sci. 16-Government of Illinois . . . . . . . . 2 |
| Sociol. 1-Principles of Sociology . . . . . . . . . . . . 3 | Psychol. 2-General Psychology or <br> Educ. 1-Introd. to Education. . . . . . . . . 3 or 4 |
| FOURTH YEAR |  |
| Electives | Electives |
| Educ. 1-Introduction to Education. . . . . . . . 4 | Educ. 10-Observation and Technic. |
| English, advanced | English, advanced |
| H. Sci. 4-Food and Nutrition. . . . . . . . . . . . . 5 | H. Sci. 9-Seminar. |
| H. Sci. 13-History of Home Economics.... . . 2 | H. Sci. 11-Teachers' Course |
| H. Sci. 15-Economics of the Family Group.. 3 | H. Sci. 17-Problems in the Study of textiles.. 3 |
| H. Sci. 18-Lunch Room Management. ..... . 5 |  |

## SIX-YEAR AND SEVEN-YEAR MEDICAL CURRICULUMS

The requirement for admission to the four-year medical curriculum (whether the first year of the curriculum is taken at Urbana or in the College of Medicine in Chicago) is as follows: 60 semester hours of college work, including 8 in chemistry, 8 in physics, 8 in biology, 6 in French or German, and 30 elective.

The University offers a six-year and a seven-year combined arts-medicine curriculum. The six-year curriculum includes three years given at Urbana and three years in the College of Medicine in Chicago. The third of the three years given at Urbana is technically described as a one-year medical college curriculum. The seven-year curriculum includes four years of collegiate work at Urbana and three years in the College of Medicine in Chicago. One of the four years at Urbana is devoted to the work of the one-year medical college curriculum. The work given

[^24]at Urbana includes substantially in both curriculums the work of the first year or a standard curriculum in medicine, together with two years or three years in liberal arts and sciences. Students who have completed the work of the first two years and are taking the work of the third year are registered in both the one-year medical college curriculum and the College of Liberal Arts and Sciences.

A student who has completed the curriculum outlined below, covering two years of premedical work and the one-year medical college curriculum at Urbana, may receive credit by transfer for one year of work in the College of Medicine of the University of Illinois or other standard colleges of medicine, and upon the completion of the second year's work in such college of medicine may receive the degree of Bachelor of Science on the recommendation of the faculty of the College of Liberal Arts and Sciences in the University of Illinois. Under this plan the student may receive the degrees of Bachelor of Science and Doctor of Medicine with six years of work.

Students who wish to take the fourth year in the College of Liberal Arts and Sciences, including the one-year medical college curriculum, are not held to the group requirements prescribed for students taking the regular degree of Bachelor of Arts. The curriculum must be made up with the approval of the adviser for seniors and the Dean of the College. It is recommended that selection be made from the following courses: Bacteriology; Chemistry $5 \mathrm{~b}, 5 \mathrm{c}, 9 \mathrm{a}, 9 \mathrm{~b}, 14 \mathrm{a}-14 \mathrm{~b}, 21,22$, 31, 105 and 106; Entomology 2, 3; Physiology 5; Zoology 4, 5, 8a-8b, 21a-21b, 22, 23, 25-26; modern languages; and studies included in Groups IV and V of the general curriculum, page 118. On the completion of this fourth year, the student takes the degree of Bachelor of Arts before going to the College of Medicine.


## CURRICULUM IN CHEMISTRY

Students who follow the General Curriculum in the College of Liberal Arts and Sciences with chemistry as a major subject are eligible for the degree of Bachelor of Arts.

[^25]For the more specialized training of the chemist the iollowing curriculum, largely prescribed, has been arranged. It requires a maximum total of 136 hours, and leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German or French equivalent to two years of high school work or one year of university work is prescribed. The total language requirement for graduation in the curriculum in chemistry, including courses offered for entrance, must be equivalent to two years of university German and one year of university French.

In the following schedule of courses, after the second year there are offered certain prescribed subjects required of all students and in addition five group options, the last four of which are outlined for the purpose of affording systematic training along certain important lines of applied chemistry. The first option, A, is intended for those students who wish to place chief emphasis upon the fundamental branches of chemistry as a science and for those students who desire a combination of subjects not outlined in the other four groups. Students in option A must submit to their adviser at the beginning of the junior year an outline of their proposed program for the junior aud senior years. Approval of such an outline must must be secured from the adviser before registering. At least 12 hours of the electives under option A must be in chemistry and it is recommended that they be sclected as far as possible from more advanced courses in inorganic, analytical, organic, and physical chemistry. In all groups, except $B, 10$ hours of the electives must be taken outside of the department and must include a course in economics.

The groups provided for, with the letter used to designate each group, are as follows:
A. General
B. Electrochemical
C. Industrial
D. Food and Sanitation
E. Physiological

## Curriculum in Chemistry

FIRST YEAR

| FIRST SEMESTER Hours ${ }^{1}$ SECOND SEMESTER Hours ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| Chem. 1 or 1a-Inorganic Chemistry | Hours ${ }^{1}$ . .5 or 3 | Chem. 3a-Inorganic Chemistry | Hours ${ }^{1}$ Quali- |
| German or French. ${ }^{\text {a }}$. . . . . . . . . . . |  | tative Analysis. |  |
| Math. 2-College Algebra |  | German or French |  |
| Math. 4-Plane Trigonometry |  | Math. 6-Analytical Geom | 5 |
| Rhet. 1-Rhetoric and Themes. |  | Phys. Tr. 2-Gymnasium. |  |
| Phys. Tr. 1 and 1a-Gymnasium and | ygiene 1 | Mil. 1-Drill Regulations. |  |
| Mil. 2a-Military Drill. . . . . . . . . . |  | Mil. 2b-Military Drill. |  |
| Total. | 19 or 17 | Total. |  |
| SECOND YEAR |  |  |  |
| Chem. 5a-Quantitative Analysis............ 5 Chem. 5b-Advanced Analytical Chemistry... 5 |  |  |  |
| French or German |  | French or German. | ...... ${ }^{4}$ |
| Phys. 1a-General Physic |  | History 2 or 3 or English 20. | 3 |
| Phys. 3a-Physical Measur |  | Phys. 1b-General Physics. |  |
| Rhet. 2-Rhetoric and Themes. |  | Phys. 3b-Physical Measuremen |  |
| Mil. 2 c -Military Drill. | 1 | Mil. 2d-Military Drill. ...... |  |
| otal. | 18 | Total. |  |

[^26]| THIRD YEAR |  |
| :---: | :---: |
| Prescribed for oll Groups | Prescribed for all Groups |
| Chem. 9a-Organic Synthesis and Ultimate | Chem. 9b-Organic Synthesis and Qualita- |
| Chem. 14a-Organic Chemistry. . . . . . . . . . . . . 4 | Chem. 14b-Principles of Organic Chemistry. 2 |
| Chera. 92a-Journal Meeting. . . . . . . . . . . . . . 1 | Chem. 31-Principles of Physical Chemistry . . 4 |
| Math. 8-Differential and Integral Calculus.. 5 | Chem. 33-Physical Chemistry Laboratory. . . 2 |
|  | Chem. 92b-Journal Meeting. ................ 1 |
|  | Chem. 90-inspectio |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11 |
| Group Oplions | Group Oplions |
| A.-Gencral | A.-General |
| .-Electrochemical | B.-Electrochemical |
| Economics 1; or Economics 2 with 3 additional hours other than chemistry. 5 | E. E. 8-Electric Currents and Apparatus. |
| C.-Industrial | E. E. 68 -Electrical Engineering Lab: |
| Chem. 65-Technical Gas and Fuel Analysis.................................... 2 |  |
| E. E. 8-Electric Currents and Appar- | C. -Industrial |
|  | Elective .......................... . 6 |
| E. E. 68-Electrical Engineering Laboratory. | D. and E.-Food and Physiological Chem. 15-Physiological Chemistry....... 5 |
| D. and E.-Food and Physiological | Elective. . . . . . . . . . . . . . . . . . . . . . . . . . $2-7$ |
| Bact. 5-Introductory Bacteriology. .... 5 |  |
| FOURTH YEAR |  |
| Prescribed for all Groups | Prescribed for all Groups |
| Chem 11a-Rescarch........................ 3 | Chem. 6-Chemical Technology. |
| Chem. 93a-Journal Meeting | Chem. 11b-Research. |
| Chem. 95-Histo:y of Chemistry . . . . . . . . . . . . 2 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 |  |
| Group Oplions | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11 |
| A.-General Electives . 11 | A Group Oplions |
|  | A.-Gencral |
| Chem. 35-Electrochemistry ............ 3 | B.-Electrochemical |
| Chem. 37-Experimental Problems in Physical and Electrochemistry. . . . . . . . 4 | Electives....................................... . . ${ }^{2-5}$ |
| Electives.............................. 2 2-11 | C.-Industrial |
| Phys. 4a-Electrical and Magnetic Measurements. | Chem. 61 -Industrial Laboratory . . . . . . . . 3 Electives. ................................ . . . 63 |
| C. - Industrial | D. and E.-Food and Physiological |
| Chem. 35-Electrochemistry. . . . . . . . . . . . . . . 3 |  |
| Chem. 69-Met. Lab. and Assaying. ...... 2 |  |
| D.-Food and Sanitation |  |
|  |  |
| Chem. 21 -Loual. Organic Analysis........ 2 |  |
| E.-Physiological ${ }^{\text {Electives }}$. ${ }^{\text {E }}$. . . . . . . . . . . . . . . . 3 -10 |  |
|  |  |
|  |  |
|  |  |

## Curriculum in Chemical Engineering

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects cssential. To meet these conditions, the following four-year curriculum in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical enginecring.

Preliminary preparation in German equivalent to two ycars of high school or one year of university work is prescribed. It is also advised that students intending to take this curriculum be prepared to offer mechanical drawing for entrance or arrange to take Gencral Enginecring Drawing 1 or S1.

[^27]
## FIRST YEAR

FIRST SEMESTER

| Hours ${ }^{1}$ | Hours ${ }^{1}$ |
| :---: | :---: |
| Chem. 1a or 1-Inorganic Chemistry . . . . 3 or 5 | Chem. 3a-Inorganic Chemistry and Quali- |
| Ger. 4-Prose Reading. ...................... ${ }^{4}$ | tative Analysis |
| Math. 2-College Algebra. . . . . . . . . . . . . . . . . 3 | Ger. 6-Scientific Germ |
| Math. 4-Plane Trigonometry . . . . . . . . . . . . . 2 | Math. 6-Analytical Geometry |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene.. 1 | Phys. Tr. 2-Gymnasium. |
| Mil. 2a-Military Drill....................... 1 | Mil. 2b-Military Drill. |
|  | Mil. 1-Drill Regulations |
| Total. . . . . . . . . . . . . . . . . . . . . . . . 14 or 16 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |
| SECOND | YEAR |
| Chem. 5a-Quantitative Analysis. | Chem. 5b-Advanced Analytical Chemistry.. |
| Math. 8-Differential and Integral Calculus... 5 | Phys. 1b-General Physics. |
| Phys. 1a-General Physics..... . . . . . . . . . . . . 3 | Phys. 2b-Physical Measurements |
| Phys. 3a-Physical Measurements. . . . . . . . . . . 2 | Rhet. 2-Rhetoric and Themes. |
| Rhet. 1-Rhetoric and Themes. . . . . . . . . . . . . 3 | T. and A. M. 20-Analytical Mechanics. |
| Mil. 2c-Military Drill....................... . 1 | Mil. 2d-Military Drill. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19 | Total. |
| THIRD | YEAR |
| Chem. 9a-Organic Synthesis and Ultimate Analysis. | Chem. 9b-Organic Synthesis and Qualitative Organic Analysis. |
| Chem, 14a-Organic Chemistry. . . . . . . . . . . . . 4 | Chem. 14b-Organic Chemistry . . . . . . . . . . . . 2 |
| Chem. 92a-Journal Meeting. . . . . . . . . . . . . 1 | Chem. 31-Physical Chemistry. |
| T. and A. M. 21-Analytical Mechanics. . . . . 2 | Chem. 33-Physical Chemistry Laboratory |
| T. and A. M. 25-Resistance of Materials.... 4 | Chem. 92 b -Journal Meeting. . . . . . . . . . . . . . . 1 |
| E. E. 8-Electric Currents and Apparatus.... 3 | M. E. 75-Forge Work. |
| E. E. 68-Electrical Engineering Laboratory. . 1 | M. E. 77-Foundry Work. . . . . . . . . . . . . . . . . . 2 |
|  | Inspection Trip. . . . . . . . . . . . . . . . . . . . . . . . . 0 |
|  | Electives outside of the department.......... . 3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 |
| FOURTH | YEAR |
| Chem. 7-General Metallurgy and Iron and Steel. | Chem, 6-Chemical Technology............... 3 <br> Chem. 11b-Research.. |
| Chem, 11a-Research. . . . . . . . . . . . . . . . . . . . . 3 | Chem. 61-Industrial Chemical Laboratory.... 3 |
| Chem. 35-Electrochemistry. . . . . . . . . . . . . . 3 | Chem. 93b-Journal Meeting. . . . . . . . . . . . . 1 |
| Chem. 65-Technical Gas and Fuel Analysis. . 2 | M.E. $64-\mathrm{Mechanical}$ Engineering Laboratory 3 |
| Chem. 69-Assaying . . . . . . . . . . . . . . . . . . . . 2 | Inspection trip |
| Chem. 93a-Journal Meeting. . . . . . . . . . . . . . . 1 |  |
| M. E. 1-Steam and Air Machinery. . . . . . . . . 3 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 |

[^28]
## THE COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

For a description of the building used by this College, see page 52, for museum and collections belonging to it, see page 62; for societies and clubs auxiliary to its curriculums, see page 102; for fees, see page 110.

## ORGANIZATION

The College of Commerce and Business Administration was established by the Board of Trustees in April, 1915, and opened the following September. The new college was given control of all the work formerly conducted by the department of economics, including the courses in business administration. The work of the college is divided into three separate departments as follows: economics, including finance and statistics; business organization and operation, including accountancy and business law; and transportation.

## PURPOSE

The purpose of the College of Commerce and Business Administration is to give its students a knowledge of the principles underlying all lines of business with special training for particular business callings. The College does not attempt to prepare students for clerical and similar occupations as employees, but does endeavor to lay a broad foundation on which successful careers in managerial and administrative positions and as proprietors may be built. To this end courses in economics, accountancy, business organization and operation, banking, commerce, railway administration, and industry are offered in combination with courses in language and literature, the social sciences, law, mathematics, and the natural sciences.

## ADMISSION

See the statement of the entrance requirements of the University, pages 66-84.

## SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 72.

## REQUIREMENTS FOR GRADUATION

## I. The New Requirements-Degree of Bachelor of Science

Students who entered the College of Commerce and Business Administration with the class of 1919 and subsequent classes will be given the degree of Bachelor of Science.

The requirements for this degree are as follows:

1. A candidate must comply with the University requirements as to residence and registration and secure credit amounting to 130 hours including the general University requirements of Rhetoric 1 and 2, 6 hours; and Physical Training, 1, 1a, and 2, 2 hours, for men, and $7 a-7 b$ and 9, 3 hours, for women; and Military Science 1, $2 a-2 b$, and $2 c-2 d, 5$ hours, for men.
2. A candidate must secure credit in the subjects listed as prescribed in his chosen curriculum.
3. Of the electives allowed, 8 hours must be in either English literature or foreign language in all curriculums except the Curriculum in Foreign Commerce and the Curriculum for Commercial Teachers, in which foreign language is prescribed.
4. In the General Business Curriculum, the Curriculum in Banking, the Curriculum in Insurance, the Curriculum in Accountancy, the Curriculum in Railway Administration, and the Curriculum for Commercial and Civic Secretaries, 12 hours must be elected in the following group of subjects: history, political science, philosophy, psychology, and sociology, provided that not less than six hours in any one subject may be counted in fulfilling the requirement.
5. In all curriculums in which less than 10 hours of mathematics is prescribed in the first year, 10 hours must be elected in the following group of subjects: chemistry, geology, mathematics, and physics, provided that not less than 5 hours in any one subject may be counted in fulfilling the requirement.

Students are advised to take the subjects required in paragraphs 3,4 , and 5 as early as possible in their course in order to leave more opportunity for free electives in the last years. In choosing free electives students must secure the advice and approval of the Dean of the College or of the official adviser for the curriculums they are pursuing.

## II. The Old Requirements-Degree of Bachelor of Arts

The graduation requirements for former students in the Courses in Business Administration enrolled in the College of Commerce and Business Administration will remain as they have been in the past and such students will be given the degree of Bachelor of Arts.

The requirements are as follows:

1. Credit amounting to 130 hours, including the prescribed rhetoric, physical training, and military.
2. At least 8 hours in each of the following groups of subjects:
I. English language and literature, including rhetoric.
II. Latin, Greek, French, German, Italian, Spanish.
III. History, economics, sociology, political science.
IV. Mathematics, education, philosophy, psychology.
V. Astronomy, botany, chemistry, entomology, geology, physiology, physics, zoology.
3. Credit in the following subjects:
I. Six hours of freshman economics (Economics 7, 22, 26, and 27). In case of students transferring from other colleges with advanced standing this requirement may be modified to suit individual needs.
II. Principles of Economics (Economics 1).
III. Business Writing (Rhetoric 10), Senior Conference on Written Work (Rhetoric 25-26).
IV. Principles of Accounting (Accountancy 1a-1b).
V. Commercial Law (Business Law 1a-1b).
4. A Major of 24 hours in economics, but not more than six hours of freshman economics (Economics 7, 22, 26, and 27) may be counted towards the major. Courses in accountancy and business law may not be counted towards the major.

Note.-The outlines of the curriculums on the following pages must be used in connection with the foregoing statement of requirements and attention must be given to the additional subjects prescribed in the third and fourth years under the old requirements for graduation.

## THE CURRICULUMS

The curriculums offered in the College and outlined in the following pages furnish training for (1) general buisness, (2) commercial and civic secretaries, (3) banking, (4) insurance, (5) accountancy, (6) general railway administration, (7) railway transportation, (8) commercial teachers, (9) foreign commerce, (10) industrial administration, (11) commerce and law.

Some of the curriculums are now in process of transition owing to the recent reorganization of the work in commerce and business administration and the adoption of new requirements for graduation.

The curriculums in commerce and business administration are now in process of transition as a result of the reorganization of the former Courses in Business Administration as the College of Commerce and Business Administration. The outlines which follow show the complete curriculums under the new requirements for graduation and the third and fourth years under the old requirements for graduation.

The subjects listed in each curriculum under the new requirements are prescribed for graduation. Sufficient electives must be taken each semester to make up a minimum of 15 hours, but not to exceed a maximum of 18 hours of work. In choosing electives the attention of students is called to provisions 3,4 , and 5 of the new requirements for graduation. It is advisable that the electives there mentioned be taken as far as possible in the first two years in order to leave more opportunity for free electives in the last two years.

## Curriculum in General Business

## Under the New Requirements for Graduation

| FIRST YEAR |  |
| :---: | :---: |
| FIRST SEmester | SECOND SEmester |
| Acc'y 1a-Principles of Accounting. ......... ${ }^{\text {Hours }}{ }^{1}$ | Acc'y, 1b-Principles of Accounting. . . Ho... 3 |
| Econ. 26-Economic Resources.............. ${ }^{\text {a }}$ | Econ. 22-Economic History of the United |
| Rhet. 1-Rhetoric and Themes............. . 3 | States................................ 3 |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene. 1 | Rhet. 2-Rhetoric and Themes............. ${ }^{\text {a }}$ |
| Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . 1 | Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . |
| Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 -7 | Mil. 1-Drill Regulations.................... 1 |
|  | Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . 1 |
|  | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 3-6 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |
| SECOND YEAR |  |
| Acc'y 2a-Advanced Accounting and Auditing. | Acc'y 2b-Advanced Accounting and Auditing. |
| Econ. 1-Principles of Economics. . . . . . . . . . 5 | Econ. 3-Money and Banking. . . . . . . . . . . . 3 |
| Rhet. 10-Business Writing. . . . . . . . . . . . . . . . 2 | Mil. 2d-Military Drill. . . . . . . . . . . . . . . . . . ${ }^{1}$ |
| Mil. 2c-Military Drill. | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 -11 |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 4-7 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . .15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . .15-18 |
| THIRD YEAR |  |
| Bus. Org. \& Op. 1-Business Organization and Operation. | Bus. Law 1b-Commercial Law... <br> Bus. Org. \& Op. 2 -Organization and Con- |
| Bus. Law 1a-Commercial Law. ............ . 3 | trol of Mercantile Distribution........... 2 |
| Econ. 28-Domestic Commerce. . . . . . . . . . . 3 | Econ. 10-Corporation Management and |
| Trans. ${ }^{1-T r a n s p o r t a t i o n ~ S y s t e m ~ o f ~ t h e ~}$ | Finance............... Bra.......... 3 |
| United States............................. 3 | Rhet. 22-Summarizing and Briefing. . . . . . . 2 |
| Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . .3-6 | Trans. 12-Freight Shipment. . . . . . . . . . . . . . . . ${ }_{2}$ Electives |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |

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## FOURTH YEAR

| Bus. Org. \& Op. 7-Salesmanship. . . . . . . . . . 2 | Bus. Org. \& Op. 8-Advertising. . . . . . . . . . 2 |
| :---: | :---: |
| Econ. 5-Public Finance. . . . . . . . . . . . . . . . 3 | Econ. 31-Organization of Foreign Com- |
| Rhet. 25-Conference on Written Work. ... 1 | merce. .................................. 3 |
| Electives....... . . . . . . . . . . . . . . . . . . . . . 9-12 | Rhet. 26-Conference on Written Work...... ${ }_{\text {Electives. }}^{1}$. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . .15-18 |

## Under the Old Requirements for Graduation THIRD YEAR FOR THE CLASS OF 1918

## Prescribed Subjects

Acc'y 1a-Principles of Accounting: ......... 3 Bus. Org. \& Op. 1-Business Organization and Operation.
Econ. 28-Domestic Commerce. . ................... . . . 3

Acc'y 1b-Principles of Accounting. ........... 3
Econ. 10-Corporation Management........... . . 3
Econ. 31-Organization of Foreign Com- 3
merce.......................................... 3
Trans. 12-Freight Shipment. . ..................... . 2
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11
Suggested Electives
Econ. 11-Industrial Consolidations. . . . . . . . . 3
History P-............................................... 3
Trans. 2-Transportation Policy. ................. . . . 3

Rhet. 22-Summarizing and Abstracting . . . . . . 2
Trans. 1-Transportation System . . . . . . . . . 3
FOURTH YEAR FOR THE CLASS OF 1917

Prescribed Subjects
Bus. Lav 1a-Commercial Law............... 3
Rhet. 25-Conference on Written Work. ...... 1
Total.

## Suggested Electives

Acc'y $2 a-$ Advanced Accounting and Audit-
ing. ........................................ 3
Bus. Org. and Op. 7 Salesmanship.............. 2
Econ. 4-Financial History of U. S.............. 3
Econ. 12a-Labor Problems. . . . . . . . . . . . . . . . . . 3
Phil. 9-Political Ethics.

Prescribed Subjects
Bus. Law 1b-Commercial Law............... 3
Rhet. 26-Conference on Written Work. ..... 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Suggested Electives
Acc'y 2b-Advanced Accounting and Audit-
Bus. Org. and O.......................................... and Management

2
Bus. Org. and Op. 8-Advertising. ................ 2
Econ. 12b-Labor Problems. .................... . . 3

## Curriculum for Commercial and Civic Secretaries <br> Under the New Requirements for Graduation

The first and second years of this curriculum are the same as in the General Business Curriculum except that Political Science 1-American Government (3) -is prescribed in the first semester of the second year, while Rhetoric 10 -Business Writing (2)-is transferred to the second semester.

| FIRST SEMESTER | THIRD | YEAR SECOND SEMESTER |
| :---: | :---: | :---: |
| Bus. Org. and Op. 1-Business Organization and Operation. |  | SECOND Sekester Hours ${ }^{1}$ |
|  |  | Bus. Org. and Op. 2-Organization and Control of Mercantile Distribution. |
| Econ. 28-Domestic Commerce. . . . . . . . . . . . . . . 3 <br> Pol. Sci. 4-Municipal Government............ . . 3 |  | Econ. 10-Corporation Management and Fi - |
|  |  |  |
| Sociol. 8-Charities. <br> Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3- $^{3}$ |  | Rhet. 22-Summarizing and Briefing.......... 2 |
|  |  | Trans. 12-Freight Shipment. . . . . . . . . . . . . . 2 |
|  |  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |  | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |
| FOURTH YEAR |  |  |
| Bus. Law 1a-Commercial Law. ............. 3 <br> Econ. 5-Public Finance. . . . . . . . . . . . . . . . . . . . 3 <br> Econ. 51-Public Utilities. <br> Rhet. 25-Conference on Written Work...... 1 <br> Electives. $\qquad$ |  | Bus. Law 1b-Commercial Law.............. . 3 <br> Bus. Org, and Op. 8-Advertising............... 2 <br> Bus. Org. and Op. 9-Commercial and Civic <br> Organizations. <br> Hort. 10b-Town Improvement. <br> Rhet. 26-Conference on Written Work...... 1 <br> Electives. |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Total. | . .15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 |

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## Under the Old Requirements for Graduation

## THIRD YEAR FOR THE CLASS OF 1918

Prescribed Subjects
Acc'y 1a-Principles of Accounting3

Econ. 28-Domestic Commerce. .
Econ. 28-Domestic Commerce. ... ..... 3
Pol. Sci. 4-Municipal Governmen ..... 3
Total. ..... 12
Suggested Electives
Bus. Org. and Op. 1-Business Orgarizationand OperationPhil. 9-Political Ethics.- 3
Sociology 1-Principles of Sociology.

Prescribed Subjects
Acc'y 1b-Principles of Accounting. . . . . . . . . 3
Bus. Org. and Op. 2-Organization and Control of Mercantile Distribution.............. 2
Econ. 31-Organization of Foreign Commerce. ............................................ 3
Econ. 10 COrporation Management...................... 3
Sociology 8-Charities . . . . . . . . . . . . . . . . . . . . . . . 3
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14
Suggested Eleclives
Econ. 11-Industrial Consolidation........... 3
Econ. 34-Property Insurance. . . . ............... . . 2
Pol. Sci. 12-National Administration......... . 3
Pol. Sci. 16-Government of Illinois. :.......... 2
Rhet. 22-Summarizing and Abstracting...... 2

## FOURTH YEAR FOR THE CLASS OF 1917

Prescribed Subjects
Bus. Law. 1a-Commercial Law. .............. 3
Bus. Org. and Op. 7-Salesmanship............ 2
Rhet. 25-Conference on Written Work. ...... 1

## Prescribed Subjecls

Bus. Law 1b-Commercial Law............... . 3
Bus. Org. and Op. 4-Industrial Organization and Management.............................. ${ }^{2}$
Bus. Org. and Op. 9 -Commercial and Civic Organizations.
Bus. Org. and Op. 8 -Advertising................. 2
Rhet. 26-Conference on Written Work. ...... 1
Trans. 12-Freight Shipment. . .................. . 2
Total. .............................................. . 11
Suggested Electives
Econ. 21 -Socialism and Economic Reform... 2
Econ. 12b-Labor Problems. ..................... 3
Scon. Sociology 9-Criminology . . . . . . . . . . . . . . . . . . . . . . . . . $3^{3}$

Econ. 12a-Labor Problems. . .................. 3
Econ. 11-Industrial Consolidations. . . . . . . . . 3
Sociology 10-Population 3

## Curriculum in Banking

## Under the New Requirements for Graduation

The first and second years are the same as in the General Business Curriculums except that Mathematics 2-College Algebra (3) is prescribed in the first semester of the first year.

## THIRD YEAR

## FIRST SEMESTER

Bus. Org. and Op. 1-Business Organizations ${ }^{1}$and Operation

Hours ${ }^{1}$
Bus. Iav 1a-Commercial Law.......................... 3
Econ. 5-Public Finance. . . . . . . . . . . . . . . . . . . . . . 3
Econ. 28-Domestic Commerce.

- 3

Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 -6

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## SECOND SEMESTER

Hours ${ }^{1}$
Bus. Org. and Op. 2-Organization and Control of Mercantile Distribution . . . . . . . . . . . 2
Bus. Law 1b-Commercial Law................... 3
Econ. 10-Corporation Management and
Finance. . . . . . . . ............................ 3
Math. 23-Mathematics of Investment. . . . . 3
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $4-7$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## FOURTH YEAR

| Econ. 9-Practical Banking. . . . . . . . . . . . . . . . 2 | Econ. 8-The Money Market. . . . . . . . . . . . . . 2 |
| :---: | :---: |
| Econ. 4-Financial History of the United | Econ. 31-Organization of Foreign Com- |
| Rhet. 25-Conference on Written Work. .... 1 | Rhet. 26 -Conference on Written Work. ..... 1 |
| Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . .9-12 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . 9-12 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |

## Under the Old Requirements for Graduation

## THIRD YEAR FOR THE CLASS OF 1918

## Prescribed Subjects



## Prescribed Subjects

Acc'y 1 b -Principles of Accounting. .......... 3
Bus. Org. and Op. 2-Organization and Con-
trol of Mercantile Distribution. ..............
Econ. 10-Corporation Management.......... 3
Math. 23-Mathematics of Investment....... 3
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11

## Suggested Electives

Econ. 29-Foreign Commerce. . . . . . . ......... 3
Econ. 31-Organization of Foreign Com-
merce. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
History
Trans. 12-Freight Shipment.................................. 2

## FOURTH YEAR FOR THE CLASS OF 1917

Bus. Law 1a-Commercial Law.......... 3
Econ. 4-Financial History of United States. . 3
Econ. 4-Financial History of United States.. . 3
Econ. 9-Practical Banking....... Work....... ${ }_{1}^{2}$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{9}$

## Suggested Electives

Acc'y 2a-Advanced Accounting and Audit-
ing. i2........................................ $3_{3}$
Econ 12a-Labor Problems....................... 3
Econ. 33-Economics of Insurance. . . . . . . . . . . 2
Phil. 9—Political Ethics. . ........................ . . 2

Bus. Law 1 b-Commercial Law. ............... 3
Econ. 8-The Money Market. .................. 2
Rhet. 26-Conference on Written Work. ..... 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\overline{6}$

## Suggested Electives

Acc'y 2b-Advanced Accounting and Audit-

Bus. Org. and Op. 4-Industrial Organization
and Management. . . . . . ......................
Econ. 12b-Labor Problems. . . . . . . . . . . . . . . . . . 3
Econ. 34-Property Insurance. . . . . . . . . . . . . . . 2

## Curriculum in Insurance

## Under the New Requirements for Graduation

FIRST YEAR

FIRST SEMESTER
Acc'y 1a-Principles of Accounting Hours ${ }^{1}$
Econ. 26-Economic Resources. . . . . . . . . . . . . . . . 3
Math. 2-College Algebra. . . . . . . . . . . . . . . . . . . . . 3
Math. 4-Trigonometry................................ 2
Rhet. 1 Rhetoric and Themes. ............ 3
Phys. Tr. 1 and 1 a-Gymnasium and Hygiene. 11

Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16-18

## SECOND

Acc'y 2a-Advanced Accounting and Audit-


Math. 8-Differential and Intregral Calcu-
lus........................................ . . . . 5
Mil. $2 \mathrm{c}-\mathrm{Military}$ Drill.
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $1-4$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

SECOND SEMESTER
Acc'y 1b-Principles of Accounting. . . . . . . . . 3
Econ. 22-Economic History of the Ünited
States. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Math. 6-Analytic Geometry...................... . . . . . 5
Rhet. 2-Rhetoric and Themes.................... 3
Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . . . 1
Mil. 1-Drill Regulations. . . . . . . . . . . . . . . . . . . 1
Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . . . . . . 1
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0 -
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17-18

Acc'y 2b-Advanced Accounting and Audit-
ing. .......................................... 3
Econ. 3-Money and Banking . . . . . . . . . . . . . . 3
Rhet. 10-Business Writing. . . . . . . . . . . . . . . . 2
Mil. 2d-Military Drill. . . . . . . . . . . . . . . . . . . . 1
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $6-9$
Total. . ........................................ . . . $15-18$

## THIRD YEAR

Bus. Law 1a-Commercial Law .

Econ. 5-Public Finance. . . . . . . . . . . . . . . . . . . . . . . . 3
Econ. 28-Domestic Commerce
Electives.
.. 3-6

Bus. Law 1b-Commercial Law............. 3
Bus. Org. and Op. 2-Organization and Con-
trol of Mercantile Distribution
2
Econ. 10 -Corporation Management and Finance

3
Math. 23-Mathematics of Investment....... . . . 3
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .4-7

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18
Total.

## FOURTH YEAR

| Bus. Org. and Op. 7-Salesmanship. | Bus. Org. and Op. 8-Advertising |
| :---: | :---: |
| Econ. 33-Econoraics of Insurance. . . . . . . . . 2 | Econ. 34-Property Insurance. |
| Econ. 9-Practical Banking. . . . . . . . . . . . . . . 2 | Math. 31-Actuarial Theo |
| Math. 31-Actuarial Theory................ . 3 | Rhet. 26-Conference on Written Wo |
| Rhet. 23-Conference on Written Work. .... 1 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . 7 -10 |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5-8 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 | Total. |

## Under the Old Requirements for Graduation THIRD YEAR FOR THE CLASS OF 1918

Prescribed Subjects
Acc'y 1a-Principles of Accounting...........
Bus. Org. and Op. 1-Business Organization
and Operation
Math. 31—Actuarial Theory.................................. ${ }_{3}$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Suggested Electives
Econ. 5-Public Finance.
3
Foreign Language continued
Hist. 1a-European History . . . . . . . . . . . . . . . . . . . . . 4
Hist. 3a-History of United States. . . . . . . . . . . . . . 33

Prescribed Subjects
Acc'y 1b-Principles of Accounting. ........... 3
Econ. 10-Corporation Management........... 3
Total. .......................................... 6
Suggested Electives
Foreign Language continued
Hist. 3b-History of United States. . ........... . 3
Hist. 1b-European History . ..................... 4
Phil. 1-Logic. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 33
FOURTH YEAR FOR THE CLASS OF 1917

## Prescribed Subjects

Bus. Law 1a-Commercial Law. ..... 3
Rhet. 25-Conference on Written Work.1
Total. ..... 6
Suggested Electives
Bus. Org. and Op. 7-Salesmanship.2
Econ. 4-Financial History ..... 3
Econ. 12a-Labor Problems ..... 2
3
Phil. 9-Political Ethics.

## Prescribed Subjects

Bus. Law 1b-Commercial Law ..... 3
Econ. 34-Property Insurance ..... 2
Rhet. 26-Conference on Written Work ..... 1
Total. ..... 6
Suggested Electives
Bus. Org. and Op. 4-Industrial Organizationand Management2
Bus. Org. and Op. 8-Advertising ..... 2
Econ. 12b-Labor Problems. ..... 3
Total. ..... 9
$\frac{1}{12}$
Total.
Econ. 33-Econorsics of Insurance. . . . . . . . . . 2 Econ. 34-Property Insurance.
Rhet. 23-Conference on Written Work.Rhet. 26-Conference on Written Work.1Total

## Curriculum in Accountancy

## Under the New Requirements for Graduation

The first and second years are the same as in the General Business Curriculum except that Mathematics 2-College Algebra (3) is prescribed in the first semester of the first year.

## FIRST SEMESTER

Acc'y 3a-Accounting Problems and Audit-
ing............................................. 3




Total. ..................................... . . 15-18

## SECOND SEMESTER

Hours ${ }^{1}$
Acc'y 3b-Accounting Problems and Audit-
Bus. Org. and Op. 2 Organization and Con- ${ }^{3}$
. Org.
Bus. Law 1 b-Commercial Law................. 3
Econ. 10-Corporation Management and
Finance. ..................................... 3
Math. 23-Mathematics of Investment....... 3
Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1-4
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## FOURTH YEAR


${ }^{1}$ Semester hours. For definition, see page 247.
Acc'y 5b-C. P. A. Problems. . . . .............. 2
Rhet. 26-Conference on Written Work. ...... 1
Electives ..... -15
Total. ..... 15-18

## Under the Old Requirements for Graduation <br> THIRD YEAR FOR THE CLASS OF 1918



Prescribed Subjects
Acc'y $2 \mathrm{~b}-$ Advanced Accounting and Audit-
ing. ............................................ 3
Econ. io-Corporation Management................................. 3
Math. 23-Matbematics of Investment........ 3
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Suggested Electives
Acc'y 4b-Cost Accounting. . . . . . . . . . . . . . . . . 3
Econ. 29-Foreign Commerce or
Econ. 31-Organization of Foreign Commerce 3

## FOURTH YEAR FOR THE CLASS OF 1917

| Prescribed Subjects | Prescribed Subjects |
| :---: | :---: |
| Acc'y 3a-Accounting Problems and Auditing. $\qquad$ | Acc'y 3b-Accounting Problems and Auditing. |
| Bus. Law 1a-Commercial Law. .............. 3 | Bus. Law ib-Commercial Law.............. 3 |
| Rhet. 25-Conference on Written Wo | Rhet. 26-Conference on Written Wor |
| Total. | Total. |
| Suggested Electives | Suggested Electives |
| Econ. 11-Industrial Consolidation........... 3 | Bus. Org. and Op. 4-Industrial Organization |
| Econ. 9-Practical Banking................... 2 | and Management......................... 2 |
| Econ. 12a-Labor Problems | Econ. 8-Money Market. . . . . . . . . . . . . . . . . . . 2 |
| Phil. 9-Political Ethics. . . . . . . . . . . . . . . . . . . 2 | Econ. 12b-Labor Problems. . . . . . . . . . . . . . . . 3 |

## Curriculum in Railway Administration

## Under the New Requirements for Graduation

The first year of this curriculum is the same as the first year of the Curriculum in Insurance.

## SECOND YEAR

## RIRST SEMESTER

## SECOND SEMESTER

Hours ${ }^{1}$
Acc'y 2a-Advanced Accounting and Audit-

| Acc'y 2a-Advanced Accounting and Auditing. | Acc'y 2 b -Advanced Accounting and Auditing. |
| :---: | :---: |
| Econ. 1-Principles of Economics. . . . . . . . . . 5 | Econ. 3-Money and Banking. . . . . . . . . . . . . 3 |
| Rhet. 10-Business Writing. . . . . . . . . . . . . . . 2 | Trans. 12-Freight Shipment. . . . . . . . . . . . . . 2 |
| Trans. 7-Railway Organization............. . 2 | Mil. 2d—Military Drill. . . . . . . . . . . . . . . . . . 1 |
| Mil. 2a-Military Drill. .................... 1 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .6-9 |
| Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 -5 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 |

## THIRD YEAR

| Bus. Org. and Op. 1-Business Organization and Operation. | Bus. Law 1b-Commercial Law.............. Trans. 2-Transportation Policy in Europe |
| :---: | :---: |
| Bus. Law 1a-Commercial Law............. 3 | and the United States. |
| Trans. 1-Transportation System of the | Trans. 22-Railway Train Service or |
| United States...................... 3 | Trans. 26-Economics of Railway Location |
| Trans. 13-Railway Traffic Administration or | Electives.......... |
|  | Electives. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . $15-18$ | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 |

## FOURTH YEAR

Econ. 10-Corporation Management and Finance.....................................
Econ. 12b-Z̈abor Problems........................ 3
Rhet. 26-Conference on Written Work...... 1
Trans. 26-Economics of Railway Location and Maintenance or
Trans. 22-Railway Train Service............ . 3
Electives........................................... . . $5-8$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## Under the Old Requirements for Graduation

## THIRD YEAR FOR THE CLASS OF 1918

FIRST SEMESTER
Acc'y 2a-Advanced Accounting and Audit-
ing. . . . . . . . . ..............................
Trans. 1 - Transportation System................................. 3
Trans. 17-Railway Terminal Management or
Trans. 13-Railway Traffic Administration. . 3
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . 6-9

SECOND SEMESTER
Acc'y 2b-Advanced Accounting and Auditing . . . ........................................ 3
Econ. 10-Corporation Management......... 3
Math. 23-Mathematics of Investment. . . . . . 3
Trans. 26-Economics of Railway Location and Maintenance or
Trans. 22-Railway Train Service............ 3
Trans. 2-Transportation Policy in Europe and United States

3
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .0-3
Total.
15-18

## FOURTH YEAR FOR THE CLASS OF 1917

Acc'y 3a-Accounting Problems and Audit-
Acc'y 3b-Accounting Problems and Audit-
ing. ............................................... 3
Rhet. 25-Conference on Written Worls. ..... 1
Trans. 13-Railway Traffic Administration or
Trans. 17-Railway Terminal Manage-

Trans. 35a-Thesis. . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $3-6$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18
ing. . . . ......................... 3
Bus. Law ib-Commercial Law ..................... . . . . 3
Rhet. 26 -Conference on Written Work. . . . . 1
Trans. 26-Economics of Railway Location and Maintenance or
Trans. 22-Railway Train Service. . . . . . . . . . 3
Trans. 35b-Thesis. .............................. . . . 2
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $3-6$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## Curriculum in Railway Transportation

Under the New Requirements for Graduation

## FIRST YEAR

## FIRST SEMESTER

Acc'y 1 _-Principles of Aours ${ }^{1}$
G. E. D. 1-Elements of Drafting............... 4

Math. 2-Advanced Algebra...................... 3
Math. 4-Trigonometry........
Rhet. 1-Rhetoric and Themes.
Phys. Tr. 1 and 1a-Gymnasium and Hygiene.
Mil. 2a-Military Drill.
Electives.......................................................... . . ${ }^{1}$

Total. . . . . . . . . . . . . . . . . . . . . . . . . $17-18 \quad$ Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

| Econ. 1-Principles of Economics | Econ. 3-Money and Banking |
| :---: | :---: |
| Math. 8-Differential and Integral Calcu- | Physics 1b-General Physics. |
| lus. | Physics 3b-Physical Measurements |
| Physics 1a-General Physics................. 3 | Rhet. 10-Business Writing. |
| Physics 3a-Physical Measurements. . . . . . . . . 2 | Trans. 12-Freight Shipment. . . . . . . . . . . . . . 2 |
| Trans. 7-Railway Organization. . . . . . . . . . . 2 | T. \& A. M. 20-Analytical Mechanics . . . . . 3 |
| Mil. 2c-Military Drill. . . . . . . . . . . . . . . . . . . 1 | Mil. 2d-Military Drill. . . . . . . . . . . . . . . . . . . . . $0-\frac{1}{1}$ |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |

Bus. Law 1a-Commercial Law
Bus. Org. and Op. 1-Business Organization and Operation
Trans. 1-Transportation System of the United States.
Trans. 13-Railway Traffic Adminstration
Trans. 17 -Railway Terminal Manage-
ment...........................................
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 -6
-Total
$.15-18$

## SECOND YEAR

## THIRD YEAR

3 Bus. Law 1b-Commercial Law.
Acc'y 1b-Principles of Accounting.
Hours ${ }^{1}$
G. E. D. 2-Descriptive Geometry . ..... 3
Rhet. 2-Rhetoric and Themes. ..... $\begin{array}{r}4 \\ 3 \\ \hline\end{array}$
Math. 6-Analytic Geometry. ..... 5
Phys. Tr. 2-Gymnasium ..... 1
Mii. 1 -Drill Regulations ..... 1
Mil. 2 b -Military Drill. ..... 1
Total ..... 18
Econ. 3-Money and Banking. ..... 3
Physics 3b-Physical Measurements ..... 2
Rhet. 10-Business Writing. ..... 2
Trans. 12-Freight Shipment. . ....... ..... 3
Electives15-18
3C. E. 76 -Surveying.2
3 M. E. 2 -Steam Engincering. ..... 3
3
Trans. 2-Transportation Policy in Europe and the United States..3
Trans. 22-Railway Train Service or
Trans. 26-Economics of Railway Locationand Maintenance.3
Electives ..... $1-4$
Total ..... 15-18

## FOURTH YEAR

E. E. 12-Alternating Current Apparatus . . . 3
E. E. 62-Alternating Current Laboratory... 1

Econ. 10-Corporation Management and Finance or
Econ. 12b-Labor Problems.................. . 3
Rhet. 26-Conference on Written Work. ..... 1
Trans. 26-Economics of Railway Location and Maintenance or
Trans. 22-Railway Train Service. . . . . . . . . . 3
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $4-7$
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

## Under the Old Requirements for Graduation THIRD YEAR FOR THE CLASS OF 1918

## FIRST SEMESTER

SECOND SEMESTER


## FOURTH YEAR FOR THE CLASS OF 1917

Acc'y 1a-Principles of Accounting............ 3
Econ. 12a-Labor Problems. . . ................. . . 3
E. E. 11 and 61 -Direct Current . . . . . . . . . . . . . 4
M. E. 62-Mechanical Engineering............. 3

Rhet. 25-Conference on Written Work. ...... 1
Trans. 17-Railway Terminal Management or
Trans. 13-Railway Traffic Administration . 3

Acc'y 1b-Principles of Accounting. . . . . . . . . . 3
C. E. 76-Surveying. . . . . . . . . . . . . . . . . . . . . . . 2

Econ. 12b-Labor Problems. . . . . . . . . . . . . . . . . . . 3
E. E. 12 and 62-Alternating Current......... 4

Rhet. 26-Conference on Written Work....... 1
Trans. 26-Economics of Railway Location and Maintenance or
Trans. 22-Railway Train Service............. . 3
Trans. 35b-Thesis................................ . . 2
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

## Curriculum for Commercial Teachers

## Under the New Requirements for Graduation

The first and second years are the same as in the General Business Curriculum except that foreign language is prescribed in the first year, and Psychology 1Introduction to Psychology (3) and Psychology 2-General Psychology (3) in the second year.


[^31]
## Under the Old Requirements for Graduation

## THIRD YEAR FOR THE CLASS OF 1918

3
Phil. 1-Logic. .....
3 .....
3
Pol. Sci. 4-Municipal Government....... ..... 2

## Prescribed Subjects

Acc'y 1a--Principles of Accounting.
Econ. 10-Corporation Management.
Econ. 28-Domestic Commerce. .
Educ. 1-Principles of Education.

Prescribed Subjects
Acc'y 1 b -Principles of Accounting. . . . . . . . . 3
Bus. Org, and Op, 2-Organization and Con-
trol of Mercantile Distribution
Econ. 29-Foreign Commerce or
Econ. 31-Organization of Foreign Com-
merce. . $\because$....................................... 3
Educ. 2-History of Education................... 5
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13

## Suggested Electives

Educ. 6-Principles of Secondary School Education

3
Foreign language continued.
History


Foreign language continued
Total. 13

## Suggested Electives

Bus. Org. and Op. 1-Business Organization and Operation

## FOURTH YEAR FOR THE CLASS OF 1917

## Prescribed Subjects

Bus. Law 1a-Commercial Law.
Econ. 12a-Labor Problems. . . . . . . . . . . . . . . . . . .
Educ. 10-Observation and Technics of
Teaching. . . . . . . . . . . ........................ 3
Rhet. 25 -Conference on Written Work. ...... 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10

Suggested Electives
Acc'y 2a-Advanced Accounting and Auditing. Org. and Op. 3 - Business Procedure......................... 2
Bus. Org. and Op. 3 Business Procedure..... 2
Econ. 4 - Practical Banling United States.
Ehil. 9-Political Ethics....

Prescribed Subjects
Bus. Law 1b-Commercial Law. 3
Econ. 12b-Labor Problems. . ...................... . 3
Educ. 16-Social Education or
Educ. 15 -School Hygiene................. 2 or 3
Rhet. 26-Conference on Written Work. ...... 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 or $\overline{10}$

## Suggested Electives

Acc'y 2b-Advanced Accounting and Audit-
ing. Org. and Op. 4 -Industrial Organization
Bus. Org. and Op. 4-Industrial Organization
and Management... $\ddot{M}$.irket..................... 2
Econ. 8-The Money Market.................... 2
Econ. 21-Socialism and Economic Reform.... 22
Trans. 12-Freight Shipment............... 2

## Curriculum in Foreign Commerce

## Under the New Requirements for Graduation

The first and second years of this curriculum are the same as in the General Business Curriculum except that foreign language is prescribed throughout both years.


[^32]
## Curriculum in Industrial Administration

## Under the New Requirements for Graduation

The following curriculum is intended to meet the needs of commerce students planning to enter the administrative or selling departments of industrial plants. To the usual courses in economics, accounting, etc., are added certain groups of technical courses offered by other colleges of the University. For the present four such groups have been arranged, as follows: Group A, for those interested in the machine industries; Group B, the electrical industries; Group C, the building trades; Group D, the chemical industries. The student may select such one of these groups as will be most advantageous to him in his future work, but is required to take all the courses listed in the chosen group. The student electing the chemical industries group is required to take Econ. 26-Economic Resources (3) and Econ. 22-Economic History of the United States (3), instead of G. E. D. 1-Elements of Drafting (4) and G. E. D. 2-Descriptive Geometry (4), in the first year; and Chem. 1 or 1a-Inorganic Chemistry (5 or 3), instead of Economics 22-Economic History of the United States (3) and T. \& A. M. 20-Analytical Mechanics (3), in the second year.

## FIRST YEAR

FIRST SEMESTER

| STER Hours ${ }^{1}$ | Hour |
| :---: | :---: |
| Acc'y 1a-Principles of Accounting.......... 3 | Acc'y 1b-Principles of Accountancy........ |
| G. E. D. 1-Elements of Drafting. . . . . . . . . 4 | G. E. D. 2-Descriptive Geometry |
| Math. 2-College Algebra. . . . . . . . . . . . . . . . 3 | Math. 6-Analytic Geometry. |
| Math. 4-Trigonometry. . . . . . . . . . . . . . . . . . 2 | Rhet. 2-Rhetoric and Themes |
| Rhet. 1-Rhetoric and Themes......... . . . . 3 | Phys. Tr. 2-Gymnasium. |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene. 1 | Mil. 1-Drill Regulations. |
| Mil. 2a-Military Drill..... . . . . . . . . . . . . . . 1 | Mil. 2b-Military Drill |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0-1 | Electives. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Tot |


| Econ. 1-Principles of Economics. . . . . . . . . . 5 | Econ. 3-Money and Banking . . . . . . . . . . . . 3 |
| :---: | :---: |
| Math. 8-Differential and Integral Calcu- | Econ. 23-Statistics.. . . . . . . . . . . . . . . . . . . 3 |
| lus.... . . . . . . . . . . . . . . . . . . . . . . . . . . . 5 | Phys. 1 b -General Physics . . . . . . . . . . . . . . 2 |
| Phys. 1a-General Physics. . . . . . . . . . . . . . . 3 | Phys. 3b-Physical Measurements........... 2 |
| Phys. 3a-Physical Measurements... ........ 2 | Econ. 22-Economic History of the United |
| Rhet. 10-Business Writing. . . . . . . . . . . . . . . . 2 | States.............................. 3 |
| Mil. 2c-Military Drill... . . . . . . . . . . . . . . . . . 1 | T. \& A. M. 20-Analytical Mechanics. . . . . 3 |
|  | Milectives ${ }_{\text {Military Drill. . . . . . . . . . . . . . . . . . . . . . . }{ }_{0-1}^{1} 1}^{1}$ |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .17-18 |
| THIRD | YEAR |
| Bus. Org. and Op. 1-Business Organization and Operation. | Bus. Org. and Op. 2-Organization and Control of Mercantile Distribution............. |
| Bus. Law 1a-Commercial Law............ 3 | Bus. Law 2b-Commercial Law.............. 3 |
| Trans. 1-Transportation System of the | Trans. 12-Freight Rates................... 2 |
| United States. ........................ 3 | Prescribed technical courses, Group A, B, |
| Prescribed technical courses, Group A, B, C, or D. |  <br> Electives |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0 0-7 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 -8 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |

## FOURTH YEAR



Bus. Org, and Op. 8-Advertising 2
Rhet. 26-Conference on Written Work. ..... . 1
Econ. 12b-Labor Problems or
Econ. 10-Corporation Management and
Finance. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Prescribed technical courses, Group $\underset{A}{ }$, $\bar{B}$.
C. or D. . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-10

Electives.......................................................... . . . $0-10$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18
${ }^{1}$ Semester hours. For definition, see page 247.
Optional Groups of Technical Courses
GROUP A:
THIRD YEAR
Hours ${ }^{1}$ SECOND SEMESTER
M. E. 77 -Foundry Work
Hours ${ }^{1}$
T. \& A. M. 21-Analytical Mechanics.
FOURTH YEAR
FIRST SEMESTER ..... 2
M. E. 61-Power Measurement E. E. 12-Alternating Current Apparatus. ..... 3
E. E. 11-Direct Current Apparatus.
E. E. 62-Alternating Current Laboratory.... 1
E. E. 61-Direct Current Laboratory ..... 3
1
GROUP B:
THIRD YEAR
SECOND SEMESTER
T. \& A. M. 21-Analytical Mechanics ..... 2
M. E. 2-Steam Engineering. ..... 3
FOURTH YEAR
FIRST SEMESTER
${ }_{3}$ E. E. 12-Alternating Current Apparatus.... ..... 3
1
M. E. 61 -Power Measurement. ...... E. E. 90 -Lighting. ..... 1
GROUP C:
THIRD YEAR

FIRST SEMESTER
Arch. Eng. 43-Working Drawings.
T. \& A. M. 25-Resistance of Materials. $\qquad$
SECOND SEMESTER
T. \& A. M. 26-Analytical Mechanics and
Hydraulics.4
2
Arch. Eng. 44-Working Drawings.
FOURTH YEAR

FIRST SEMESTER
Arch. Eng. 45-Graphic Statics.
GROUP D:

## SECOND SEMESTER

3 C. E. 76-Surveying.


FOURTH YEAR

Chem 9c-
Chem. 14a-Organic Synthesis.
Chem. 92a-Journal Meeting

Chem. 6-Chemi
Chem. Chemical Technology................ 3
Chem. 31-Elementary Physical Chemistry...
Chem. 33-Elementary Physical Chemistry...
Chem. 92b-Journal Meeting

## Curriculum in Commerce and Law

(A six-year combined curriculum)

## Under the New Requirements for Graduation

The following curriculum is provided for students who wish to combine commercial and legal studies and secure both the degree of Bachelor of Science and the degree of Bachelor of Laws or of Doctor of Law in six years. Students who elect this curriculum must meet all the requirements for graduation from the College of Commerce and Business Administration, but in exercising their privileges of election are urged to select as many hours as possible from the following subjects: Hist. 2a-2b, English History (6); Hist. 3a-3b, United States History (6); Hist. $4 \mathrm{a}-4 \mathrm{~b}$, English Constitutional History (6); Pol. Sci. 1, American Government (3); and Pol. Sci. 3, State and Local Government (3). Students expecting to study law should devote at least 12 hours to work in history and political science. A course

[^33]in English history is regarded as one of the most essential pre-legal subjects. The law courses in the curriculum may be taken only in the fourth year, and are counted for 30 hours of credit towards the degree, instead of hour for hour, provided the full year's work is completed. In their fourth year students will be regularly registered in the College of Law, but must file copies of their study-lists in the office of the Dean of the College of Commerce and Business Administration at the beginning of each semester.

FIRST SEMESTER

| IRST SEMESTER | SECOND SEMESTER |
| :---: | :---: |
| Acc'y 1-Principles of Accounting. . . . . . . . . . 3 | Acc'y 1b-Principles of Accounting. ........ ${ }^{\text {Hours }}{ }^{1}$ |
| Econ. 26-Economic Resources. . . . . . . . . . . . . 3 | Econ. 22-Economic History of the United |
| Rhet. 1-Rhetoric and Themes.......... . . . . 3 | States.... . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |
| Phys. Tr. 1 and 1a-Gymnasium and Hy- | Rhet. 2-Rhetoric and Themes............... 3 |
| giene. . | Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . . . 1 |
| Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . . ${ }^{1}$ | Mil. 1-Drill Regulations...................... . 1 |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 -7 | Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . 1 |
|  | Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-6 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total . . . . . . . . . . . . . . . . . . . . . . . . . . . .15-18 |
| SECOND | YEAR |
| Acc'y 2-Advanced Accounting and Auditing. | Acc'y 2b-Advanced Accounting and Auditing. . . . . . . . .................................. . |
| Econ. 1-Principles of Economics.......... . 5 | Econ. 3-Money and Banking. |
| Rhet. 10-Business Writing................. 2 | Phi1. 1-Logic. . . . . . . . . . . . . . . . . . . . . . . . ${ }^{3}$ |
| Mil. 2c-Military Drill....................... ${ }^{1}$ | Mil. 2d-Drill. . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{1}$ |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . .4-7 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .5-8 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . $15-18$ |
| THIRD | YEAR |
| Bus. Org. and Op. 1-Business Organization and Operation. | Bus. Org. and Op. 2-Organization and Control of Mercantile Distribution. . . . . . . . . . . . 2 |
| Econ. 5-Public Finance. . . . . . . . . . . . . . . . . 3 | Econ. 10-Corporation Finance. . . . . . . . . . . 3 |
| Econ. 28-Domestic Commerce. . . . . . . . . . . . . 3 | Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . 10-13 |
| Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 -9 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 |
| FOURTH | YEAR |
| Law 1a-Contracts......................... . . 4 | Law 1b-Contracts. . . . . . . . . . . . . . . . . . . . 3 |
| Law 2a-Torts.. . . . . . . . . . . . . . . . . . . . . . . . 3 | Law 2b-Torts... . . . . . . . . . . . . . . . . . . . . . . . ${ }^{3}$ |
| Law 5-Criminal Law . . . . . . . . . . . . . . . . . . . . 4 | Law 3-Real Property . . . . . . . . . . . . . . . . . . . 3 |
| Law 6-Personal Property... . . . . . . . . . . . . . . 2 | Law 7-Domestic Relations. . . . . . . . . . . . . . . 2 |
| Law 37-Introduction of Study of Law...... 1 | Law 11-Agency............................ 3 |

Acc'y 2b-Advanced Accounting and Audit-

Phil. 1-Logic. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Mil. 2d-Drill. . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5-8
Total
15-18

Bus. Org. and Op. $2-$ Organization and Con-
trol of Mercantile Distribution. . . . . . . . . 2
Econ. 10-Corporation Finance3
-
15-18

Law 1b-Contracts. . . . . . . . . . . . . . . . . . . . . . . . 3
Law 2b-Torts....................................... 3
3-Rear Property . . . . .......................................... 3
Law 11-Agency.............................................. ${ }^{2}$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14

## COLLEGE OF ENGINEERING

For a description of the buildings used by this College, see page 52, for collections belonging to it, see page 62; for clubs and socielies auxiliary to its curriculums, see page 102; for fees, see page 110; for honors, see page 87 ; for honorary societics, see page 101.

## GENERAL STATEMENT

The purpose of the College is to train men for the profession of engineering. In arranging its curriculums, cultural subjects are interwoven with the theoretical subjects of the several departments. The instruction of the class-room and the practise afforded by the library, the drafting room, and the laboratory are correlated. Throughout his course the student works on problems and proceeds by methods similar to those which arise in the experience of the practising engineer.

## ADMISSION

See the statement of the entrance requirements of the University, pages 66-84.

## SPECIAL STUDENTS

See the statement of the regulations of the University in regard to special students, page 72.

## DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments:
Department of Architecture, with curriculums inArchitecture
Architectural Engineering
Department of Ceramic Engineering
Department of Civil Engineering
Department of Electrical Engineering
Department of Mechanical Engineering
Department of Mining Engineering
Department of Municipal and Sinitary Engineering
Department of Physics
Department of Railway Engineering, ${ }^{1}$ with curriculums in-
Railway Civil Engineering
Railway Electrical Engineering
Railway Mechanical Engineering

## ARCEITECTURE

The department of architecture offers two curriculums leading to the first degree, the curriculum in architecture and the curriculum in architectural engineering. The aim of these curriculums is to give preparation for the practise of architecture.

The curriculum in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule includes

[^34]liberal and scientific subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction; also freehand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skilful and rapid drawing. The curriculum, however, consists mainly of the study of architectural forms and principles and their application in architectural design. From time to time the problems of the Society of Beaux Arts of Archites, are given and the student drawings sent to New York for judgment.

The curriculum in architectural engineering gives a groundwork in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural enginecring. While specializing in construction, this curriculum includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing and architectural design.

Both curriculums in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates are exempt from examinations required for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize, which is awarded by competition, amounts to $\$ 1,000$ and provides for one year of travel abroad for the study of architecture.

The American Institute of Architects offers annually a medal to be awarded to the graduate of the department whose work throughout the four years has been adjudged the best. In making the award the scholarship in all work for the entire curriculum is considered.

The J. C. Llewellyn prize of fifty dollars is offered to the seniors in architectural engineering for the best solution of a given engineering problem.

The Scarab Medal in Architecture is awarded annually to a student of the Department. This prize is a bronze medal which is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

## Equipment

The collections of rendered and working drawings, lantern slides, plates, photographs, casts, specimens of American wooks, building materials, and appliances are noted under "Collections" on page 62. A Balopticon is used for direct projection of photographs and colored plates, and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light properly adjusted for demonstration of the subjects of shades and shadows and conventional rendering. Wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and collections of drawings are constantly displayed. The department occupies the fourth floor of Engineering Hall, and part of the third; its quarters include drafting rooms for undergraduate and graduate work, library, lecture rooms, and studios for free-hand drawing.

## CERAMIC ENGINEERING

This department offers courses in instruction relating to the fabrication of clay products, cement, and glass, and enamels for metals.

In addition to the fundamental engineering courses, work is offered in the physical and chemical principles of the production of silicate products, the winning and
preparation of raw materials, their shaping, drying, and burning, or fusion, the compositions and application of the various glazes, glasses, enamels, and colors, the planning and construction of industrial plants, and of the various machines, apparatus, kilns, and furnaces used in these plants.

Industrial cooperation and research are prosecuted, and a series of bulletins on ceramic subjects is being published.

## Equipment

The department of ceramic engineering is housed in a modern three-story brick building providing ample facilities in the way of lecture rooms, class rooms, and laboratories.

The ceramic laboratories contain apparatus for the testing of clays"and the preparation of cements, enamels, and glasses; machinery for grinding the raw materials, for shaping bricks, tiles, saggers, pottery and refractories; kilns and furnaces for calcining and fusing; pyrometers, potentiometers, electric furnaces, recording instruments, and all other accessories for exact scientific and technical work.

A library pertaining to the silicate industries is available; also sets of working drawings representing the construction of important plants.

## CIVIL ENGINEERING

The purpose of the Department is to make possible a systematic study of the principles of engineering and to give the students an opportunity for practise in the survey, design, and construction of public and other engineering works. The prime object is to bring about the development of the mental faculties of the student, particularly of his initiative, and to help him obtain a good grasp of the needs and opportunities afforded by engineering in general.

## Equipment

For the surveying courses there is a full equipment of enginecrs' transits, levels, plane-tables, and other instruments in use not only in ordinary and in railroad surveying, but also in more precise work.

In a building set apart for the purpose is a well equipped road laboratory containing machines for testing bituminous and non-bituminous road materials, including brick, stone, and other road-making substances. The cement laboratory occupies a room in this building. It is provided with facilities for testing hydraulic cement, sand, and cther aggregates used in concrete.

## ELECTRICAL ENGINEERING

This departnent provides a curriculum in the theory and application of electricity. The first two years of work are substantially the same as in the other engineering curriculums, including work in drafting room and shop, and instruction in the principles of mathematics and physics. In the third year a course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamos is followed in the fourth year by experiments in the operation of electrical machinery. Investigation of problems of power distribution is made in advanced laboratory and thesis work.

## Equipment

The 500 -kilowatt power plant of the University supplies the electrical engineering laboratory with current for its operation.

The power equipment in the electrical engineering laboratory includes eightyfive direct current machines with a total capacity of 450 kilowatts, thirty-five alternating current machines with a total capacity of 375 kilowatts, and sixty transformers with a total capacity of 375 kilowatts. A 17 -panel experimental switchboard affords distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types, two hundred and fifty portable instruments for experimental work, and a 240 ampere-hour storage battery. The graduate laboratory contains apparatus for research, including four oscillographs, one 2,000-cycle alternator, one 200,000 -volt transformer, one 1,000 -ampere direct current generator, and apparatus for high voltage direct current investigations, The photometer room contains apparatus for tests of the various light sources. Two special 100 -line switchboards are connected with cables and apparatus for experiment in telephony. The equipment for electrometallurgical work includes one 30 -kilowatt induction furnace, one 25 -kilowatt arc furnace, two 30 -kilowatt resistance furnaces, one 15 -kilowatt vacuum furnace for melting, one 3-kilowatt vacuum furnace for annealing, and one 1.5 kilowatt mufle furnace.

## MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practise of the generation and transmission of power, and of the design, construction, operation, and testing of machinery of all kinds. In the laboratories emphasis is given to the engineering and economic principles of machine construction and to the problems of scientific shop management.

## Equipment

The Designing Rooms are supplied with drawing tables, and with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialities, lantern slides, and photographs is also available.

The Mechanical Engineering Laboratory is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating, and ventilation, including a 210 -horsepower experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; types of throttling, high speed automatic, and Corliss steam engines; steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam turbine; a DeLaval turbo-pump; a 200,000 -pound Lea water-flow; a 10 -ton ammonia compression refrigerating machine; typical gas, gasoline, and oil engines; a 50 -horsepower suction gas producer, house-heating boilers and furnaces; a 150 -horsepower electric absorption and transmission dynamometer, and apparatus for instruction in heating and ventilation and the mechanical equipment of buildings. The central heating and power plant contains types of boilers, stokers, pumps, and engines in commercial service.

The Shop Laboratories are provided with machinery and apparatus to illustrate the process of the manufacture of machinery. The laboratories include the Wood Shop with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the Foundry equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the Forge Shop equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the Machine Shop with an equipment of lathes, planers, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

## MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of engineering.

The Laboratory of Applied Mechanics comprises the materials testing laboratory and the hydraulics laboratory. The equipment of the materials testing laboratory includes testing machines and apparatus for making physical tests of materials of construction, such as tension, corrpression, flexure, shearing, torsion, hardness, and impact tests, and tests under repeated load. The laboratory contains machines of capacity for testing full size structural and machine members. Among these is a universal machine of six hundred thousand pounds capacity. The Hydraulics laboratory has facilities for furnishing water under a range of pressures and volumes. There is an equipment of devices for measuring and recording the flow of water, including measuring pits, water meters, weir channels, nozzles, pitometer, and Venturi meters. In the equipment are pumps, a standpipe, water motors, and a turbine water wheel for testing purposes. A supply of pressure gauges, weighing scales, and other auxiliary apparatus is provided.

## MINING ENGINEERING

The department of mining engineering offers courses of instruction in mining and metallurgical engineering to train men for the various phases of the mineral industry.

The work of the department adds to the preliminary courses in mathematics, languages, chemistry, physics, geology, and general engineering, that are common to all courses in engineering, specialized work in mine surveying, mining methods, geolcgy, prospecting, mine examination and valuation, ventilation, mining machinery, coal washing and ore concentration, metallurgy, utilization of fuels, administration and organization of mines, mining law, and the design of mining and metallurgical structures.

In addition to its work of instruction, the department concerns itself with the development and dissemination of scientific facts of service in improving the practise of mining, with reference to efficiency in operation, the security of life in the mines, and the conservation of the mineral resources of the State.

## Equipment

The drawing rooms contain the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine and mill design, and an unusually complete collection of photographs, blue-prints and drawings of mines, mine structures, and ore and coal preparation, and metallurgical plants.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking applicances, a photometer, a dark room for photometric work, Ryan Oldham, and Hailwood safety-lamp testing apparatus appliances for gas and dust analysis and explosibility tests, and a Bacharach hydro volume and pressure recorder.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500 -pound 3 -stamp battery; for screening and sizing trommels, shaking and vibrating screens, and classifiers; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, sand, concentrating table, and slimer. These machines can handle from 3 or 5 tons of coal and one ton or ore an hour There are also a complete sampling and drying equipment, a cyanide testing plant, a Huff electrostatic machine, flotation units, a magnetic separator and other appliances used for preliminary testing. Adjoining this lab-
oratory is a chemical and assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains types of rock and coal drills, an air meter, a diamond drill, chain and puncher, coal cutters, and a complete cutfit for demonstrating the use of explosives.

## MINE RESCUE STATION AND LABORATORIES

Cooperating with the department of mining engineering and with the State Geological Survey, the Federal Government in 1909 established at the University a mine rescue station in charge of a resident mining engineer. The purpose of the station was to interest all connected with the mining industry in modern appliances and breathing and resuscitation apparatus as part of the normal equipment of mines. At the station mine bosses and others were trained in the use of such apparatus, this service being rendered freely to all who desired the benefits thereof.

A direct outcome of the cooperative rescue station has been the establishment of a comprehensive mine rescue service by the State of Illinois. This state service has rendered unnecessary the maintenance of the cooperative rescue station in Urbana. The station is now maintained by the University for the training of students, but the United States Bureau of Mines keeps certain apparatus on exhibition.

The Cooperative Investigation of Illinois mining conditions is another outgrowth of the mine rescue station. This cooperation between the University of Illinois, the Illinois State Geological Survey, and the United States Bureau of Mines has for the past five years carried on an investigation of the coal resources and the mining practise in the state.

A laboratory has been maintained for the study of mine dusts and mine gases which is also available for the use of mining classes in the University. The Bureau of Mines has stationed in Urbana two resident mining engineers.

## MUNICIPAL AND SANITARY ENGINEERING

This curriculum is designed to train students for the duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering curriculum. Chemistry and bacteriology of water supply and sewage disposal are given; and instruction in mechanical and electrical engineering in the generation and transmission of power.

## PHYSICS

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus, and only a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for advanced students and instructors, and one for the mechanicans of the department. The students' shop is equipped with lathes, drill press, and bench tools. The mechanicians' shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical
journals, together with a collection of text-books, encyclopedias, dictionaries, and other reference books, are in the special library of the Laboratory.

## RAILWAY ENGINEERING ${ }^{1}$

The department of railway engineering is organized to train students for service in the technical departments of railways. It offers curriculums in railway civil engineering, railway electrical engincering, and railway mechanical engineering, all three of which are substantially the same as the corresponding civil, electrical, and mechanical engineering curriculums to the middle of the third year, after which is given in each course a group of subjects relating to the technical problems of steam or electric railways. The curriculums in railway civil and railway mechancial engineering are designed for those who wish to enter steam railway service in the engineering and motive power departments respectively, while the curriculum in railway electrical engineering is intended for those who will serve on electric railways or in the electrical departments of steam roads. The special subjects of the curriculum in railway civil engineering concern the location, design, construction, and maintenance of railway track and equipment, and the design of railway structures. The courses in railway electrical engineering deal with the design and construction of electric railway equipment, the operation and performance of electric cars and locomotives, and with the problems which arise in the electrification of steam lines. The curriculum in railway mechanical engineering adds to the fundamentals of the general mechanical engineering curriculum special railway courses on the design of locomotives and cars, the resistance of trains, the performance and tests of locomotives, and tests of railway equipment.

## Equipment

A locomotive testing plant, built from the orizinal designs of the department, occupies a building forty by one hundred fifteen feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive of latest design.

For purposes of instruction a light freight locomotive is permanently available in this laboratory. This locomotive, donated to the department by the Illinois Central Railroad, is of the mogul type, has $19 \times 26$ simple cylinders using saturated steam, 1,530 square feet of heating surface, 26 square feet of grate area, and weighs with its tender 206,000 pounds.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is equipped for making train resistance and locomotive performance tests, and during the last fifteen years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the interurban type, designed and built for the University. It is equipped with four 50 -horsepower direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests, and for measuring and recording the electric resistance of rail bonds. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of

[^35]the Master Car Builders Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears; and may be used in studies of the physical properties of stituctural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

Three steam roads-the Illinois Central, the Cleveland, Cincinnati, Chicago \& St. Louis, and the Wabash railroads-and two electric interurban roads-the Illinois Traction System and the Kankakee and Urbana railway-enter Champaign and Urbana. The department is afforded by them opportunities for practical road tests and field work.

## APPROVED NON-TECHNICAL ELECTIVES

The following is a list of approved non-technical electives for students in the College of Engineering. In general, prerequisites must be observed.

Accountancy 10; Astronomy 3, 7, 8, 14, 15; Chemistry 16, 5a or 13a, 10b, 6, 7, 8, 31, 35, 65, 66, 69, 77, 78; Economics 1, 2, 3, 10, 12a-12b, 21, 25a-25b, 41; Education 1, 2, 16, 25, 41; English, and intermediate or advanced courses; French, any advanced courses; Geology 2, 5a, 13a, 13b, 14, 24; (for students in mining any course in geology for which the student has prerequisite); German, any third or fourth year courses; History 3a-3b; Italian 2a-2b; Mathematics 10, 16-17, 19, 21 23, 27-28; Philosophy 1, 17; Physics 15, 16, 17, 20, 22, 23, 24, 25, 30, 31a-31b; Political Science 1, 3, 4; Psychology 1, 2, 3, 4; Rhetoric 17; Sociology 1, 3; Spanish $3 a-3 b, 4 a-4 b$.

## SUMMER READING

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshman and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as an aid in social and business relations.

A circular on summer reading is issued, containing a list of books from which the student may choose. The books have been selected for their value in general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

## GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young students, will be given each reek. All freshman engineering students are required to attend this lecture.

## TRIPS OF INSPECTION

Students in the College of Engineering are required to make a trip of inspection during their senior year. Such trips supply an opportunity to inspect the work of industrial establishments and of engineering enterprises. They usually occupy from three to four days, and are taken during term time, under the supervision of

University authorities. They involve an expense from $\$ 15$ to $\$ 25$ to each student. For the year 1917-1918, the trips will occur on November 8-10, 1917.

No student not in line for graduation shall be permitted to go on the annual inspection trip of the College of Enginecring without the approval of the General Committee on Inspection Trips.

## CURRICULUMS AND DEGREES

The curriculums leading to the degree of Bachelor of Science in the College of Engincering, as scheduled for the year 1916-1917, are given herewith in full. Each of the eleven curriculums given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, ceramic, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied curriculum on the completion of from thirty to thirty-six semester hours work approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the College of Liberal Arts and Sciences of the University of Illinois, or of any college of equal standing, whose mathematical training includes the calculus, who has had an acceptable course in physics, and sufficient training in mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering on the completion of sixty-eight credit hours of wori in engineering under the direction of the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

## RHETORIC PREREQUISIT: FOR JUNIOR STANDING

The University Senate has approved the following requirements in the subject of rhetoric:

1. Rhetoric 1 and 2 shall hereafter be a prerequisite for junior standing in the College of Engineering, and no student in this College shall be permitted to register in more than eight hours of prescribed junior work without having passed or being registered in Rhetoric 1 or 2.
2. Any student in this College whose written work shows that he is unable to use good English shall be reported by his instructor to a standing committee of the College, which committee shall have authority to direct the student to take as a prerequisite for graduation such additional work in rhetoric as may be prescribed by the department of English.

## CURRICULUMS IN ENGINEERING

The several engineering curriculums are in process of transition between a former schedule followed by the classes entering prior to the year 1914-15, and a new schedule, effective for the freshman class of that year and subsequent classes.

The outlines which follow show the work of each year in the several curriculums as taught during 1916-17. They do not show either the old or the new curriculum as a whole. The "First Year" as here scheduled is for freshmen; and the "Second Year," "Third Year," and "Fourth Year," respectively, for regular sophomores, juniors, and seniors; but these schedules must not be used for checking up on a student's previous work in his course or in planning the work of subsequent years. For such check or planning consult with the Assistant Dean of the College.

## Curriculum in Architecture <br> FIRST YEAR

FIRST SEMESTER


## Curriculum in Architectural Engineering as Taught in 1916-17

 FIRST YEAR FOR CLASS OF 1920
## FIRST SEMESTER

Chem. 1a or 1 b-Inorganic Chemistry ..... 3 or 4 4 4
G.E. D. 1 - Elements of Drafting . . . . . . . . . 4
G. .. D. 1 -Elements of Drafting. . . . . . . . . . . 4

Math 4 Advanced Algebra
. 3
Math. 4-Trigonometry. ......
Rhet. 1 -Rhetoric and Themes.
Engineering lecture
Phys. Tr. 1 and $12-G y m n a s i u m$ and Hygiene.
Mil. 2a-Military Drill.

SECOND SEMESTER
Chem. 4-Qualitative Analysis. . . . . . . . . . . . . . 4
G. E. D. 2-Desc, Geometry .................... 4

Math. 6-Analytic Geometry.................... . . . . 5
Rhet. 2-Rhetoric and Themes. ................ . . 3
Engineering lecture. . . . . . . . . . . . . . . . . . . . . . . . . . . 0
Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . . . . . . . . . 1
Mil. 1—Drill Regulations. . . . . . . . . . . . . . . . . . . 1
Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19

Total.
17-18
Summer Reading, 50 points

## SECOND YEAR FOR CLASS OF 1919



[^36]
## THIRD YEAR FOR THE CLASS OF 1918

Arch. 15-History of Architecture. ..... 2
Arch. 16-Ifistory of Architecture ..... 2
A. E. 35-Design
A. E. 35-Design
A. E. 45 -Graphic Statics. A. E. 36 -Design.......... ..... 3
A. E. 46 -Graphic Statics. ..... 3
Chem. 1a or 1 b -Inorganic Chem........... or
T. \& A. M. 25-Resistance of Materials
Chenı. 4-Qualitative Analysis. ..... 4
Non-technical elective ${ }^{1}$
T. \& A. M. 26-Analytic Mechanics andHydraulics
4
Non-technical elective ${ }^{1}$ ..... 2
Total ..... 17-18
Total ..... 18
FOURTH YEAR FOR THE CLASS OF 1917
A. E. 47-Architectural Engineering ..... 5
A. E. 57-Fireproof Construction. ..... 2
A. E. $67-$ Building Sanitation. ..... $\frac{2}{5}$
M. E. 23-Mech. Equipment of Buildings

M. E. 23-Mech. Equipment of Buildings ..... | 5 |
| :--- |
| 0 |

Non-technical elective ${ }^{1}$ ..... 3
Total ..... 17
A. E. 48-Architectural Engineering ..... 5
A. E. 58-Fireproof Construction ..... 2
A. E. 68-Estimates and Specifications ..... 4
Non-technical elective ${ }^{1}$ ..... 3
Total ..... 16
Revised Curriculum in Ceramic Engineering
FIRST' YEAR
FIRST SEMESTER
SECOND SEMESTER
Hours ${ }^{2}$
Hours ${ }^{2}$
Chem. $1 \mathrm{a}^{3}$ or 1 b -Inorganic Chemistry... 3 or 4 Chem. 4-Qualitative Analysis ..... 4
G. E. D. 1-Elements of Drafting
G. E. D. 2-Descriptive Geometry4
5
5
Math. 2-College AlgebraMath. 6-Analytic Geometry5
Math. 4-Trigonometry.
Rhet. 2-Rhetoric and Themes. ..... 3
Rhet. 1-Rhetoric and Themes. ..... 0
Engineering lecture.
Engineering lecture1
Phys. Tr. 1 and 1a-Gymnasium and Hygiene.
Phys. Tr. 2-Gymnasium ..... 1
Mil. 2a-Military Drill Mil. 2b-Military Drill. ..... 1
Total ..... 17 or 18
Total ..... 19
Summer Reading, 50 points
SECOND YEAR
Chem. 5a-Quantitative Analysis Chem. 5 b -Quantitative Analysis ..... 5
Math. 7-Differential Calculus. Math. 9-Integral Calculus. ..... 3
Min. 3-Mining Principles. Phys. 1b-Physics Lectures. ..... 2
Phys. 1a-Physics Lectures. Phys. 3b-Physics Laboratory. ..... ${ }^{2}$
Mil. $2 c$-Military Drill Non-technical elective ${ }^{3}$ ..... 3
Total
Summer Reading, 50 points
THIRD YEAR FOR THE CLASS OF 1918
Cer. 2-Winning and Preparation of Clays.. 3 Cer. 5-Ceramic Bodies ..... 5
Chem. 65-Gas and Fuel Analysis. Cer. 3-Industrial Calculations ..... 3
Language........................................ Cer. 12-Designing and Shaping. ..... 3
T. \& A. M. 25-Resista
C. E. 76-Surveying ..... 4
Non-technical elective ${ }^{1}$
Language ..... $\overline{17}$ ..... 3
FOURTH YEAR FOR THE CLASS OF 1917
Cer. 8-Glass ..... 2

Ceramic thesis or technical elective ..... | 4 |
| :--- |
| 3 | Geol. 13 b -Engineering Geology ..... 3 M. E. 62 -Mech. Eng. Laboratory ..... 3

Cer. 4-Drying and Burning. . . . . . . . . . . . . . . 4

Cer. 4-Drying and Burning. . . . . . . . . . . . . . . 4 .....  ..... 4
5 .....  ..... 4
5

Cer. 17-Physical Chemistry

Cer. 17-Physical Chemistry

Cer. 99-Inspection Trip

Cer. 99-Inspection Trip

Non-technical elective ${ }^{1}$

Non-technical elective ${ }^{1}$ .....  ..... $\begin{array}{r}0 \\ \hline\end{array}$ .....  ..... $\begin{array}{r}0 \\ \hline\end{array}$

Total.

Total. .....  ..... 18 .....  ..... 18
Total.
Total.
Total ..... $\overline{15}$

[^37]
## Curriculum in Civil Engineering as Taught in 1916-17

## FIRST YEAR FOR THE CLASS OF 1920

| EIRST SEMESTER | SECOND SEMESTER |
| :---: | :---: |
| Hours ${ }^{1}$ | Hours ${ }^{1}$ |
| Chem. 1a ${ }^{2}$ or 1b-Inorganic Chemistry .. 3 or 4 | Chem. 4-Inorganic Chemistry. . . . . . . . . . . . . 4 |
| G. E. D. 1-Elements of Drafting . . . . . . . . . . 4 | G. E. D. 2-Descriptive Geometry . . . . . . . . . 4 |
| Math. 2-Advanced Algebra. . . . . . . . . . . . . . . 3 | Math. 6-Analytic Geometry. . . . . . . . . . . . . . . 5 |
| Matb. 4-Trigonometry. . . . . . . . . . . . . . . . . . . 2 | Rhet. 2-Rhetoric and Themes. . . . . . . . . . . . . 3 |
| Rhet. 1-Rhetoric and Themes............... 3 | Phys. Tr. 2-Gymnasitm . . . . . . . . . . . . . . . . 1 |
| Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . 1 | Mil. 1-Drill Regulations. |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene. . 1 | Mil. 2b-Military Drill. |
| Engineering lecture. . . . . . . . . . . . . . . . . . . . . 0 | Engineering lecture. . . . . . . . . . . . . . . . . . . . . 0 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . 17 or 18 |  |
| Summer Reading, 50 points |  |
| SECOND YEAR FOR THE CLASS OF 1919 |  |
| C. E. 27-Plane Surveying . . . . . . . . . . . . . . . . 3 | C. E. 28-Higher Surveying . . . . . . . . . . . . . . . 3 |
| Language...................... . . . . . . . . . 4 | Language..... . . . . . . . . . . . . . . . . . . . . . . . 4 |
| Math. 7-Differential Calculus.. . . . . . . . . . . . . 5 | Math. 9-Integral Calculus............... . . . . 3 |
| Phys. 1a-Physics Lectures. . . . . . . . . . . . . . . . 3 | Phys. 1b-Physics Lectures . . . . . . . . . . . . . . . 2 |
| Phys. 3a-Physics Laboratory . . . . . . . . . . . . . . 2 | Phy̌s. 3b-Physics Laboratory. . . . . . . . . . . . . . 2 |
| Mil. 2c-Military Drill. . . . . . . . . . . . . . . . . . . 1 | T. \& A. M. 20-Analytical Mechanics. . . . . . . 3 Mil. 2d-Military Drill. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 T |  |
| Summer Reading, 50 points |  |
| THIRD YEAR FOR THE CLASS OF 1918 |  |
| C. E. 51-Railroad Surveying. . . . . . . . . . . . . 5 | C. E. 52-Roads and Pavements . . . . . . . . . . . 3 |
| M. E. 1-Steam Engines and Boilers. . . . . . . . 3 | C. E. 60-.Structural Stresses . . . . . . . . . . . . . . 4 |
| Non-technical elcctive ${ }^{3}$. . . . . . . . . . . . . . . . . . 3 | C. E. 62-Structural Details. . . . . . . . . . . . . . . 2 |
| T. \& A. M. 21-Analytical Mechanics . . . . . . 2 | C. E. $70-$ Seminar. . . . . . . . . . . . . . . . . . . . . . . . 1 |
| T. \& A. M. 29-Resistance of Materials. . . . . 5 | Non-technical elective ${ }^{3}$........................... . . . 3 |
|  | T. \& A. M. 10-Hydraulics. . . . . . . . . . . . . . . . . . 3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 |
| FOURTH YEAR FOR THE CLASS OF 1917 |  |
| I. General Civil Engineering Option |  |
| C. E. 77-Masonry Construction. . . . . . . . . . . 4 | C. E. 80-Contracts and Specifications. . . . . . 2 |
| C. E. 79-Cement Laboratory . . . . . . . . . . . . . . 1 | E. E. 4-Elementary Electrical Engineer- |
| C. E. 81-Theory of Reinforced Concrete. . . . 2 | ing. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 |
| C. E. 83-Steel Bridge Design . . . . . . . . . . . . 3 | E. E. 64-Electrical Engineering Labor- |
| M. \& S. E. 2-Water Supply Engineering . . . . 4 | atory . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 |
| C. E. 99-Inspection Trip.................... 0 | M. \& S. E. 3-Sewerage. . . . . . . . . . . . . . . . . 3 |
| Technical elective. . . . . . . . . . . . . . . . . . . . . . 3 | Non-technical elective ${ }^{3}$........................... . . . . 3 |
|  | Technical elective. . . . . . . . . . . . . . . . . . . . . . . . . . 5 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 |

## II. Structural Engineering Option

 C. E. 80-Contracts and Specifications ..... 2 C. E. 82-Reinforced Concrete Design ..... 4C. E. 88-Steel Building Design3M. \& S. E. 3-Sewerage.3 Non-technical elective ${ }^{3}$ ..... 3Total ..... 15
III. Highway Engineering Option
C. E. 77-Masonry Construction C. E. 80-Contracts and Specifications. ..... 2
C. E. 79-Cement Laboratory C. E. 92-Concrete Bridges and Culverts. ..... 2
C. E. 81 -Theory of Reinforced C C. E. 94-Highway Administration ..... 3
C. E. 93-Road Construction Chem. 73-Asphalt, Tar, etc ..... ${ }_{2}^{2}$
M. \& S. E. 2-Water Supply Engineering Technical elective ..... 4
C. E. 99-Inspection Trip ..... 0
Total ..... 18
Total. ..... 15

C. E. 77-Masonry Construction

C. E. 77-Masonry Construction

C. E. 77-Masonry Construction

C. E. 77-Masonry Construction

C. E. 79-Cement Laboratory

C. E. 79-Cement Laboratory

C. E. 79-Cement Laboratory

C. E. 79-Cement Laboratory

C. E. 81-Sheory of Reinforce

C. E. 81-Sheory of Reinforce

C. E. 81-Sheory of Reinforce
C. E. 85-Steel Bridge Design.
C. E. 85-Steel Bridge Design.
C. E. 85-Steel Bridge Design. C. E. 87-Advanced Bridge Analysis. C. E. 87-Advanced Bridge Analysis. C. E. 87-Advanced Bridge Analysis. C. E. 87-Advanced Bridge Analysis.
M. \& S. E. 2-Water Supply Engineering.
M. \& S. E. 2-Water Supply Engineering.
M. \& S. E. 2-Water Supply Engineering. .....  4 .....  4 .....  4
C. E. 99-Inspection Trip.
C. E. 99-Inspection Trip.
C. E. 99-Inspection Trip. ..... 0 ..... 0 ..... 0
Total.
Total.
Total.
Total. ..... 18 ..... 18 ..... 18 ..... 18
C. E. 77-Masonry Construction
C. E. 77-Masonry Construction
C. E. 77-Masonry Construction ..... 2 ..... 3
C. E. 60 -Structural Stresses
C. E. 60 -Structural Stresses ..... 4 ..... 4
M. E. 1-Steam Engines and Boilers
E. 62 -
E. 62 -
T. \& A. M. 21-Analytical Mechanics
FOURTH YEAR FOR THE CLASS OF 1917I. General Civil Engineering OptionC. E. 80-Contracts and Specifications. ......E. E. 4-Elementary Electrical Engineer-2
M. \& S. E . 3 Sewerage ..... $\frac{1}{3}$
Non-technical elective ..... 5
Total ..... 16

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## Technical Electives

| C. E. 83-Steel Bridge Design . . . . . . . . . . . . . 3 | C. E. $76-\mathrm{General}$ Surveying. |
| :---: | :---: |
| E. 85-Steel Bridge Design. . . . . . . . . . . . . 5 | C. E. 82-Reinforced Concrete Design |
| C. E. 87-Advanced Bridge Analysis. . . . . . . . 2 | C. E. 88-Steel Biulding Design. |
| C. E. 91-Highway Bridge Design... . . . . . . . . 4 | C. E. 92-Concrete Bridges and Culverts. |
| C. E. 93-Road Construction. . . . . . . . . . . . . . 3 | C. E. 94-Highway Administration. |
| C. E. 97-Thesis ${ }^{1}$. $\cdot$. $\cdot$. . . . . . . . . . . . . . . . . . . 1 | C. E. 96-Road Laboratory |
| Min. 6a-Mechanical Engineering of Mines... 3 | C. E. 98-Thesis ${ }^{1}$. . . . . . . . . . . . . . . . . . 2 or |
| R.E. 33-Economy of Railway Location. . . . 4 | Chem. 73-Asphalts, Tar |
|  | E. E. 4-Electrical Encineering |
|  | E. E. 64-Electrical Engineering Labor- |
|  | Min. 1-Earth and Rock Excavation. ....... 3 |
|  | M. \& S. E. 3-Sewerage.......................... |
|  |  |
|  | R. E. 31-Railway Yards and Termina |

## Curriculum in Electrical Engineering as Taught in 1916-17

## FIRST YEAR FOR THE CLASS OF 1920

| TIRST SEMESTER | SECOND SEMESTER |  |
| :---: | :---: | :---: |
| Chem. $1 \mathrm{a}^{3}$ or 1 b -Inorganic Chemistry. . 3 or 4 | Chem. 4-Qualitative Analysis. | Hours ${ }^{2}$ |
| G. E. D. $1 \rightarrow$ Elements of Drafting. . . . . . . . . . 4 | G. E. D. 2-Descriptive Geometr |  |
| Math. 2-Algebra. . . . . . . . . . . . . . . . . . . . . . . 3 | Math. 6-Analytic Geometry. |  |
| Math. 4-Trigonometry....................... 2 | Rhet. 2-Rhetoric and Themes, |  |
| Rhet. 1-Rhetoric and Themes............... . 3 | Engineering lecture. |  |
| Engineering lecture......................... 0 | Phys. Tr. 2-Gymnasium |  |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene 1 | Mil. 1-Drill Regulations. |  |
| Mii. $2 \mathrm{a}-\mathrm{Military} \mathrm{Drill......................}$. | Mil. 2d-Military Drill. |  |
| Total.............................. . . 17 or 18 | Total. |  |
| Summer Reading, 50 points |  |  |

## SECOND YEAR FOR THE CLASS OF 1919



## THIRD YEAR FOR THE CLASS OF 1918

| Chem, 4-Qualitative Analysis. . . . . . . . . . . . . 4 | E. E. 26-Alternating Currents . . . . . . . . . . . 4 |
| :---: | :---: |
| E. E. 25-Direct Current Apparatus. . . . . . . . . 4 | E. E. 76-Electrical Engineering Labora- |
| E. E. 75-Electrical Engineering Labora- | tory . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 |
|  | M. E. 2-Steam Engineering. . . . . . . . . . . . . . 3 |
| Math. 9a-Integral Calculus.............. 2 | Non-technical elective ${ }^{4}$..................... 3 |
| Phys. 4a-Electrical and Magnetic Measurement...................................... 2 | Phys. 4b-Electrical and Magnetic Measurement....................................... 2 |
| T. A. M. 25-Resistance of Materials . . . . . . . 4 | T. \& A. M. 26-Analytical Mechanics and Hydraulics. |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |
| FOURTH YEAR FOR | THE CLASS OF 1917 |
| E. E. 35-Alternating Current Apparatus. . . 4 | E. E. 36-Alternating Current Apparatus.... 4 |
| E. E. 55-Electrica! Design. . . . . . . . . . . . . . . 2 | E. E. 56-Electrical Design. . . . . . . . . . . . . . . 4 |
| E. E. 85-Electrical Engineering Laboratory.. 2 | E. E. 86-Electrical Engineering Labora- |
| E. E. 95-Seminar. . . . . . . . . . . . . . . . . . . . . . . 1 | tory. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 |
| M. E. 11-Thermodynamics . . . . . . . . . . . . . . . 3 | E. E. 96-Seminar . . . . . . . . . . . . . . . . . . . . . . 1 |
| M. E. 61-Power Measurement. . . . . . . . . . . . 2 | E. E. 98-Thesis ${ }^{1}$ or elective. . . . . . . . . . . . . . 3 |
| E. E. 99-Inspection Trip..................... 0 | Non-technical elective ${ }^{4} . .$. . . . . . . . . . . . . . . . . . 3 |
| Non-technical elective ${ }^{\text {. . . . . . . . . . . . . . . . . . . . } 3}$ |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 |

[^39]
# Curriculum in Mechanical Engineering as Taught in 1916-17 FIRST YEAR FOR THE CLASS OF 1920 <br> FIRST SEMESTER <br> SECOND SEMESTER 

Hours ${ }^{1}$
Chem. $1 \mathrm{a}^{2}$ or 1 b -Inorganic Chemistry .. 3 or 4
G. E. D. 1-Elements of Drafting............. 4

Math. 2-Algebra
Math. 4-Trigonometry.
3
Rhet. 1-Rhetoric and Themes. . . . . . . . . . . . . . . . . . . ${ }_{3}$
Engineering lecture....................................... 0
Phys. Tr. 1 and 1a-Gymnasium and Hygiene. . 1
Mil. 2a-Military Drill.
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . 17 or $\overline{18}$

Chem. 4-Qualitative Analysis. .... Hours ${ }^{1}$
G. E. D. 2-Descriptive Geometry ........... . . . . 4

Math. 6-Analytic Geometry...................... 5
Rhet. 2-Rhetoric and Themes.................. 3
Engineering lecture. . ................................ . . . 0
Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . . . . . . . . . . 1
Mil. 1-Drill Regulations. . . . . . . . . . . . . . . . . . . 1
Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19
Summer Reading, 50 points
SECOND YEAR FOR THE CLASS OF 1919


## FOURTH YEAR FOR THE CLASS OF 1917

| E. E. 11-Direct Current Apparatus.......... 3 | E. E. 12-Alternating Current Apparatus. . . . 3 |
| :---: | :---: |
| E. E. 61-Direct Current Laboratory . . . . . . . . 1 | E. E. 62-Alternating Current Laboratory.... 1 |
| M. E. 15-Gas Power Engineering or | M. E. 26-Fleating and Ventilation........... 3 |
| M. E. 37-Principles of Management. . . . . . . 3 | M. E. 32-Power Transmission . . . . . . . . . . . . 3 |
| M. E. 43-Engineering Design. . . . . . . . . . . . . 5 | M. E. 44-Engineering Design or |
| M. E. 65-Power Laboratory . . . . . . . . . . . . . . 3 | M. E. 66--Power Laboratory . . . . . . . . . . . . . . 2 |
| E. E. 99-Inspection Trip...... . . . . . . . . . . . . 0 | M. E. 52-Power Plant Design. . . . . . . . . . . . . 3 |
| Non-technical elective ${ }^{3}$. . . . . . . . . . . . . . . . . . 3 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 |

# Curriculum in Mining Engineering as Taught in 1916-17 <br> FIRST YEAR FOR THE CLASS OF 1920 <br> FIRST SEMESTER <br> SECOND SEMESTER 

| FIRST SEMESTER |  | SECOND SEMESTER |  |
| :---: | :---: | :---: | :---: |
| Chern. $1 a^{2}$ or 1 b -Inorganic Chemistry | Hours ${ }^{1}$ <br> .3 or 4 |  | Hours ${ }^{1}$ |
| G. E. D. 1 -Elements of Drafting. . . . |  | G. E. D. 2--Descriptive Geometr |  |
| Math. 2-College Algebra. |  | Math. 6-Analytic Geometry. . | 5 |
| Math. 4-Trigonometry. |  | Rhet. 2-Rhetoric and Themes. | 3 |
| Rhet. 1-Rhetoric and Themes | 3 | Engineering lecture. | 0 |
| Engineering lecture |  | Phys. Tr. 2-Gymnasium |  |
| Phys. Tr. 1 and 1a-Gymnasium and Hyg | ne.. 1 | Mil. 1-Drill Regulations. |  |
| Mil. 2a-Military Drill. . |  | Mil. 2b-Military Drill. |  |
| Total | 7 or 18 | Total |  |

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## SECOND YEAR FOR THE CLASS OF 1919



## FOURTH YEAR FOR THE CLASS OF 1917

1. Coal Mining Oplion


## 1I. Ore Mining Oplion

| Chem. 7-Metallurgy. . . . . . . . . . . . . . . . . . 3 | Geol. 2-Economic Geology . . |
| :---: | :---: |
| Chem. 69-Metallurgical Laboratory and | Min. 8-Mine Law, Administration, and |
|  | Accounts................................ ${ }^{3}$ |
| Min. 15-Principles of Mine Ventilation | Min. 44-Ore Plant Design. . . . . . . . . . . . . . . . . 2 |
| Min. 19-Ore and Coal Preparation. . . . . . . . 3 | Min. 62-Mine Surveying. |
| Min. 21-Mine Examination and Valuation. 2 | Min. 66-Ore Concentration Laboratory |
| Min. 43-Principles of Ore Plant Design. . . . . 3 | Min. 90-Journal Meeting. |
| Min. 99-Inspection Trip. . . . . . . . . . . . . . . . . 0 | Non-technical elective ${ }^{2}$. |
| Non-technical elective ${ }^{2}$...................... . 3 |  |
| Total...................................... . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |
| 111. Metal | gical Option |
| Chern. 7-Matallurgy | Chem. 7a-Non-ferrous Metallurgy. |
| Chem. 65-Technical Gas and Fuel An- | Chem. 78-Metallography. . . . . . . . . . . . . . . . . . 2 Min. 8-Administration and Accounts......... 2 |
| Chem. 69-Metallurgical Laboratory and | Min. 46-Mill and Smelter Design............. 2 |
| 炜 Assaying. . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 | Min. 66-Ore Concentration Laboratory . . . . . 3 |
| Min. 17-Problems. . . . . . . . . . . . . . . . . . . . . . 1 | Min. 90-Journal Meeting. |
| Min. 19-Ore and Coal Preparation. . . . . . . . 3 | Min. 13-Utilization of Fuels. . . . . . . . . . . . . . 2 |
| Min. 45-Mill and Smelter Design............ 3 | Non-technical elective ${ }^{2}$ |
| Min. 99-Inspection trip. . . . . . . . . . . . . . . . . . 0 |  |
| Non-technical elective ${ }^{2}$. . . . . . . . . . . . . . . . . . . . 3 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |

1Students in Metallurgical Option take First Semester: Chemistry 7-General Metallurgy, instead of Min. 1; Second Semester: Chemistry 5b, -advanced Quantitative Analysis instead of Mining 4 and Mining 6.
${ }^{2}$ Any approved non-technical course. See page 151

## Curriculum in Municipal and Sanitary Engineering as Taught in 1916-17 FIRST YEAR FOR THE CLASS OF 1920

| Hours ${ }^{1}$ | Hours ${ }^{1}$ |
| :---: | :---: |
| Chem. $1 \mathrm{a}^{2}$ or 1b-Inorganic Chemistry.. 3 or 4 | Chem. ${ }^{4-Q u a l i t a t i v e ~ A n a l y s i s . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~} 4$ |
| G. E. D. 1-Elements of Drafting . . . . . . . . . . 4 | G. E. D. 2-Descriptive Geometry . . . . . . . . . . 4 |
| Math. 2-Advanced Algebra................... 3 | Math. 6-Analytic Geometry . . . . . . . . . . . . . . 5 |
| Math. 4-Trigonometry. . . . . . . . . . . . . . . . . . 2 | Rhet. 2-Rhetoric and Themes............... . 3 |
| Rhet. 1-Rhetoric and Themes............... 3 | Engineering lecture. . . . . . . . . . . . . . . . . . . . . . 0 |
| Engineering lecture.......................... . 0 | Phys. Tr. 2—Gymnasium . . . . . . . . . . . . . . . . . 1 |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene. . 1 | Mil. 1-1)rill Regulations. . . . . . . . . . . . . . . . . 1 |
| Mil. 2a-Military Drill.... . . . . . . . . . . . . . . . . 1 | Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . 1 |
| Total............................. 17 or 18 | Total. |
| Summer Read | g, 50 points |

SECOND SEMESTER

## SECOND YEAR FOR THE CLASS OF 1919

C. E. 27-Plane Surveying. C. E. 28-Higher Surveying ..... 3
Math. 7-Differential Calculus Math. 9-Integra! Calculus ..... 3
Phys. 1a-Physics Lectures. Phys. 1b-Physics Lectures. ..... 2
Phys. 3a-Physics Laboratory Phys. 3b-Physics Laboratory ..... ${ }_{3}$ T. \& A. M. 20-Analytical Mechanics. ..... 3
Language.
Language. Mil. 2c-Military Drill. Mil. 2c-Military Drill. Language....i......... ..... 1
Total. ..... 18
Tctal. ..... 18
Summer Reading, 50 points
THIRD YEAR FOR THE CLASS OF 1918

| Botany 6-Bacteriology . . . . . . . . . . . . . . . . $21 / 2$ | C. E. 62-Structural Details. |
| :---: | :---: |
| Chem. 10b-Water Analysis. . . . . . . . . . . . . . $21 / 2$ | C. E. 60-Structural Stresses. |
| C. E. 53-Railroad Surycying. . . . . . . . . . . . . . 3 | C. E. 52-Roads and Pavements |
| T. \& A. M. 21-Analytical Mechanics....... 2 | M. E. 2-Steam Engineering. |
| T. \& A. M. 29-Resistance of Materials. . . . . . 5 | T. \& A. M. 10-Hydraulics. |
|  | Non-technical elective ${ }^{3}$ |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. |

FOURTH YEAR FOR THE CLASS OF ..... 1917

| C. E. 77-Masonry Constructi | C. E. 62-Structural Details. . . . . . . . . . . . . . 2 |
| :---: | :---: |
| C. E. 79-Cement Laboratory | C. E. 80-Contracts and Specifica |
| C. E. 81-Reinforced Concrete.. . . . . . . . . . . . . 2 | E. E. 4-Elementary Electrical Engineering. |
| M. E. 61-Steam Laboratory . . . . . . . . . . . . . . . 2 | E. E. 64-Electrical Enginecring Laboratory |
| M. \& S. E. 2-Water Supply Engineering. | M. \& S. E. 3-Sewerage.................. 3 |
| M. \& S. E. 6a-Water Purification and Sewage Disposal | M. \& S. E. 6b-Water Purification and Sewage Disposal |
| M. \& S. E. 99-Inspcction Tr | M. \& S. E. 9-Hydraulic Design and Con- |
| Non-technical elective ${ }^{8}$ | struction <br> M. \& S. E. is-Thesis or approved elec tive. |
|  | Total |

Curriculum in Railway Civil Engineering as Taught in 1916-17
FIRST YEAR FOR THE CLASS OF 1920


[^41]
## SECOND YEAR FOR THE CLASS OF 1919



## Curriculum in Railway Electrical Engineering as Taught in 1916-17 FIRST YEAR FOR THE CLASS OF 1920

FIRST SEMESTER

| FIRST SEMESTER |  | SECOND SEMESTER |  |
| :---: | :---: | :---: | :---: |
| Chem. $1 \mathrm{a}^{3}$ or 1 b -Inorganic Che | Hours $^{2}$ | Chem. 4-Qualitative Analysis. | Hours ${ }^{2}$ |
| G. E. D. 1 -Elements of Draftin |  | G. E. D. 2-Descriptive Geometry |  |
| Math. 2-College Algebra |  | Math. 6-Analytic Geometry. |  |
| Math. 4-Plane Trigonometry |  | Rhet. 2-Rhetoric and Themes. | 3 |
| Rhet. 1-Rhetoric and Themes | ... 3 | Phys. Tr. 2-Gymnasium. |  |
| Phys. Tr. 1 and 1a-Gymnasium a | iene.. 1 | Mil. 1-Drill Regulations. |  |
| Mil. 2a-Military Drill. |  | Mil. 2b-Military Drill |  |
| Engineering lecture | 0 | Engineering lecture. |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . 17 or 18 Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19.19 |  |  |  |
| Summer Reading, 50 points |  |  |  |

Lancuare.
Math. 7 -Differential Calculus. Language...................... ..... 4 ..... 3M. E. 79-Pattern Work.
M. E. 75-Forge Work.
M. E. 75-Forge Work. M. E. 77 -Foundry Work3Phys. 1b-Physics Lectures.2
Phys. 1a-Physics Lectures
Phys. 1a-Physics Lectures
Phys. 3b-Physics Laboratory ..... ${ }_{3}^{2}$
Phys. 3a-Phesics
Phys. 3a-Phesics
Mil. 2e-Military Drill Mil. 2d-Military Drill ..... 1
Total ..... 18
Total. ..... 18
Summer Reading, 50 points
THIRD YEAR FOR THE CLASS OF 1918
E. E. 25-Direct Current Apparatus. ..... 4E. E. 75-Electrical Engineering Labora-tory. .Ma.............................. 2
M. E. 81 -Machine Work. ..... ${ }_{3}^{2}$
Phys. 4a-Electrical and Magnetic Measure-
E. E. 26-Alternating Current ..... 4
E. E. 76 -Electrical Engineering Labora-
M. E. 2 - Steam Engineering ..... $\frac{2}{3}$
ments..Phys. 4b-Electrical and Magnetic Measure-
R. E. 25-Railway Development. ..... ${ }_{3}^{2}$ ..... ${ }_{3}^{2}$ ..... 3
T. \& A. M. 25-Resistance of Materials
R. E. $60-$ Electric Railway Principles.
T. \& A. M. 36-Analytical Mechancis. ..... 22
Non-technical elective ${ }^{1}$ ..... 3
Total ..... 18
SECOND YFAR FOR THE CLASS OF 1919

[^42]
## FOURTH YEAR FOR THE CLASS OF 1917

| M. E. 11-Thermodynamics. . . . . . . . . . . . . . 3 | E. E. 56-Electrical Design. |
| :---: | :---: |
| M. E. 61-Power Measurement. . . . . . . . . . . . . 2 | R. E. 63-Electric Railway Laboratory. |
| R. E. 62-Electric Railway Laboratory. . . . . . 2 | R. E. 65-Electric Railway Economics. |
| R. E. 64-Electric Railway Practise . . . . . . . . 3 | R. E. 98-Thesis ${ }^{1}$ or elective |
| R. E. 66-Electric Railway Machinery....... 3 | Nor-techrical elective ${ }^{2}$. |
| R. E. 67-Seminar. . . . . . . . . . . . . . . . . . . . . . . 1 |  |
| R. E. 99-Inspection Trip. ................... . 0 |  |
| Non-technical elective ${ }^{2}$. . . . . . . . . . . . . . . . . . . 3 |  |
| Total. .17 |  |

## Curriculum in Railway Mechanical Engineering as Taught in 1916-17 FIRST YEAR FOR THE CLASS OF 1920

| first semester | SECOND SEmester |  |
| :---: | :---: | :---: |
| Hours ${ }^{3}$ <br> Chem. 1b $^{4}$ or 1a-Inorganic Chemistry . 3 or 4 | Chem. 4-Advanced Chemistry. | Hours ${ }^{2}$ |
| G. E. D. 1-Elements of Drafting............ 4 | G. E. D. 2-Descriptive Geometr |  |
| Math. 2-Advanced Algebra................... 3 | Math. 6-Analytic Geometry. |  |
| Math. 4-Trigonometry. | Rhet. 2-Rhetoric and Themes. |  |
| Rhet. 1-Rhetoric and Themes............... 3 | Phys. Tr. 2-Gymnasium. |  |
| Phys. Tr. 1 and Ia-Gymnasium and Hygiene. . 1 | Mil. 1-Drill Regulations. |  |
| Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . . 1 | Mil. 2b-Military Drill. |  |
| Engineering lecture. . . . . . . . . . . . . . . . . . . . . . . 0 | Engineering lecture. |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . 17 or 18 | Total. |  |

## SECOND YEAR FOR THE CLASS OF 1919

| Language................ |  |
| :---: | :---: |
| Math. 7-Differential Calculus................ 5 | Math. 9-Integral Caiculus. .................... . . 3 |
| M. E. 79-Pattern Work. . . . . . . . . . . . . . . . . . 3 | M. E. 75-Farge Work. |
| Phys. 1a-Physics Lectures..... . . . . . . . . . . . . 3 | M. E. 77-Foundry Work. . . . . . . . . . . . . . . . . 2 |
| Phys. 3a-Physics Laboratory . . . . . . . . . . . . . 2 | Phys. 1b-Physics Lectures.... . . . . . . . . . . . . . 2 |
| Mil. 2c-Military Drill................ . . . . . . . 1 | Phys. 3b-Physics Laboratory. . . . . . . . . . . . . 2 |
|  | T. \& A. M. 20-Analytical Mechanics....... 3 |
|  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |
| Summer Read | ing, 50 points |
| THIRD YEAR FOR | THE CLASS OF 1918 |
| Math. 9a-Integral Calculus................. . 2 | M. E. 12-Thermodynamics................ . . 5 |
| R. E. 25-Railway Development. . . . . . . . . . . 3 | M. E. 64 -Power Measurement. . . . . . . . . . . . . 3 |
| T. \& A. M. 25-Resistance of Materials. . . . . 4 | R. E. 6-Locomotives. . . . . . . . . . . . . . . . . . . . 4 |
| T. \& A. M. 27-Analytical Mechanics. . . . . . . 3 | M. E. 82-Machine Work. . . . . . . . . . . . . . . . . 4 |
| Non-technical elective ${ }^{2}$. . . . . . . . . . . . . . . . . . . 3 | Non-technical elective ${ }^{2}$. . . . . . . . . . . . . . . . . . . 3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 | Total. |
| FOURTH YEAR FOR | THE CLASS OF 1917 |
| E. E. 11-Direct Current Apparatus......... 3 | F. E. 12-Alternating Current Apparatus. . . 3 |
| E. E. 61 -Direct Current Laboratory . . . . . . . . 1 | E. E. 62-Alternating Current Laboratory.... 1 |
| M. E. 37-Principles of Management. . . . . . . . 3 | R. E. 7-Advanced Design. . . . . . . . . . . . . . . 3 |
| R. E. 2-Locomotive Design. . . . . . . . . . . . . . . 3 | R. E. 8-Railway Laboratory................ . 2 |
| R. E. 5-Railway Laboratory . . . . . . . . . . . . . . 3 | R. E. 61-Electric Traction. . . . . . . . . . . . . . . 3 |
| R. E. 9-Seminar . . . . . . . . . . . . . . . . . . . . . . . 1 | R. E. 98-Thesis ${ }^{1}$ cr elective . . . . . . . . . . . . . . 3 |
| R. E. 99-Inspection Trip......... . . . . . . . . . . 0 | Non-technical elective ${ }^{2}$. . . . . . . . . . . . . . . . . . . 2 |
| Non-technical elective ${ }^{2}$...................... 3 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 |

[^43]
## THE COLLEGE OF AGRICULTURE

For the buildings used by this College, see page 54; for a list of its curriculums, page 64; for clubs auxiliary to 站 curriculums, page 102; for honors, page 87; for honorary societies, page 101; for jees and expenses, page 110.

## GENERAL STATEMENT

This College offers curriculums to both men and women. The curriculums offered are designed for four distinct purposes:

First, and mainly, to train for the profession of farming.
Second, to train for the teaching of agriculture in the public schools.
Third, to train for the profession of landscape gardening.
Fourth, to train for the profession of floriculture.
The curriculums offered by the department of household science have two purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instruction in domestic science in high schools, and, in connection with the College of Liberal Arts and Sciences, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. In order that technical knowledge and skill may be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women, the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge and breadth of view.

The College offers over ninety courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University.

The elective system prevails, and with a few exceptions the student is left free to select those subjects which meet his needs, always under the advice and guidance of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

## ADMISSION

For the requirements for admission to the College of Agriculture, see the general statement of the entrance requirements of the University, pages 66-84.

## ADMISSION TO GRADUATE WORK IN AGRICULTURE

While in gencral it will be expected that applicants for admission to the Graduate School shall have had an undergraduate course in scientific and technical agriculture equivalent to that of the University of Illinois, yet students who are otherwise eligible for admission to the Graduate School may be admitted to graduate standing in agriculture if they have had a thoro training in the fundamental sciences, even tho their undergraduate curriculum may have lacked to some extent the amount and kind of technical work included in our course.

## SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

For detailed information concerning scholarships in agriculture and household science, see page 105.

## FACIIITIES FOR INSTRUCTION AND METHODS OF WORK

The affiliation of the College with the Agricultural Experiment Station enables the University to support a larger faculty than would otherwise be possible, and permits a higher degree of specialization. For the most part, those who teach in the College conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used whenever good ones are available. Laboratory and text are supplemented by lectures and reference readings.

## AGRICULTURAL EXTENSION

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station and the local community and the farm. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and for the coordination of these activities through a regular channel, agricultural extension is administered as a separate department, conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the results of their work in the State.

Some of the general extension enterprises are: agricultural extension schools and demonstrations in different localities; the two weeks course given annually at the College in January; helping at farmers' institutes and similar gathcrings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College. (See also under University Extension, Part IV.)

Courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of methods of organizing extension activities.

## AGRONQMY

The department of agronomy gives instruction in those subjects which relate to the field, as drainage, farm machinery, field crops; the chemistry, physics, and bacteriology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and, in addition, affords opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, soii biology, and plant breeding, in the analytical and pot-culture laboratories on the soil bins and on the experiment fields at the University and in other parts of the State.

Attention is called to the fact that, if circumstances prohibit a regular four-year curriculum, it is possible for a student who has had sufficient preparatory training to arrange his studies so as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years. (See Agronomy 9 and 12.)

## ANIMAL HUSBANDRY

The depariment of animal husbandry offers courses covering the study of sheep, swine, poultry, and beef cattle and their products; heavy and light horses with their care and training; the management of herds, flocks and studs; the principles and practise of fecding, breeding, and marketing; and the chemical and physiological phases of animal nutrition.

The University herds, flocks, and studs contain about six hundred pure bred cattle, swine, sheep, and horses, and several hundred fowls, ducks, and turkeys, which are available for class purposes. These animals are also used for investigations in feeding and breeding, and for illustration of breed types and characteristics. The breeds represented are Shorthorn, Hereford, and Aberdeen Angus cattle; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, Large Yorkshire, and Hampshire swine; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, and Dorset sheep; and Percheron, Standard-bred, Shire, Belgian, and American Saddle horses. In addition to this pure-bred live stock, a large number of grade animals of the various classes of live stock furnish material for judging practise. In this practise, standard market classes and grades of live stock are illustrated, and instruction is given in the selection of animals according to feed-lot and market requirements. The new stock pavilion offers opportunity for show and judging work. (For detailed description, see page 55). The lectures of the various courses are supplemented by 1,000 or more lantern slides, charts, diagrams, models, and photographs. Pedigree and breed work is facilitated by 75 sets of the different herd, stud, and flock registers, and complete files of the leading American and British journals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, horses, and poultry, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold-storage rocm and other equipment for demonstrations in the cutting and handling of meats; a collection of wool samples, and microscopes for the study of wool. The chemistry and physiology laboratories of the department afford facilities for advanced work in animal nutrition.

## DAIRY HUSBANDRY

The department of dairy husbandry furnishes instruction in the production and care of milk and in the manufacture of dairy products.

The various courses cover the application of science to dairy problems, approved methods in dairy operations, and the economic significance of these operations.

In addition to laboratories and lecture rooms, its equipment includes a farm of 160 acres with buildings; about 100 milch cows, bulls, and young stock, including typical representatives of the Ayrshire, Guernsey, Jersey, and Holstein-Friesian breeds; a manufactory with modern equipment for handling city milk and making butter, cheese, ice cream, and bulk condensed milk; and facilities for the distribution of milk on the University milk route.

## HORTICULTURE

The department of horticulture offers fifty-six courses, in the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry),
and also in subjects dealing with all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For instruction in pomology, use is made of the various fruit plantations maintained by the department. The orchards of different ages afford opportunities for practise in pruning and studies of tree types, while the products furnish materials for practise in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages illustrates the types used in commercial packing. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For olericulture, or vegetable gardening, certain areas of ground are reserved on which garden operations are illustrated and various crops are grown. The equipment also includes a greenhouse $105 \times 28$ feet, hotbed frames and sash, and an assortment of seed drills and wheel hoes, hand tools, markers, planters, and other appliances for the growing and handling of vegetables.

The equipment in floriculture includes ten glass houses covering an area of 28,000 square feet, and a service building. Six of the houses, including the palm house with an area of 3,200 square feet, are used for instructional work exclusively, and the other four, while intended primarily for experimental purposes, add to the facilities for instruction in floriculture as conducted on a commercial basis. Besides roses, carnations, and chrysanthemums, the houses contain a selection of plants representing all the forms used in commercial and decorative or conservatory work. The service building contains laboratories, class rooms, offices, and potting, storage, and work rooms. An assortment of florists' supplies is maintained. Floricultural periodicals, reference books, and a series of over five hundred slides add to the equipment. The ornamental gardens maintained by the department furnish illustrative materials for students in floriculture and landscape gardening.

The equipment in landscape gardening includes four drafting rooms with desks for individuals, modern filing devices for office practise, seminar rooms, lecture rooms, offices, and a library. The library contains a complete collection of books, periodicals, pamphlets, photographs of examples of foreign and American landscape gardening, and works on civic design, all carefully indexed. There is also a collection of representative drawings and blue-prints from the offices of practising landscape architects.

The collection of trees and shrubs growing on the campus and about certain residences near the University furnishes material for plant studies in the courses in planting design. The herbarium of the division is also available for reference. A series of 1,500 lantern slides is used in lectures.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of about twenty acres, containing Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

## HOUSEHOLD SCIENCE

The courses given in this department are planned to meet the needs of two classes of students, viz: (a) those specializing in other lines of work, but desiring a knowledge of the general principles and facts of household science; (b) those who wish to specialize in household science.

The department is housed in the north wing of the Woman's Building. The kitchen for extension work, with dining room adjoining, is in the basement. The first floor contains two class rooms, a seminar room, an exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens,
small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides practise for those interested in the problems of lunchroom management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction and furnishing and household administration are studied.

## REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours before the senior year may then elect a thesis course in any department in which he has done not less than 20 hours' work, subject to the approval of the head of the department in question.

Graduates of approved colleges may expect to secure a degree in agriculture from the University of Illinois upon completion of the technical and scientific requirements. This will ordinarily require two years of residence work; a minimum of one year will be exacted.

## GENERAL CURRICULUM IN AGRICULTURE

All students except those in the special curriculums in household science, floriculture, and landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This work gives the student a correct conception of the fundamental farm practises and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, and buildings, and leaves the junior and senior years open for elective studies.

One hundred thirty hours are required for graduation, as follows:
Agriculture prescribed first two years. . . . . . . . . . . . . 19 hours
Agriculture prescribed as electives. . . . . . . . . . . . . . . 40 hourrs
Total agriculture required. ...................... 59 hours
Non-agriculture prescribed. . . . . . . . . . . . . . . . . . . . . . 42 hours
Non-agriculture préscribed as electives. . . . . . . . . . . 15 hours
Total non-agriculture required. . . . . . . . . . . . . . . . 57 hours
Open electives. . ......................................... . 14 hours

## Prescribed Subjects <br> Required for the Degree of Bachelor of Science in the General Curriculum in Agriculture

| FIRST SEMIESTER FIRST Y | YEAR SECOND SEMESTER |
| :---: | :---: |
| Hours ${ }^{1}$ | Hours ${ }^{1}$ |
| Ag. Ext. 4-Country Life Problems.......... 1 | A. H. 5-Live Stock Judging . . . . . . . . . . . . 3 |
| Agron. 25-Farm Crops. . . . . . . . . . . . . . . . . . 4 | Chem. 2a-Inorganic Chemistry and Qualita- |
| Chem. 1 or 1a-Inorganic Chemistry.... 5 or 3 | - tive Analysis................ |
| Hort. 1a-Elements of Horticulture........... 2 | D. H. 3-Elements of Dairy Husban |
| Rhet. ${ }^{12}$-Rhetoric and Themes............. 3 | Hort. 1b-Elements of Horticulture. |
| Phys. Tr. 1 and 1a-Gymnasium and Hygiene 1 | Rhet. 2-Rhetoric and Themes. |
| Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . , | Phy's. Tr. 2-Gymnasium. |
| Electives.................................... . 0 . ${ }^{-3}$ | Mil. 1-Drill Regulations. |
|  | Mil. 2-Military Drill. |
|  | Electives........ |
| Total.............................. . . 18 or 15 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 |
| SECOND | YEAR |
| A. H. 8 and 21-Principles of Breeding and Feeding. and | A, H. 8 and 21-Principles of Breeding and Feeding. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 and |
| Botany 1-General Botany. . . . . . . . . . . . . . . 5 | Botany 1-General Botany. |
|  |  |
| Agronomy 26-Elementary Farm Mechanics. . 3 and | Agronomy 26-Elementary Farm Mechanics. 3 ard |
| Chemistry 13a-Elementāry Quănititative | Chemistry 13a-Elementary Quantitative |
| Analysis.0. ............................ 5 | Analysis. |
| Min. 2c-Military Drill. . . . . . . . . . . . . . . . . . . . 1 | Military 2d-Military Drill |
| Electives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 -9 | Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . .6-9 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 -18 |

In addition to the above, students will take the following:


# CURRICULUM IN FARM ORGANIZATION AND MANAGEMENT 

FIRST SEMESTER Prescribed Subjects

FIRST YEAR
Hours ${ }^{1}$
Agron. 25-Farm Crops.
Ag. Ext. 4-Country Life Problems.............. $\frac{1}{4}$ Chem. 1 or 1a-Inorganic Chemistry ...... 5 or 3 Hort. 1a-Elements of Horticulture............ 2
Rhet. $1^{2}$-Rhetoric and Themes................ 3
Phys. Tr. 1 and 1a-Gymnasium and Hygiene.. ${ }^{1}$

## SECOND SEMESTER

Prescribed Subjects
A. H. 5-Live Stock Judging . .................. ${ }^{3}$ Chem. 2a-Inorganic Chemistry and QualiD. H. 3-Elements of Dairy Husbandry......................... 1
D. H. 3-Elements of Dairy Husbandry...... 1

Hort. 1b-Elements of Horticulture. .......... 2
Rhet. 2-Rhetoric and Themes. .................. 3
Phys. Tr. 2-Gymnasium. ......................... 1
Mi1. 1-Drill Regulations............................ 1
Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . . . 1
Total. . .......................................... . . 17

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17-15
SECOND YEAR
Prescribed Subjects Prescribed Subjects
A. H. 8 and 21-Principies of Breeding and Agron. 26-Elementary Farm Mechanics..... 3

Feeding. .................................. 3
Mil. 2d-Military Drill........................... 1
Mil. 2c-Military Driil
1
In addition to the above courses the following are also prescribed:


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To avoid conflicts with other prescribed work it is suggested that the courses in economics, accountancy, and farm management be taken in the following order:


## CURRICULUM IN FLORICULTURE

The object of this curriculum is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and gardens and give the students a working knowledge of the best methods now in use.

| FIRST SEMESTER <br> Prescribed Subjects | YEAR <br> SECOND SEMESTER Prescribed Subjects |
| :---: | :---: |
| Chern. 1 or 1a-Inorganic Chemistry..... 5 or 3 | Chem. 2a-Inorganic Chemistry and Quali- ${ }^{1}$ |
| Ent. 4-Ecomonic Entomology................ 3 | tative Analysis. ........................... ${ }_{5}$ |
| Hort. 4-Plant Houses. . . . . . . . . . . . . . . . . . . . 4 | Hort. 5-Plant Propagaticn. . . . . . . . . . . . . . . . 5 |
| Rhet. $1^{2-}$-Rhetoric and Themes.............. 3 | Rhet. 2-Rhetoric and Themes............... 3 |
| Phys. Tr. 1 and 1a-Gymnasium and Hy- | Phys. Tr. 2-Gymnasium. |
|  | Mil. 1-Drill Regulations. |
|  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . 17 or 15 | Total. |
| SECOND | YEAR |
| Bot. 1-General Botany... . . . . . . . . . . . . . . . 5 | Agron. 9-Soil Physics . . . . . . . . . . . . . . . . . . 5 |
| Eng. 20-Chief English Writers. . . . . . . . . . . . . 4 | Hort. 15a-Principles of Plant Growing. ..... 5 |
| Mil. $2 \mathrm{c}-\mathrm{Military} \mathrm{Drill......................}$. | Mil. 2 d -Military Drill. . . . . . . . . . . . . . . . . . . 1 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 11 |
| THIRD | YEAR |
| Bot. 7a-Plant Pathology . . . . . . . . . . . . . . . 5 | Bot. 27a-Plant Physiology . . . . . . . . . . . . . . . . 5 |
| Econ. 2-Principles of Economics. . . . . . . . . . . 3 | Hort. 7-Spraying.......................... 3 |
| Hort. 15b-Commercial Crops. . . . . . . . . . . . . . . 5 | Hort. 24a-Trees and Shrubs. . . . . . . . . . . . . . . 3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 11 |
| FOURTH | YEAR |
| Hort. 31-Garden Flowers | Hort. 30-Decorative Plants. . . . . . . . . . . . . . . 5 |
| Hort. 24b-Trees and Shrubs. . . . . . . . . . . . . . 3 | Hort. 42-Landscape Design. . . . . . . . . . . . . . . . . 3 <br> Hort. 32-Floral Decoration. |
| Total. | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 |
| Suggested Electives | Suggested Electives |
| Accountancy. | Agron. 12-Soil Fertility. . . . . . . . . . . . . . . . . 5 |
| Chem. 13a-Elementary Qualitative Analy- | A. H. 30-Genetics. Bot. 3a-Plant Anatomy. |
| Economics. | Bot. 4a-Taxonomy of Cormophytes.......... 5 |
| Hort. 28-Exotics. . . . . . . . . . . . . . . . . . . . . 1 | Botany 7b-Methods of Study of Fungi........ 5 Hort. 43-Nutrition of Greenhouse Crops. |
| ${ }^{1}$ Semester hours. For definition see page 247. <br> ${ }^{2}$ Those students who show by examination a pr or $R$ hetoric 2 may be excused from Rhetoric 1 . S | roficiency in composition sufficient to qualify them ee page 72. |

## CURRICULUM IN HOUSEHOLD SCIENCE

Of the 130 hours required for graduation, 91 are provided for in the prescribed list and the restricted electives of List A. The other 39 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in household science in this College take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

## PRESCRIBED SUBJECTS

## Required for the Degree of Backelor of Science in Household Science

| Art and Design 1, 12, 19, 20. | . 9 hours |
| :---: | :---: |
| Bacteriology 5 | . 5 hours |
| Botany 1 or Zoology 1 | - 5 hours |
| Chemistry 1 or 1a, 2 a | 8 or 10 hours |
| Economics 2. | . 3 hours |
| English 1, 2 | 8 hours |
| Household Science 1, 2, 3, 5, 6, 7, 12, 13, 19 | 23 hours |
| History 1a-1b or 3a-3b | 6 or 8 hours |
| Physiology 4a or 4b | . 5 hours |
| Physical Training 7a-7b, 9 | 3 hours |
| Rhetoric 1, 2. | 6 hours |
| English or Rhetoric | 5 hours |
| List A, a minimum of 1 | 4 hours |
| Total required subjects. | 90 to 94 hours |
| Electives. | 40 to 36 hours |
| Total. | . 130 hours |
| electives |  |
| List A-English 21, 22, 23, 24 |  |
| Horticulture 1a, 1b, 2, 3, 5, 19, 28, 10a |  |
| Household Science 11, 14, 17, 18 |  |
| Economics 22, 26 |  |
| Sociology 1 |  |
| Physics 7a, 8a |  |
| Education 1, 6, 10 |  |
| Agronomy 7, 9, 12, 25, 26 |  |
| Animal Husbandry 10, 5 |  |
| Dairy Husbandry 1, 3, 19, 11, 4 |  |
| Agricultural Extension 1, 3, 4 |  |

## Suggested Curriculum

FIRST YEAR
FIRST SEMESTER

## SECOND SEMESTER

Hours ${ }^{2}$


[^45]| THIRD YEAR |  |
| :---: | :---: |
| A. \& D. 19-History of Fine Arts. . . . . . . . . . 2 | A. \& D. 20-History of Fine Arts. . . . . . . . . . 2 |
| Eng. 23-Intro. to Shakespeare. . . . . . . . . . . . . 3 | Bact. 5-Intro. to Bacteriology. . . . . . . . . . . . . 5 |
| Hist. 12 or Hist. 3a. . . . . . . . . . . . . . . . . 4 or 3 | Econ. 2-Principles of Economics. . . . . . . . . . . 3 |
| H. Sci. 5-Dietetics. . . . . . . . . . . . . . . . . . . . . . . 3 | H. Sci. 3-Home Decoration. . . . . . . . . . . . . . . . 2 |
| H. Sci. 19-Dress Design..................... . 3 | H. Sci. 12-Clothing. . . . . . . . . . . . . . . . . . . . . . 2 |
| Pub. Sp. 1-Oral Expression. . . . . . . . . . . . . . . . 2 | Hist. 1b or Hist. 3b. . . . . . . . . . . . . . . . . . . 4 or 3 |
| Electives......... |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . 17 or 16 | Total. . . . . . . . . . . . . . . . . . . . . . . . 18 or 17 |
| FOURTH | YEAR |
| Educ. 1 -Introduction to Education. ........ 4 | Educ. 10-Technics of Teaching............. 3 |
| H. Sci. 13-Hist. of Home Economics. . . . . . . . 2 | H. Sci. 10-Home Management. . . . . . . . . . . . . 2 |
| Sociol. 1-Principles of Sociology. . . . . . . . . . . . 3 | H. Sci. 11 -Teachers' Course. . . . . . . . . . . . . . . . 3 |
| Electives | H. Sci. 17-Study of Textiles. . ................... . . 3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 | Total. |

# CURRICULUM IN LANDSCAPE GARDENING first year 

FIRST SEMESTER<br>Prescribed Subjects

## SECOND SEMESTER

 Prescribed SubjectsHours ${ }^{1}$ Hours ${ }^{1}$
Arch. 31-Drawing
Arch. 32-Architectural Drawing. . . . . . . . . . . 4
Bot. 1-Introductory Course.............. 5
Hort. 10a-Rural Improvement. . . . . . . . . . . . . . . 2
Math. 4-Trigonometry......................... . . . 2
Rhet. 1-Rhetoric and Themes..................
Phys. Tr. 1 and 1a-Gymnasium and Hygiene
Mil. 2a-Military Drill. . . . . . . . . . . . . . . . . . . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Hort. 10 b -Town Improvement. . . . . . . . . . . . . . . . . . ${ }_{2}$
$\stackrel{4}{5}$

Rhet. 2-Rhetoric and Themes....................... 3
Phys. Tr. 2-Gymnasium. . . . . . . . . . . . . . . . . . . . . . 1
Mi1. 1-Drill Regulations. . . . . . . . . . . . . . . . . . . 1
Mil. 2b-Military Drill. . . . . . . . . . . . . . . . . . . . . . . . . 1
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
SECOND YEAR

## Prescribed Subjects

Bot. 4d-Taxonomy
C. E. 31-Surveying.
...........................
Hort. 21a-Landscape Design................... . . 4
Hort. 31-Garden Flowers... . . . . . . . . . . . . . . . . . 3
Mil. 2c-Military D-ill. . . . . . . . . . . . . . . . . . . . . . 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14

## Electives

A. \& D. 12-Theory and Practise

Arch. 13-History of Architecture

Prescribed Subjects
Hort. 23a-Landscape Design................. $\frac{4}{3}$
Hort. 24 b -Trees and Shrubs..................... 3
Hort. 27a-Landscape Construction.3

Total.

.10

## Electives

Arch. 15-History of Architecture
A. \& D. 13-History and Practise............... 2

Econ. 2-Principles of Economics.
Hort. 8-Fruit Culture....
2

Pol. Sci. 1-American Government . . ............ 3
Sociol. 1-Principles of Sociology.

## Prescribed Subjects

C. E. 32-Surveying. . . . ......................... . . 3

Hort. $21 \mathrm{~b}-$ Landscape Design. .................... . . . . . 4
Hort. 24a-Trees and Shrubs . . . . . . . . . . . . . . . . . . . . . 3
Mil. 2d-Military Driil. . . . . . . . . . . . . . . . . . . . . . . . . 1
Total
$\overline{11}$

## Electives

Arch. 14-History of Architecture . . . . . . . . . . . 2
Ent. 4b-Introductory Economic Entomol-
Geol. 12-Geo...............
Geor. 12-Geology of Soils. .................... . . . 5
Hort. 2-Small Fruits ........................... 2
Zool. 16-Field Ornithology....................... . . 2

## THIRD YEAR

Prescribed Subjects
Hort. 23b-Landscape Design................. 4
Hort. 26a-Planting Design. ........................ ${ }_{3}^{4}$
Hort. 27b-Landscape Construction............. . 3
Hort. 36-Landscape Reading. . . . . . . . . . . . . . 2
Hort. 41-Civic Design (Elementary Course). 1
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13
Electives
Arch. 16 -History of Architecture. . . . . . . . . . . 2
A. \& D. 8-Modeling. . . . . . . . . . . . . . . . . . . . . . 2

Bot. 20-Plant Diseases................................ ${ }_{3}$
Hort. 7-Spraying. .................................... . . 3
Hort. 9-Forestry . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Hort. 29b-Garden Design. ........................ 3
Rhet. 17-Advanced Composition. ............... 3
Sociol. 7-The Rural Cummunity. ............. 2

## FOURTH YEAR

## Prescribed Subjects



Hort. 25a-Landscape Design. . . . . . . . . . . . . . . . . . . . . . . . 5
Hort. $26 \mathrm{~b}-$ Planting Design . . . . . . . . .
Hort. 26b-Planting Design . . . . . . . . . . . . . . . . . . . . . . 3
Hort. 37 a -Civic Design. . . . . . . 3 .
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13

## Electives

A. \& D. 4-Water Color............................
Hort. 40a-Trees and Shrubs (Advanced Course).
. 3
Pol. Sci. 4-Municipal Government....................................... 3
Sociol. 10 - Population. .........

## General Eléctives

Hort. 19-Amateur Floriculture. . . . . . . . . . . . 3
Hort. $39^{1}$-Special Lectures . . . . . . . . . . . . . . . . . . .
Zool. 1-General Zoology.... . . . . . . . . . . . . . . . . . . . 2

## Prescribed Subjects

Hort. 25b-Landscape Design. . . . . . . . . . . . . . . 5
Hort. 28-Exotics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Hort. 37b-Civic Design. . . . . . . . . . . . . . . . . . . 3
Hort. 38-Office Practise. . . . . . . . . . . . . . . . . . . 2
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\overline{11}$
Electives
Hort. 15-Plant Growing. . . . . . . . . . . . . . . . . . . 5
Hort. 40 b-Trees and Shrubs (Adv. Course). . 3

## CURRICULUM FOR PROSPECTIVE TEACHERS OF AGRICULTURE

A curriculum is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, $1 \mathrm{ib}, 30{ }^{2}{ }^{2}$ Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4-5; Botany 1, 3b; Chemistry 1, 2, 3, 13a; Entomology 4a-4b; Zoology 1; English 20; Rhetoric 1-2, 19; Public Speaking 5-6; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Training 1, 2, 1a; Foreign language.

For further information concerning this curriculum, address the Dean of the College of Agriculture.

## TWO WEEKS' COURSE IN AGRICULTURE

The Corn Growers' and Stockmen's Convention is held annually at the College of Agriculture (not held in 1915 and 1916 on account of the font and mouth disease). At the time of this meeting, the College gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

## THE SCHOOL FOR HOUSEKEEPERS

A two-weeks' course in household science consisting of lectures and recitation work is given in the rooms of the department of household science in the Woman's Building. (See University Extension, Home Economics, Part IV.)

## Admission to Short Courses

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. Upon arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

[^46]
# THE GRADUATE SCHOOL 

THE EXECUTIVE FACULTY

Edmund Janes James, Ph.D., LL.D., President of the University

David Kinley, Ph.D., LL.D., Dean, Professor of Economics William Chandler Bagley, Ph.D., Professor of Education Albert Pruden Carman, A.M., D.Sc., Professor of Physics Julius Goebel, Ph.D., Professor of Germanic Languages George Alfred Goodenough, M.E., Professor of Thermodynamics Harry Alexis Harding, Ph.D., Professor of Dairy Bacteriology Harrie Stuart Vedder Jones, Ph.D., Assistant Professor of English Laurence Marcellus Larson, Ph.D., Professor of History Herbert Windsor Mumford, B.S., Professor of Animal Husbandry William Abbott Oldfather, Ph.D., Professor of the Classics Arthur Newell Talbot, C.E., Professor of Municipal and Sanitary Engineering<br>Edgar Jerome Townsend, Ph.D., Professor of Mathematics<br>Henry Baldwin Ward, Ph.D., Professor of Zoology<br>Edward Wight Washburn, Ph.D., Professor of Ceramic Chemistry<br>Charles Maxwell McConn, A.M., Registrar, Secretary of the Faculty

## HISTORY AND ORGANIZATION

Altho for many years the University of Illinois had offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. In 1894 the administration of the school was vested in the Council of Administration, and the Vice-President of the University became Dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President.

By act of the Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in approved graduate courses. The affairs of the School, however, are in charge of the executive faculty appointed each year by the President.

## ADMISSION

Admission to the Graduate School may be granted to graduates of institutions whose requirements for the bachelor's degree are substantially equivalent to those of the University of Illinois, and to applicants from other institutions approved by the Executive Faculty, as hereinafter provided. Admission to the Graduate School does not, however, imply admission to candidacy for an advanced degree, and gives no right or claim to be so admitted. Such candidacy is determined by the Faculty after the student has demonstrated by his work here, for from two to five months, that he has the ability to do major work of graduate character. A mere accumulation of "credits" or "grades" is not sufficient.

A graduate of an institution meeting the requirements of a standard college, as described below, may be admitted to the Graduate School, provided he satisfies the

Dean and the departments concerned that he will be able to proceed to the master's degree in a period not exceeding two years.

For purposes of admission to the Graduate School a standard college is one which meets the following requirements:
a. The college shall require four years' work of collegiate grade for graduation, based upon an entrance requirement of at least fourteen standard high school units.
b. If conditioned students are admitted, they shall not be allowed to proceed beyond the sophomore year without removing their conditions.
c. The college shall maintain at least six departments in liberal arts and sciences, each having at least one professor in each department giving his entire time to the college work of his department.
d. The minimum educational attainment of college professors shall be equivalent to graduation from a college of high grade and graduate work equivalent at least to that required for a master's degree from the University of Illinois.
e. The college shall have a productive endowment sufficient to yield a net annual income of at least $\$ 10,000$ available for instructional purposes in the college. If the institution offers courses in addition to the usual liberal arts course, it shall have a correspondingly larger annual income.
f. The college shall have a library and laboratory equipment sufficient to meet fully the needs of the courses announced.
g. In addition to the foregoing specific requirements, so far as possible the general standing of the college shall be considered, including: the character of its curriculum, the efficiency of its instruction, the number of hours of instruction required of the members of its faculty, the size of the classes, the general standards for graduation, its conservatism in granting degrees based upon work done in absentia, the success of its graduates in the Graduate School of this University and elsewhere, etc.

Unless otherwise specially permitted, a student enrolled in the Graduate School must take each semester at least one course accepted by the executive faculty for credit in a major or a minor subject.

Admission to particular graduate courses or departments may be granted only to those who have had the requisite undergraduate work in those courses or departments. But a student of mature age who satisfies the Dean and the department concerned of his ability to pursue graduate work in a given line may be enrolled in particular graduate courses, and permitted to carry on such study or investigation under the direction of a department of the University as the department shall recommend and the Dean approve.

Application blanks for admission may be secured from the Dean of the Graduate School or from the Registrar of the University. Every applicant must submit with his application for admission, an official transcript of his college record.

## REGISTRATION AND PROGRAM OF STUDY

The following regulations concerning registration and program of studies are laid out primarily for first year students. Second and third year graduate students fill out their programs irrespective of unit value of courses, according to their needs, under the advice of their instructors.

## Registration

Each graduate student must register when he first connects himself with the University, and afterwards at the beginning of each semester.

Registration of a new student may be accepted at any time provided the student is prepared to take up courses actually under way. Credit towards the fulfilment of the residence requirement dates, however, from the time of registration and not from the beginning of the semester or year in which the student enters. But registration will not be permitted later in the year than April 1st, except in the case of students who expect to continue through the summer session, or are returning to complete a year's work which has been broken into by illness or other unavoidable interruption.

The first registration, however, or that upon entrance, is permitted only after the student's application for admission to the Graduate School, setting forth his educational attainments, has been duly approved.

A new student must fill out in duplicate an application for admission and submit it to the registrar, from whom he will receive a card of admission and a study blank. He should fill out the study blank after consultation with his adviser, or the person in charge of his major work, and also with the instructors whose courses he wishes to elect. His registration must be completed within two weeks. Otherwise it is subject to a fee of one dollar.

Registration of any student who was enrolled in the preceding semester will not be permitted after two weeks from the opening of class work for the current semester, except by vote of the faculty. Registration after this date is also subject to a fee of one dollar.

## Changes in Study Lists

A graduate student is expected to plan his work so carefully that changes in his study list during the semester will not be necessary. When a change seems advisable, however, it may be permitted without fee if made within three weeks of the date of registration. After that date a fee of one dollar is charged for each change, except that the total charge for a rearrangement authorized on any one change slip shall not exceed two dollars.

## Advisers

The person in charge of the major work of the student becomes his adviser, and, together with those with whom the student is taking first and second minor courses, forms a committee with general supervision over the student's general course of study. This committee is expected to follow the student's work and see that he is helped to lay out an intelligently planned course, and to give him such advice as may be necessary concerning his scholastic carecr.

## Amount of Work

Each student is required to attend a minimum of four class, lecture, or laboratory exercises per week in the first year of his graduate study; and in no case is he permitted during his course to attend more than twelve per week.

Each first year student doing full work must take at least four unit courses, and may be required to take five. A unit course is one which requires ten hours of time per week through one semester, irrespective of the mode of distribution of that time in class work, laboratory work and private study. Four such courses or their equivalent constitute a full minimum program for one semester, and eight such courses, or their equivalent, of graduate grade, constitute the minimum formal year's work required for a master's degree. Five and ten are the maximum for one semester and the year respectively.

Therefore, registration for full work for the master's degree ordinarily provides for three unit courses, or their equivalent, per semester, in addition to a thesis,
the time devoted to the thesis being ordinarily reckoned as equivalent to that for one unit course, or ten hours of time a week, and may not exceed one-third of a full minimum program. If a student is excused from writing a thesis he must take four unit courses or their equivalent.

## Undergraduate Courses Open to Graduate Students

Courses to which sophomores are regularly admitted may not be taken for graduate credit, either major or minor.

Unless otherwise specified by the department concerned, a course for graduates and advanced undergraduates, not open to students below senior grade and counting four or five hours of undergraduate credit, if taken by graduate students, will be treated as a unit course; when counting less than four hours of undergraduate credit, such a course, if taken by graduate students, will be treated as a half-unit course.

Unless otherwise specified by the department, a course the prerequisites of which are such as to make it possible for juniors to be admitted, if taken by a graduate student, is counted as a half-unit course or a quarter-unit course, according to the number of hours of undergraduate credit for which the course is given.

## Transfer of Undergraduate Credit

No credit earned during the under-graduate course shall be transferred for graduate credit, unless such credit was earned in time additional to the time normally required for the bachelor's degree, in the second semester of senior year, and then only for minor subjects.

## Failures

A graduate student who fails in his major subject cannot acquire his degree in that same year. No condition examinations are given graduate students.

## Miscellaneous and Listeners' Courses

Graduate students are permitted under proper circumstances to attend classes as listeners, and to elect miscellaneous subjects, that is, courses which do not count towards an advanced degree. Listeners' cards may be obtained at the Dean's office. Under the authority conferred by the faculty on the Dean no student will be permitted by the Dean to visit more than one class or to take more than one miscellaneous subject, nor is any subject open as a listener's or miscellaneous course unless it has a specific educational bearing on the student's major or minor subjects of study.

A student who elects a miscellaneous course is required to register in it, do the work, and pass the semester examinations. A student who has a listener's card is not permitted to participate in the class work or the examination.

No student may register for full minimum program of work for graduate credit if it is necessary for him to carry at the same time more than one miscellaneous subject and to visit one course.

## Students On the Staff

Assistants and others on the Ụniversity staff who undertake to do graduate work are permitted to take an amount of work determined by the terms of their employment. Such a student, applicant for a master's degree, must ordinarily stay through at least two years. In no case will the doctor's degree be conferred upon an applicant otherwise fit in less than four years if he is on the staff in any capacity.

The enrollment of a member of the staff is subject to the approval of the officer to whom he is responsible as a member of the staff and of the dean of the Graduate School with reference to the amount of work to be taken. Before credit shall be recorded for such graduate student at the end of a semester, the head of the department in which he is employed, or someone authorized by the head, must certify that the time given to graduate work by the student has not impaired the work for which he is paid by the University.

## Residence and Work Done Elsewhere

Continuous residence and study are required of all members of the Graduates Schocl, unless they are granted leave of absence by the Dean, upon recommendation of the professor in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

The term "year's residence" means a full year's work at of least eight units done during two semesters.

Students should note that all the work for the master's degree must be done in residence at the University, excepting in the case of members of the staff who have spent half of their time in study through a year at some other institution, and then do the rest of the work required during a year's residence here. Credit for work done elsewhere is not "transferred." The candidate is examined here on all the work required for the degree.

## Withdrawal

If after registration a graduate student wishes to withdraw from any course or to add other work, or if he wishes to withdraw altogether from the University, he should first secure the necessary papers from the Dean's office.

## CHARACTER OF GRADUATE WORK

The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work; for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree.

Students, especially candidates for the doctor's degree, are warned against restricting themselves to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study, and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subject.

## DEGREES

Attendance at Commencement is required of all candidates for degrees.

## The Masters' Degrees

The master's degree conferred depends upon the character of the bachelor's degree. The usual practise is that A.M. shall follow A.B., that M.S. shall follow B.S. However, this practise may be departed from in cases where the undergraduate course of study of the candidate was of a kind for which some reputable institutions in this country give A.B., while others give B.S. Such departure from the regular practise is permitted, however, only on an individual petition duly approved.

## Amount of Work Required

Candidates for the degree of Master of Arts or Master of Science are required to do at least one year's work in residence and to write a thesis. By one year's work is meant from four to five unit courses each semester, or their equivalent, but the completion of the required number is not of itself sufficient to insure the student's receiving his degree. A failure in any subject, or an absence from examiniation in any subject may prevent the conferring of his degree; and, as already indicated, failure in any course in the major field precludes the conferring of the degree in that year.

## Majors and Minors

A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. For a master's degree a major is at least half the work, or a minimum of four units, for one year. A minor may not be less than one unit.

A program of studies for a first year graduate student which is limited exclusively to the investigation of a single problem will not be approved. Less than one unit may not be counted as satisfying the requirements of a minor for a master's degree without the approval of the student's adviser and of the department concerned.

## Master's Thesis

Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the faculty of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work, and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. In no case will permission to take the degree without the thesis be given by the Dean if applied for later than the latest date for the approval of thesis subjects, as shown by the calendar.

No one will be excused from writing a thesis unless one-half of his program of studies consists of courses numbered 100 upwards.

The thesis required from a candidate for a master's degree ordinarily will demand one-fourth of the student's time and may not exceed one third of it. The thesis must be typewritten, on "thesis paper," and the title-page must be printed. The thesis in its final form, together with a certificate of approval by the proper officer, must be left by the professor in charge at the Dean's office at the time set in the calendar. No article prepared for another use, or previously published, will be accepted as a thesis.

## Graduate Study in the Summer

1. Attendance upon four summer sessions of nine weeks each, or one semester and two summer sessions of nine weeks each, is considered the equivalent of one year in residence. If in these sessions the required amount of work is properly done a master's degree may be earned in this way. The faculty is unwilling to accept summer session work beyond the master's degree toward the doctor's degree, excepting in the case of a student who works in a summer session preceding or following a regular year's attendance at the University. In no case may the last year's work for the doctorate be done in disconnected summer sessions.
2. No course offered in the summer session may be taken for credit towards a higher degree unless it is specially described in the summer session circular as accepted for that purpose.
3. Graduate students in the summer session are credited with only 8 weeks towards the fulfillment of the time requirement for the master's degree. It is necessary therefore for those who take work through four summer sessions for this degree to complete the residence requirement of four additional weeks. This may be done at any summer session by continuing work after the close of the regular session, under the direction of the instructor with whom the student is working. The student is examined on the work thus done as on all other work, and must report his additional work to the Dean.
4. Graduate courses in medical sciences are offered in the College of Medicine at Chicago in the summer quarter between June and September.

Circulars describing the courses offered and conditions of admission and work may be obtained from the Secretary of the College of Medicine, Congress and Honore Streets, Chicago.

## Marine Biological Laboratories

Students in zoology, candidates for the master's degree, part of whose necessary preparation is experience in a marine or fresh-water biological laboratory or station, are permitted to offer in part fulfillment of the requirements for the master's degree, work done in such fresh-water or marine laboratory; provided that the student who wishes to have such work accepted make application before beginning work in such laboratory; that the selection of the laboratory at which he is to work has been approved by the faculty beforehand; that the time to be spent in such work shall not be less than six nor more than nine weeks in any one summer; that the instructors under whom the student is to work have been previously accepted by this faculty; that he submit to an examination here on the work done at such laboratory, and that a certificate of attendance from a proper officer of the laboratory or station be submitted and a full written report of the work done in the shape of notes, or otherwise, be required; and that the student shall be in residence here at the University for one full academic year, during which he shall do the rest of the work necessary for his degree.

The marine biological laboratories which have thus far been approved as institutions at which students of this Univeristy may take work for record here are:

Marine Stations: Marine Biological Laboratory, Woods Hole, Massachusetts; Harpswell Marine Laboratory, Casco Bay, Maine.
Puget Sound Station, Friday Harbor, Washington.
Hopkins Marine Laboratory of Stanford University, Pacific Grove, California.
Scripps Institute for Biological Research, University of California, LaJolla, California.
Carnegie Institution Laboratory, Dry Tortugas, Florida.
Bermuda Biological Station, Bermuda.
Fresh Water: Douglas Lake Station, University of Michigan, Topinadee, Michigan.
Ohio State University Laboratory, Cedar Point, Ohio.

## MASTER'S DEGREES IN ENGINEERING

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science, in Architecture, Architectural Engineering, Civil Engineering,

Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above for academic work in residence only.

The professional second degrees in Engineering are as follows:
Master of Architecture after B.S. in architecture.
Architectural Engineer after B.S. in architectural engineering.
Civil Engineer after B.S. in civil engineering or B.S. in municipal and sanitary engineering.

Electrical Engineer after B.S. in electrical engineering.
Mechanical Engineer after B.S. in mechanical engineering.
Engineer of Mines, Civil Engineer, Electrical Engineer, or Mechanical Engineer, after B.S. in mining or railway engineering, according to the course.

Professional degrees are conferred upon two classes of candidates: (1) graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science; (2) graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigation of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the Commencement at which he proposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional engineering degrees who already hold the degree of Master of Science, may qualify for the professional degree after two years of professional work.

A candidate for a professional engineering degree must pay the incidental fee of twenty-four dollars on being notified that his professional study and experience are accepted as qualifying him to enter as a candidate for the degree. No one will be enrolled as a candidate for the degree at the following Commencement who does not pay his fee at this time. When a candidate for a professional engineering degree has once been accepted and paid his fee, he is eligible to receive the degree at any time within five years, without additional fee, on completion of the requirements; provided, however, that unless he completes the requirements within two years his name will be dropped from the list of candidates and in order to receive the degree within the five year period he must register once more.

## THE DEGREE OF DOCTOR OF PHILOSOPHY

The requirements for the degree of Doctor of Philosophy are a thoro mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The
major subject is the ficld in which the student expects to become expert and an authority. The first minor must be a subject closely related to the major and may, under certain conditions and with proper approval, be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major and a division of that subject as his minor, he is not permitted to choose as a second minor any division of work in that same department, excepting by special vote of the executive faculty of the School.

For the doctor's degree no definite division can be made to hold in all cases. In general the faculty approves an arrangement which, distributing the student's time through the required three years, divides it equally among his three subjects in his first year of graduate study; in the proportion of two to one, as between his major and first minor, in the second year of graduate study (his second minor being finished and dropped at the end of the first year); and gives all his time to his major during his third year.

To put the matter in another way, a course of graduate grade (from among the "hundred" courses) meeting twice or three times a week, corresponding roughly to what is sometimes called a full course, or in our terminology a unit course, running through the year, should ordinarily be sufficient for a second minor; a similar course running through two years should ordinarily be sufficient for a first minor. It is understood that in each case the course or courses taken must be such as to occupy the student's full proportion of time.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the Graduate School.

## Period of Study

The minimum period of study required for securing the degree of Doctor of Philosophy is three years. The degree is conferred, however, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

At least the first two or the last one of the three years required must be spent at this University.

Credit for work done in other universities in not "transferred." The candidate is examined here on the subjects offered by him for the advanced degree. However, his period of residence at another institution of proper grade may be accepted as fulfillment of the residence requirement of the University of Illinois, so far as it goes.

## Preliminary Examination

Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is intended to test the student's knowledge of the fields of his major and minor subjects of study. It is partly oral, and may be wholly so.

## Language Examination

The candidate will be required to demonstrate his ability to read French and German, and other language needed for the prosecution of his work.

The examination in French and German is in charge of a committee of three, consisting of the head of the department in which the student is taking his major
work, of a member of the department of modern languages, and a member appointed by the Dean of the Graduate School; this test of proficiency in the use of French and German shall take place at the time of the preliminary examination for admission to candidacy for the doctor's degree.

## Final Examination

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination. Besides the written examination set by the departments of the major and minor studies, the candidate must also take an oral examination, given by a committee appointed by the Dean. The oral examination is primarily on the research work of the student, as embodied in his thesis, but it is not confined to this. It extends to the whole field of the study of the candidate. It will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even tho it requires several sessions.

The above examinations are in addition to those in the courses for which the student is registered. These must be taken at the times for which they are set in the examination schedule.

## Thesis

The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study and must be submitted for formal approval by the faculty not later than the first Monday of November of the year when the degree is expected. Unless previously printed with proper authority, a typewritten copy of the complete thesis, on thesis paper, ${ }^{1}$ must be in the hands of the Dean not later than noon of the Saturday nearest the middle of May, for submission to the examining committee.

The doctor's thesis must be printed and one hundred copies deposited in the Library of the University by the candidate, not later than the first of June preceding the conferring of the degree. If it is not printed by the first of June, the student must deposit seventy-five dollars ( $\$ 75$ ) or a bond for that amount satisfactory to the Comptroller of the University and the Dean of the Graduate School. If a bond is accepted, it must be replaced at the end of one year with a cash deposit. At the end of two years, if the thesis has not then been printed by the student, the University will print such part of it as it deems best.

[^47]The cash deposit made by the student who does not print his thesis by the end of the second year after his degree is conferred becomes the property of the University, to be used for the general purpose of printing theses.

The title page of each thesis, whether typewritten or printed, must bear the words, "Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in-(here put the major subject)-in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, his previous degrees, the full title of the thesis, the year of imprint, and, if a reprint, the title, volume and statement of the pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short biography of the candidate, including the institutions he has attended, his degrees and honors, the titles of his publications, and such other matters as are pertinent.

A leaflet containing instructions for the preparation of theses may be obtained at the office of the Dean.

## Doctor's Degree in Engineering

The degree of Doctor of Philosophy in Engineering is offered in certain lines of academic graduate work of a high scholastic type in engineering science that will attract students who wish to prepare themselves as teachers, investigators and experts.

The general requirements for this degree, as to preliminary education, linguistic attainments, etc., are the same as in other lines.

The following lines of engineering science are open as majors for the present:
Engineering mechanics; hydraulic and sanitary engineering; steam engineering; electrical engineering; heating and ventilation engineering; railway engineering; masonry construction and structural engineering; coal mining engineering.

The first minor may be any of the above or one of the following fundamental sciences or an authorized combination of two of them:

Theoretical mechanics; mathematics; thermodynamics; chemistry; geology; physics (experimental or mathematical); zoology; botany.

The second minor should be in other than engineering subjects.

## Graduate Work in Medicine

Graduate courses in certain of the medical sciences are offered at the University College of Medicine in Chicago. These courses are open, under the general regulations of the Graduate School, to holders of bachelor's degrees. Registration, however, is made at the College of Medicine. Courses are offered for the present in anatomy, physiology, physiological chemistry, pharmacology, pathology, and bacteriology.

## SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open a number of scholarships with a stipend of $\$ 250$ each and freedom from tuition, incidental and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from $\$ 300$ to $\$ 500$, with freedom from fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks to be obtained from the Dean of the Graduate School. These application forms should be sent to the Dean of the Graduate School as carly as possible in February (and not later than the last day of that month), of the academic year preceding that for which the fellowship is desired. No application will be considered if received later than March first, until after April fifteenth, the date when appointees from the first list of applicants must accept or refuse their appointments.

Persons appointed are notified on April first and must send the Secretary of the Board of Trustees notice of their acceptance or refusal by April fifteenth; and must agree that, if accepted, the appointment will not be resigned to take a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made upon the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

For second year fellowships, adequate preparation in one foreign language, and for third year fellowships, adequate perparation in both foreign languages, is requircd.

Scholarships and fellowships are good for one year, but may be renewed for a second or a third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

## Research Fellowships in the Engineering Experiment Station

The Engineering Experiment Station is devoted entirely to research. Its purposes are the elevation of engineering education, and the study of problems of special importance to engincers and to manufacturing, railway, mining, and industrial interests.

Fourteen research fellowships have been established in the Engineering Experiment Stätion. These fellowships are open to graduates of approved technical schools and universities, both American and foreign. There is a stipend of $\$ 500$ a year for each fellowship. Applicants to whom these fellowships are awarded are required to agree to hold them for two years, devoting a part of their time to the work of the Engineering Experiment Station. At the expiration of this period, if all requirements have been met, the degree of Master of Science will be conferred.

Application for these fellowships should be made to the Director of the Engineering Experiment Station not later than February first. Candidates must present with their applications full information concerning themselves, including any written or published papers or results of investigation.

## Research Fellowship in Gaelic

Through its President, Hon. J. P. McGoorty, the Irish Fellowship Foundation of Chicago has offered the University the sum of one thousand dollars as an honorarium for a Fellow, whose duty it will be to pursue research in Irish language and literature at the University of Illinois. An additional sum of two hundred dollars was given for the traveling expenses of the appointee. To this fellorvship the University has appointed the Rev. Andrew O'Kelleher, formerly of the department of Celtic in the University of Liverpool. The Fellow is now at the University and is pursuing his work. His researches will doubtless in time be gathered together and published as a contribution to scholarship in the field of Celtic language and literature.

## THE GRADUATE CLUB

The Graduate Club is an unofficial organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which intense specialization may sometimes induce.

## THE ILLINOIS HISTORICAL SURVEY

The Illinois Historical Survey is a department of the Graduate School established in 1910 to conduct research in the history of the State of Illinois. The members of the staff, assisted by graduate students, are engaged in the production of scientific studies in Illinois history, and it is expected that the results of these labors will lay a solid basis for the interpretation of the State's past.

The following persons constitute the staff of the Survey for the year 1916-17: Clarence W. Alvord, Ph.D., Professor of History, Director; Ernest L. Bogart, Ph.D., Professor of Economics; John M. Mathews, Ph.D., Assistant Professor of Political Science; Theodore C. Pease, Ph.D., Associate in History; Arthur C. Cole, Ph.D., Associate in History; Jessie J. Kile, A.M., Research Assistant.

## GRADUATE WORK IN THE SUMMER SESSION

The Summer Session places emphasis on graduate courses leading to the master's degree. The departments related to high school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the cooperation of a department of the University, it may be possible to count the work toward the master's degree.

## THE LIBRARY SCHOOL

For a description of the Library Building, see page 56; for an account of the libraries themselves, see page 58; for the collection in library economy, sce page 62 ; for fees, see page 110.

## GENERAL STATEMENT

The Library School offers a two-year curriculum to students who wish to enter librarianship as a profession, and certain library courses to students in other schools and colleges of the University of Illinois who may wish to elect them as a part of their course of training. The instruction in the first or junior year covers the generally accepted methods and practises in library work; students who complete this year's work are prepared to accept positions in library service. In the second or senior year emphasis is placed on historical and comparative methods of treatment; new subjects are introduced to give the student the necessary outlook and equipment for more responsible positions.

One or two years' training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The time spent in actual practise, under supervision, amounts to about three and a half months, counting seven hours to a working day. Altho stress is laid on simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid on the extension of the activities of the public library, and on the importance of cooperation between the library and the schools and other educational and social agencies.

A member of the senior class in any other school or college of the University may, with the approval of the Director of the Library School, elect any course for which he is prepared.

The school also offers to freshmen and sophomores a course on the use of the library and the ordinary reference books, which will help in general reading or study.

## ENTRANCE REQUIREMENTS

Admission to the Library School is conditioned on the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training.

Application blanks for admission may be secured from the Director of the School, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, generally not later than July 1. It is to the candidate's interest to present the application and certificates early, in order that the question of admission may be settled before he comes to Urbana.

## RECOMMENDED PRELIMINARY CURRICULUM

Undergraduates who intend, on the completion of their college work, to apply for admission to the Library School, are requested to select their courses so as to conform in general to the following recommended program of studies preparatory to library work.

## Recommended Preliminary Curriculum

English literature, $5 ;^{1}$ rhetoric, 2
Latin, 4, in addition to four years of high school Latin
German, 6 , in addition to two years of high school German
French, 4, in addition to two years of high school French
Languages begun in college instead of in the high school should be continued for a longer period
Medieval and modern European history, 3; history of England, 3; history of the United States, 3
Economics, 3; political science, 2; sociology, 3
Philosophy, 2; general psychology, 2
Zoology, 3 ; botany, 2; chemistry or physics, 3
The total of this work is 100 semester hours, leaving the equivalent of one year of a four-year course free for work in other subjects or for more work in the subjects named.

## ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from an approved institution offering courses in library economy. (See page 72).

## SPECIAL STUDENTS

It is the practise of this School to admit as special students only those mature persons, who, tho unable to meet the formal requirements for entrance, are prepared for thoro and advanced work. Such persons must present evidence of possessing the information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirement for entrance, such as the completion of part of a college course, approved libraty or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the curriculum prescribed for those who are candidates for the degree of Bachelor of Library Science, or failing that, as much of the prescribed work as they are prepared for.

## LIBRARY VISITS AND FIELD WORK

Each year all the students in the School visit the libraries and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by members of the faculty.

The estimated expense of this visit is about $\$ 20$ for each trip. Students are required to present a written report of the week's visit upon their return to the University, as the work forms part of Library 22 and Library 26.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned library, usually a public library, working, as far as practicable, under the same conditions as a member of the staff of that library. Written and oral reports of the month of field work are required, as the work forms part of Library 26. The estimated expense for the month of field work is $\$ 40$.

## CURRICULUM

The curriculum is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (*), which are elective.

[^48]The degree of Bachelor of Library Science is conferred on a student who has completed the required work in the two years' curriculum, and has received credit in courses amounting to 65 hours.


## LIBRARY CLUB

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year.

[^49]
## THE SCHOOL OF MUSIC

For admission to the School of Music, see the general statement of entrance requirements of the University, pages 66 to 84 . For fees, see page 110. For the faculty of the School of Music and description of the courses in Music, see under "Music" in the "Description of Courses," Part III.

## GENERAL STATEMENT

The School of Music offers regular courses leading to the degree of Bachelor of Music.

Students who are not working for the degree in music may receive a statement from their instructors on completing not less than one year of college work.

Classes in ear training and sight singing meet twice eacn week. Music students are required to attend these classes.

Choral or orchestral work is required of all students who are taking courses in piano, voice, violin, or organ.

All students majoring in a practical subject are required to take Music 94 (Recital).

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

All music students are expected to attend the concerts and recitals which are given under the auspices of the School of Music.

Public performance being part of the course of study in a practical subject, all students are required to participate in a program when sufficiently prepared.

Students, who by reason of deficient musical ability, inattention, or other valid reason, fail to make satisfactory progress, may be dropped from the classes.

## CURRICULDM IN MUSIC <br> FIRST YEAR

FIRST SEMESTER
Hours ${ }^{1}$
SECOND SEMESTER
Foreign language, French, German, or Ital-
ian.................................................. 4
Mus. 4-Harmony................................. 2
Mus. 21b-Ear Training..........................
Mus. $42 \mathrm{~b}, 52 \mathrm{~b}$, or $62 \mathrm{~b}-\mathrm{Piano}$, Voice, or
Violin. . ...................................... 4
Mus. 46b, 56b, or 66b-Minor subject. . . . . . . 2
Rhet. 2-Rhetoric and Themes.................. 3
Phys. Tr. 7b-Gymnasium (women)........... . .
Phys. Tr. 2-Gymnasium (men)................ . . 1
Mil. 1-Drill Regulations (men)................. 1
Mil. 2b-Military Drill (men)................... . . 1
Total, Men . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Total, Women. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

[^50]
## SECOND YEAR

| Foreign language, French, German, or Italian. | Foreign language, French, German, or Italian. ............................................ . 4 |
| :---: | :---: |
| Mus. 1 -History of Music. . . . . . . . . . . . . . . . . 2 | Mus. 2-History of Music. . . . . . . . . . . . . . . . . 2 |
| Mus. 5-Advanced Harmony . . . . . . . . . . . . . . 3 | Mus. 6-Advanced Harmony . . . . . . . . . . . . . . 3 |
| Mus. 22a-Ear Training | Mus. 22b-Ear Training. . . . . . . . . . . . . . . . . . 1 |
| Mus. 23a-Sight Singing | Mus. 23b-Sight Singing |
| Mus. 43a, 53a, 63a, or 84 -Piano, Voice, Violin, or Organ (Major Subject) | Mus. 43b, 53b, 63b, or 85-Piano, Voice, Violin or Organ (Major Subject). |
| Mus. $46 \mathrm{c}, 56 \mathrm{c}, 66 \mathrm{c}$, or 83 c -Minor subject.... 2 | Mus. 46d, 56 d , or $66 \mathrm{~d}-$ Minor Subject. ....... 2 |
| Mil. 2c-Military Drill (men)............ | Mil. 2d-Military Drill. . . . . . . . . . . . . . . . . . . . . 1 |
| Total, Men . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total, Men. . . . . . . . . . . . . . . . . . . . . . . . . 17 |
| Total. Women . . . . . . . . . . . . . . . . . . . . . . . . . 16 | Total, Women . . . . . . . . . . . . . . . . . . . . . . . . . 16 |
| THIRD | YEAR |
| Educ. 1-Introduction to Education. | Eng. 2-Survey of English Literature........ 4 |
| Eng. 1-Survey of English Literature. . . . . . . . 4 | Mus. 8-Counterpoint, Canon, and Fugue. . . . 3 |
| Mus. 7-Counterpoint, Canon, and Fugue.... 3 | Mus. 24b-Sight Singing |
|  | Mus. 45b, 55b, or 65b-Piano, Voice, or |
| Mus. 44a, 54a, 64a, or 86-Piano, Voice, Violin, or Organ (Major Subject) | Violin. <br> Mus. 46 f , 56 f , or 66 f -Minor subject........... ${ }_{2}$ |
| Mus. 46e, 56e, or 66 e -Minor Subject........ 2 |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18 | Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 |
| FOURT | H YEAR |
| Eng. 35-The English Drama | Mus. 10-General Theory . . . . . . . . . . . . . . . . . 2 |
| Mus. 9-General Theory . . . . . . . . . . . . . . . . . . 2 | Mus. 12-Acoustics. |
| Mus. 11-Acoustics. . . . . . . . . . . . . . . . . . . . . . 1 | Mus. 27b-Ensemble |
| Mus. 27a-Ensemble....................... 1 | Mus. $45 \mathrm{~b}, 55 \mathrm{~b}$, or 65 b -Piano, Voice, or Vio- |
| Mus. 45a, 55a, or 65a, Piano, Voice, or Vio- | lin...................... |
| lin............................. ${ }^{4}$ | Mus. 46 h , 56 h , or 66 h -Minor subject . . . . . . . 2 |
| Mus. $46 \mathrm{~g}, 56 \mathrm{~g}$, or 66 g -Minor subject.......... 2 <br> Mus. 94a-Recital | Mus. 94b-Recital. . . . . . . . . . . . . . . . . . . . . . 1 |
|  | Tota |

In addition, to make up the prescribed total of 130 hours: Elective, for men, 1 hour; for women, 4 hours. This extra credit may be taken at any time; the election must be approved by the student's adviser.

Practical courses include regular attendance in orchestra and choral society, unless a student is excused by the Director of the School of Music.

## CURRICULUM IN PUBLIC SCHOOL MUSIC

The aim of the curriculum in Public School Music is to prepare competent teachers and supervisors of music for the public schools. Students completing the curriculum are granted teacher's certificates. An opportunity for practise teaching is offered. The curriculum comprises the following prescribed subjects:

## FIRST YEAR

FIRST SEMESTER


SECOND SEMESTER
Mus. 2-History of Music. Hours ${ }^{1}$
Mus. 4-Harmony. .......................... . . . . . . . . . . 2
Mus. 4-Harmony. . ${ }^{\text {M1b }}$ Mus. . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{2} 1$
Mus. 21b-Ear Training . . . . . . . . . . . . . . . . . . . . . 1
Mus. 23b-Sight Singing. . . . . . . . . . . . 1
Mus. 25b-Methods of Teaching. . . . . . . . . . . . . . . . 4
Practical music, major, piano or voice ... ..... . . 6
Practical music, minor, voice or piano. . . . . . . . 2
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

## SECOND YEAR

Edu. 10-Technics of Teacbing . . . . . . . . . . . . . 3
Eng. $2 \rightarrow$ Survey of English Literature. . . . . . . . 4
Mus. 24b-Sight Singing : . . . . . . . . . . . . . . . . . . 2
Practical Music, major, piano or voice . . . . . . . 6
Practical Music, minor, voice or piano ....... . . 2
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17

[^51]Advanced students may satisfy a part of the foregoing requirements by examination; in no case, however, is a student permitted to take less than 30 hours of work.

## MUSICAL ORGANIZATIONS

The University Choral and Orchestral Society is conducted by the Director of the School of Music, with the assistance of the instructor of voilin, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

The Military Band is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examinations. A second band is also conducted, in order that all students who play band instruments ordinarily well may have an opportunity to play in a band. Each full term of service in the band counts for one term of the required work in military science. After obtaining credit for four semesters' work those who are continued in the band for not less than one year are paid an amount equal to the incidental fees for the year. There is also a reserve band and trumpet and drum corps.

The University Choristers, the University Glee and Mandolin Clubs (men), and the University Women's Glee Club are also under the supervision of the School of Music.

# THE SCHOOL OF EDUCATION 

## GENERAL STATEMENT

The School of Education was established in 1905 as an organization of the various activities of the University which are concerned with the professional preparation of teachers and supervisors for the public schools. The nucleus of the School is the department of education in the College of Liberal Arts and Sciences. The faculty of the School is made up of the members of this department and of other departments who offcr courses intended for the preparation of high-school teachers. The Board of Trustees has approved plans, and work has been begun, on a building to be used as a laboratory for the School of Education and to include quarters for a training school of secondary grade.

## THE DEPARTMENT OF EDUCATION

The department of Education includes four full professors, a principal of the training school, and several assistants. It offers courses in educational history, theory, and practise-sce under Education in the General Description of Courses, Part III. Two of the courses (Education 1 and 10) are required of all students who wish to secure the official recommendation of the University for teaching positions in secondary schools-see "Committee on Appointment of Teachers," page 192. Credits earned in these courses are usually accepted by the State Examining Board in lieu of examinations in pedagogy for county teachers' certificates; and these and other courses serve to prepare candidates for the examinations in professional subjects required for the State supervisory and high-school certificatessee "Certification of High School Teachers in Illinois," page 192.

## GRADUATE WORK IN EDUCATION

Graduate work in education is offered to qualified students in the following fields: general educational theory (Professor Bagley); educational administration and supervision and elementary education (Professor Bagley); secondary, vocational, and higher education (Professor Johnston and Professor Hollister); educational psychology, including mental tests and clinical psychology, health administration, and school hygiene (Professor Whipple).

The equipment of the department for graduate work comprises: (a) A library of some 20,000 volumes (besides pamphlets), including the Aron Library of 8,000 titles relating largely to European education in the sixteenth, seventeenth, and eighteenth centuries; a collection of documents representing educational development in the United States, including school reports and courses of study and of state and city systems; and a text-book library representing the development of elementary and secondary school texts used in American schools from the beginning of the nineteenth century; (b) an educational museum, containing exhibits of school furniture, apparatus, illustrative material, and representative work of pupils; (c) a laboratory of educational and clinical psychology equipped for mental and physical tests.

## PUBLICATIONS OF THE SCHOOL OF EDUCATION

The School of Education publishes a series of bulletins comprising (a) reports of the annual High School Conference, the Conferences on Teachers' Institutes,
and other meetings and conferences regarding public education held at the University, and (b) reports of investigations and studies by members of the instructional staff and students in the department.

The department of education is unofficially related through the editorial work of its members to the following journals: The Journal of Educational Psychology (Baltimore), edited by J. C. Bell, W. C. Bagley, C. E. Seashore, and G. M. Whipple; and Educational Administration and Supervision (Baltimore), edited by C. H. Johnston, L. D. Coffman, J. H. Van Sickle, and David Snedden.

## COMMITTEE ON APPOINTMENT OF TEACHERS

The Committee on Appointment of Teachers recommends qualified graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools in response to requests from the school authorities. The Director of the School of Education is chairman of the Committee, and the Secretary of the School is its chief executive officer.

The recommendations of the Committee are made under the following regulations of the University Senate.

1. The University Committee on Appointments is authorized to issue its recommendation, signed by the Cormmittee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The Committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of 85 in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the Committee) in each of the other subjects for which he wishes to be recommended. The committee shall, however, in each case secure the written opinion of the departments concerned in regard to the scholarship of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the Committee to be reasons which from their nature cannot be shown by mere records for questioning the scholastic ability of the student, the Committee may in its discretion withhold the recommendation.
2. A candidate must have successfully completed the following courses in the department of education:
a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A four-hour course.)
b. A course in the technics of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class-management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)
3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above, (1) if the candidate is a normal-school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successiul teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses, but is enrolled at that time in the course, a Committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 are (a) Education 1, Introduction to Education ( 4 hours), and (b) Education 10, Observation and Technics of Teaching ( 3 hours). Either course may be taken in either semester.

## CERTIFICATION OF HIGH-SCHOOL TEACHERS IN ILLINOIS

A student who expects to teach in the Illinois high schools should bear in mind that all teachers must be duly certificated. County high-school certificates are granted upon examination by county superintendents, and State high-school certificates upon examination by the State Superintendent. For county high-school certificates issued without an examination the new certificating law makes the following provision:

[^52]The educational courses required for the official recommendation of the University, Education 1 and 10, are commonly accepted as meeting the requirement in pedagogy.

State high-school certificates are granted under the following conditions:
"A four-year high school certificate valid in any high school in the State, for which the requirements shall be: (1) Graduation from a recognized college or university, or the completion of an equivalent preparation. (2) three years' successful teaching, two of which shall have been in the State on a first grade, a high school, or a supervisory county certificnte: (3) a successful examination in English, educational psychology, and the principles and methods of teaching, and (4) the preparation of a thesis on one or more secondary school problems, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.
"[NOTE-Candidates who have had three years of successful experience in tcaching, two of which were in Illinois under a first grade certificate and have exchanged the same for a county high school certificate under the new law, meet the requirements of No. 2]" (Circular 72, State Department of Public Instruction.)

Education 1, 10, and 25 embody the materials usually covered by the State examinations in educational psychology and in methods of teaching.

## CERTIFICATION OF SUPERINTENDENTS AND PRINCIPALS

The following are the requirements for certification in supervisory work:
"A four-year supervisory certificate valid for supervisory work and for teaching in any district in the State. The requirements for this certificate shall be: (1) Graduation from a recognized high school and from a recognized normal school, or an equivalent preparation; (2) three years' successful supervision, two of which shall have been in this State on a county supervisory certificate; (3) a successful examination in English, educational psychology, sociology, the history of education, and school organization, administration, and supervision, and (4) the preparation of a thesis on one or more problems of school administration, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.
'[NOTE-Candidates who have had three years of successful experience in teaching, two of which were in Illinois, under a first grade certificate, and have exchanged the same for a county supervisory certificate under the new law, meet the requirements of No. 2.]

## Life Certificates

"At the time of its expiration upon evidence of successful teaching or supervision satisfactory to the Superintendent of Public Instruction, any four-year State certificate enumerated in this Act shall become valid and be endorsed for life. The Validity of State certificates now in force and those issucd in accordance with this Act, shall be conditioned upon the good behavior of the holder." (Circular 72, State Department of Public Instruction.)

Education 1, 2, 4, 16, 20, and 25 embody the material usually covered by the examination (except in English) for the State supervisory certificate.

## REQUIREMENTS OF THE NORTE CENTRAL ASSOCIATION

Students who anticipate teaching in high schools accredited to the North Central Association of Colleges and Secondary Schools should complete courses in education aggregating at least eleven semester hours. This requirement of the Association is effective for new teachers after 1915, but is not retroactive. Certain work offered outside the department of education, especially "teachers' courses," may be counted as part of the eleven-hour minimum.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION 


#### Abstract

GENERAL STATEMENT The School of Railway Engineering and Administration has been established to prepare men for the technical and administrative departments of railroads. The work offered is arranged in five different curriculums, any one of which is designed to occupy four years' time. The curriculums are:

Railway Civil Engineering Railway Electrical Engineering Railway Mechanical Engineering Railway Administration Railway Transportation The first three of these curriculums are administered by the College of Engineering, and a description of them appears with that of other curriculums offered by this College. Students are admitted to them under the same conditions as to other curriculums of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two curriculums are administered by the College of Commerce and Business Administration; they are described in detail in connection with the other curriculums of this College. Students are admitted to them under the same conditions as to other curriculums of the College of Commerce and Business Administration.

It is the purpose of each of these curriculums to add to a foundation of general discipline and training specialized training for those who look forward to careers in railway service.


## MILITARY SCIENCE

The military instruction is under the charge of an officer of the United States Army. The course has special reference to the duties of officers of the line. A

## IMPORTANT NOTICE

## ADDITIONAL REQUIREMENTS AND OFFERINGS IN MILITARY SCIENCE UNDER THE NATIONAL DEEENSE ACT OF JUNE 3,1916

Under the Act of Congress of June 3, 1916, there have been established at the University of Illinois three units of the Reserve Officers' Training Corps.

All male students admitted to the University of Illinois (except in the professional departments) who are citizens of the United States and physically fit are enrolled during their freshman and sophomore years in the Reserve Officers' Training Corps, and are required during these two years to devote three periods a week of not less than one hour each to military science and training. Two of the three periods are devoted to drill practise, and one period to theoretical training.

At the end of the sophomore year a student who so elects, who is recommended by the President of the University and approved by the Professor of Military Science and Tactics, and who signs a form of written agreement prescribed by the Secretary of War, may be enrolled for two more years of service in the Reserve Officers' Training Corps. Such students are required to devote five hours a week to an advanced course in military science and training throughout their junior and senior years, and the completion of this work becomes for them a prerequisite for graduation. They are required also to attend two summer training camps of four weeks each.

One hour of credit toward graduation is given for each semester of work in military science, making four credits for the required work of the freshman and sophomore years, and eight credits in all for students who elect the advanced course of the junior and senior years.

The Federal Government furnishes uniforms for all members of the Reserve Officers' Training Corps; and those students who are entolled in the elective advanced course of the junior and senior years receive also commutation of subsistence as fixed by the Secretary of War (amounting at the present time to between $\$ 90$ and $\$ 100$ a year). The Government pays also the expenses of attendance at the required training camps, including traveling expenses.

A student who completes the elective advanced course is eligible for appointment by the President of the United States as a reserve officer of the United States Army for a period of ten years; and is eligible, also, for appointment as a temporary second lieutenant of the Regular Army, in time of peace, for purposes of instruction, with the allowances provided by law for that grade and pay at the rate of $\$ 100$ a month for six months; on the expiration of this period of service with the Regular Army, he reverts to the status of a reserve officer.

## PHYSICAL TRAINING

## FOR MEN

The object of the work in this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper inter-collegiate sports. Physical training is compulsory for all freshmen. Regular classes are formed in swimming and fencing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 56.

## FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and coordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, marching, simple steps, games, and Maypole. Tennis, hockey, basket-ball, volley-ball, German-ball, and quoits are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consist of black serge bloomers, white cotton blouse, black tie, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a . m., and from 2 to $5: 30 \mathrm{p} . \mathrm{m}$. The regulation swimming suit of one piece must be made of cotton jersey of other cotton material.

For a description of the Woman's Gymnasium, see under Woman's Building, page 57.

## ONE-YEAR MEDICAL COLLEGE (URBANA)

This curriculum is open to students who have completed the two years prescribed pre-medical curriculum at Urbana, as described on page 125, or its equivalent.

FIRST SEMESTER SECOND SEMESTER
Hours ${ }^{1}$
Bact. 1-Introductory Bacteriology . . . . . . . . . 3
Chem. 15-Physiological Chemistry............. 5
Physiol. 1-Histology........................... 3
Physiol. 4-General Physiology. . . . . . . . . . . . . . . 5
Human Anatomy 1-Introduction. ............ . 3
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 19

Bact. 26-Pathological Bacteriology. . . . . . . . . 2
Cbem. 15a-Metabolism ....................... 3
Physiol. 2-Esperimental Physiology ........ 5
Physiol. 8-Histology. . ......................... . . . 5
Human Anatomy 2-Introduction............. . . 3
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

A student who completes this one-year curriculum is addition to the two years pre-medical curriculum (page 125), may receive credit by transfer for one year of work in the College of Medicine of the University of Illinois at Chicago, and on completion of the second year of work in that College may receive the degree of Bachelor of Science on the recommendation of the faculty of the College of Liberal Arts and Sciences of the University of Illinois. By this combined arts-medical curriculum the student may receive the degrees of Bachelor of Science and Doctor of Medicine with six years of work.

By making this one-year medical college curriculum the fourth year in the College of Liberal Arts and Sciences, including in the three preceding years the courses in the pre-medical curriculum described on page 125, and shaping his curriculum with the approval of the Dean of that College, a student may receive the degree of Bachelor of Arts at the end of four years. He may thus secure with seven years of work the degrees of Bachelor of Arts and Doctor of Medicine.

## THE SUMMER SESSION

Edmund Janes James, Ph.D., LL.D., President of the University
William Chandler Bagley, Ph.D., Director of the School of Education, and Director of the Summer Session (1916)

## STAFF OF INSTRUCTION-1916

Frank Malloy Anderson, Ph.D., Professor of History, Dartmouth College, Hanover, New Hampshire
William Chandler Bagley, Ph.D., Professor of Education
Francis Marsh Baldwin, A.M., Assistant in Zoology
Paul Levern Bayley, A.M., Assistant in Physics
Walter Spurgeon Beach, B.S.A., M.S., Assistant in Botany
George Denton Beal, Ph.D., Associate in Chemistry
Harriett Josephine Berninger, A.B., Assistant in Education
Leonard Bloomfield, Ph.D., Assistant Professor of Comparative Philology and German
Harry Tyler Booth, B.S., Assistant in Physics
Clarence Valentine Boyer, A.M., Ph.D., Associate in English
Verna Brooks, A.B., Instructor in Physical Training for Women
Sleeter Bull, M.S., Associale in Animal Nutrition
William Leonidas Burlison, M.S., Ph.D., Associate Professor of Crop Production
Howard Vernon Canter, Ph.D., Assistant Professor of Classics and Assistant Dean, College of Liberal Arts and Sciences
David Hobart Carnaban, A.M., Ph.D., Associate Professor of Romance Languages
Charles Seráphin Carry, Assistant in Romance Languages
Edward Wilson Chittendon, Ph.D., Instructor in Mathematics
Arthur Samuel Colby, M.S., Assistant in Pomology
Arthur Charles Cole, M.A., Ph.D., Associate in History
Arthur Robert Crathorne, B.S., Ph.D., Associate in Mathematics
Clarence George Derick, M.S., Ph.D., Assistant Professor of Chemistry
James Merion Duncan, Assistant in Pattern Making
Karl John Theodore Ekblaw, M.S., Associate in Farm Mechanics
Edgar Wallace Engle, Ph.D., Instructor in Chemistry
Newton Edward Ensign, B.A., B.S., Associate in Theoretical and Applied Mechanics
John Lawrence Erb., F.A.G.O., Director School of Music and University Organist
Roy Newton Fargo, B.S., Director Men's Gymnasium
Charles Stever Fazel, A.M., Assistant in Physics
Georgia Elizabeth Fleming, B.S., Instructor in Textiles
Juston Watson Folsom, Sc.D., Assistant Professor of Entomology
Hobart D Frary, M.E., M.S., Assistant in Mathematics
Harry Lovering Gill, Associate in Track Athletics
Joseph Eugene Gillet, Ph.D., Associate in Comparative Literature and German
Robert Douglas Glasgow, Ph.D., Instructor in Entomology
Olaf Harold Glimstedt, G.D., Assistant in Athletic Training
Alexander Green, A.M., Ph.D., Instructor in German
Fred L Griffin, Art Metal and Jewelry

Gllbert Gusler, B.S., Associate in Animal Husbandry
Charles Henry Hecker, A.M., Ph.D., Ch.E., Instructor in Chemistry
Harold Newcomb Hillebrand, A.M., Ph.D., Instructor in English
Leona Hope, Instructor in Department of Household Science
B Smith Hopkins, Ph.D., Associate in Chemistry
George A Huff, Director Department of Physical Training
Laurence Crane Johnson, Ph.D., Research Assistant in Chemistry
Charles Hughes Johnston, A.M., Ph.D., Professor of Secondary Education
Harry Stuart Vedder Jones, A.M., Ph.D., Assistant Professor of English
Ralph Robert Jones, Associate in Basketball
Earl Kilburn Kline, A.M., Instructor in German
Charles Tobias Knipp, A.M., Ph.D., Associate Professor of Experimental Electricity in Physics
Cincinnati Laguardia, A.B., Assistant in Romance Languages
Edward John Lake, B.S., Assistant Professor of Art and Design and Acting Head of Department
William T Laprade, Ph.D., Professor of History, Trinity College, Durham, North Carolina
Howard Bishor Lewis, Ph.D., Associate in Physiological Chemistry
James P. Lichtenberger, A.M., Ph.D., Professor of Sociology, University of Pennsylvania, Philadelphia, Pensylvania
Simon Litman, Dr.Jur.Pub.et Rer.Cam., Assistant Professor of Economics
Jean MacKinnon, A.B., A.M., Assistant Professor of Chemistry, Iowa State College, Ames, Iowa
John Mabry Mathews, Ph.D., Assistant Professor of Political Science
o C Mauthe, Director of Physical Education, Stout Institute, Menominee, Wisconsin
Jorn Mez, Ph.D., Lecturer for the American Association for International Relations
Wilford Stanton Miller, A.M., Assistant and Secretary in Education
Olin Harris Moore, Ph.D., Associate in Romance Languages
Aretus Wilbur Nolan, A.B., M.S., Assistant Professor Agricultural Extension
William Abbott Oldfather, A.M., Ph.D., Professor of Classics
Joseph C Park, Director of Industrial Education, Oswego, New York State Normal School
Harry Gilbert Paul, A.M., Ph.D., Assistant Professor of English Language and Literature
Hugh Wiley Puckett, A.M., Ph.D., Instructor in German
Alvis L Rhoton, Professor of Pedagogy, Georgetown College, Georgetown, Kentucky
Elmer Roberts, B.S., Instructor in Genetics and First Assistant in Experiment Station
Floyd Elba Rowland, B.S., A.M., Assistant in Chemistry
Hiram Thompson Scovill, A.B., Instructor in Accountancy
George Wallace Sears, M.S., Ph.D., Instructor in Chemistry
Fred B Seely, M.S., Associute in Theoretical and Applied Mechanics
Victor Ernest Shelford, Ph.D., Assistant Professor of Zoology
Charles Leslie Stewart, A.M., Ph.D., Instructor in Economics
Frank Lincoln Stevens, M.S., Ph.D., Professor of Plant Pathology
John E Stout, A.M., Professor of Education, Cornell College, Mt. Vernon, Iowa
Emerson Grant Sutcliffe, A.M., Assistant in English
Caarles Manfred Thompson, A.M., Ph.D., Associate in Economics
Ralph Earle Treje, A.M., Instructor in English

Edgar Jerome Townsend, Ph.D., LL.D., Professor of Mathematics
Alfred Horatio Upham, Professor of English, Miami University, Onford, Ohio
Alex Vallance, M.E., Instructor in Theoretical and Applied Mechanics
Cora E Wallace, Supervisor of Music, Gary; Indiana
Earl Horace Warner, A.M., Assistant in Physics
Guy Montrose Whipple, Ph.D., Professor of Education
Elmer Howard Williams, Ph.D., Associate in Physics
Charles Henry Woolbert, A.M., Associate in English and Public Speaking
Robert Carl Zuppre, Ph.B., Associate in Football

## GENERAL STATEMENT

The Summer Session of the University of Illinois for 1916 opened on June 19, and closed on August 11, making a term of eight zeeeks. The Summer Session of 1917 will open on June 18 and close on August 10.

All the courses extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of the Session a certificate of such attendance, but university credit will not be given for six-weeks courses.

Students may register for courses aggregating eight credit hours or less.

## PURPOSE

The primary purpose of the Summer Session is to meet the needs of teachers in the public schools who wish to spend a part of the summer in study or investigation. The greater number of courses offered are designed for high-school teachers, supervising officers, and teachers of special subjects (art, music, manual training, domestic science, agriculture), and for college instructors, school supervisors, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed at the Session, and several courses of a more general nature are provided to meet their needs.

## ADMISSION

Admission in regular status to courses in the Summer Session for which university credit is granted is limited to students who could be regularly admitted to the college of the University (Liberal Arts and Sciences, Commerce and Business Administration, Engineering, or Agriculture) in which they would be registered in the regular session.

In order to meet in full the entrance requirements for any one of these colleges, a student must obtain credit, either by passing entrance examinations, or by presenting certificates of work completed in accredited secondary schools or other recognized schools, for 15 units of high-school work, or the equivalent, in subjects accepted for admission to the University, including in the case of each college certain subjects especially prescribed for admission to that college. (See pages 66-84.)

Admission to courses which give university credit, as special students, not candidates for a degree, may be granted to persons 21 years of age or over, subject to the general regulations of the University relating to special students.

## REGISTRATION

Students will present themselves for registration on Monday, June 18, 1917.

## FEES

A tuition fee of twelve dollars ( $\$ 12$ ) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special
lectures. An extra laboratory fee is charged in some courses for materials used. Any single course may be taken for a fee of six dollars ( $\$ 6$ ) and the laboratory fee, if there be one. A single course is understood to mean not more than two and onehalf credit hours.

## SCHOLARSHIPS

By ruling of the Board of Trustecs of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence of having completed the requisite amount of preparatory work.

The Board of Trustees has extended the scholarship privileges also to persons graduated from the Illinois State Normal Schools during the academic year preceding the session in which the scholarship is desired, and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained by addressing the Director.

## GRADUATE WORK IN TEE SUMMER SESSION

The Summer Session places emphasis on graduate courses leading to the master's degree. The departments related to high-school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the cooperation of a department of the University, it may be possible to count the work toward the master's degree.

## SUMMER COURSES IN LIBRARY TRAINING

Beginning in the summer of 1911, the Library School has conducted each year a summer session continuing for six weeks, to which were admitted only those actually employed as librarians, or library assistants, or teacher-librarians, or under definite appointment to serve in such positions. In 1915 the requirement of graduation from a high school was added. The curriculum was planned to meet especially
the needs of workers in public libraries and in high school libraries, of Illinois and no tuition fee was charged students entering from this State; students entering from libraries in other states paid a tuition fee of $\$ 12$. The work was under the general direction of the faculty of the Library School, and the instruction was given by members of the faculty, supplemented by lectures by neighboring librarians. No university credit has been given for the work.

The work occupied the whole time of the student. The number of lectures in each subject was approximately as follows: Cataloging; classification and book numbers, 30 hours; book selection, 12 hours; library administration and extension, 12 hours; reference work, 12 hours; work with children, 12 hours; loan systems, order, accession and shelf work, binding and repairing, 12 hours.

The Library courses are not offered in connection with the Summer Session, but as an independent undertaking of the Library School.

## PLAYGROUND WORK AND COACHING

In addition to the regular gymnasium work, special courses in coaching high school athletics were offered under the general direction of George A Huff, Director of Physical Training for Men. This work was added because of the increasing demand for trained men to direct high school athletics. A course in plays and games designed for teachers who coach high-school girls or supervise grammar school games, was offered by Miss Verna Brooks, Instructor in Physical Training for Women.

Courses were offered in baseball coaching (Mr. Huff), football coaching (Mr. Zuppke), basketball coaching (Mr. Jones), and track coaching (Mr. Gill). These courses were particularly adapted to high school teachers and principals who are engaged for part of their time in coaching athletic teams. The courses were so arranged that a student might, if he desired, devote his entire program to this work.

## DESCRIPTION OF COURSES

For a description of the courses offered in the Summer Session, see the General Description of Courses, beginning on page 247.

## THE COLLEGE OF LAW

For the faculty of the College of Law and for the courses in law, see under "Law" in the "Description of Courses", Part III: for fees and expenses, page 110.

## GENERAL STATEMENT

It is the aim of the College of Law to fit its students as completely as possible for the practise of law. The mere imparting of knowledge of the law as it is must be subordinated to the more important end of developing the student and training him in proper habits of legal reasoning and argument. The method of discussion by the professor and student of selected judicial opinions is employed, but not to the exclusion of other methods designed to stimulate thought and initiative, such as the independent briefing of legal problems.

Courses are conducted so as to give a training in the common law which constitutes the foundation for the practise in law in Illinois and in any state in the Union. Students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class. In the Moot Court and the course in Illinois Procedure, especial attention is paid to the rules of pleading and practise in Illinois.

The curriculum is designed to occupy three full years. The work of the first year, twenty-eight semester hours, is prescribed, a semester hour being one hour a week for one semester. The work of the second and third years, except in equity, is elective. Students are required to elect courses averaging twenty-eight hours for each of these years. The courses elected for any year must ordinarily be chosen from those grouped under the heading for that year.

## ADMISSION

For admission as a regular student and candidate for the degree of Bachelor of Laws, an applicant must be matriculated and have 60 hours credit in a college of this University; or have completed two full years of work as given at another college or university of recognized standing; or have received by transfer 60 hours of university credit here.

## SPECIAL STUDENTS

A student who is twenty-one years of age and is entitled to admission as a regular student to another college of this University, will be admitted as a special student in the College of Law. If he attains in the courses of the first year an average grade of 80 or over, he will be admitted to regular standing, and he may receive the degree of Bachelor of Laws if in all the courses he presents for the degree his average grade is 80 or more.

Students twenty-one years of age or over, who are not able to satisfy the requirements for admission stated above, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

## ADVANCED STANDING

After matriculating, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first year subjects only.

## SUGGESTED PREPARATORY CURRICULUM

The following schedule of studies is recommended by the faculty of the College of Law for students taking two years in the College of Liberal Arts and Sciences to meet the requirement for admission to the College of Law:


## COMBINED CURRICULUMS

By the proper sclection of his studies it is possible for a prospective law student to take both the degree of bachelor of arts or of bachelor of science and the degree in law in six years. (See pages 122 and 142).

## MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class, and every Monday afternoon of the second semester for the second and third year classes together. The court is presided over by Judge O. A. Harker, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. It is the purpose to have the proceedings of the Moot Court conform to proceedings in the various courts of the state. Students are trained in the preparation of pleadings, brief making, legal investigation and argument, the preparation of legal documents and in the trial of cases, both civil and criminal.

## THE LAW LIBRARY

The Law Library contains 21,000 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District

[^53]Court reports; the National Reporter System; the English reports; the Irish reports; the Scotch Appeal cases; the Current Canadian and Australian reports, and complete reports of several of the Canadian provinces; the statutes of the various states; several sets of selected cases, such as the American Reports, American State Reports, American Decisions, Lawyers' Reports Annotated, and American and English Cases Annotated; American and English encyclopedias and digests; and a full collection of standard text books and legal periodicals.

## REQUIREMENTS FOR GRADUATION AND DEGREES

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; the course in Equity 12a-12b (second year); and enough of the other courses offered to make 84 hours of credit.

## Degree of Doctor of Law

The degree of Doctor of Law (J.D.) will be granted to students who comply with the following conditions:

1. Complete the work required for the degree of Bachelor of Laws.
2. Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Bachelor of Laws.
3. Obtain a minimum average grade of 85 in the College of Law.
4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirements hereinafter set out.

## Rules Concerning Theses

The following are the rules concerning theses presented for the degree of Doctor of Law: (1) The thesis must be on a subject approved by the Dean of the College of Law after consultation with him as to the proposed method of treatment. (2) The subject of the thesis must be filed with the Secretary on or before December 20. (3) The thesis must be typewritten on paper $8 \frac{1}{2} \times 11$ inches, with at least one inch margin at the top, bottom, and sides. (4) It should contain not less than 4,000 nor more than 10,000 words. (5) In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for which the cases have been examined. (6) The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

## CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE BAR EXAMINATION

Any student altho not a candidate for a law degree, if he has taken at least ten hours a week for the period of three academic years, from among the courses offered, is entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies prescribed by the Supreme Court of the State of Illinois for admission to the bar.

## CURRICULUM LEADING TO THE DEGREE OF LL.B.

## First Year

First Semester: Contracts (Law 1a); Torts (Law 2a); Criminal Law (Law 5); Personal Property (Law 6); Introduction to the Study of Law and Brief Making (Law 37).

Second Semester: Contracts (Law 1b); Torts (Law 2b); Real Property (Law 3); Domestic Relations (Law 7); Agency (Law 11).

## Second or Third Year

First Semester: Common Law Pleading (4); Sales (9); Equity (12a); Damages (13); Bills and Notes (15); Public International Law (30); Quasi-Contracts (32); Brief Making (35a).

Second Semester: Real Property (Law 10); Equity (Law 12b); Evidence (Law 8); Equity Plcading (Law 20); Municipal Corporations (Law 24); Wills (Law 18); Trusts (Law 16); Moot Court (Law 35b).

## Third Year

First Semester: Illinois Procedure (Law 4a); Partnership (Law 19); Constitutional Law (Law 22); Bankruptcy (Law 25); Conflict of Laws (Law 31); Moot Court (Law 36a).

Second Semester: Private Corporations (Law 17); Public Utilities (Law 34); Suretyship (Law 21); Moot Court (Law 36b); Mortgages (Law 23); Office Practise (Law 29).

## PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Liberal Arts and Sciences and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

## SCHOLARSHIP PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of $\$ 12$ each and four of $\$ 6$ each, available in discharge of tuition fees.

## THE COLLEGE OF MEDICINE

For the faculty of the College of Medicine, see page 35; for a description of the building, see page 58 .

## LOCATION

The College buildings are located in the city block lying between Harrison, Congress, Honore, and Lincoln streets, in Chicago.

## CLINICAL FACILITIES

## Dispensary

The Dispensary is divided into ten departments: medicine, pediatrics, orthopedics, laryngology, dermatology, ophthalmology, gynecology, neurology, and genito-urinary diseases. These departments occupy the first floor and part of the second floor of the college building. The average number of patients treated in 1915-16 was thirty thousand.

Dispensary instruction is given in the third and fourth years; the subjects of medicine, surgery, orthopedics, laryngology, and genito-urinary diseases in the third year, and the subjects of pediatrics, dermatology, neurology, ophthalmology, and gynecology in the fourth year. The larger departments devote two hours and the smaller departments one hour daily to this work. Three weeks' service is given by each department in each semester, so that the student receives a total of thirty-six hours in the larger departments and eighteen hours in the smaller departments.

## Amphitheater Clinics

More than six hundred clinics besides the dispensary clinics are given each year. Practically all diseases seen in the temperate zone are demonstrated and most of the operations of surgery are performed. Fourth year students are required to examine and diagnose many cases and under certain conditions may assist in the operations.

Students are prohibited from doing work that interferes in any way with the fulfilment of the requirements of the curriculum. Unofficial clinical work may not be substituted for the official clinical requirements.

## Hospital Clinics

The West Side Hospital, containing one hundred and forty-nine beds, five operating rooms, including a clinical amphitheater having a seating capacity of seventytwo, and a laboratory connected with the college by a corridor.

The University Hospital, corner Ogden avenue, Congress and Lincoln streets, opposite the College, contains ninety-two beds, two operating rooms, a laboratory, an X-ray department, and a clinical amphitheater of seventy-five seats.

These institutions are located near the College and certain clinical facilities, furnished by them, are open to its students.

Within half a block of the College is the Cook County Hospital, the chief free hospital in Chicago. During the past year it has cared for thirty thousand patients. In this hospital is conducted much of the clinical instruction of the College. Medi-
cal appointments in this institution are made each year by the Civil Service Board. The internes, sixty-four in number, are selected each spring by competitive examination. Only graduates of medical colleges of Cook County are eligible. The internes serve eighteen months in surgical, medical, and obstetrical work, and receive their board and laundry and have rooms in the hospital.

In addition to Cook County Hospital there are more than sixty public and private hospitals in Chicago, each appointing from two to four internes annually.

The students of this College are required to attend the clinics of the Cook County Hospital during their third and fourth years. The hospital tickets cost $\$ 5.00$ each, and are for sale at the office of the Warden. They admit the holders to all clinics and autopsies and to all public operations and lectures.

The County Morgue is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital. Attendance is required during two years.

Members of the Faculty are connected with and give clinical instruction, to which students are admitted under certain conditions, in the following hospitals:

| Cook County Hospital | St. Mary's Hospital |
| :--- | :--- |
| West Side Hospital | St. Luke's Hospital |
| University Hospital | Michael Reese Hospital |
| Augustana Hospital | North Chicago Hospital |

## THE QUINE LIBRARY

The library of the College of Medicine, named in honor of Dr. William E. Quine, for many years the Dean of the College and now Professor of Medicine, Emeritus, occupies the east end of the second floor of the Medical Building. This library contains 17,325 bound volumes, besides pamphlets and reprints and files of 250 American, German, English, French, and Italian journals. It is open from 9 to 5 daily, except Sundays and legal holidays.

This collection of books and periodicals is in charge of a librarian who is constantly present to assist and instruct students in the use of a technical library.

## ADMISSION

Applicants for admission to the College of Medicine are required to offer:
I. Four years' work in an accredited high school, or the equivalent, comprising fifteen (15) units ${ }^{1}$ of secondary credit and including prescribed subjects as follows:

| English.. | 3 units |
| :---: | :---: |
| Algebra. | 1 unit |
| Plane geometry. | 1 unit |
| German, French, Latin, or Greek. | 2 units |
| American history and civics. | 1 unit |
| Electives. | 7 units |
| Total | 15 units |

II. Two years' work in a recognized college or university, comprising not less than sixty (60) semester hours ${ }^{2}$ and including prescribed subjects as follows:

Physics
8 hours

[^54]

Either the secondary or the collegiate requirements may be satisfied (a) by certificate or (b) by examination.

Secondary credits will be accepted by certificate from the following sources:
(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.
(2) From schools accredited by the North Central Association of Colleges and Secondary Schools.
(3) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
(4) From high schools and academies registered by the regents of the University of the State of New York.
(5) From schools approved by the New England College Entrance Certificate Board.
(6) From the state normal schools of Illinois and other normal schools having equal requirements for graduation.

Secondary credits may be made by examination.
(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For programs of these examinations, see pages 74-75.
(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. In 1917 these examinations will be held September 20-22. Programs may be had by applying to the Secretary of the College of Medicine, Congress and Honore Streets, Chicago. The subjects offered will be the same as those included in the list on pages $67-69$. For a description of the ground covered in the several subjects see pages 82-84.
(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 70.
(4) In the examinations conducted by the Regents of the University of the State of New York.

Collegiate credits will be accepted by certificate from recognized colleges which require for admission the completion of at least 14 units of high school work in an accredited high school, or the full equivalent thereof, and for graduation, in addition, four years of college work; or may be made by examination in the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. Special arrangements must be made in advance with the Registrar for examinations in collegiate subjects.

Students are strongly urged to acquire such an elementary knowledge of Latin as may be obtained in four or five years' work in school or college.

It will be noted that a properly prepared student of good ability can complete the minimum prescriptions in collegiate work within two years and still have considerable time for the study of language, history, economics, psychology, etc.-all subjects of which it is eminently desirable that the future physician should know something.

The above represent the minimum requirements for admission to the College of Medicine. It is strongly urged that students shall have completed at least three
years, or, if possible, four years, in a standard college before taking up the study of medicine.

## ADVANCED STANDING

The University will accept scholarship and time credits for work done in medical colleges having standards equal to those of the College of Medicine of the University of Illinois, in so far as this work coincides with or is the full equivalent of the courses prescribed by the University.

The applicant must present a letter of honorable dismissal from, and be eligible for promotion in, the college in which he has pursued his medical studies and must comply with the requirements for such promotion in the University of Illinois.

## CONDITIONS

For the year beginning in October, 1916, conditions were permitted as follows:
For the first, second, and third year classes-6 hours in college French or German, or 8 hours in collegiate electives. No conditions can be permitted in highschool subjects or in the prescribed college physics, chemistry, or biology.

For the fourth year-4 collegiate hours. No conditions can be permitted in high-schools subjects.

## ADMISSION AS SPECIAL STUDENTS

The general rule of the University will apply to the College of Medicine: Persons over twenty-one years of age, not candidates for a degree, may, on special approval of the dean, be admitted to classes for which they are prepared.

## REGISTRATION

Students are required to register in the office of the Secretary immediately upon the opening of the term for the work of that term, and credit will be allowed only in the branches in which the students are registered. Students are registered in the order in which their fees are paid. Registration of students closed October 5.

## COLLEGIATE YEAR

The collegiate year of $1916-1917$ consists of a session of thirty-seven weeks, beginning October 2, 1916, and ending June 13, 1917. Each year is divided into two semesters of eighteen weeks. Attendance on the full session is required in order to secure credit for a year's work, and attendance on four full sessions is required for graduation.

## FEES AND EXPENSES <br> Fees-New Schedule effective September 1, 1917



[^55]No fees are charged regular students for special courses or quizzes. Under no circumstances are instructors, dispensary physicians, or professors allowed to receive a fee for instruction or service.

Fees charged special students are based on the amount of work taken.
Alumni are admitted, without charge, to all regular courses except in laboratory work, in which a charge is made for material actually used.

The Board of Trustees reserve the right to change the fees at any time.

## Microscopes

Each student is required to have a microscope. Provision has been made whereby the student can purchase a microscope at reduced rates or make payment in annual installments. If a student be unable to purchase a microscope the College will rent him one for his exclusive use at the rate of $\$ 2.50$ or $\$ 4.00$ a semester, the rate depending on the equipment of the instrument.

## Living Expenses

The expense of living in Chicago is less than in most other large cities. From twenty-five to thirty-five dollars a month may be regarded as adequate for ordinary living expenses, exclusive of books, clothing, railroad fare, and miscellaneous needs.

The expense for books varies between $\$ 25.00$ and $\$ 50.00$ a year. The instructors, at the beginning of each course, direct their students in regard to the purchase of text-books.

## Scholarships

Through the generosity of the late Professor R.L. Rea, a fund has been provided for four scholarships each year for indigent worthy students. These scholarships are awarded to the four students whose credentials and qualifications for the study of medicine entitle them to participate in the benefits of the Rea fund.

The students whose names follow received benefit under this scholarship during the session of 1916-1917

Morris Baron Karatz
Gertrude Evelyn Moulton

## Arthur Henry Orcutt <br> Spero Salpas

The scholarship given by the Northwestern branch of the Woman's Foreign Missionary Society of the Methodist Episcopal Church was awarded in 1916-17 to Miss Ethel Keckler.

## COURSES OFFERED

Students entering the four-year curriculum as offered in the College of Medicine offer two years of work in liberal arts and sciences for admission. On the completion of the first two years in the College of Medicine, the degree of Bachelor of Science will be conferred; and on the completion of the four years in the College of Medicine, the degree of Doctor of Medicine will be conferred. The two years of work in arts and sciences required for admission to the College of Medicine may be taken in the College of Liberal Arts and Sciences at Urbana.

## REQUIREMENTS FOR GRADUATION

1. Four full courses of instruction of not less than thirty-two weeks each, no two being in the same year, are required of every candidate for graduation.
2. The last course of instruction shall have been taken in this institution.
3. Acceptable evidence of good moral character must have been filed.
4. The candidate shall be at least twenty-one years old.
5. He shall have satisfactory credits and pass his final examinations in accordance with the rules of the Faculty.
6. All indebtedness to the college shall have been paid.

## GENERAL PLAN OF INSTRUCTION

The curriculum required for graduation extends over four years. During the first two years the work is in the main confined to the sciences fundamental to practical medicine, and the time is largely devoted to laboratory work; during the first year, this consists of work in anatomy, chemistry, embryology, histology, and physiology. During the second year the study of anatomy and physiology is continued, and in addition the student takes up bacteriology, laboratory diagnosis, operative surgery, pathology, materia medica, pharmacology, therapeutics, and hygiene.

During the third and fourth years the time is largely devoted to the various clinical branches, emphasis being given to practical instruction in dispensary and hospital clinics.

Students eligible for promotion at the end of the third year may elect the work of the summer term, on the completion of which they are privileged to act in the capacity of externes in a number of the best hospitals in the city. This gives the student an opportunity to do additional practical work under the direct supervision of trained clinicians. The externe work is arranged so that it will not conflict with the requirements of the regular schedule.

Students are prohibited from doing work that interferes in any way with the fulfillment of the requirements of the curriculum. Unofficial clinical work may not be substituted for the official clinical requirements of the curriculum.

## Optional Work

In addition to the required work, students may, after completing the work of the first year, with the permission of the Committee on Optional Courses, take one or more optional courses. No credit will be allowed for this work.

## RULES FOR PROMOTION

The passing grade in each subject is 70. A grade of from 60 to 70 constitutes a condition. A conditioned student may have one re-examination in the subject. A mark below 60 or the failure to remove a condition by re-examination constitutes a failure, and the subject must be repeated in course. A student who has any failure standing against him may not be advanced to the next year without the permission of the committee on promotion. Students who fail in subjects given in the first semester of the fourth year totalling more than 48 hours will not be admitted to candidacy for graduation in that collegiate year, but must repeat the subjects the following year. No student may be a candidate for graduation in medicine who has conditions in subjects amounting to more than 96 hours.

No student having grades below 75 in subjects aggregating twenty-five per cent of his entire work in the junior college may be a candidate for the degree of Bachelor of Science.

General examinations will be held in all subjects at the end of each semester. The examinations for the removal of conditions for students of the first three years will be held during the week preceding the opening of the next collegiate year. Reexaminations in subjects presented in the first semester of the fourth year will be held not later than two weeks from the end of that semester.

The attention of prospective students is called to the fact that the University has always reserved and exercised the right to request any student to withdraw from the University when, in the opinion of the faculty, he was not profiting by his work in the institution either because of moral or intellectual qualities. The failure to do the work of the institution in a way satisfactory to the faculty has always been considered a sufficient ground for requesting the student to withdraw, and students will not be permitted to remain when for any reason, whether lack of ability or lack of industry or other cause, they are not doing their work in a satisfactory manner.

## SUMMER TERM, 1916

In the summer of 1916 (June 15-September 7) there was offered a twelve-weeks term of clinical instruction, including dispensary and maternity work, as follows: Surgery, 60 hours; gynecology (clinical and dispensary), 58 hours; medicine, 40 hours; pediatrics (clinical and dispensary), 56 hours; obstetrics (clinical, bedside, and manikin), 44 hours; dermatology (dispensary), 18 hours; neurology (dispensary) 36 hours; ophthalmology (dispensary), 36 hours; Lying-In Hospital, 60 hours (estimated); total, 408 hours. The instruction was given by Drs. E. K. Armstrong (pediatrics), C. S. Bacon (obstetrics), C. W. Barrett (gynecology), F. Chauvet (physical diagnosis), T. A. Davis (surgery), F. G. Dyas (surgery), E. L. Heintz (medicine), J. H. Hess (pediatrics), J. M. Lang (gynecology), G. J. Lorch (medicine), E. S. Moore (medicine), F. D. Moore (surgery), and N. M. Percy (surgery). Thirty-eight students were enrolled.

# DESCRIPTION OF COURSES IN MEDICINE 

ANATOMY, HISTOLOGY, EMBRYOLOGY

Albert Chauncey Eycleshymer, B.S., M.D., Ph.D., Professor, Head of the Department
Frederick Bogue Noyes, A.B., D.D.S., Professor, Dental Histology
Victor Emanuel Emmel, Ph.D., Assistant Professor
Roy Lee Moodie, Ph.D., Associate
L V Heilbrunn, Instructor
Samuel W Williston, M.D., Ph.D., D.Sc., Professorial Lecturer, Comparative Anatomy
Thomas Smith Jones, B.F.A., Artist
Louis N Boelio, Technician
Morris Kramer, Technician

## General Statement

The laboratories for gross anatomy comprize two dissecting rooms and a number of smaller rooms for embalming, storing, and prosecting. A plastic studio, a branch of the Hammer Studio of Munich, is situated on the sixth floor adjacent to the dissecting room and is available for anatomical reconstruction work and the use of models for teaching purposes. The laboratory for histology and embryology and the offices and research laboratories, are on the third floor of the Medical Building. The equipment includes apparatus for embalming, sectioning, macerating, corroding, and digesting; microtomes, microscopes, paraffin ovens, drawing apparatus, chemicals, glassware and Grübler stains. A small museum contains special dissections, osteological preparations, and models; sets of histological, neurological, and embryological slides; charts, lantern slides, and other teaching' accessories. The departmental library contains the standard texts and about two thousand five hundred special monographs. All the English, German and French anatomical journals are received. The Crerar library is readily accessible and makes it possible to consult practically the whole literature of anatomy, zoology, and biology.

## Required Courses-First Year

Embryology.-Ovogenesis and spermatogenesis, maturation, ovulation and its relation to menstruation, fertilization, segmentation, gastrulation, formation and significance of germinal layers; the formation of foetal envelopes and placenta; organs and systems of organs; congenital malformations. Lectures and recitations: 2; laboratory: 2 two-hour periods. II (second half.) ${ }^{1}$

Professor Eycleshymer and assistants
Cytology, Histology, and Microscopic Anatomy.-Animal cells; modified cells, such as are found in blood and lymph, epithelial, connective, muscular, and nervous tissues and their relationships in the body. Lectures and recitations: 3; laboratory: 3 three-hour periods. I. Professor Eycleshymer and assistants

[^56]Neurology.-The gross and microscopic anatomy of brain, spinal cord, and organs of special sense. Lectures and recitations: 2; laboratory: 2 two-hour periods. II (first half). Professor Eycleshymer and assistants
Systematic Anatomy.-Dissection of the human body. For convenience, the body is subdivided into: (1) upper and lower extremities; (2) thorax and abdomen; (3) the head and neck. Lectures, recitations, and laboratory: 3 three-hour periods. I, II.

Assistant Professor Emmel and assistants

## Required Courses-Second Year

Topographical Anatomy.-The topography and relations of the various regions, systems and organs of the body. Lectures and recitations: 2; laboratory: 2 threehour periods. $I$.

Dr. Moodie and assistants

## Applied and Surgical Anatomy-(See department of surgery.) <br> Optional Courses

Microscopical Technics.-Preparation of objects; injecting blood vessels and lymphatics; maceration, digestion, corrosion; decalcification, fixation of tissues, embedding, sectioning, staining, mounting. Hours to be arranged.

Mr. Boelio
Medical Illustrating.-Drawing, including perspective; values and their adaptation in the representation of medical subjects; normal and pathological specimens, both gross and microscopic; media adapted for representing certain conditions and structures, and for special methods of reproduction, such as line work, half tone, and lithography. (Open to all who are interested in the making of medical illustrations for publications.) Hours to be arranged.

Mr. Jones
Embryology and Histogenesis.-The structural changes in the principal tissues and their cellular elements during growth; changes in the structure of cells during senescence. Hours to be arranged.

Professor Eycleshymer
Haematology.-The blood and blood-forming organs in relation to cytological structure, histogenesis, functional correlations, and current haematological problems. Hours to be arranged.

Assistant Professor Emmel

## Courses Preparatory to Specialization

(Special fee)
A. The Eye.
B. The Ear.
C. The Mouth, Nose, and Throat.
D. The Thorax and Abdomen.
E. The Genito-urinary System.
F. Pelvic Anatomy.
G. The Extremities, especially the joints and their mechanism.
H. The Brain and Spinal Cord.

Research.-Physicians who desire to do research and students who have had three years of university training are invited to begin research work in this department. A reading knowledge of French and German is essential.

Seminar.-Critical reviews of recent literature; bibliographies; preparation of scientific papers for publication. Presentation and discussion of the results of investigations.

## Courses for Graduates

101. Histogenesis.-The structural changes in tissues and their elements, which are directly correlated with normal processes, such as growth, activity, rest, fatigue, senility. One unit.

Professor Eycleshymer, Assistant Professor Emmel, Dr. Moodie
103. Individual Research in Embryology and Histogenesis.-One or two units. Professor Eycleshymer, Assistant Professor Emmel, Dr. Moodie

## APPLIED AND SURGICAL ANATOMY

(See Department of Surgery.)

## DERMATOLOGY

Frederick Gillette Harris, M.D., Assistant Professor of Dermatology and Venereal Diseases and Acting Head of the Department Philip Frank Shaffner, M.D., Instructor

## Required Courses-Fourth Year

Dermatology.-Didactic, illustrated. 2; I or $I I$.
Assistant Professor Harris
Clinical Dermatology.-Given in Cook County Hospital. 1; I or II. Assistant Professor Harris
Clinical Dermatology.-Given in the dispensary. Clinics of one hour daily throughout the year. 3; I, II (three weeks each semester).

Assistant Professor Harris, Dr. Shaffner

## Optional Courses

Syphilis.-Advanced clinical course, limited to six students.
Assistant Professor Harris
Pathology and Bacteriology of the Skin.-Limited to six students.
Dr. Shaffner

## EXPERIMENTAL MEDICINE

David John Davis, B.S., M.D., Ph.D., Professor and Director of the Laboratories
Josiah J Moore, M.S., M.D., Associate, Experimental Medicine
Harry B Culver, B.S., M.D., Instructor, Experimental Medicine
Effie L MacDonald, A.B., Technician

## General Statement

The function of this department is to carry on research in medical problems, especially in clinical medicine, and to conduct the courses in clinical diagnosis and the laboratory work of the dispensary.

## Required Course-Second Year

Clinical Pathology.-The microscopic, bacteriologic, and chemical examination of urine, blood, sputum, feces, stomach contents, exudates. 8; one-half of I or II. Professor Davis, Dr. Moore, Dr. Culver

## Required Course-Third and Fourth Years

Dispensary Laboratory.-Laboratory examinations in connection with clinical

## Optional Courses

Advanced Special Laboratory Methods.-Limited to a few specially qualified students. Hours to be arranged.

Research.-Limited to qualified students.
Dr. Moore
Professor Davis

## HYGIENE AND MEDICAL JURISPRUDENCE

Adolph Gehrmann, M.D., Professor and Head of the Departneent of Hygiene Elmer DeWitt Brothers, M.S., LL.B., Lecturer, Medical Jurisprudence Matthew Mills, LL.B., Alternate Lecturer, Medical Jurisprudence

## Required Course-Second Year

Public Hygiene.-General etiology, immunity, contagious diseases, epidemology, and preventive medicine; organization of health departments and the work of divisions of the same; vital statistics; factory and school inspection; sanitation; municipal sanitation; public welfare. Lectures. 2; $I I$.

Professor Gehrmann-

## Required Course-Third Year

Medical Jurisprudence.-Lectures: 1; I or $I I$.
Mr. Brothers

## Required Course-Fourth Year

Practical Hygiene.-Visits to public institutions. Laboratory and conferences: 8 three-hour periods; $I I$. Professor Gehrmann

## MEDICINE

Charles Spencer Williamson, B.S., M.D., Professor, and Head of the Department

## Division of Internal Medicine

Charles Spencer Williamson, B.S., M.D., Professor of Medicine
Maurice Louis Goodkind, M.D., Professor, Clinical Medicine
Joseph McIntyre Patton, M.D., Professor, Clinical Medicine
Frederick Tice, M.D., Professor, Diseases of the Chest and Clinical Medicine
John Weatherson, C.E., M.D., Assistant Professor, Medicine
Maurice Lewison, M.D., Assistant Professor, Physical Diagnosis
Edward Louis Heintz, Ph.G., M.D., Assistant Professor, Medicine and Clinical Medicine
Robert Mosser, Ph.G., M.D., Associate, Clinical Medicine
Ernest Sisson Moore, Ph.B., M.D., Associate, Clinical Medicine
George J Lorch, Ph.G., M.D., Instructor, Medicine
Robert William Morris, A.B., M.D., Instructor, Medicine
Waldemar Eberhardt, B.S., M.D., Instructor, Medicine
Frank Chauvet, M.D., Instructor, Physical Diagnosis
Walter Bradford Metcalf, M.D., Instructor, Clinical Medicine
Edward F Fox, M.D., Instructor, Medicine
Solomon Strouse, A.B., M.D., Instructor, Clinical Medicine
Louis Rudolph, M.D., Instructor, Physical Diagnosis
F Raymond Crooks, M.D., Instructor, Medicine
Franklin S Wilson, M.D., Instructor, Clinical Medicine
Philip M Dale, M.D., Instructor, Clinical Medicine
Laurence H Moyers, A.M., M.D., Instructor, Medicine
Frank J Jirka, M.D., Assistant, Physical Diagnosis

## Required Course-Second Year

Physical Diagnosis.-(a) Lectures. 1; II.
(b) Practical drill on normal subjects. 1 two-hour period; II.

Assistant Professor Lewison, Dr. Chauvet, Dr. Rudolph

## Required Courses-Third Year

Practise of Medicine.-Infectious diseases, except tuberculosis; intoxications; diseases of metabolism and of the ductless glands. Conferences; recitations. 4; $I, I I$.

Assistant Professor Heintz, Dr. Lorch, Dr. Crooks
Medical Clinic.-Selected topics-in the amphitheater of the Cook County Hospital. 1 two-hour period; $I$ or $I I$.

Professor Williamson
Medical Clinic.-Material from the University Hospital dispensary. 1 twohour period; $I$ or $I I$.

Assistant Professor Heintz
Physical Diagnosis Clinic.-Given to small groups, using the patients in the tuberculosis wards of the Cook County Hospital. 1; I.

Assistant Professor Lewison, Dr. Chauvet
Medical Dispensary.-Practical work on out-patients. Practically every disease of an ambulatory nature found in the temperate zone may be seen here. 3 twohour periods; I, II (three weeks.)

Dr. Mosser, Dr. Moore, Dr. Metcalf, Dr. Wilson, Dr. Dale

## Required Courses-Fourth Year

Practise of Medicine.-Diseases of the alimentary tract, liver, pancreas, peritoneum, heart, and lungs. The kidneys and the blood; review of selected subjects. Lectures illustrated by pathological specimens, charts, and lantern slides; conferences. 6; $I-3$; II.

Lectures, Professor Williamson and Professor Tice; Conferences, Assistant Professor Weatherson, Dr. Morris, Dr. Eberhardt, Dr. Fox.

Medical Clinic.-Gastro-intestinal, cardio-vascular, and renal diseases; methods of diagnostic analysis. Collateral reading. 1 two-hour period; $I$ or $I I$.

Professor Williamson
Medical Clinic.-Given in the amphitheater of the Cook County Hospital. 1 two-hour period; I or II. Professor Patton

Medical Clinic.-Given in the amphitheater of the Cook County Hospital. 1 two-hour period; $I$ or $I I$.

Professor Tice
Group Clinic.-Given at the Michael Reese Hospital. Four one-hour periods to each group.

Professor Goodrind
Medical Seminar.-Work in cooperation with the departments of surgery and obstetrics. The student receives 48 hours' credit, 16 in each department, altho the work done is in one department only. During the first semester, the groups meet informally, and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the entire class.

Professor Williamson and assistants

## Optional Course

Seminar in the Classics of Medicine.-Given if a minimum number of four students apply; more than eight can not be admitted. Hours to be arranged.

## Division of Pediatrics

Julius Hays Hess, M.D., Associate Professor, Pediatrics and Clinical Pediairics, Head of the Division
Emanuel Oliver Benson, A.B., M.D., Assistant Professor, Pediatrics and Clinical Pediatrics
Henry Eugene Irish, M.D., Instructor
Maurice L Blatt, M.D., Instructor
Jacob Carl Krafft, M.D., Instructor
Joseph Samuel Cohn, M.D., Instructor
Abraham Levinson, M.D., Instructor
Lester Edward Bower, M.D., Instructor

## General Statement

The work in pediatrics is given in the third and fourth years. So far as possible, individual instruction is given, the class being divided into small groups for clinical work.

## Required Courses-Third Year

Pediatrics.-Nutrition and nutritional disturbances in infancy. Lectures in clinical conferences. 1; I. Associate Professor Hess Pediatrics.-Recitations. 1; II.

Dr. Irish, Dr. Armstrong. Dr. Levinson, Dr. Cohn
Pediatric Clinic.-Physical diagnosis and demonstration of cases. 1; I or $I I$.
Assistant Professor Benson

## Required Courses-Fourth Year

Section Conference.-Michael Reese Hospital. 1 hour a week for four weeks. Associate Professor Hess

Section Conference.-University Hospital. 1 hour a week for four weeks. Dr. Irish
Section Conference.-Contagious diseases. Cook County Hospital. 1 hour a week for four weeks.

Dr. Armstrong
Dispensary.-Three two-hour periods for three weeks each semester.
Dr. Blatt, Dr. Cohn. Dr. Krafft, Dr. Levinson, Dr. Bower
Pediatric Clinic.-Cook County Hospital. 1 two-hour period; I or II.
Associate Professor Hess

## Division of Neurology

Lee Harrison Mettler, A.M., M.D., Professor, Neurology and Clinical Neurology, Dead of the Division
Isador Bernard Diamond, M.D., Instructor
Carl J S Rydin, M.D., Instructor
Edwin Frankitn Leonard, M.D., Instructor

## Required Courses-Fourth Year

Neurology.-Clinico-didactic lectures; recitations. 2; I, II.
Professor Mettler, Dr. Diamond, Dr. Leonard, Dr. Rydin
Clinical Neurology.-Dispensary instruction. 3 two-hour periods, three weeks; I, II.

Dr. Diamond, Dr. Rydin, Dr. Leonard

## Optional Courses

Special lectures in neuropathology, electrotherapeutics, or other related subjects. 4 one-hour periods.

Professor Mettler
Division of Psychiatry
Haim I Davis, M.D., Assistant Professor, Clinical Psychiatry, Head of the Division

## Required Courses-Fourth Year

Psychiatry.-Lectures and quizzes. 1; II, eight weeks.
Assistant Professor Davis
Clinical Psychiatry.-Given in the Psychopathic Hospital of Cook County. 1, sixteen weeks; I, II. Assistant Professor Davis

## Division of Roentgenology

Adolph Hartung, M.D., Instructor

## Required Course-Fourth Year

Roentgenology.-Conferences and demonstrations. 4 one-hour periods.
Dr. Hartung
Division of History of Medicine
Bernard John Cigrand, M.S., D.D.S., Lecturer
Optional Course-Fourth Year
History of Medicine.-Lectures. 1; I or $I I$.

## OBSTETRICS AND GYNECOLOGY

Charles Sumner Bacon, Ph.B., M.D., Professor of Obstetrics, Head of the Department

## Division of Obstetrics

Charles Sumner Bacon, Ph.B., M.D., Professor, Obstetrics and Clinical Obstetrics Rachelle S Yarros, M.D., Associate Professor, Obstetrics and Clinical Obstetrics Cecil Von Bachelle, M.S., M.D., Assistant Professor, Obstetrics
Otto Herman Rohrlack, Ph.G., M.D., Assistant Professor, Obstetrics and Clinical Obstetrics
Annie Esther Barron-Harrison, M.D., Instructor
Richard Charles Steffan, M.D., Instructor
John William Birk, M.D., Instructor
Charles Newberger, B.S., M.D., Instructor
Walter Charles Hammond, M.D., Instructor
Edward Martin Heacock, M.D., Instructor
Frederick Howard Falls, M.S., M.D., Research Fellow and Instructor

## General Statement

The equipment of this department consists of manikins, demonstration pelves, malformed pelves, and other pathological specimens, charts, obstetrical instruments, and prepared fetuses. The histology and pathology is given in connection with the department of experimental medicine.

## Required Courses-Third Year

Anatomy and Histology of the Obstetrical Passages and Passenger.-4 periods of two hours each.

Dr. Falls
Physiology of Pregnancy, Labor, the Puerperium, and the New Born Infant.Lectures; recitations. 2; $I, I I$.

Associate Professor Yarros, Dr. Birk, Dr. Newberger, Dr. Heacock, Dr. Hammond, Dr. Falls

Bedside and Dispensary Clinic.-University Hospital, 12 one-hour periods.
Professor Bacon, Assistant Professor Rohrlack, Dr. Barron-Harrison, Dr. Falls

Parturition Clinic.-University Hospital. Six cases.

## Required Courses-Fourth Year

Pathological Anatomy and Histology.-Laboratory. 2 to 4 two-hour periods in combination with the course on the pathology of the genital tract. (See division of gynecology.)

Dr. Falls
Pathology of Pregnancy, Labor, and the Puerperium.-Lectures; recitations. 48 hours in one-hour and two-hour periods.

Professor Bacon, Assistant Professor Rohrlack, Dr. Birk, Dr. Nefvberger, Dr. Heacock, Dr. Hammond, Dr. Falls.

Manikin Work.-8 two-hour periods.
Assistant Professor Bachelle, Dr. Steffen
Bedside and Dispensary Clinic.-Given at the University Hospital. 12 onehour periods.

Professor Bacon, Assistant Professor Rohrlack, Dr. Barron-Harrison, Dr. Falls

Amphitheater Clinic.-Given at the University Hospital. 1; I, II.
Professor Bacon
Parturition Clinic.-Given at the University Hispital. Six cases.
Chicago Lying-In Hospital and Dispensary.-Residence, two weeks; at least six cases. (Fee, \$15.)

Obstetrical Seminar.-Work in cooperation with the departments of medicine and surgery. For this work the student receives 48 hours credit, 16 in each department, altho the work is in one department only. During the first semester, the groups meet informally, and abstracts are prepared and submitted for criticism. During the second semester each group is assigned one hour in which to present its work before the class.

Professor Bacon and assistants

## Optional Course

Obstetrical Pathology.-Third or fourth year.

## Division of Gynecology

Channing Whitney Barrett, M.D., Professor, Gynecology and Clinical Gynecology, Head of the Division
Mary Gilruth McEwen, B.S., M.D., Assistant Professor, Clinical Gynecology
John Michael Lang, M.D., Assistant Professor, Clinical Gynecology

Egan Walter Fischman, M.D., Instructor
Wesley John Woolston, M.D., Instructor
Albert John Schoenberg, M.D., Instructor
Frank Lee Stone, M.D., Assistant
Mathilda Osborne Lichner, B.S., M.D., Assistant

## Required Courses-Fourth Year

Gynecology.-Recitations; lantern slide demonstrations; exhibition of fresh and preserved pathologic tissue; illustrations by charts and models. An occasional hour is devoted to operative work. 2; I.

Professor Barrett, Dr. McEwen, Dr. Lang, Dr. Fischmann, Dr. Woolston, Dr. Schoenberg, Dr. Stone

Diagnostic and Operative Clinic.-Cook County Hospital. Diagnosis, prognosis, and treatment of typical and atypical cases. Cases preliminary to operation; post-operative progress; pathologic tissues. 1 two-hour period; $I$ or $I I$.

## Professor Barrett

Diagnostic and Operative Clinic.-The College Amphitheater or West Side Hospital. Material from the College and Marcy Center dispensaries is available for bedside study of the post-operative course. 1 two-hour period, 8 weeks; I, II. Professor Barrett, Assistant Professor McEwen, Assistant Professor Lang
Dispensary Clinics.-College and Marcy Center dispensaries. Examinations; study of cases; written reports. 3 , three weeks; $I, I I$.

Assistant Professor Lang, Dr. Fischmann, Dr. Woolston, Dr. Stone, Dr. Lichner

Gross and Microscopic Study of Pathology of the Genital Tract.-Gross and microscopical specimens; conferences. 2 to 4 two-hour periods, in combination with the course on pathological anatomy and histology. (See division of obstetrics.)

Dr. Fischmann, Dr. Stone

## Optional Course

Gynecologic Pathology.-Special courses for students of demonstrated proficiency. Special investigation.

Professor Barrett and assistants

## OPHTHALMOLOGY

Casey Albert Wood, D.C.L., C.M., M.D., Professor, Ophthalmology, Head of the Department
William Elliott Gamble, B.S., M.D., Associate Professor, Clinical Ophthalmology Jonathan Brown Loring, M.D., Assistant Professor, Clinical Ophthalmology Ephraim Kirkpatrick Findlay, M.D., Assistant Professor, Clinical Ophthalmology Frederick Douglas Vreeland, M.D., Instructor
William Butler West, M.D., Instructor George William Woodnick, M.D., Instructor, Clinical Opthalmiology Helen Carncross, M.D., Instructor, Clinical Ophthalmology
Edward F Slavik, M.D., Assistant, Clinical Ophthalmology
Lawrence Wells Whitmer, M.D., Assistant
Louis Hoffman, M.D., Assistant

## Required Courses-Fourth Year

Didactic Ophthalmology.-Lectures; dispensary teaching; clinical lectures in the hospital. Meetings of the Journal Club. 1, twelve weeks; $I$.

Clinical Ophthalmology.-The common diseases of the eye; minor operations the general practitioner may be expected to perform. $1 ; I$ or $I I$.

Professor Wood, Associate Professor Gamble, and assistants
Dispensary Instruction.-Diagnosis and treatment of the commoner diseases of the eye. 3 two-hour periods, three weeks, I, II. Professor Wood, Assistant Professor Loring, Assistant Professor Findlay, and assistants.

## Optional Courses

Properly qualified students can arrange for special or advanced work in ophthalmology by applying to Professor Wood.

## PATHOLOGY AND BACTERIOLOGY

David John Davis, B.S., M.D., Ph.D., Acting Professor of Pathology, Acting Head of the Department
William H Burmeister, A.B., M.D., Assistant Professor, Pathology
Joun Josiah Moore, M.S., M.D., Associate, Experimental Medicine
Thomas Harris Boughton, M.S., M.D., Instructor
Frederick Howard Falls, M.S., M.D., Instructor
Amy Weedon, Technician, Pathology
Esther Voss, Technician, Bacteriology

## Required Course-Second Year

General Pathology and Pathological Histology.-General pathology; gross and microscopic study of fresh and preserved pathological material. Lectures; recitations; demonstrations. 2; one and one-half semesters; laboratory work, 3 twohour periods, one and one-half semesters.

Assistant Professor Burmeister, Dr. Boughton

## Required Course-Third Year

Special Pathology.-Gross and microscopic examination of organs; post-mortem bacteriology; experimental pathology. The work is closely correlated with postmortem examination (see autopsies) and also with clinical pathology. 2 two-hour periods; $I I$.

Professor Davis and assistants
Autopsies.-Cook County Hospital. Third-year students are required to attend 16 autopsies. 1 two-hour period; $I I$.

## Optional Courses

Advanced Laboratory and Research.-Open to a limited number of qualified students. Hours to be arranged.

Assistant Professor Burmeister
Diagnosis of Tumors.-Open to students who have had courses in general and special pathology. I. Hours to be arranged. Dr. Boughton

## Division of Bacteriology

## Required Course-Second Year

General Bacteriology and Protozoology.-Pathogenic bacteria and protozoa; immunity. Lectures and demonstrations, 3; laboratory, 6; $I$.

Professor Davis, Dr. Moore

## Optional Course

Advanced Work and Research.-Limited to qualified students. Hours to be arranged.

Professor Davis

## Courses for Graduates

101. Advanced Pathogenesis.-Etiology and pathogenesis of certain diseases; lower animals in the transmission of human disease. One unit. Professor Davis
102. Individual Research.-One or two units.

Professor Davis

## PHARMACOLOGY AND THERAPEUTICS

Bernard Fantus, M.D., Professor, Pharmacology and Therapeutics<br>Alfred Ogle Shaklee, ${ }^{1}$ B.S., M.D., Assistant Professor, Pharmacology<br>Walter Edward Simmonds, M.D., Instructor, Physical Therapy<br>Howard S Browne, A.B., Ph.C., M.S., Assistant Pharmacology<br>Ladislaw Stolfa, M.D., Assistant, Therapeutics<br>Emry G Hyatt, Student Assistant, Pharmacology<br>Florence L Rumrey, Typist and Technician, Pharmacology<br>Shunken Tominaga, Technician, Pharmacology

## Required Courses-Second Year

Elementary Prescription-Writing and Pharmacy.-Each student prepares typical specimens of each of the more important classes of pharmaceutic preparations, and practises prescribing them. 1; I. Professor Fantus, Mr. Browne

Systematic Pharmacology.-Important drugs with predominant local action. Lectures and recitations, 2; II. Laboratory, 1 two-hour period; II.

Professor Fantus, Mr. Browne
Non-Pharmacal Therapeutics.-Remedial measures other than drugs: psychotherapy, mechanotherapy, hydrotherapy, electrotherapy, radiotherapy, climatotherapy, dietetics. Laboratory in mechanotherapy and hydrotherapy; practise with electrotherapeutic apparatus. Lectures and recitations, 3; II. Laboratory, 1; II. Professor Fantus, Dr. Simmonds, Dr. Stolfa

## Required Courses-Third Year

Systematic Pharmacology.-Important drugs with predominant systemic action. Lectures and recitations, 2; I. Laboratory, 1 three-hour period; I.

Professor Fantus
General Therapeutics.-Remedial measures: diuresis, diaphoresis, catharsis, antipyresis, analgesia, anesthesia, hypnosis, antisepsis. Prescription-writing for hypothetical cases. Lectures; recitations, 2; II. Professor Fantus

## Optional Courses

Advanced Prescription-Writing and Compounding.-Prescription and compounding of important remedies: pleasantness of medication; avoidance of incompatibilities. (Recommended to students of the second year who have completed the course in elementary prescription writing.) Laboratory. 1; II.

Professor Fantus

[^57]Dietetics.-Hygienic and therapeutic relations of foods. (Recommended to students of the third and fourth years.) Lectures, demonstrations; $1 ; I$.

Professor Fantus
Hydrotherapy and Massage.-The technic and practical application. (A limited number of students of third and fourth year may be admitted to this course.)

Dr. Simmonds
Special Experimental Pharmacodynamics.-Open to a limited number of qualified students of the third or fourth year. Three hours laboratory a week.

Professor Fantus, Mr. Browne
Biologic Drug Assay.-The valuation of the activity of drugs that cannot be assayed by chemical methods. Three hours laboratory a week.

Professor Fantus, Mr. Browne
Research.-Qualified students may do research laboratory work under direction of members of the staff.

Seminar.-Discussion of current pharmacologic and therapeutic literature and the results of research work in progress.

## Courses for Graduates-Summer Session

101. Advanced Pharmacodynamics.-Laboratory work. One unit.

Assistant Professor Shaklee
103. Research in Pharmacodynamics.-One or two units.

Assistant Professor Shaklee

## PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

George Peter Dreyer, A.B., Ph.D., Professor, Physiology and Physiological Chemistry, Head of the Department
William Henry Welker, A.C., Ph.D., Assistant Professor, Physiological Chemistry Alfred Erwin Livinston, Ph.D., Associate, Physiology
Roy Gentry Pearce, ${ }^{1}$ A.B., M.D., Assistant Professor, Physiology
Clayton S Smith, M.S., Ph.D., Instructor, Physiological Chemistry
Harry Henry Strauch, B.S., Assistant, Physiological Chemistry
J Craig Small, B.S., Student Assistant, Physiological Chemistry
Howard E Curl, A.B., Student Assistant, Physiology
Albert Charles D’Vorak, B.S., Student Assistant, Physiological Chemistry
Philipp A Ohlson, Technician, Chemistry
James S Groot, Technician, Physiology

## DIVISION OF PHYSIOLOGY

## Required Course—Tirst Year

Physiology.-Blood, lymph; muscle, nerve; circulation; respiration. Lectures, recitations, demonstrations, 3 ; laboratory, 2 three-hour periods; $I I$.

Professor Dreyer and assistants

## Required Course-Second Year

Physiology.-Digestion; secretion; metabolism; the special senses; the central nervous system. Lectures, recitations, demonstrations, 4; laboratory, $4 ;$ I.

Professor Dreyer and assistants

[^58]
## Optional Courses

Advanced Laboratory.-Qualified students may take an optional course, consisting of a series of exercises introducing the graphic methods of physiological demonstration and research, and varying in kind and amount according to individual needs.

Journal Club and Seminar.-Reports; special topics.

## Division of Chemistry <br> Required Courses-First Year

Organic Chemistry.-Biological chemistry; fats; proteins; carbohydrates. Lectures; demonstrations; conferences, 2; I. Laboratory, 2 three-hour periods; $I$. Dr. Smite, Mr. Strauch, Mr. Small
Physiological Chemistry and Toxicology.-Lectures; demonstrations; conferences, $2 ; I I$. Laboratory, 2 three-hour periods; $I I$.

Assistant Professor Welker, Dr. Smith, Mr. Strauch, Mr. Small
Prerequisite: A course in organic chemistry as outlined above.

## Optional Courses

Prerequisite: The required courses in organic and physiological chemistry.
Quantitative Urinary Analysis.-Lectures, 1; laboratory, 6.
Assistant Professor Welker, Dr. Smith
Sanitary Chemistry.-Water and sewage analysis; purification. Lecture, 1; laboratory, 6.

Assistant Professor Welker
Food Analysis.-Composition; adulteration; preservation. Lecture, 1; laboratory, 6.

Dr. Smith
Research.-Open to persons with the requisite scientific training for original investigation under the direction of a member of the staff.

Seminar.-Discussion of results of recent work in chemical biology. 1; I, II.

## Courses for Graduates

103. Advanced Biological Chemistry.-Biochemical methods of research; biological colloids; enzyme action; metabolism. One or two units.

Assistant Professor Welker
107. Biochemical Research.-One or two units.

Assistant Professor Welker
Courses for Graduates-Summer Session
101. Advanced Physiology.-Experimental physiology. Laboratory. One or two units. Assistant Professor Pearce
105. Research in Physiology.-One or two units.

Assistant Professor Pearce

## SURGERY

Daniel Atrinson King Steele, M.D., LL.D., Professor, Head of the Department
Division of General Surgery
Daniel Atkinson King Steele, M.D., LL.D., Professor, Surgery and Clinical Sürgery

Daniel Nathan Eisendrath, A.B., M.D., Professor, Surgery and Clinical Surgery
Albert John Ochsner, B.S., M.D., Professor, Surgery and Clinical Surgery
Charles Davison, M.D., Professor, Surgery and Clinical Surgery
Albert Edward Halstead, M.D., Professor, Surgery and Clinical Surgery
Charles Edward Humiston, M.D., Associate Professor, Clinical Surgery
Nelson Mortimer Percy, M.D., Associate Professor, Clinical Surgery
George Farnsworth Thompson, B.S., M.D., Assistant Professor, Surgery and Clinical Surgery
Frederick George Dyas, M.D., Assistant Professor, Surgery and Clinical Surgery Frank Donald Moore, M.D., Assistant Professor, Surgery and Clinical Surgery John Ross Harger, B.S., M.D., Associate, Surgery and Minor Surgery
Victor L Schrager, M.D., Associate, Surgery
Charles Herbert Phifer, M.D., Instructor, Surgery
Henry Lester Baker, M.D., Instructor, Surgery
George Luther Davenport, M.D., Instructor, Surgery
Arrie Bamberger, M.D., Instructor, Surgery and Minor Surgery
Raymond William McNealy, M.D., Instructor, Surgery
Oscar Eugene Nadeau, B.S., M.D., Instructor, Surgery (Surgical Pathology)
George Washington Post, A.M., M.D., Assistant, Clinical Surgery
Charles C. Clark, M.D., Assistant, Clinical Surgery
Robert Emmet Flannery, M.D., Assistant, Clinical Surgery
Max Meyerovitz, M.D., Assistant, Clinical Surgery
Carl Albert Meyer, M.D., Assistant, Clinical Surgery
Lyndon Harris, M.D., Assistant, Clinical Surgery

## Required Courses-Third Year

Surgery and Surgical Pathology.-Conferences; recitations. 2; I, II.
Assistant Professor Moore, Assistant Professor Dyas, Assistant Professor Thompson, Dr. Harger

Clinical Surgery.-University Dispensary. Bandaging; dressings; surgical appliances. 3 two-hour periods, three weeks; $I, I I$.

Dr. Harger, Dr. Bamberger, Dr. Post
Clinical Surgery.-Cook County Hospital. 2; I or $I I$.
Assistant Professor Thompson
Clinical Surgery.-Cook County Hospital, 2; I or $I I$.
Associate Professor Humiston
Anesthetics.-Conferences; demonstrations. 4 one-hour periods.
Dr. Meyer
Required Courses-Fourth Year
Practise of Surgery.-Lectures (See calendar below.) 1; I, II. Quiz: 1; I, II. Dr. Phifer, Dr. Davenport, Dr. McNealy, Dr. Baker October
Surgery of the Head and Neck-Professor Halstead
November
Surgery of the Thorax.-Professor Halstead
December
Surgery of the Stomach.-Professor Eisendrath

## January

Surgery of the Duodenum and Intestines.-Professor Eisendrath
February
Hernia and Post-Operative Treatment.-Professor Steele
March
Surgery of the Liver, Pancreas, and Spleen.-Professor Ochsner

> April

Surgical Diseases and Injuries of the Bones.-Professor Davison

> May

Surgery of the Genito-Urinary Tract.-Assistant Professor Cary
Clinical Surgery.-University Hospital. 1 two-hour period; 8 weeks. Professor Steele, Dr. Baker, Dr. Schrager, Dr. Clark

Clinical Surgery.-University Hospital. 1 two-hour period; 8 weeks. Professor Davison, Assistant Professor Moore, Dr. Meyerovitz

Clinical Surgery.-Cook County Hospital. 1 two-hour period; 8 weeks.
Professor Davison
Clinical Surgery.-Cook County Hospital. 1 two-hour period; $I$ or $I I$. Professor Eisendrath
Clinical Surgery.-Cook County Hospital. 1 two-hour period; I or II.
Assistant Professor Dyas
Clinical Surgery.-College. 1 two-hour period; I or II.
Associate Professor Percy, Dr. Post, Dr. Flannery
Clinical Surgery.-St. Luke's Hospital. 4 two-hour periods.
Professor Halstead
Clinical Surgery.-Augustana Hospital. 4 two-hour periods.
Professor Ochsner, Associate Professor Percy, Dr. Flannery
Surgical Pathology.-Laboratory. 1 two-hour period; 8 weeks.
Dr. Nadeau and assistant
Surgical Seminar.-Work in cooperation with the departments of medicine and obstetrics. For this work the student receives 48 hours credit, 16 in each department, altho this work is in one department only. During the first semester, the groups meet informally and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the class.

Professor Steele and assistants

## Division of Orthopedic Surgery

John Lincoln Porter, M.D., Professor, Orthopedic Surgery, Head of the Division Charles Mayer Jacobs, M.D., Associate Professor, Clinical Surgery (Orthopedic) David Alexander, M.D., Instructor
William Arthur Clarke, M.D., Assistant

## Required Courses-Third Year

Orthopedic Surgery.-Lectures. 1; I. Professor Porter Clinical Orthopedic Surgery.-College amphitheater. 1; I or $I I$. Clinical Orthopedic Surgery.-Cook County Hospital. 1; I or $I I$.

Associate Professor Jacobs
Dispensary. 3 two-hour periods; three weeks, $I, I I$.
Dr. Alexander. Dr. Clarke
Required Course-Fourth Year
Clinical Orthopedic Surgery.-St. Luke's Hospital. 4 two-hour periods.
Professor Porter
Division of Genito-Urinary Surgery
George French Strother Cary, M.D., Assistant Professor
Charles Morgan McKenna, M.D., Instructor
Harry Jerome Smejkal, M.D., Instructor
John Patrick O'Neil, M.D., Instructor
Required Courses-Third Year
Genito-Urinary and Venereal Diseases.-Lectures. 1; I.
Assistant Professor Cary
Genito-Urinary and Venereal Diseases.-University Dispensary. Clinics; conferences. 3 two-hour periods; three weeks, I, II.

Assistant Professor Cary, Dr. McKenna, Dr. Smejkal, Dr. O'Neil

## Required Course-Fourth Year

Clinical Surgery (Genito-Urinary).-College amphitheater. 2; 8 weeks.
Assistant Professor Cary, Dr. Mc Kenna, Dr. Smejkal, Dr. O’Neil
Division of Operative Surgery
Archie James Graham, B.S., M.D., Instructor

## Required Course-Second Year

Operative Surgery.-Operations on the cadaver and on animals. 2; $I I$.
Dr. Graham

## Division of Laryngology, Rhinology, and Otology

Norval H Pierce, M.D., Professor, Surgery (Laryngology, Rhinology, and Otology), Head of the Division
Joseph C Beck, M.D., Associate Professor, Surgery (Laryngology, Rhinology, and Otology)
John Algernon Cavanaugr, M.D., Associate, Surgery (Laryngology, Rhinology, and Otology)
Eugene Bermingham, M.D., Instructor, Surgery (Laryngology, Rhinology, and Otology)
Edward F Garraghan, M.D., Instructor, Surgery (Laryngology, Rhinology, and Otology)

## Required Courses-Third Year

Otology.-Surgical anatomy, physiology, and pathology of the ear. Lectures. 1; six weeks, $I I$.

Professor Pierce
Clinical Surgery (Otology.)-Illinois Eye and Ear Infirmary. 4 one-hour periods; $I I$.

Professor Pierce
Laryngology and Rhinology.-The diseases of the throat and nose. Lectures. 1; I.

Associate Professor Beck
Laryngology and Rhinology.-College amphitheater. 1; I or II. Associate Professor Beck, Dr. Cavanaugh

Laryngology and Rhinology.-University Dispensary. 3 one-hour periods; three zweeks, $I, I I$.

Associate Professor Beck, Dr. Cavanaugh, Dr. Bermingham, Dr. Garraghan

## Optional Course

Clinical Laryngology and Rhinology.-Cook County Hospital. 1.
Associate Professor Beck

## SUMMARY OF HOURS

| First Year |  |  | Second Semester Didactic Laboratory |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Subjects | First Semester Didactic Laboratory |  |  |  | Total |
| Anatomy: |  |  |  |  |  |
| Gross. . . . ${ }_{\text {Microscopic }}$ | 32 32 | 112 160 | 32 32 | 112 64 | 288 |
| Cheinistry: |  |  |  |  |  |
| Organic. | 32 | 96 |  |  | 128 |
| Physiological. | . | ... | 32 | 96 | 128 |
| Physiology.. |  |  | 48 | 96 | 144 |
| Total. | 96 | 368 | 144 | 368 | 976 |

Second Year

Subjects
Anatomy,

| Topographi | 32 | 96 |  |  | 128 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bacteriology... | 48 | 96 |  |  | 144 |
| Hygiene. |  | .. | 32 |  | 32 |
| Laboratory Diagnosis |  | . |  | 64 | 64 |
| Non-Pharmacal Therapeutics. |  | . | 48 | 16 | 64 |
| Pharmacology. |  |  | 32 | 32 | 64 |
| Prescription Writing and Pharmacy. |  | 16 |  |  | 16 |
| Pathology. | 32 | 96 | 16 | 48 | 192 |
| Physical Diagnosis. |  |  | 16 | 32 | 48 |
| Physiology..... | 32 | 96 |  |  | 128 |
| Surgery (Operative). |  |  |  | 32 | 32 |
|  | 144 | 400 | 144 | 224 | 912 |


| Subjects | Third Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Didactic | First Semester Clinical Dispensary |  | Second Semester |  |  | Tota |
| Autopsies... |  |  |  |  | 32 |  | 32 |
| Laryngology and Rhinology | 16 | 16 | 9 |  |  | 9 | 50 |
| Internal Medicine. . . . . . . . | 64 | 40 | 18 | 64 | 40 | 18 | 244 |
| Medical Jurisprudence..... | . | . . | . . | 16 |  | . . | 16 |
| Pathology . . |  | . |  |  | 64 |  | 64 |
| Pediatrics................. | 16 | . | .. | 16 | 16 | . | 48 |
| Pharmacology and |  |  |  |  |  |  |  |
| Therapeutics. | 32 | 48 | . | 32 |  |  | 112 |
| Obstetrics. | 32 | . . | . | 32 | 20 | . | 84 |
| Otology |  |  |  | 6 | 4 |  | 10 |
| General Surgery . | 32 | 32 | 18 | 32 | 36 | 18 | 168 |
| Orthopedic Surgery | 16 | 16 | 18 |  | 16 | 18 | 84 |
| Genito-Urinary Surgery ... | 16 |  | 18 |  |  | 18 | 52 |
| Total. | 22 | 152 | 81 | 198 | 228 | 81 | 964 |



## FURTHER INFORMATION

For further information, including circular, address The Secretary of the College of Medicine, Congress and Honore Streets, Chicago, Iillinois

[^59]
## THE COLLEGE OF DENTISTRY

(For the faculty of the College of Dentistry, see page 39; for a description of the building, see page 58).

## LOCATION

The College is situated on the corner of Harrison and Honore streets in Chicago, opposite the Cook County Hospital, in the center of the clinical field of Chicago. On the west is the West Side Hospital, and on the north the College of Medicine of the University of Illinois.

## PROSTHETIC LABORATORIES

The prosthetic laboratories are three in number, one for each class. They are equipped with new-model benches and each student is provided with two drawers, gas, compressed air, and electric light. Each laboratory is supplied with hot and cold water, electric lathes for grinding and polishing, moulding benches, furnaces, and casting devices.

## INFIRMARY

The infirmary occupies the top floor. The equipment includes chairs of inproved type, each chair furnished with an electric engine, electric light, compressed air, gas connection, and a stand for instrument case. A sterilizer is continuously in operation. There is a laboratory for prosthetic work, equipped with apparatus and tools for coldering, plate work, and polishing, and a laboratory for porcelain work with electric furnaces and porcelain ovens.

## LIERARY

The library is housed with the Quine Library of the College of Medicine in the medical building adjoining. Through the courtesy of Mrs. Margaret Cook, wife of the late Dr. George Washington Cook, former Dean of the College of Dentistry, his dental library, comprising two hundred volumes, besides unbound volumes of dental journals, has been given to the College. A dozen dental journals are received regularly. The library is open from $9 \mathrm{a} . \mathrm{m}$. to $5 \mathrm{p} . \mathrm{m}$. daily during the school year, with a librarian in attendance.

## ADMISSION

An applicant for admission to the College of Dentistry must be at least 18 years of age. Women are admitted on the same terms as men.

Each candidate for admission must present a certificate of graduation from an accredited high school, or an equivalent; which equivalent is interpreted to mean 15 units $^{1}$ of preparatory rwork in an accredited high school or academy or a state normal school.

No "conditions" can be permitted; the full 15 units must be offered.
The foregoing requirements may be satisfied either (a) by certificate or (b) by examination.

[^60]Entrance credits will be accepted by certificate from the following sources:
(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.
(2) From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.
(3) From schools accredited by the North Central Association of Colleges and Secondary Schools.
(4) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
(5) From schools approved by the New England College Entrance Certificate Board.
(6) From high schools and academies registered by the Regents of the University of the State of New York.

Entrance credits may be made by examination:
(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For program, see pages 74-75.
(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in the fall. In 1917 these examinations will be held on September 20-22.
(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 70.
(4) In the examinations conducted by the Regents of the University of the State of New York.

Applicants for admission coming from institutions of higher learning, whether candidates for the freshman class or for advanced standing, must present entrance credentials or pass entrance examinations as indicated above.

The College of Dentistry will receive no student who is not present within 10 days after the opening day of the session in each year, or in case of necessary delay by reason of illness, properly certified by the attending physician, within 20 days after the opening day.

## ADMISSION TO ADVANCED STANDING

Persons who can meet the requirements for admission to this college and who have studied dentistry in other schools for not less than one year may be admitted to advanced standing after satisfying the faculty that they have completed an amount of work equivalent to that which is required by this college in the respective classes.

Students who have had one or more years in the College of Medicine or in other medical colleges of equal rank, are allowed credit toward graduation for so much of the required curriculum in dentistry as was included in their medical curriculum. They must, however, be registered for full time. Graduates of the University of Illinois with degree of Bachelor of Arts or Bachelor of Science, who have taken courses in biology and chemistry in the University, can secure advanced standing in the curriculum in dentistry, provided they have done full work in the sciences required in the dental curriculum.

Graduates of recognized medical colleges may secure advanced credit for work and one year of time toward graduation, and are excused from lectures and examinations in general anatomy, chemistry, histology, pathology, and physiology, but are required to take lectures and examinations in dental subjects.

## CURRICULUMS

1. Three-year curriculum. Students matriculating before October 14, 1916, may become candidates for the degree of Doctor of Dental Surgery after three full years of study.
2. Four-year curriculum. Optional in 1916-17. Required in 1917-18. The three-year course will not be offered after the session of 1916-17.

Students matriculating in 1916 are advised to take the four-year curriculum.
3. Combined curriculum in science and dentistry, leading to the degrees of Bachelor of Science and Doctor of Dental Surgery in six years. Full details of this curriculum will be furnished by the Registrar.

## REQUIREMENTS FOR GRADUATION

The degree of Doctor of Dental Surgery will be conferred on students who have completed the curriculum, attended the required time, and passed satisfactory final examinations. To be eligible for the degree, the student must be twenty-one years of age, must possess a good moral character, and must have paid all fees.

The monthly report of attendance, and the standing of students in quizzes, recitations, laboratory work, and infirmary practise, both operative and prosthetic, are considered in making up the rating of final examinations.

## LICENSE FOR PRACTISE IN ENGLAND

On the recommendation of the Board of Examiners in Dental Surgery, the Council of the Royal College of Surgeons, in London, has added the College of Den tistry of the University of Illinois to the list of dental schools recognized by the College. This recognition implies that the Royal College of Surgeons will exempt graduates in dental surgery of the University of Illinois from the preliminary science examination for the license in dental surgery, and will accept such parts of the curriculum for the license as are completed in the College of Dentistry of the University of Illinois toward the curriculum of study required for a license.

## METHOD OF INSTRUCTION

Instruction is given by means of lectures, recitations, demonstrations, and laboratory work. The time of the student is about equally divided between laboratory and clinical work on the one hand and lectures and recitations on the other.

Students are admitted to the laboratories from the beginning of the first year. Laboratory work is closely correlated with lectures and clinical studies.

The teaching of one year is not repeated, and the curriculum is progressive, the several classes having separate laboratories and at no time taking lectures or demonstrations together.

In the clinical work, methods of investigation and reasoning are taught. Diagnosis, prognosis, and indications for treatment receive no less attention than methods of construction and the technics of procedure.

# DESCRIPTION OF COURSES IN DENTISTRY 

BACTERIOLOGY, PATHOLOGY, AND ORAL SURGERY

Frederick Brown Moorehead, Ph.D., D.D.S., M.D., Professor, Oral Surgery, and Pathology, and Head of the Department
David John Davis, B.S., M.D., Professor of Pathology
Louis Schultz, D.D.S., M.D., Assistant Professor, Oral Surgery and Pathology
Frank Joseph Bernard, D.D.S., Instructor, Extracting
Thomas Harris Boughton, M.S., M.D., Instructor, Bacteriology and Pathology
Kaethe W Dewey, M.D., Research Pathologist
Edwin Paul Swatek, D.D.S., Clinical Assistant in Oral Surgery
Anna Bolan, R.N., Nurse in Oral Surgery Clinic
General Bacteriology.-Classification of bacteria, products of bacterial growth, and methods of observing, cultivating, isolating, and identifying bacteria; sterilization, disinfection, pathogenic bacteria in diseased conditions of the mouth; cultural and staining technic; dental caries, pathological conditions of first and second dentition, sensitive dentin, hyperemia and congestion, pulp nodules, putrescent pulps, acute and chronic alveolar abscesses, diseases of the peridental membrane, necrosis of hard and soft tissues. Lectures; recitations; demonstrations; laboratory work. 112-7; I; 2. ${ }^{1}$ Professor Davis, Dr. Boughton

General Pathology.-Circulatory disturbances, retrogressive and progressive processes, inflammation, tumors; pathology of important organs; blood and urine analysis; disease processes involving the teeth and buccal cavity. Lectures; recitations; demonstrations of fresh and preserved specimens; laboratory. 112-7; II; 2. Professor Davis, Dr. Boughton
Special Bacteriology and Pathology.-Relation of foci of infections in the mouth to constitutional diseases; the pulp and peridental membrane. Lectures; recitations; demonstrations; laboratory. 96-3; I, II; 3.

Professor Moorehead, Assistant Professor Schultz, and assistants
Oral Surgery.-Major operations performed in the clinic; diagnosis and treatment of minor lesions.
(a) Lectures and recitations on etiology, diagnosis, treatment, and local and general anesthetics. 64-2; I, II; 3.
(b) Surgical Clinic.-Every Monday morning from 9:00 to 12:30. Diagnosis, case discussions, and operations. Reports. $112-31 / 2 ; I, I I ; 3$.

Professor Moorehead, Assistant Professor Schultz, and assistants
Extracting Clinic.-Selection and application of forceps and elevators; demonstration of nitrous oxid, oxygen, novocain, conduction and infiltration; asepsis and after treatment. 288-9; I, II; 3.

Dr. Bernard

## OPERATIVE DENTISTRY

Donald MacKay Gallie, D.D.S., Professor<br>Louis E Bake, D.D.S., Assistant Professor<br>Joun C McGuire, D.D.S., Superintendent of Infirmary, Instructor

[^61]W Ira Williams, D.D.S., Instructor<br>Edward J Krejci, D.D.S., Instructor<br>Frank H Vorhees, D.D.S., Instructor

Operative Dentistry.-Nomenclature; tooth forms; carving in ivory or bone; dissections of the pulp chamber and canals; longitudinal and transverse sections; instrument making and care; cavity preparation in ivory blocks and tooth forms; instruments for different cavities; manipulation, grasps, rests, and direction and control of force; treating, cleaning, and filling of root canals; filling materials, their application, preparation, and manipulation. 256-8; $I, I I ; 1$.

Assistant Professor Bake, Dr. Krejci
Operative Dentistry.-Cavity nomenclature and preparation; use of the odontotype; inlay technic; chair positions; application of the rubber dam; use of clamps, wedges, and separation. Operative Clinic:-Beginning with the second semester, second year students are admitted to the infirmary, and given instruction in oral prophylaxis, followed by regular infirmary work. One lecture and recitation throughout the year; 128 hours, laboratory; 2.

## Professor Gallie, Assistant Professor Bake

Operative Dentistry.-Review; management of patients and special cases; treatment and filling of children's teeth; erosion; atrophy; abrasions. 64-2; $I, I I ; 3$.

## PROSTHETIC DENTISTRY

George Walter Dittmar, D.D.S., Professor
Solomon Perry Starr, D.D.S., Assistant Professor
Milzor William Deist, D.D.S.; Instructor
Reuben Lenzer, D.D.S., Instrucior
Roscoe W Upr, D.D.S., Assistant
Prosthetic Dentistry.-Terminology; materials; impressions; plaster casts and models; base plates; articulation and occlusion; carving, polishing, and finishing of vulcanite dentures; models for dies; casting; counter die construction; swaging; soldering; casting aluminum and "fusible metal" plates. 236-8; I, II; 1 . Assistant Professor Starr, Dr. Kaplan
Prosthetic Dentistry.-Crown and bridge work; root preparation, band construction, and crown conformation; restoration of badly decayed roots for crowns; repairing and restoring portions of fractured roots; carving, swaging, and casting cusps; swaging seamless crowns; casting full metal and porcelain faced crowns, cap and pin crowns; grinding and backing facings; detachable porcelain crowns. Bridge work: casting; removable bridge work; tenso-friction attachments; splints and bar supports; selection of porcelain facings and crowns; grinding, polishing, staining. 224-7; $I, I I ; 2$.

Assistant Professor Starr, Dr. Lenzer, Dr. Deist, Dr. Upp
Prosthetic Dentistry.-Plate denture construction; human dental mechanism: temporo-mandibular articulation; operations; occluding frames; registration of condyle paths and rotation points in the mandible; physiognomy and temperament of individuals and construction of dentures with teeth of proper size, form, shade, and arrangement; grinding, shaping, and staining; continuous gum dentures and vulcanite and metallic bases; partial plates and removable bridges; porcelain and forms of porcelain teeth; crowns and bridge construction; splints for the retention of loosened teeth and maxillary fractures; velæ and obturators for the restoration of cleft palates. 102-3; I, II; 3.

Professor Dittmar and assistants

## MATERIA MEDICA AND THERAPEUTICS

Edgar D Coolidge, D.D.S., Professor<br>Edward J Krejci, D.D.S., Instructor<br>Benjamin H Schlomovitz, B.S., M.S., Assistant<br>Materia Medica.-Drugs used in dentistry; terminology. 32-1; $I, I I ; 1$.

Dr. Krejct

Materia Medica.-Pharmaceutal preparations; classification of drugs; administering; conditions which modify their effects; action upon tissues and organs; poisons. Lectures; recitations. Text-book: Prinz's Dental Materia Medica and Therapeutics. 16-1; I; 2.

Professor Coolidge, Mr. Schlomovitz
Therapeutics.-Prescription-writing; pathological lesions; dental caries; salivary deposits; oral hygiene and prophylaxis. Lectures; recitations. Text-books: Prinz's Materia Medica and Therapeutics; Marshall's Mouth Hygiene. 16-1; II; 2. Professor Coolidge
Therapeutics.-Pathologic conditions of the peridental membrane and pulp; treatment; dental caries; diseases of the dental pulp; hypersensitive dentin; pulp capping; hyperemia of the pulp; anesthetization and devitalization of the pulp, its removal, treatment and filling of root canals; pulp gangrene, suppuration, and alveolar abscess; discoloration and bleaching; the peridental membrane; pericementitis, apical and complete, septic and non-septic, phagademic pericementitis, gingivitis, pyorrhea, and stomatitis; oral prophylaxis; thesis. Text-book: Prinz's Dental Materia Medica and Therapeutics. 32-1; I, II; 3. Professor Coolidge

## ORTHODONTIA

Frederick Bogue Noyes, B.S., D.D.S., Professor, Histology
Orthodontia.-Normal occiusion, mal-occlusions. Lectures, illustrated by lantern slides and the projectoscope. Text-book: Angle's Malocclusion of the Teeth. 32-1; I, II; 3.

Professor Noyes

## ANATOMY, HISTOLOGY, AND EMBRYOLOGY

Albert Chauncey Eycleshymer, M.D., Ph.D., Professor, Anatomy
Frederick Bogue Noyes, B.S., D.D.S., Professor, Histology
Victor Emmanuel Emmel, M.S., Ph.D., Assistant Professor of Anatomy
Roy Lee Moodie, A.B., Ph.D., Associate, Anatomy
Clifford Webb Wells, B.S., M.D., Instructor, Histology
S W Williston, M.D., Ph.D., D.Sc., Lecturer in Comparative A natomy
Systematic Anatomy.-Dissection of the entire body; respiratory and digestive systems and dissection of head and neck. Lectures; demonstrations; laboratory; recitations. 256-8; I, II; $1 . \quad$ Assistant Professor Emmel

Topographical Anatomy.-Head and neck in serial section; topography of the organs and structures. Lectures; recitations; demonstrations; laboratory. 114-8; I; 2.

Dr. Moodie
Comparative Anatomy.-Evolution of the masticatory apparatus. $10 ; I I ; 2$. Dr. Williston
General Histology.-Cell structure and function; relation to intercellular substances and tissues; elementary tissues; histology of the circulatory system; the alimentary tract and glands; the urinary system; the respiratory system, and the skin, nails, and hair. Text-book: Bailey. Three hours laboratory work and one hour lecture or quiz a week. 128; $I, I I ; 1$. Professor Noyes, Dr. Wells

Dental Histology and Embryology.-The tissues of the teeth, the supporting tissues and the tissues of the oral cavity; the enamel; operative procedures; cavity walls; general embryology; embryology of the teeth, mouth, and jaws. Textbook: Noyes's Dental Histology and Embryology. Three hours laboratory and one hour lecture and quiz a week. 128; $I, I I ; 2 . \quad$ Professor Noyes, Dr. Wells

## Graduate Work

Dental Histology.-In the summer of 1916 a special course of six weeks in dental histology was offered for those desiring to prepare themselves for the teaching of this subject in dental schools. The course consisted of three hours of laboratory work and one hour of lecture or quiz a week.

## PHYSIOLOGY AND CHEMISTRY

George Peter Dreyer, A.B., Ph.D., Professor, Physiology and Chemistry
William Henry Welker, A.C., Ph.D., Assistant Professor, Chemistry
Clayton S Smith, B.S., M.S., Ph.D., Associate, Chemistry
Alfred Erwin Livingston, M.S., Ph.D., Associate, Physiology
Harry Henry Strauch, B.S., Assistant, Chemistry
J Craig Small, B.S., Student Assistant, Chemistry
Howard Curl, A.B., Student Assistant, Physiology
Albert Charles D’Vorak, B.S., Student Assistant, Chemistry
Philipp A Ohlson, Technician, Chemistry
James T Groot, Technician, Physiology

## Physiology

The students of the College of Dentistry take their work in physiology in the physiology laboratory of the College of Medicine. The work falls in the junior year when the prerequisites, including anatomy, histology, and chemistry, have been in large part completed.

Systematic Human Physiology.-Lectures; recitations. 96-3; I, II; 2.
Dr. Livingston, Mr. Curl, and assistants
Practical Physiology.-Demonstrations and laboratory. 64-2; I, II; 2.
Dr. Livingston, Mr. Curl, and assistants

## Chemistry

The instruction in chemistry is given in the laboratories of the College of Medicine.

General Inorganic Chemistry.-Metals and non-metals. Text-books: McPherson and Henderson's Course in General Chemistry; Remsen's Chemical Experiments. Lectures and quiz, 4; laboratory, 6; $I ; 1$.

Mr. Small, Mr. Strouch, Mr. D’Vorak, and assistants
Qualitative Analysis.-Metals and acids; the groups; solutions of unknown bases, unknown acids, and unknown bases and acids. Text-book: Gooch and Browning's Outlines in Qualitative Chemical Analyses. 80. Lectures and quiz, 4; laboratory, 6; II, first half; 1.

Mr. Strauch, Mr. Small, Mr. D’Vorak, and assistants
Metallurgy.-Extraction and refining of metals; physical properties; ores, alloys, solders, and cements. Text-book: Hodgen's Practical Dental Metallurgy. 80. ${ }^{L}$ Lectures and quiz, 4; laboratory, 6; II, second half; 1.
Assistant Professor Welker, Mr. Small, Mr. Strauch, Mr. D'Vorak, and assistants

Metallurgy.-(Advanced course, open to students who have completed satisfactory courses in inorganic chemistry, qualitative analysis, and metallurgy.) Hours to be arranged.

Assistant Professor Welker

## DENTAL JURISPRUDENCE

## Elmer DeWitt Brothers, LL.B., Lecturer

Dental Jurisprudence.-The dentist's individual and professional rights and obligations; responsibilities arising from the relation of dentist and patient; dental laws of the various states. Senior year.

Mr. Brothers

## RADIOGRAPHY

John C McGuire, D.D.S., Instructor
Burne O Sippy, A.B., Student Assistant
Martin R Anderson, Student Assistant
Radiography.-The X-ray as a diagnostic agent; the radiograph; exposure and development. Senior Year. Dr. McGurre, Mr. Sippy, Mr. Anderson

## PRACTITIONERS' COURSE

Oral Surgery, Radiography, and Therapeutics.-Class limited to twenty-five. Fee, $\$ 25$. Hours to be arranged.
Professor Moorehead, Professor Coolidge, Assistant Professor Schultz, Dr. McGuire, Dr. Krejci, and assistants

## SUMMARY OF CURRICULUM

|  | Freshman Year |  | Hours |  |
| :---: | :---: | :---: | :---: | :---: |
| Departments |  | Didactic | Laboratory | Total |
| Materia Medica. |  | 34 |  | 34 |
| Anatomy. |  | 64 | 136 | 200 |
| Histology |  | 34 | 96 | 130 |
| Chemistry. |  | 102 | 204 | 306 |
| Operative Technic. |  |  | 238 | 238 |
| Dental Anatomy. |  | 32 | . | 32 |
| Prosthetic Technic. |  |  | 272 | 272 |
| Total. |  | 266 | 946 | 1212 |
|  | Junior Year |  | Hours |  |
| Departments Anatomy........... |  | Didactic ${ }^{1} 17$ | Laboratory | Total 85 |
| Physiology . |  | 68 | 102 | 170 |
| Materia Medica. |  | 68 |  | 68 |
| Bacteriology. |  | ${ }^{1} 34$ | 185 | 119 |
| Pathology. |  | ${ }^{2} 51$ | ${ }^{2} 68$ | 119 |
| Histology. |  | 34 | 96 | 130 |
| Prosthetic Dentistry. |  | 34 | 204 | 238 |
| Operative Dentistry. |  | 34 | 170 | 204 |
| Comparative Anatomy. |  | ${ }^{2} 17$ |  | 17 |
| Total. . |  | 357 | 793 | 1150 |

[^62]| Senior Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Departments | Didactic | Hours <br> Laboratory | Clinic | Total |
| Special Bacteriology and Pathology. | 34 | 34 |  | 68 |
| Oral Surgery . | 34 | . . | 102 | 136 |
| Extracting. |  |  | 288 | 288 |
| Therapeutics. | 34 | . |  | 34 |
| Orthodontia. | 34 | . | - | 34 |
| Prosthetic Dentistry. | 34 | 68 | 340 | 442 |
| Operative Dentistry . | 34 | . | 340 | 374 |
| Porcelain Art. | . |  | 32 | 32 |
| Jurisprudence (Dental) | 17 | . | . | 17 |
| Radiography. | 17 | 10 | . | 27 |
| Ethics and Economics. | 10 | . |  | 10 |
| Total. | 248 | 112 | 1102 | 1462 |

## TEXT BOOKS

Students are requested to consult the head of each department before purchasing text books. The most recent editions are required in every case.

## FEES <br> New Schedule-Effective September 1, 1917

Matriculation fee (paid first year) ${ }^{1}$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$ 10.00
Registration fee (paid each year) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5.00
Tuition, each year (including laboratory and dissection fees) . . . . . . . . . . . . . . . 150.00
Locker fee. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2.00
Diploma fee (paid on graduation) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5.00
Fees are not returned to students who are suspended or expelled or to those who are absent for any cause except illness. Payments should be made in currency or in Chicago exchange drawn to the order of the University of Illinois.

Fees are Payable in Advance.-Students unable to meet this requirement must make satisfactory arrangements with the Dean at the beginning of the course.

## BOARD AND ROOMS

Board and rooms convenient to the College can be obtained at prices varying from four to six dollars a week; rooms without board, furnished or unfurnished, can be obtained at from six to ten dollars a month.

## FURTHER INFORMATION

For further information, address The Dean of the College of Dentistry, Harrison and Honore Streets, Chicago, Illinois.

[^63]
## THE SCHOOL OF PHARMACY

For the faculty of the School of Pharmacy, see page 41; for a description of the tuildings, see page 58.

## HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. The first class, of two students, was graduated in 1861. The war caused a suspension of teaching, and the school was not reopened until 1870. The fire of 1871 destroyed the equipment, but in 1872 instruction was resumed for the second time and has since continued without interruption.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois.

## THE NEW LOCATION

In December, 1915, the University purchased for the School the property located at the corner of Wood and Flournoy streets and comprising eight city lots with two large brick buildings. The new quarters were occupied in June, 1916.

The new location is in the great medical center of Chicago and close to the colleges of Medicine and Dentistry of the University.

## EQUPMENT

The buildings include two substantial brick structures connected at each floor by a stair-tower building. Both have daylight from four sides and electric light throughout, and are heated by steam.

The larger building is sixty by eighty feet square and four stories high. It contains the offices, the library, the museum, the microscopical laboratory, the bacteriological laboratory, an auditorium, a lecture hall, a recitation room, preparation rooms and private laboratories for the teachers, student's rooms, and locker rooms.

The smaller building is forty-four by eighty-eight feet square and three stories high. It contains the pharmaceutical laboratory, the laboratory for quantitative analysis, the laboratory for qualitative analysis, and several private laboratories for the teachers, as well as store rooms and supply rooms.

The stair-tower building, of fireproof construction, provides the students' entrance, stairways to each floor, corridors, toilets, and rooms for the hydrogen sulphide generator and distilled water supply.

The total capacity of the laboratories is sufficient for 266 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains over two thousand volumes, including, in addition to the usual works of reference, many rare books and complete files of the leading pharmaceutical journals.

## CURRICULUMS

## For the Degree of Graduate in Pharmacy

In the curriculum leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-two hours weekly during two annual sessions of thirtysix weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

## For the Degree of Pharmaceutical Chemist

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied microscopy, and bacteriology, or to prepare themselves for positions in food and drug laboratories, the School offers a three-year curriculum leading to the degree of Pharmaceutical Chemist. This curriculum comprises three annual sessions of thirty-six weeks each, the first two years being identical with the curriculum for the degree of Graduate in Pharmacy. The third year consists largely of laboratory practise.

This curriculum includes, in addition to the subjects mentioned above, organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practise and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

## ADMISSION

The regular session opens September 26, 1916 and closes June 13, 1917.
Applicants for admission must be at least seventeen years of age and must be graduates of accredited high schools. Their high-school course must have included 15 acceptable units of high-school work, or the full educational equivalent.

Admission as special students, not candidates for a degree, is restricted to registered apprentices, assistants, or pharmacists, not less than twenty-one years of age.

Students who have pursued courses of study in other schools of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this School.

## GRADUATION

Drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the curriculum will be awarded the degree on the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to eighteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree.

Students who have successfully met the scholarship requirements, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

## STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized.

The diploma of this School is, however, accepted in lieu of examination for registration in several states and territories; and in other states, including New York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The School holds membership in the American Conference of Pharmaceutical Faculties.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy, but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

## FEES AND EXPENSES

For a statement of the fees, see page 112. Fees are payable in advance. Stu• dents unable to meet this requirement must make satisfactory arrangements with the Dean at the beginning of the course.

Board and Lodging.-Good board and lodging, within a short distance of the School, can be had for from five to six dollars a week.

Selection of Seats.-Seats in the lecture halls and desks in the laboratories will be assigned to students in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Dean together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

Opportuntities for Employment.-A register of students desiring employment and of pharmacists wishing to employ students is kept at the School. Students desiring employment are invited to correspond with the Dean.

## FURTHER INFORMATION

Further information may be found in the special announcement of this School, which may be obtained from the Dean, School of Pharmacy, 701 South Wood Street, Chicago, Illinois.


## PART III <br> DESCRIPTION OF COURSES

## DESCRIPTION OF COURSES

## EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, the prerequisites given are Art and Design 1, 2, and 3. These three courses must be completed before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.
Credit is reckoned in semester hours, or simply hours. An hour is one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of hours each semester for which the course counts, are shown after each course; thus: I, II; (2). The Roman figures indicate semesters; the Arabic numerals in parenthesis indicate hours of credit for each semester for undergraduates. The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.
" S ," which is prefixed to each of the courses offered in the summer session, means "summer" and is used to distinguish such courses from those of the same number offered during the regular university year. Summer courses do not always cover the same ground as those similarly numbered in the regular session. Students wishing to know in what respect such courses are similar will be gladly furnished the desired information by the Director of the Summer Session on application. All courses in the summer session that are granted graduate credit are marked with an asterisk $\left({ }^{*}\right)$. Courses numbered 100 and above are open only to graduate students.

## accountancy

(See Business Organization and Operation.)

## AGRICULTURE

## Summer Session Courses

William Leonidas Burlison, Ph.D., Associate Professor, Crop Production Aretas Wilbur Nolan, M.S., Assistant Professor, Agricultural Extension Sleeter Bull, M.S., Associale, Animal Nutrition Gilbert Gusler, B.S., Associate, Animal Husbanéry Elmer Roberts, B.S., Instructor, Genetics
Karl John Theodore Ekblaw, M.S., Associate, Farm Mechanics James Henry Greene, M.S., State Leader, Junior Extension Arthur Samuel Colby, M.S., Assistant, Pomology

The work in the Summer Session is planned for teachers of agriculture in elementary and high schools, and also to enable those seeking degrees in agriculture to cover a portion of the required freshman subjects.
(For the courses in agriculture given during the winter session, see Agricultural Extension, Agronomy, Animal Husbandry, Dairy Husbandry, and Horticulture.)

S1. General Agriculture.-For description, see Agricultural Extension. 1 (21/2).

Assistant Professor Nolan, Mr. Greene
Sla. Elements of Horticulture. -The farm home; orcharding; the home orchard and small fruit garden; orchard insects and diseases. (2). Mr. Colby

S1b. Elements of Horticulture.-The farm home; vegetable gardening; laying out and planting a graden; storage of vegetables and fruit; ornamental planting. (2). Mr. Colby
S 5. Fundamentals of Live Stock Judging.-For description see Animal Husbandry 5. ( $21 / 2$ ).

Mr. Gusler
S 8. Principles of Breeding.-For description see Animal Husbandry 8. (1).
Mr. Roberts
S 20. Farm Concrete Construction.-For description see Agronomy 20. (2). Mr. Ekblaw
S 21. Principles of Feeding.-For description see Animal Husbandry 21. (2). Mr. Bull
S 25. Farm Crops.-For description see Agronomy 25. (2).
Associate Professor Burlison
S 26. Farm Mechanics and Equipment.-For description see Farm Mechanics 26. (2 $1 / 2$ ). Mr. Ekblaw

S 90. Rural Education.-Rural life conditions; needs and agencies at work in rural progress. (2).

Assistant Professor Nolan

## AGRICULTURAL COLLEGE EXTENSION

Fred Henry Rankin, B.S., Superintendent and Assistant to the Dean, with rank of Assistant Professor
Aretas Wilbur Nolan, M.S., Assistant Professor
Albert Woodward Jamison, M.S., Assistant Professor
Joseph Harvey Checkley, B.S., Assistant

Robert Enoch Hieronymus, M.A., LL.D., Community Adviser James Henry Greene, M.S., State Leader, Junior Extension

1. Principles and Methods of Kigh School Agriculture.-Adaptation of agricultural science and practise to high school conditions; order and methods of presentation; laboratory work; apparatus; field work. Practise teaching provided through cooperation with the local high school. II; (5).

Assistant Professor Nolan
Prerequisit:: Two years' work in agriculture.
3. Agricultural Extension Teachings.-The service of extension enterprises to the people; farmers' institutes; agricultural extension schools; farmers' clubs and cooperative work in rural communities. $I I$; (1).

Assistant Professor Rankin, Assistant Professor Jamison
Prerequisite: One year of university work.
4. Country Life Problems.-Problems of the farm; duties of citizenship; social, economic, and educational work in rural communities. Lectures. Required of first-year students. $I$; (1).
Dean Davenport and other lecturers; Assistant Professor Jamison in charge. (Credit given to agricultural freshmen only.)

## AGRONOMY

Cyril George Hopkins, Ph.D., Professor, Agronomy
Louie Henrie Smith, Ph.D., Professor, Plant Breeding
Jeremiah George Mosier, B.S., Professor, Soil Physics
William Leonidas Burlison, Ph.D., Associate Professor, Crop Production
Robert Stewart, Ph.D., Associate Professor, Soil Fertility
Axel Ferdinand Gustafson, M.S., Assistant Professor, Soil Physics
Earl Archibald White, M.S., Assistant Professor, Farm Mechanics
Ira Wilmer Dickerson, B.S., Associate, Farm Mechanics
Frederick Chardes Bauer, B.S., Associate, Soil Fertility
Albert Lemuel Whiting, Ph.D., Associate, Soil Biology
Walter Byron Gernert, Ph.D., Associate, Plant Breeding
Chester Otis Reed, B.S., Instructor, Farm Mechanics
Forrest Addison Fisher, B.S., Instructor, Soil Physics
Marvin Edward Jahr, A.B., Instructor, Farm Mechanics
Harry Charles Gilkerson, B.S., Instructor, Soil Fertility
Howard John Sntder, B.S., Ins'ructor, Soil Fertility
Warren Rippey Schoonover, M.S., Instructor, Soil Biology
Edward Harvey Walworth, B.S., Instructor, Crop Production
Frank Archibald Wyatt, Ph.D., Instructor, Soil Fertility
Alfred Thorpe Morison, B.S., Assistant, Crop Production
Edward Fritchoff Torgerson, B.S., Assistant, Soil Physics
Washington Irving Brockson, M.S., Assistant, Crop Production
Ray Iris Shawl, B.S., Assistant, Farm Mechanics

## Courses for Ondergraduates

Crops: Agronomy 7, 8, 18, 22, 25.
Soils: Agronomy 9, 10, 11, 12, 13, 18, 23.
Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 18, 19, 20, $26,27$.

1. Drainage.-Drainage and its surveying operations. Chaining, mapping,
leveling, designing, setting grade stakes, laying tile. Lectures and laboratory first half semester; field work second half semester. II; (3). Mr. Jabr

Prerequisite: Agronomy 9 (Soil Physics), or its equivalent.
2. Field Machinery.-Construction, operation, adjustment, purchase, and care of implements for soil, seed, and feed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Whiffle-trees and hitches. Lectures; laboratory; practise in troubles, adjustments, and testing of farm power machines. I; (3). Mr. Reed, Mr. Shawl

Prerequisite: Agronomy 26 or registration therein, except for seniors.
3. Farm Power Machinery.-The horse as a motor, windmills, water-power, steam engines, hot-air engines, electric motors; internal combustion engines and tractors; transmission. Lectures; laboratory. (Alternating with Mechanical Engineering 71 and 73 if desired.) II; (3). Mr. Dickerson, Mr. Shawl

Prerequisite: Agronomy 26 or registration therein, except for seniors.
4. Farm Buildings.-Materials, construction, arrangement, design, and cost estimation. Recitations and drafting. $I$; (3).

Assistant Professor White
7. Advanced Farm Crops.-Climatic and soil factors; meadows and pastures; rotation; labor; cost of production; seed production; products and by-products of farm crops; storage; marketing. Lectures; assigned reading; laboratory; demonstrations. II; (3).

Associate Professor Burlison
Prerequisite: Agronomy 25, Chemistry 13a, and either Botany 3b or an approved equivalent in science (consult instructor).
8. Special Farm Crops.-Special crops in which the student is interested. Reading; experiments by pot culture in the greenhouse or by plots in the field. Under special arrangement part of this work may be done during summer vacation; $I I$; (2-5). ${ }^{1}$

Associate Professor Burlison, Mr. Morison
Prerequisite: Agronomy 7.
9. Soil Physics and Management.-Origin and formation of soil material; mechanical composition and classification; moisture; texture; wasting by washing; fall or spring plowing and drainage; real and apparent specific gravity, porosity, water holding capacity, and capillary power; systems of rotation; continuous cropping. Lectures; laboratory. I or $I I$; (5).

Professor Mosier, Assistant Professor Gustafson, Mr. Fisher, Mr. Torgerson
Prerequisite: Chemistry 13a, and one unit of entrance or university physics. Irregular students should consult instructor.
10. Special Work in Soil Physics.-Physical properties of special soils; physical analysis; hygroscopic and wilting coefficients; moisture equivalents; effect of tillage. Students may work with special soils. Under special arrangement part of this work may be done during summer vacation. $I$ or $I I$; (2-5). ${ }^{1}$

## Professor Mosier, Assistant Professor Gustafson, Mr. Fisher

Prerequisite: Agronomy 9, and approval of the Soil Physics division.
11. Soil Biology.-Biochemical activities of soil microörganisms; isolation of organisms; action on insoluble mineral plant food; fermentation of crop residues,

[^64]green and farm manures; nitrogen fixation, assimilation, and preservation. Lectures; quiz; laboratory. II; (5). Dr. Whiting, Mr. Schoonover

Prerequisite: Agronomy 12 and Bacteriology 1, 5, or 20, or the equivalent.
12. Soil Fertility, Fertilizers, Rotations. ${ }^{1}$-Effects of crops on the soil and on succeeding crops; rotations; fertility and productivity; manures and fertilizers; soils cropped continuously with different crops and with a series of crops; fertility of soils of different types from different sections of Illinois. ${ }^{2}$ Lectures; laboratory. $I I$; (5).

Professor Hopkins, Mr. Bauer, Dr. Wyatt, Mr. Gilkerson, Mr. Snider Prerequisite: Chemistry 13a; Agronomy 9.
12a. Soil Fertility, Fertilizers, Rotations. ${ }^{1}$-The same as Agronomy 12, for advanced students. Lectures; quiz. $I I$; (2).

Professor Hopkins, Mr. Bauer, Dr. Wyatt. Mr. Snider
Prerequisite: Graduate standing, or advanced undergraduate standing with the approval of the division.
13. Investigation of the Fertility of Special Soils.-Soils in which the student is interested. Fertility; effect of fertilizers, as determined by pot cultures and by pot experiments; work of experiment stations and experimenters. $I$; (3-5). ${ }^{3}$

Associate Professor Stewart, Dr. Wyatt
Prerequisite: Agronomy 12.
16. German Agricultural Readings.-Soils and crops. The current numbers of German journals of agricultural science used as texts. II; (2).

Professor Hopkins
Prerequisite: Two years' work in German; Agronomy 12.
17. Harvesting Machinery.-(For students preparing to do expert work in the field. Before registering in this course students should consult the instructor.) $I I$; (3).

Mr. Reed, Mr. Shawl
Prerequisite: M. E. 71; Agronomy 2, and Agronomy 3, or registration therein.
18a-18b. Investigation and Thesis.- $-I, I I$; (5-10). ${ }^{3}$
Professor Hoprins, Professor Mosier, Professor Smith, Associate Professor Stewart, Associate Professor Burlison, Dr. Whiting

19a-19b. Research in Farm Mechanics.-(Consult instructor.) I, $I$; (1-5). ${ }^{3}$ Assistant Professor White, Mr. Dickerson, Mr. Jahr, Mr. Reed
20. Farm Concrete Construction.-Materials; mixing and placing; simple comparative tests; specifications and estimates. Lectures; laboratory. II; (2). Mr. Jahr
22. Plant Breeding.-The improvement by breeding of field crops. Lectures; assigned reading; demonstrations; laboratory. (This course may be taken with Agronomy 7). II; (2). Professor Smith, Dr. Gernert

Prerequisite: Botany 1; Chemistry 13a; Agronomy 25.
23. Plant Food Supplies.-The world's supply of plant-food materials; utilization and conservation. $I I$; (1).

Associate Professor Stewart
Prerequisite: Agronomy 12.

[^65]25. Farm Crops.-Plant growth; structure; production and harvesting; common diseases, insects, and their control; weed seed identification; weed control; seed testing; market grades of grain; grain judging. I or II; (4).

Associate Professor Burlison, Mr. Walworth, Mr. Morison, Mr. Brockson
26. Elementary Farm Mechanics.-Ropes, soldering, babbitting, belt lacing, pipe cutting, plumbing, sewage disposal; water, lighting, and heating systems; power transmission; mechanics; equalizers. Design of farm power plant. I or $I I$; (3).

Assistant Professor White, Mr. Dickerson
27. Drainage Design.-Designing of tile drainage systems from level note data and contour maps; estimating; designing of outlet open ditch system for drainage districts; drainage district laws; preparing bids on contract jobs; advanced field work. $I$; (1-5). ${ }^{1}$

Mr. Jahr
Prerequisite: Agronomy 1, or Civil Engineering 96, 31, or 32.

## Courses for Graduates

Students taking their major work in agronomy must have had the major courses in agronomy offered to undergraduates in the College of Agriculture of the University of Illinois, or their equivalent. Graduate students may specialize either in soils or in crops. Courses $7,9,11$ and 12 , or the equivalent, will be required of graduates who specialize in soils and courses $7,9,12$, and 22 or the equivalent will be required of those specializing in crops. While everyone seeking a doctor's degree with agronomy as a major will be required to have a general knowledge of the whole field of agronomy, each student is expected to prepare a thesis in some one of the divisions, soil fertility, soil physics, soil biology, plant breeding or crop production.

Students who are taking their major work in other departments and choose agronomy as a minor, must have had previously the work in chemistry, botany and other fundamental sciences prescribed for the undergraduate courses in agronomy in the College of Agriculture, or the equivalent.
101. Soil Investigations.-System of soil investigations; sources of error and methods of control; interpretation of results. Twice a week; I, II; (1 unit).

Associate Professor Stewart
104. Seminar in Agronomy.-Once a week; $I, I I$; ( $1 / 2$ unit.)

Dr. Whiting and others
112. Plant Breeding.-Experiments at this station; methods and results reported from other states and from foreign countries. Twice a week; $I, I I$; ( 1 to 2 units).

Professor Smith
114. Crop Production.-Crop ecology; methods and results of crop production investigations. Once a week; $I, I I$; ( $1 / 2$ to 2 units).

Associate Professor Burlison
118. Investigations.-A special problem is chosen by each student. Consultation one to five times a week for different students; $I, I I$; (1 to 4 units).
Professors Hopkins, Smith, Mosier, Associate Professors Stewart and Burlison, Dr. Whiting, Dr. Gernert

[^66]
## aNATOMY, HOMAN

(See under Zoology.)

# ANIMAL HUSBANDRY <br> (Including Farm Management.) 

Herbert Windsor Mumford, B.S., Professor, Animal Husbandry
Harry Sands Grindley, D.Sc., Professor, Animal Nutrition Walter Castella Coffey, M.S., Professor, Sheep Husbandry Henry Perly Rusk, M.S., Assistant Professor, Cattle Husbandry
James Lloyd Edmonds, B.S., Assistant Professor, Horse Husbandry
John A Detlefsen, D.Sc., Assistant Professor, Genetics
Walter Frederick Handschin, B.S., Assistant Professor, Farm Organization and Management
Daniel Otis Barto, B.S., Associate, Poultry Husbandry
Sleeter Bull, M.S., Associate, Animal Nutrition
Harold Hanson Mitchell, Ph.D., Associate, Animal Nutrition
William Herschel Smite, M.S., Associate, Animal Husbandry Extension
Gilbert Gusler, B.S., Associate, Animal Husbandry
Elmer Roberts, B.S., Instructor, Genetics
Wilbur Jerome Carmichael, M.S., Instructor, Animal Husbandry
Charles Ivan Newlin, M.S., Instructor, Animal Husbandry
James Burton Andrews, B.S., Instructor, Animal Husbandry
Roscoe Raymond Snapp, B.S., Instructor, Animal Husbandry
Claude Harper, B.S., Assistant, Animal Husbandry
James Wilbur Whisenand, M.S., Assistant, Animal Husbandry
Earl Kirkwood Augustus, B.S., Assistant, Animal Husbandry
Roy Harold Wilcox, B.S., Assistant, Animal Husbandry
Maynard Elmer Slater, B.S., Assistant, Animal Nutrition
John Benjamin Rice, B.S., Assistant, Animal Husbandry
William Algernon Kingsmill, Morkel, M.S., Assistant, Animal Husbandry
Lawrence Emerson Thorne, B.S., Assistant, Agricullural Statistics and Genetics
William Garfield Kammlade, B.S., Assistant, Animal Husbandry
John Carl Ross, ${ }^{1}$ Ph.D., Assistant, Animal Nutrition
Henry Carl Eckstein, B.S., Assistant, Animal Nutrition

## Courses for Undergraduates

Beef Cattle: Animal Husbandry 11a, 11b.
Breeding, Feeding, Management, and Marketing: Animal Husbandry 8, 21, 28, 29, 30, 32, 33; Farm Management 1.

General Judging: Animal Husbandry 1a, 2a, 4a, 5, 11a, 22.
Genetics: Animal Husbandry 30.
Horses: Animal Husbandry 4a, 4b, 17.
Meat: Animal Husbandry 10, 24.
Nutrition: Animal Husbandry 7, 31.
Poultry: Animal Husbandry 23.
Sheep: Animal Husbandry 1a, 1b, 27.
Swine: Animal Husbandry 2a, 2b, 26.
Note.-Students registered in advanced courses such as $10,22,23,28,29,32$, and Farm Management 1, are required to participate in a tour of inspection of representative markets, farms, herds, flocks, and studs.

[^67]1a. Sheep: Breeds and Market Classes.-Breeds used for mutton and wool production; types, characteristics, and adaptability; market classes and grades of sheep and wool. Lectures; judging. $I$; (2). Professor Coffey, Mr. Harper

Prerequisile: Animal Husbandry, 5 or its equivalent.
lb. Sineep: Breeding, Feeding, and Management.-Pure bred and grade flocks; feeding, housing, and shepherding. Lectures; reference readings. $I$; (3).

Professor Coffey, Mr. Harper
Prerequisite: Animal Husbandry 5, 8, and 21, or their equivalents. It is advisable to take 1a and 1 b the same semester.

2a. Swine: Breeds and Market Classes.-History of the leading breeds; types, characteristics, and adaptability; market classes and grades; market reports. Lectures; judging. $I I$; (2).

Mr. Carmichael, Mr. Rice
Prerequisite: Animal Husbandry 5 or its equivalent.
2b. Swine Husbandry.-Economic production of market and breeding hogs. Breeding, feeding, housing, care, sanitation, common diseases, and marketing. Lectures; assigned reading; quizzes. $I I$; (3).

Mr. Carmichael, Mr. Rice
Prerequisite: Animal Husbandry 5, 8, and 21, or their equivalents. It is advisable to take 2 a and 2 b the same semester.

4a. Market Classes of Horses and Mules and Breeds of Horses.-Market classes, grades, and requirements. History of the leading breeds; types, characteristics, and adaptability. Lectures; judging. $I I$; (2).

Assistant Professor Edmonds, Mr. Kammlade
Prerequisite: Animal Husbandry 5, or its equivalent.
4b. Breeding, Feeding, and Management of Horses.-Care of stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. $I I$; (3).

Assistant Professor Edmonds, Mr. Kammlade
Prerequisite: Animal Husbandry 5, 8, and 21, or their equivalents. It is advisable to take $4 a$ and $4 b$ the same semester.
5. Fundamentals of Live Stock Judging.-Names and location of external parts of the kinds of live stock; score card; comparative judging; breed identification; types of farm animals. (Required in the freshman year.) $I$ or $I I$; (3).

Mr. Gusler and others
7. Principles of Animal Nutrition.-Composition and fuel value of feeding stuffs; digestion, absorption, and metabolism; elimination; coefficients of digestibility and nutritive value of feeding stuffs. $I$; (5).

> Professor Grindley, Dr. Mitchell, Mr. Slater

Prerequisite: Animal Husbandry 8 and 21; Chemistry 13a.
7a. Principles of Animal Nutrition. -The same as Animal Husbandry 7, for advanced students. Lectures; recitations. I; (3).

Professor Grindley and Dr. Mitchell
Prerequisite: Graduate standing, or advanced undergraduate standing and the approval of the instructors.
8. Principles of Breeding.-Evolution and genetics; origin of domesticated animals and plants; history of breeding; and new theories. (Required in the sophomore year.) $I$ or $I I$; (1).

Assistant Professor Detlefsen, Mr. Roberts, and others
Note.-See Animal Husbandry 21.
9. Investigation and Thesis.- $I$ or $I I$; (5-10). ${ }^{1}$
10. Meat.-Farm Butchering, curing, and care of meats; by-products; classes, grades, and cuts of meat in wholesale and retail markets. (The class will leave on its annual Chicago trip, Thursday morning, April 5, 1917. The cost will be about $\$ 8.00$.) $I I$; (3).

Professor Coffey, Mr. Augustus
Prerequisite: Two years of university work.
11a. Beef Cattle.-Breeds and market classes; history; beef types; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. $I$; (2).

Assistant Professor Rusk, Mr. Snapp
Prerequisite: Animal Husbandry 5 or its equivalent.
11b. Beef Production -Pure bred herds; breeding for market; beef and milk production; cattle feeding; age, grade, breed, condition, and sex; equipment; pork and manure as by-products. Lectures; quizzes; assigned readings (text book). $I$; (3).

Assistant Professor Rusk, Mr. Snapp
Prerequisite: Animal Husbandry 5, 8, and 21, or their equivalents.
It is advisable to take 11a and 11b simuitaneously.
15. Dairy Cattle.-(See Dairy Husbandry 2 and 16.)
[17. Education and Driving of the Horse.-Mental qualities, peculiarities, and limitations of the horse; training for labor or the road; correct driving; responsibilities of the driver; courtesies of the highway. Lectures; readings; practise. II; (2). Not given, 1916-17. Assistant Professor Edmonds

Prerequisite: Animal Husbandry 4 a and 4 b ; three semesters' work in the University or its equivalent.]
21. Principles of Feeding.-Feed nutrients; classification and values of feeding stuffs; feed requirements and balanced rations for farm animals. (Required in the sophomore year.) $I$ or $I I$; (2). Mr. Bull, Mr. Whisenand, and others

Prerequisite: Chemistry 1 or 1a, Chemistry 2 and 3, Animal Husbandry 5, and registration in Animal Husbandry 8.
22. Advanced Stock Judging.-Animal conformation, quality, and condition with reference to market and show yard requirements; selection for feed lot, market, and exhibition; judging at live stock shows. (Dec. 21, 22, and 23, 1916, were spent in visiting breeders in northern Illinois and southern Wisconsin, and in a visit to the University of Wisconsin. The cost of this trip was about $\$ 25.00$.) I; (3).

Professor Mumford and heads of divisions
Prerequisite: Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents.
23. Poultry: Types, Breeds, and Varieties.-Exhibiting and judging; breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; crate-fattening and dressing; diseases and their treatment. (A limited number of short trips are taken, the total cost of which will not exceed $\$ 10.00$ ). $I I$; (5).

Mr. Bartow
Prerequisite: Animal Husbandry 5, or its equivalent.
24. Meat.-Influence of type, condition, age, sex, and feeds on the yield and market grade of meat products. $I I$; (2-5). ${ }^{1}$

## Professor Coffey

Prerequisite: Animal Husbandry 10, and 1a or 2a or 11a; three years' work in the University, or its equivalent.

[^68]26. Swine Husbandry.-Special problems. $I I$; (2-5). ${ }^{1}$ Mr. Carmichael

Prerequisite: Animal Husbandry 2a, 2b; three years' work in the University, or its equivalent.
27. Sheep Husbandry.-Factors determining the importance of the industry in leading sheep growing countries, particularly different parts of the United States. II; (2-5). ${ }^{1}$

Professor Coffey
Prerequisite: Animal Husbandry 1a, 1 b ; three years' work in the University, or its equivalent.
28. Advanced History of Breeds of Live Stock.-Methods of great breeders; performances and pedigrees of famons animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems. (Dec. 21, 22, and 23, 1916, were spent in visiting breeders in northern Illinois and southern Wisconsin and in a visit to the University of Wisconsin. The cost of the trip was about $\$ 25.00$.) $I$; (3-5). ${ }^{1}$

Breeds offered, 1916-17
Beef Cattle
.Shorthorns, Aberdeen Angus
Horses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Percherons, Belgians, Standard breds
Swine.
Berkshires, Duroc Jerseys
Sheep.
.Shropshires, Southdowns

## Breeds offered, 1917-18

Beef Cattle
.Herefords, Galloways
Horses. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Shires, Clydesdales, American Saddlers
Swine.
.Poland Chinas, Chester Whites
Sheep
.Rambouillets, Oxford Downs
Professor Mumford and heads of divisions
Prerequisite: " $a$ " and " $b$ " courses in class of live stock elected. See note at the beginning of the description of animal husbandry courses.
29. Systems of Live Stock Farming.-Management, climate, soil, topography, location for markets; land, labor, capital, and managing ability as factors influencing the choice and adaptation of systems of production. Planning of farms for mixed and live stock systems. (The class visits some of the farms included in the Farm Management investigations being conducted by the department. This trip costs about $\$ 15.00$.) $I I$; (2). Assistant Professor Handschin, Mr. Wilcox

Prerequisite: Animal Husbandry 5, 8, and 21, and 6 hours' credit from $1 \mathrm{~b}, 2 \mathrm{~b}$, 4 b or 11 b ; Farm Management 1. See note at beginning of description of animal husbandry courses.
30. Genetics.-Heredity, variation, elements of biometry, and their practical application to breeding. Lectures; demonstrations; laboratory. II; (5).

## Assistant Professor Detlefsen, Mr. Roberts, Mr. Thorne

Prerequisite: Two years of university work. Before registering, students must secure the approval of the instructor.
31. Advanced Course in Animal Nutrition.-Digestion, histology and composition of the body tissues; metabolism; effect of food nutrients on metabolism; the fasting catabolism; food requirements and feeding standards; growth; proteins and amino acids. Lectures; recitations; laboratory. II; (5). Dr. Mitchell.

[^69]Prerequisite: Animal Husbandry 7 or Chemistry 15. An elementary knowledge of organic chemistry is also desirable.
32. Marketing Live Stock.-Marketing live stock and their products. Advertising and sale of surplus pedigreed live stock. (Certain inspection trips are required of the class. The expense of these trips is about $\$ 15.00$.) II; (2).

Professor Mumford, Mr. Wilcox
Prerequisite: Two years of university work. At least 4 credits in Animal Husbandry 1a, 2a, 4a, and 11a. See note at beginning of description of animal husbandiy courses.
33. Animal EIusbandry Practicums.-The operations necessary in the barn and stable management of live stock. One hour credit will be given for each two classes of live stock elected. II; (1-2). ${ }^{1}$

Heads of divisions
Prerequisite: Limited to senior students specializing in animal husbandry.

## Courses for Graduates

Students entering graduate work in animal husbandry must bave a thoro training in the fundamental principles of the subject either in connection with or in addition to a course of study in agriculture substantially equivalent to that offered in this University.
103. Live Stock Experimentation.-Objects, methods, and the sources of error in experimental work dealing with the feeding, breeding, and management of farm animals. Once a week; $I, I I$; ( $1 / 2$ unit).

Professor Davenport
[110. Animal Nutrition.-Biochemistry, digestion, metabolism, and nutritive value of the proteins. Lectures; seminar. Twice a week; $I, I I$; ( 1 unit). Alternates with Animal Husbandry 111. Not given, 1916-17.

Professor Grindley, Dr. Mitchell]
111. Animal Nutrition.-Biochemistry, digestion, metabolism, and nutritive value of the fats and lipoids, the carbohydrates, and the inorganic substances. Lectures; seminar. Twice a week; I, II; (1 unit).

Professor Grindley, Dr. Mitchell
112. Research.-Opportunity is afforded to pursue investigations along the following lines:
(a) Economic factors involved in meat production.

Professor Mumford, Professor Coffey, Assistant Professor Rusk
(b) Systems of live stock farming.

Assistant Professor Handschin
Professor Mumford
(c) The valuation of pedigrees.
(d) Animal Nutrition. The chemistry of feeding stuffs; metabolism experiments and biochemical studies connected with the nutrition of farm animals.

Professor Grindley, Dr. Mitchell
(e) Genetics. Problems in heredity and variation.

Assistant Professor Detlefsen
(f) Factors affecting the quality, quantity, strength, and condition of wool.

Professor Coffey
(a), (b), (c), and (f) one to three times a week; (d) and (e) five times a week; I, II; ( 1 to 2 units).

[^70]117. Genetics.-Study and criticism of genetic experiments, biological and mathematical methods employed, and the validity of the conclusions. Three to fire times a week; I, II; ( 1 to 2 units).

Assistant Professor Detlefsen

## FARM MANAGEMENT

1. Elementary Farm Management.-The factors of production; systems of farming, their distribution and adaptation; organization; the distribution of capital; planning the farm; administration or operation; planning of work; labor; management efficiency. Lectures; quiz. (The trip required in this course is the same as in Animal Husbandry 29.) II; (3).

Assistant Professor Handschin, Mr. Andrews
Prerequisite: Three semesters of required work; Economics 1 or 2 and Accountancy 11.

It is also very important that the student have credit or be registered in Agronomy 12, and have at least 6 hours credit in Animal Husbandry 1b, 2b, 4b, or 11b.

## ARCHITECTURE

## Loring Harvey Provine, B.S., A.E., Professor

Nathan Clifford Ricker, D.Arch., Professor, Emeritus
Newton Alonzo Wells, M.P., Professor, Architectural Decoration
James McLaren White, B.S., Professor, Architectural Engineering, Supervising Architect
Percy Ash, B.S., C.E., Assistant Professor, Architectural Design
William Caldwell Titcomb, A.B., B.S., Assistant Professor, Architecture
Charles Richard Clare, B.S., M.Arch., Assistant Professor, Architectural Construction
Robert Taylor Jones, B.S., Associate, Architecture
Rhodes Robertson, A.B., M.Arch., Associate, Architectural Design
William Sidney Wolfe, B.S., M.S., Instructor, Architectural Engineering
Ralph Stanley Fanning, B.S., Instructor, Architectural Design
William Macey Stanton, B.S., M.S., Instructor, Architectural Design
Carl Victor Burger, B.Arch., Instructor, Freehand Drawing
Lemuel Cross Dillenback, A.M., Instructor, Architectural Design
Ralph Edward Muehlman, Instructor, Architectural Design
Owen J T Soutriwell, M.S., Instructor, Architectural Design
Cyrus Edmund Palmer, M.S., Instructor, Architectural Engineering
Joseph Edwin Burgess, B.P., Instructor, Freehand Drawing
Winifred Fehrenkamp, B.L.S., Librarian
13, 14, 15, 16. History of Architecture.-Effects of political, economic, and local conditions; material, climate, structural systems, the various countries and periods; evolution of forms. Illustrated lectures; quizzes. $I, I I$; (2).

Professor Ricker
Prerequisite: Sophomore standing in architecture or architectural engineering, or Architecture 31 and 32.

23-24. Freehand Drawing.-Charcoal drawing from the cast. Water color work. Six hours drawing a week. I, II; (2). Mr. Burger, Mr. Burgess

Prerequisite: Architecture 32.
25. Freehand Drawing.-Arrangement of form and color; rhythm and sequence; harmony and contrast. Six hours drawing a week. I; (2). Mr. Burger

Prerequisite: Architecture 23-24.
26. Freehand Drawing.-Charcoal, pen, pencil, and water color drawing from the cast and from still life. Out-of-door sketching. Six hours druwing a week. II; (2).

Mr. Burger
Prerequisite: Architecture 23-24.
27. Freehand Drawing.-Sketching from still life; proportions. Six hours drawing a week. I; (2).

Professor Wells
Prerequisite: Architecture 25-26.
28. Freehand Drawing.-Water color; original decorative composition; out-of-door sketching. Six hours drawing a week. II; (2). Professor Wells

Prerequisite: Architecture 25-26.
31. Architectural and Freehand Drawing.-Instruments, pen, pencil, and brush; lettering; shades and shadows; perspective. Charcoal drawing from the cast. One lecture and ten hours drawing a week. I; (4).

Mr. Muehlman, Mr. Fanning, Mr. Burger
Prerequisite: Registration in General Engineering Drawing 2.
32. Architectural and Freehand Drawing.-Elements of architecture; walls, mouldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. Lectures and sketching. One lecture and ten hours of drawing a week. II; (4).

Mr. Muehlman, Mr. Fanning, Mr. Burger
Prerequisite: Architecture 31.
33-34. Design.-(Elementary.) Rendered order and sketch problems involving simple composition; library research in elements of composition. One lecture and nine hours of drawing a week. I, II; (3).

Assistant Professor Titcomb, Mr. Robertson, Mr. Stanton
Prerequisite: Architecture 31, 32.
35-36. Design.-(Intermediate.) Rendered plan and sketch problems; library research in plan and interior elements. Fifteen hours of drawing a week. I, II; (5).

Assistant Professor Titcomb, Mr. Robertson, Mr. Stanton
Prerequisite: Architecture 33-34.
37. Design.-(Advanced.) Original design. Twenty-one hours of drawing a week. I; (7).

Assistant Professor Asm
Prerequisite: Architecture 35-36.
38. Advanced Design or Thesis.-An extended original problem in design or construction. Twenty-one hours of drawing a week. II; (7).

Assistant Professor Ase
Prerequisite: Architecture 37.
43. Working Drawings.-Woods; structural and decorative properties; detailing on a large scale; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish. Kidder's Building Construction, Part II. Two lectures and four hours of drawing a week. I; (3). Mr. Jones, Mr. Fanning

Prerequisite: General Engineering Drawing 2; Architecture 31, 32.
44. Working Drawings.-Materials for stone masonry; kinds of masonry and external finish; tools for stone cutting; brick masonry; terra cotta; columns, beams,
girders, and footings; joints and councetions. Kidder's Building Construction and Superintendence, Parl I. Two lectures and four hours of drazing a week. II; (3).

Mr. Jones, Mr. Fanning
Prerequisite: General Engineering Drawing 2; Architecture 31, 32, 43.
45. Graphic Statics.-Trussed roofs, steel and masonry arches, domes. The graphical representation of reactions, bending moments, shear and deflection in beams. (For architects.) One lecture and six hours of drawing a week. I; (3).

Assistant Professor Clark, Mr. Wolfe
Prerequisite: Theoretical and Applied Mechanics 14, 15, 16. Architecture 43, 44.
46. Roofs.-Wooden and steel roofs; determination of section of memhers; design of joints; mill and steel skeleton construction. One lecture and six hours of drawing a week. II; (3).

Assistant Professor Clark, Mr. Wolfe
Prerequisite: Architecture 45.
55. Building Sanitation.-Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in dwellings. (For architects.) Cosgrove's Principles and Practise of Plumbing. Recitations; lectures; designs for special problems. I; (1).

Mr. Jones
Prerequisite: Physics 9a-9b, 10a-10b; Architecture 43, 44.
59. Domestic Architecture.-(Given in connection with Household Science 2.) Lectures; criticism. I. Assistant Professor Ash, Assistant Professor Clark
60. Special Lectures.-Special lectures on architectural subjects. (For architects.) II; (1).

Assistant Professor Clark
Prerequisite: Senior standing.
65-66. Theory of Architecture.-Influence of function on architectural form; plan and elevation; problem analysis. Lectures; research; exercises. $I, I I$; (1). Professor Wells
Prerequisite: Registration in Architecture 25, 26.
67. Theory of Form.-Arrangement of form; architectural ornament and composition, proportion and balance. Six hours of drawing a week. I; (2).

Professor Wells
Prerequisite: Senior standing in architecture.
68. Specifications.-General and special clauses and their arrangement; classifying material to facilitate writing specifications; practise in writing several sets; relations of the architect, owner, and builder; office organization; building ordinances; professional ethics. (For architects.) $I I$; (3).

Assistant Professor Provine, Professor Clark
Prerequisite: Senior standing in architecture.
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance on graduate work in architecture presupposes the full under-graduate course in that subject. Semi-weekly conferences are held and additional instruction given in all courses as may be required.
101. Architectural Construction.-Design of special structures. $I, I I$. Professor Ricker, Professor Provine
102. Sanitation of Buildings.-The planning of sanitation, warming, and ventilation. $I, I I$.

Professor Ricker, Mr. Clark
103. Advanced Architectural Graphics.-Graphic statics. Unusual types of footings, columns, and trusses. $I$ or $I I$.

Professor Ricker, Professor Provine
104. Architectural Design.-Advanced course. I or $I I$.

Assistant Professor Ash
105. Architectural Practise.-Contracts, specifications, and office methods; architectural jurisprudence. $I$ or $I I$.

Professor Ricker, Professor Provine
106. Advanced Architectural History.-Special research. I or $I I$.

Professor Ricker

## ARCHITECTURAL ENGINEERING

33. Architectural Drawing.-Lettering, elements of architecture; walls, mouldings, doors, windows, shades and shadows, perspective, the Orders, vaults, roofs, stairs, wash rendering, stereotomy, charcoal, drawing from the cast. Lectures and sketching. Nine hours of drawing a week. I; (3).

Mr. Southwell
Prerequisite: General Engineering Drawing 1, 2.
34. Design.-(Elementary.) Rendered order and sketch problems; library research. Nine hours of drawing a week. II; (3).

Mr. Southwell
Prerequisite: Architectural Engineering 33.
35-36. Design.-(Intermediate.) Rendered plan and sketch problems; library research. Nine hours of drowing a week. I, II; (3). Mr. Dillenback

Prerequisite: Architectural Engineering 33, 34.
43. Working Drawings.-Woods; structural and decorative properties; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish. (For architectural engineers.) One recitation and three hours of drawing a week. I; (2).

Mr. Jones, Mr. Fanning
Prerequisite: Architectural Engineering 31; General Engineering Drawing 2.
44. Working Drawings.-Materials for stone masonry; kinds of masonry and external finish; tools for stone cutting; brick masonry; terra cotta; columns, beams, girders; joints and connections. One recitation and three hours of drawing a week. II; (2).

Mr. Jones, Mr. Fanning
Prerequisite: Architectural Engineering 33, 43; General Engineering Drawing 1, 2.
45. Graphic Statics.-Elements, and applications to forces; beams under fixed and moving loads. One lecture and six hours of drawing a week. I; (3).

Assistant Professor Clark, Mr. Palmer
Prerequisite: Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 25. Architectural Engineering 43, 44.
46. Advanced Graphic Statics.-The analysis of masonry arches, domes, and vaults; large and unusual forms of roof trusses. One lecture and six hours of drawing a week. II; (3).

Assistant Professor Clark, Mr. Palmer
Prerequisite: Architectural Engineering 45.
47. Architectural Engineering.-Design and working drawings of trusses,
members and joints, plate girders, chimneys; investigations of wind bracing. Fifteen hours of drawing a week or the equivalent. I; (5).

Mr. Wolfe, Mr. Palmer
Prerequisite: Theoretical and Applied Mechanics 26; Architectural Engineering 44, 46.
48. Architectural Engineering.-Design and detail of footings; investigation of framed structures; working drawings. Fifteen hours of drawing a week or the equivalent. II; (5).

Mr. Wolfe, Mr. Palmer
Prerequisite: Architectural Engineering 47.
57. Fireproof Construction.-Principles and design of fireproof construction; the advantages of each type. Two lectures or recitations a week. I; (2).

Assistant Professor Clark
Prerequisite: Theoretical and Applied Mechanics 26; Architectural Engineering 44, 46; registration in Architectural Engineering 47.
58. Fireproof Construction.-(Continuation of first semester's work.) Details and working drawings. Six hours of drawing a week. II; (2).

Assistant Professor Clark
Prerequisite: Architectural Engineering 47, 57; registration in Architectural Engineering 48.
67. Building Sanitation.-Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in all types of buildings. (For Architectural Engineers.) Cosgrove's Principles and Practise of Plumbing. Recitations, lectures and quizzes; designs for special problems." $I$; (2). : Mr. Jones

Prerequisite: Physics 1a-3a, 1b-3b. Architectural Engineering 43, 44.
68. Estimates and Specifications.-Methods of estimating, illustrated by problems; specifications, their general and special clauses, and arrangement; relations of architect, owner, and builder. (For architectural engineers.) Four recitations a week. II; (4). Professor Provine, Assistant Professor Clárk

Prerequisite: Senior standing in architectural engineering.
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## ART AND DESIGN

Edward John Lake, B.S., Assistant Professor
Charlés Earl Bradbury, B.P., Associate
Mary Minerva Wetmore, Instructor
Gideon Robert Forbes, M.L.A.', Instructor

1. Freehand Drawing.-Practise drawing in charcoal and pencil; perspective principles with application; light, shadows, shade, and reflections in monochrome; lectures and reference reading on graphical representation and the reproductive processes in printing. $I$ or $I I_{\text {; }}^{\text {( }}$ (3).

Assistant Professor Lake, Mr. Bradbury, Mr. Forbes
2. Light and Shade.-Shaded drawing in monochrome in preparation for paint. ing in oils and water-colors, with emphasis on values and composition. $I I$; (2).

Mr. Bradbury
Prerequisite: Art and Design 1.

3a-3b. Drawing from the Antique.-Practise drawing from plaster models and from life of anatomical forms in monochrome in preparation for painting the human figure; anatomical proportion and construction, with lectures on proportion, construction, composition, and action in the representation of the human figure. Either semester may be taken separately. $I, I I$; (3).

Mr. Bradbury
Prerequisite: Art and Design 1.
4a-4b. Water Color Painting.-Practise painting of still-life; flowers, and sketching out-doors, with application to pictorial and decorative art. $I, I I$; (3).

Miss Wetmore

## Prerequisite: Art and Design 1, 2.

5a-5b. Drawing from Life.-Drawing in monochrome from life, with application to pictorial and decorative purposes. $I, I I$; (3). Miss Wetmore

Prerequisite: Art and Design 1, 3a or 3b.
6a-6b. Portrait in Oil Colors.-Painting in oil colors from costumed model, with"special attention to portrait and character study. $I, I I$; (3).

Miss Wetmore
Prerequisite: Art and Design 1, 3a or 3b, 5a-5b.
6c. Portrait in Oil Colors.-(Advanced course.) A continuation of 6a-6b. II; (3).

Miss Wetmore
Prerequisite: Art and Design 1, 3a or 3b, 5a-5b.
7a-7b. Still-Life in Oil Colors.-Practise painting of still-life; flowers and sketching out-doors in oil colors, with application to pictorial and decorative art. $I, I I$; (3). Miss Wetmore

Prerequisite: Art and Design 1, 2.
7c. Still-Life in Oil Colors.-(Advanced course.) A continuation of 7a-7b. II; (3).

Miss Wetmore
Prerequisite: Art and Design 1, 2.
8a-8b. Modeling.-Clay modeling of anatomical and decorative forms; the making of plaster molds and models; relative study of sculptural art. $I, I I$; (3). Assistant Professor Lake
Prerequisite: Art and Design 1.
10. Sketching.-Practise in pen, pencil; monochrome wash or charcoal rendering from landscape, still-life, and figure, with especial attention to the requirements for reproduction. $I$ or $I I$; (1).

Mr. Bradbury

## Prerequisite: Art and Design 1.

12. Design.-Lectures on the theory of pure design and the effect of material on execution; the fitness of various forms of media for different sorts of design; space division and space relations; color; color schemes and exercises; conventionalization of natural forms for various functions; practise in execution. $I$ or $I I$; (2).

Mr. Forbes

## Prerequisite: Art and Design 1.

14. Design.-(Advanced Practise.) Designs executed on a special field and in a medium selected by the student. Extended study of a chosen field of design. . I or $I I$; (3).

Mr. Forbes
Prerequisite: Art and Design 1, 12.
19. History of the Fine Arts.-The periods and styles of the arts of architecture, sculpture, and painting previous to the Italian Renaissance. I; (2).

Assistant Professor Lake
Prerequisite: One year of college work.
20. History of the Fine Arts.-The periods and styles of the arts of architecture, sculpture, and painting of the Italian Renaissance and to the present time. II; (2).

Assistant Professor Lake
Prerequisite: One year of college work.

## Summer Session Courses

S 1. Elementary.-Form drawing from still-life, cast, and nature; principles of outline and shading in pencil, charcoal, and crayon; lectures on perspective. (2). Assistant Professor Lake
S 12. Design.-The theory of pure design and the effect of material on execution; the fitness of different forms of media for different sorts of design; space division and space relations; color; color schemes and exercises; conventionalization of natural forms for various functions; practise in execution. (2).

Assistant Professor Lake
S 20. History of the Fine Arts.-The periods and styles of architecture, sculpture, and painting during the Italian Renaissance and up to the present time. (2).

Assistant Professor Lake

## ASTRONOMY

Joel Stebbins, Ph.D., Professor
Frank Walker Reed, Ph.D., Instructor
Peter Horatio Lucas, A.B., Research Assistant
No major is offered in astronomy. Students may well make mathematics or physics their major, and take Astronomy 7, 8, 14, and 15 as a minor.

Upper classmen without mathematical training may elect Astronomy 1. Astronomy 4 is for beginners but requires trigonometry. Credit is not given for both 1 and 4 . Other courses should be taken in the order: $3,15,14,7,8$.

## Courses for Undergraduates

1. Elementary Astronomy.-Lectures; recitations; one evening a week at the observatory. $I$; (3).

Professor Stebbins
Prerequisite: Sophomore standing.
3. Astronomy for Engineers.-Rough and accurate determinations of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. $I I$; (3).

Professor Stebbins
Prerequisite: Junior standing.
4. General Astronomy.-Lectures; recitations; two evenings a week at the observatory. $I I$; (5).

Dr. Reed
Prerequisite: Mathematics 4.

## For Advanced Undergraduates and Graduates

7-8. Theoretical Astronomy.-Celestial mechanics; theory of orbits; perturbations; canonical transformations. $I, I I$; (3).

Dr. Reed
Prerequisite: Mathematics 9.
[9-10. Celestial Mechanics.-Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. $I, I I ;(3)$. Not given, 1916-17.

Dr. Reed
Prerequisite: Mathematics 16; Astronomy 7-8.]
14. Observational Astronomy.-The working methods of an astronomical observatory; individual problems. II; (3). Professor Stebbins

Prerequisite: Astronomy 15.
[15. Geodetic Astronomy.-The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey. I; (3). Not given, 1916-17. Professor Stebbins

## Prerequisite: Mathematics 7.]

## Courses for Graduates

101. Seminar and Thesis.-Three times a week; I, II; (1 unit).

Professor Stebbins
[102. Stellar Astronomy.-Orbits of binary stars; variable stars; theoretical photometry. Three times a zueek; I, II; (1 unit). Not given, 1916-17.

Professor Stebbins]

## BACTERIOLOGY

(See also Botany)
Joel Andrew Sperry, 2d, Ph.D., Associate
Fred Wilbur Tanner, Ph.D., Instructor
Cecil Robert Gross, B.S., Assistant
Edilin F. Voigt, B.S., Assistant
Note.-No major is offered for the present in Bacteriology.

1. Elementary Bacteriology.-Laboratory methods; technique and observations on the morphology and general physiology of bacteria and allied microorganisms. Open only to students in the College of Agriculture and in the Medical College curriculum. I; (3).

Dr. Sperry, Mr. Vorgt
Prerequisite: Chemistry 2a.
5. Introductory Bacteriology.-Miorphology and physiology of bacteria and related microorganisms; technique of cultivation and observation. $I$ or $I I$; (5).

Dr. Tanner, Mr. Gross, Mr. Voigt
Prerequisite: Chemistry 2a.
6. Bacteriology for Sanitary Engineers.-Bacteriological and microscopical methods applied to the examination of water and sewage. Filtration, sterilization, and filter control. $I$; ( $21 / 2$ ).

Dr. Sperry, Dr. Tanner
Prerequisite: Chemistry 10b.

## Courses for Advanced Undergraduates and Graduates

8. Applied Bacteriology.-Decay of organic matter in nature; soil and sewage bacteria; food bacteria; water bacteria; pathogenic bacteria. Laboratory; lectures; assigned readings; reports. $I I$; (5).

Dr. Tanner
Prerequisite: Bacteriology 5 or its equivalent; Chemistry 9.
18a-18b. Journal Meeting.-Required of all students specializing in bacteriology. $I, I I$; (1).

Dr. Sperry
Prerequisite: Bacteriology 5, or equivalent.
20. General Bacteriology.-(For advanced students who do not major in bacteriology.) Laboratory methods, technics of cultivation and observation and study of biochemical reactions. Laboratory; lectures; assigned readings; reports
from Lafar's Handbuch der technischen Mykologie, and Kruse's Allgemeine Mikrobiologie. Replaces Bacteriology 19. Not open to students who have had Bacteriology 5. I; (5).

Dr. Tanner
Prerequisite: Two years of college chemistry and senior standing.
26. Pathological Bacteriology.-The disease producing organisms, their effect on the animal, and the reaction of the host. Lectures; laboratory. $I I$; (3).

Dr. Sperry
Prerequisite: Bacteriology 1 or 5; junior standing.
27. Epidemiology.-The ways in which communicable diseases are spread; methods of control. Lectures. I; (2).

Dr. Sperry
Prerequisite: Bacteriology 5; junior standing.

## Courses for Graduates

The work outlined below is open only to graduate students who have had at least one year's work in bacteriology, and satisfactory training in chemistry.
[103. Physiology of Bacteria.-Fermentation; growth and death of bacteria. I; (1 unit). Not given, 1916-17.

Dr. Sperry]
105. Classification of bacteria.-Variability of species; characters; mutations; standard and biometrical classifications. II; (1 unit). Dr. Sperry
107. Research in Bacteriology.-The physiology of bacteria; food bacteriology. I, II; (1 or 2 units).

Dr. Sperry

## BANKING

(See Economics.)

## BIOLOGY

## (See Botany, Entomology, Physiology, and Zoology.)

> BOTANY
> (See also BACTERIOLOGY.)

William Trelease, D.Sc., LL.D., Professor
Charles Frederick Hottes, Ph.D., Professor
Frank Lincoln Stevens, Ph.D., Professor
Joel Andrew Sperry, 2d., Ph.D., Associate Bacteriology
Stella Mary Hauge, Ph.D., Instructor
Walter Byron McDougall, Ph.D., Instructor
Fred Wilbur Tanner, Ph.D., Instructor, Bacteriology
Nora Elizabeth Dalbey, A.M., Assistant
Forrest Ellwood Kempton, M.S., Assistant
William Eugene Pickler, A.B., Assistant
Lee Ellis Miles, A:B., Assistant
Walter Spurgeon Beach, M.S., Assistant
Esther Young, A.M., Assistant
Cecil Robert Gross, B.S., Assistant, Bacteriology
Harry Warren Anderson, A.M., Assistant
Mary Emma Renich, A.M., Assistant
Richard Alonzo Gantz, A.B., Assistant
Truman George Yuncker, A.M., Assistant
Leo Roy Tehon, A.B., A ssistant
Edwin Frederick Voigt, B.S.', Assistant, Bacteriology

Major: 20 hours exclusive of Botany 1 and 4, made up of courses grouped along one of six lines, according to the suggestions given below.

Minor: 20 hours chosen from chemistry, entomology (exclusive of 1a and 1b), geology, physics, physiology, and zoology. At least eight hours must be offered in one subject.

Courses offered are of four types; the first intended to meet the needs of beginners; the second laying a foundation for methods of accuracy in observation, manipulation, and experimentation through the study of some fundamentally important subdivision of the science; the third giving practise in methods of investigation by the study of advanced problems varied to suit the needs and interests of the student; and the fourth teaching independent research by means of thesis subjects leading to the discovery of new facts or laws.

The work of any semester may be credited separately except when a problem is left incomplete in one of the courses open to graduates.

For the convenience of undergraduates in the College of Liberal Arts and Sciences who elect major work in botany the following combinations of courses are suggested: (a) General; 2a, 4a, 23, 27a or 27b; (b) Specializing in morphology; 2a, 2b, 3a, $4 \mathrm{a}, 4 \mathrm{~b}$, or 24 ; (c) Specializing in pathology; 2 a or $3 \mathrm{a}, 7 \mathrm{a}, 7 \mathrm{~b}, 28 \mathrm{a}$ or $28 \mathrm{~b}, 4 \mathrm{a}$, or $17 \mathrm{a}-17 \mathrm{~b}$, or 21; (d) Specializing in physiology; 3a, 27a-27b, 9a or 9b; (e) Specializing in taxonomy; $2 \mathrm{a}, 4 \mathrm{a}$ or $4 \mathrm{~b}, 16 \mathrm{a}-16 \mathrm{~b}$, or $17 \mathrm{a}-17 \mathrm{~b}$, or $26 \mathrm{a}-26 \mathrm{~b}$, or $28 \mathrm{a}-28 \mathrm{~b}$; (f) Specializing in ecology; $4 \mathrm{a}, 23,24,25$ a, or 25 b , and 27 a, or 27 b .

Students taking botany as a foundation for agronomy or horticulture are advised to select courses 1, 3a, or 27a, 4a, 7a, and advanced work on some special topic or topics under courses 7b, 9, 17a-17b, or 22b. Students who expect to teach botany are advised to elect $2 \mathrm{a}, 4 \mathrm{a}, 23$. 27a-27b, and advanced work in one or more of the special courses 9a-9b, 16a-16b, 17a-17b, or $25 \mathrm{a}-25 \mathrm{~b}$.

## Courses for Undergraduates

1. General Botany.-The structure, physiology, natural history, and uses of plants. Lectures, quiz, laboratory. Students are advised to complete elementary chemistry before taking this course. I or II; (5).

Professor Trelease, Dr. McDougall, and assistants
2a. Morphology of Thallophytes.-The lower plants. Laboratory. I; (5).
Dr. Hague
Prerequisite: Botany 1.
2b. Morphology of Cormophytes.-The higher plants. Laboratory. II; (5). Dr. Hague
Prerequisite: Botany 1.
3a. Plant Anatomy, Histology, and Technique.-Plant structure; protoplasts; the nucleus; fixing, sectioning, staining, and examining tissues, modeling from serial sections; photomicrography. $I I$; (5).

Professor Hotres
Prerequisite: Botany 1.
4. The Local Flora.-Morphology, identification, and classification of wild plants. Laboratory; field work. (For students desiring acquaintance' with "the plants of Illinois, and especially for those qualifying as teachers in the public schools.) II; (3).

Dr. Hague
Prerequisite: Entrance botany or its equivalent.

4a. Taxonomy of Cormophytes.-Structure, identification and classification of higher plants. Laboratory; field work on flowering plants, and weeds. II; (5).

Professor Trelease
Prerequisite: Botany 1.
4b. Taxonomy of Algae and Bryophytes.-Structure, identification, and classification. $I$; (5).

Dr. Hague
Prerequisite: Botany 1.
4d. Trees and Shrubs of the Campus.-The woody plants most used for decorative purposes. $I$; (3).

Professor Trelea.se
Prerequisite: Botany 1.
7a. Plant Pathology.-Causal agents, symptoms, diagnosis, and treatment. $I$; (5).

Professor Stevens
Prerequisite: Botany 1.
20. Plant Diseases.-More important diseases of commonly cultivated plants; diagnosis and treatment. Lectures and laboratory. (Credit in the College of Agriculture only.) $I I$; (3)

Professor Stevens
Prerequisite: Botany 1.
[21. Crop Diseases.-Structure, identification, and treatment. I; (3). Not given in 1916-17.

Professor Stevens
Prerequisite: Botany 20 or 7 a .]
23. Plant Ecology.-The life of plants in their natural habitats, in relation to environment, to animals, and to each other. Lectures; laboratory; field work. I; (3). Dr. McDougall
Prerequisite: Botany 1.
24. Taxonomy and Ecology of the Higher Fungi.-Structure, identification, classification, and ecological relations. Special attention is given to edible and poisonous mushrooms. Lectures; laboratory; field work. $I I$; (3).

Dr. McDougall
Prerequisite: Botany 1.
27a. Flant Physiology.-The absorption of materials from the external world and their transformation within the organism; the production and use of food. $I$; (5).

Professor Hottes
Prerequisite: Botany 1.
27b. Plant Physiology.-The response of the plant to external stimuli. II; (3).

Professor Hottes
Prerequisile: Botany 1.

## Courses for Advanced Undergraduates and Graduates

Students who take courses open for credit to graduates are advised to register also for Botany 10a-10b, the weekly meeting devoted to current literature in botany, which is obligatory for candidates for an advanced degree with botany as a major subject.

Candidates for advanced degrees in botany must offer for admission to the graduate courses at least 20 hours of college work in botany, exclusive of Botany 1 , and inclusive of courses $2 \mathrm{a}, 4 \mathrm{a}, 27 \mathrm{a}$, or 27 b and either $7 \mathrm{a}, 9 \mathrm{~b}, 17 \mathrm{a}$, or 17 b , or equivalent.

Graduate students who elect botany for minor credit must offer the equivalent of 10 hours of college work in botany, exclusive of Botany 1, as a prerequisite to the courses listed for advanced undergraduates and graduates.

7b. Methods in the Study of Fungi.-Methods of isolation, cultivation, and inoculation of fungi and bacteria. II; (5).

Professor Stevens
Prerequisite: Ten hours of botany, including Botany 7a; junior standing.
9a-9b. Plant Anatomy or Physiology.-Problems for those specializing either in anatomy with technics, or in physiology, or in the application of these to plant breeding, crop production, and forestry. $I, I I$; (3 or 5). ${ }^{1}$

## Professor Hottes

## Prerequisite: 10 hours of Botany, including Botany 3a; junior standing.

10a-10b. Current Botanical Literature.-A weekly review covering the field of botany; supplementary to the various seminar conferences. $I, I I$; (1).
Professor Trelease, Profesior Hotres, Professor Stevens, Dr. Hague, Dr. McDougall

Prerequisite: Concurrent taking of some course in botany open for graduate credit.

16a-16b. Taxonomy of Algae and Bryophytes.-Advanced practise on selected groups. $I, I I ;(3$ or 5$) .{ }^{1}$ Dr. Hague

Prerequisite: 10 hours of botany, including 2 a or 4 b ; junior standing. For graduate students in chemistry, 5 hours of biology and 10 hours of physical science, including manipulation of instruments, or 15 hours of physical science.

17a-17b. Taxonomy and Ecology of Cormophytes.-Advanced practise on selected taxonomic, ecological, or economic groups. Genera or families of Illinois plants, ecological association or adaptations, or plants economically important as weeds, forest resources, adjuncts to medicine, farm, orchard, or garden crops, or as the basis of floriculture, landscape architecture, street slading, or other decorative planting. $I, I I$; (3 or 5 ). ${ }^{1}$

Professor Trelease
Prerequisite: 10 hours of botany, including Botany 4a; junior standing.
[22a. Morbid Histology.-The parasites of plant tissues and their histology in condition of disease. $I$; (3 or 5). ${ }^{1}$ Not given, 1916-17.

Professor Stevens
Prerequisite: Botany 3 a and 7 a or 7 b ; junior standing.]
22b. Groups of Fungi and Crop Diseases.-II; (3 or 5). ${ }^{1}$
Professor Stevens
Prerequisite: 10 hours of botany, including 7 a or 7 b ; junior standing.
25a-25b. Plant Ecology -Advanced studies in the ecology of plants or of plant communities. $I, I I$; ( 3 or 5 ). ${ }^{1}$

Dr. McDougall
Prerequisite: 10 hours of botany, including Botany 23; junior standing.
[26a-26b. Taxonomy of the Higher Fungi.-Advanced practise on selected groups. I, $I I$; (3 or 5). ${ }^{1}$ Not given in 1916-17.

Dr. McDougall
Prerequisite: Botany 2 a and 24 ; junior standing.]
28a-28b. Taxonomy of Economic Fungi.-Advanced practise on selected groups of parasitic fungi. $I, I I$; (3 or 5). ${ }^{1}$

Professor Stevens
Prerequisite: 10 hours of botany, including Botany 7a; junior standing.

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## Courses for Graduates

[101. Cytology.-The influence of external agents on the cell. Special subjects for investigation are assigned on consultation. Reports and discussions of current literature and research results. I, II; ( $1 / 2$ to 2 units). Not given, 1916-17.

Professor Hottes]
102. Physiology.-The effects of external stimuli on growth and movement. Special subjects for investigation are assigned on consultation. Reports and discussions of current literature and research results. I, II; (1/2 to 2 units).

Professor Hottes
104. Mycology.-Fungi. Individual assignments of subjects and problems in field and laboratory. $I, I I ;(1 / 2$ to 2 units).

Professor Stevens
106. Plant Pathology.-Diseases of plants, and disease agents. Special subjects are assigned on consultation. I, II; ( $1 / 2$ to 2 units).

## Professor Stevens

108. Taxonomy.-Monographic studies of critical groups. $I, I I$; (1/2 to 2 units).

Professor Trelease
109. Ecology.-The interrelations of plants with their environment. Individual subjects for investigation. $I, I I ;(1 / 2$ to 2 units).

Dr. McDougall

## Summer Session Courses

S 7a. Plant Pathology.-Causal agents, symptoms, morbid histology, diagnosis and treatment and methods of study. (5).

Professor Stevens, Mr. Beach
Prerequisite: Entrance credit in botany, or botany 1.
S 4. The Local Flora.-Morphology, identification, and classification of wild plants. Laboratory; field work. (For students desiring acquaintance with the plants of Illinois, and especially for those qualifying as teachers in the public schools.) (3).

Professor Stevens, Mr. Beach
Prerequisite: Entrance botany or its equivalent.
*S 16a. Taxonomy and Ecology of Fungi.-Advanced practise on selected groups of fungi or groups of host plants. (3 or 5). ${ }^{1} \quad$ Professor Stevens

Prerequisite: 10 hours of botany including 4 c or 7 a or equivalent.
*S 104. Mycology.-Individual assignments of subjects and problems in field and laboratory. (3 or 5). ${ }^{1}$

Professor Stevens
*S 106. Plant Pathology.-Diseases of plants and disease agents. Special subjects are assigned on consultation. (3 or 5). ${ }^{1}$ Professor Stevens

## BUSINESS LAW

# (See Business Organization and Operation.) BUSINESS ORGANIZATION AND OPERATION 

(Including Accountancy and Business Law.)
Lewis Emanuel Young, Ph.D., Assistant Professor
Robert Enoch Hieronymus, A.M., LL.D., Community Adviser; lecturer on commercial and civic organizations
Hiram Thompson Scovill, A.B., Instructor

[^72]Harrison McJohnston, A.M., Instructor
Ananias Charles Littleton. A.B., Instructor
Charles Le Deuc, LL.B., Ph.D., B.A.M., Instructor
William Everett Britton, A.M., J.D., Instructor
Lloyd Morey, A.B., B.Mus., C.P.A., Instructor
George Hillis Newlove, A.M., Assistant
George Burr McMillen, A.B., Assistant
Henry Dixon Oberdorfer, B.S., Assistant

## A. ACCOUNTANCY

## Courses for Undergraduates

1a-1b. Principles of Accounting.-Accounting and bookkeeping. Accounting procedure from single to double entry. (Students who present one unit of bookkeeping for entrance will not be allowed credit for the first semester's work and should register for the second semester only. Except in case of such students credit is not given for either semester separately.) I, II; (3).
Mr. Scovill, Mr. Littleton, Dr. Le Deuc, Mr. Newlove, Mr. McMillen, Mr. Oberdorfer.

2a-2b. Advanced Accounting and Auditing.-Partnership and corporation accounts, depreciation, goodwill, reserves and sinking funds; special financial statements, reading balance sheets, illustrative problems. (Credit is not given for either semester separately.) I, II; (3).

Mr. Scovill, Mr. Littleton, Mr. Newlove, Mr. Morey
Prerequisite: Accountancy 1a-1b; Economics 7 or 26,22 or 27 ; registration or credit in Economics 1.

3a-3b. Accounting Problems and Auditing.-Consolidated balance sheets; liquidation; the auditor's duties; schedules and reports. (Credit is not given for either semester separately.) $I, I I$; (3).

Mr. Scovill,
Prerequisite: Accountancy 2a-2b; Economics 3; credit or registration in Business Organization and Operation 1.

4a-4b. Cost Accounting.-(a) Cost accounting applied to factory procedure, overhead expense, the installation and control of cost systems, presentation of cost data; (b) as a basis for manufacturing efficiency; (c) the construction of cost systems. $I, I I$; (2).

Mr. Scovill
Prerequisite: Accountancy 2a-2b, Economics 1. For the current year, open also to juniors and seniors who have had Accountancy 1a-1b.
[5a-5b. C. P. A. Problems.-Representative problems of various types, including questions on theory and auditing. Credit is not given for either semester separately. I, II; (2). Not given, 1916-17.

Prerequisite: Accountancy 3a-3b.]
10. Shop Management and Shop Cost Records.-Cooperation between shop and cost departments; preparation and use of cost records; estimation of costs on contracts and calculation of profits. $I I$; (2).

Mr. Scovill
Prerequisite: Open only to students in engineering who have had Economics 1 or 2.
11. Farm Accounting.-Accounting and distribution of costs as applied to farm operations; proper investment of funds. $I$; (3).

Mr. Scovill, Mr. Newlove, Mr. McMillen
Prerequisite: Open only to students in agriculture who have had Economics 1 or 2.

13a-13b. Municipal and Institutional Accounting.-Budget making; appropriations; warrants; taxes; special assessments; system building; functional organization; control; reports; auditing. (The second semester's work may be taken without the first only on the approval of the instructor.) $I, I I$; (2).

Mr. Morey
Prerequisite: Accountancy 2a-2b.

## Summer Session Course

S 15. Principles of Accounting.-(This course is not accepted in partial fulfillment of the requirement of Accountancy 1 in any University curriculum.) (2).

Mr. Scovill
Prerequisite: Elementary bookkeeping.

## B. BUSINESS ORGANIZATION AND OPERATION

## Courses for Undergraduates

1. Eusiness Organization and Operation.-Individual proprietorship, partnership; and cooperation; the process of organizing a business; organization for operation and the reaction of form of organization on efficiency; graduation and interrelation of divisions and departments; departmental responsibility and authority, routine, and discipline. $I$; (3).

Assistant Professor Young
Prerequisite: Economics 1 and Accountancy 2a-2b. For the present year students who have had Accountancy 1a-1b may be admitted on application to the instructor.
2. Organization and Control of Mercantile Distribution.-Problems of organization and management of wholesale and retail establishemnts. Supervision and control of mercantile distribution by business associations, by consumers, and by political units. $I I$; (2).

Assistant Professor Young
Prerequisite: Business Organization and Operation 1; Economics 28.
[3. Business Procedure.-Conventional business practises; cash and trade discounts; commissions; interest and discounts; forms and uses of checks, notes, drafts, and other instruments of credit and exchange; the rules and procedure of banking institutions; mercantile and credit agencies. Office organization and management. $I$; (2). Not given, 1916-17.

Assistant Professor Young

## Prerequisite: Business Organization and Operation 2.]

7. Salesmanship.-Policies and practise of modern sales organizations; selling problems of manufacturers, wholesalers, and retailers, management of salesmen; the practise of individual salesmen. $I$; (2). Mr. McJohnston
Prerequisite: Economics 1; Business Organization and Operation 1. For the present year former Economics 6 will be accepted in place of Business Organization and Operation 1.
8. Advertising.-Current practise; cooperation of advertising and personal selling; special problems; planning sales campaigns; choice of media; space buying; and practise in writing copy. $I I$; (2).

Mr. McJounston
Prerequisite: Business Organization and Operation 7.
9. Commercial and Civic Organizations.-The history of trade and similar organizations; methods of organization; expansion and promotion; the relation of such association to the life and welfare of the community and to one another; pro-
motion of community welfare by common action; work and duties of the secretary and other officers; the legal status and recent results. (For students preparing for positions as secretaries of commercial or agricultural associations, civic or welfare clubs, and similar organizations.) $I I$; (1).

Dr. Hieronymus
Prerequisite: Economics 1; Business Organization and Operation 2 or Economics 28; or Economics 2 and Farm Management 1; or Economics 1, Political Science 4, and Sociology 8.
10. Organization and Operation of Newspaper Publishing.-Growth of the industry in the United States; number, kinds, and distribution of newspapers; national organization; large scale production; buying and selling advertising; circulation; cost accounting and office systems; mechanical organization and equipment; shop management and labor problems. (Primarily for students specializing in journalism.) $I I$; (2).

Dr. Russell
Prerequisite: Economics 1; junior standing.

## Course for Undergraduates and Graduates

4. Industrial Organization and Management.-Organization and administrative policy; supervision and management of industries and industrial units. Relations to labor, the community and law. II; (2). Assistant Professor Young

Prerequisite: Business Organization and Operation 2. For the present year Economics 10 and Accountancy 1a-1b will be accepted instead of Business Organization and Operation 2. Senior engineering students who have had Economics 1 or 2 may be admitted by permission of the instructor.

## Courses for Graduates

101. Regulation and Control of Mercantile Distribution.-Federal, state, and local regulation of mercantile business; unfair competition; trade agreements; trade mark; inspection of mercantile establishments; pure food acts; control over weights and measures, packing, storage, and shipment. Twice a week; I; (1 unit). Assistant Professor Young
[102. Scientific Management.-History; proposed systems; results of the appplication of scientific principles in the management of various types of business enterprise. Twice a week; I, II; (1 unit). Not given, 1916-17.

Assistant Professor Young]

## C. BUSINESS LAW

## Ccurses for Undergraduates

1a-1b. Commercial Law.-Contracts, negotiable instruments, agency, partnerships, business corporations, sales of personal property, bailments and carriers, guaranty and suretyship, and insurance. I, II; (3). Dr. Britton

Prerequisite: Sixty hours of university credit, including Economics 1 and Accountancy 1a-1b.
2. Elementary Law.-Contracts; leases; landed property. (Open to junior and senior students in agriculture only.) $I I$; (3). Dr. Britton

Prerequisite: Economics 1 or 2.
3. Business Law.-Contracts, negotiable instruments, agency, partnerships, corporations, sales of personal property, bailments and carriers, guaranty and surety-
ship, insurance, real property, and landlord and tenant. (Open to junior and senior students in engineering only.) $I I$; (3).

Assistant Professor Young
Prerequisite: Economics 1 or 2.

## Summer Session Course

S 1. Elementary Commercial Law.-Contracts, agency, partnerships, and other forms of business organization. (Not accepted for credit for students in the College of Commerce and Business Administration.) (2). Mr. Scovill

## CERAMIC ENGINEERING

Edward Wight Washburn, Ph.D., Professor, Ceramic Chemistry
Cullen Warner Parmelee, B.S., Professor
Ralph Kent Hursh, B.S., Assistant Professor
Howard C Arnold, A.M., Instructor
The courses offered by the department of ceramic engineering are designed to give a technical knowledge of the composition and properties of materials used in the manufacture of claywares, cements, glasses, and enamels, and to acquaint the student with the construction, equipment, and operation of ceramic plants.

Graduates of courses other than ceramic engineering who have the necessary prerequisites may take the following courses for minor credit: $3,5,6,8,10,13$, 14,15 , and 16.

## Courses for Undergraduates

1. Ceramic Materials.-The properties of clays and other ceramic materials; identification of the varieties used in practical work. Lectures; laboratory. I; (3).

Professor Parmelee, Mr. Arnold
Prerequisite: Chemistry 4.
2. Winning and Preparation of Clays.-Machinery and processes used in preparing clays for market or manufacture; cost data. $I$; (3). Mr. Arnold

Prerequisite: Chemistry 5a.
3. Industrial Calculations.-Chemical and physical calculations applying to the operation of furnaces, kilns, and dryers, temperature measurements; ceramic stoichiometry. II; (3).

Assistant Professor Hursh
Prerequisite: Ceramic Engineering 1, 2; Physics 1a-1b and 3a-3b.
4. Drying and Burning.-Clay wares; types of construction of industrial dryers and kiln plants; chemical and physical processes involved. $I$; (4).

Assistant Professor Hurse

## Prerequisite: Ceramic Engineering 1, 2, 3.

5. Ceramic Bodies.-Composition and properties of ceramic body mixtures; effects of various ingredients; development of special bodies. Lectures; labortory. II; (5).

Professor Parmelee, Mr. Arnold
Prerequisite: Ceramic Engineering 1, 2.
6. Glazes.-Production of glazes and enamels; limits of composition; classification; properties and defects common to each class; effect of variation in composition; modes of application. Lectures; laboratory. I; (5).

Professor Parmelee, Mr. Arnold
Prerequisite: Ceramic Engincering 3, 5.
8. Glass.-Raw materials, preparation, compounding, melting, and shaping; chemical principles involved in the manufacture and decoration of the various types of vitreous silicates. Lectures. $I I$; (2).

Professor Parmelee
Prerequisite: Ceramic Engineering 6.
9. Ceramic Construction.-Plans, specifications, and estimates for ceramic equipment and industrial plants. $I I$; (4). Assistant Professor Hurse
Prerequisite: General Engineering Drawing 2; Ceramic Engineering 3, 4.
10. Cements.-Cements, limes, plasters; composition; reactions; methods of manufacture and testing. $I$; (3). Assistant Professor Hursh

Prerequisite: Ceramic Engineering 1, 2, 3.
11. Thesis.-II; (3).

Professor Washburn, Professor Parmelee, Assistant Professor Hursh
12. Designing and Shaping.-Die construction; templates; master and working molds for pressing, casting, and jiggering. II; (3). Mr. Arnold

Prerequisite: Ceramic Engineering 1, 2.
17. Physical Chemistry with special reference to its application to Ceramic Materials and Processes.-Lectures; discussions; assigned reading. $I$; (3).

Professor Washburn
Prerequisite: Ceramic Engineering 3; Mathematics 8 or 7 and 9.
99. Inspection Trip.-Visits to industrial plants representative of various phases of ceramic work. $I$; (no credit).

Prerequisite: Senior Standing.

## CHEMISTRY

William Albert Noyes, Ph.D., LL.D., Professor and Director
Samuel Wilson Parr, M.S., Professor
Harry Sands Grindley, D.Sc., Professor
Edward Bartow, Ph.D., Professor
Richard Chace Tolman, Ph.D., Professor
David Ford McFarland, Ph.D., Associate Professor
George McPhatl Smith, Ph.D., Assistant Professor
Henry Charles Paul Weber, ${ }^{1}$ Ph.D., Assistant Professor
Roger Adams, Ph.D., Assistant Professor
Duncan Arthur MacInnes, Ph.D.. Associate
George Denton Beal, Ph.D., Associate
B Smith Hopkins, Ph.D., Associate
Howard Bishop Lewis, Ph.D., Associate
Horace Grove Deming, Ph.D., Associate
Henry John Broderson, Ph.D., Instructor
George Wallace Sears, Ph.D., Instructor
Jessie Yereance Cann, Ph.D., Instructor
Oliver Kamm, Ph.D., Instructor
Gerard Van Rossen, Ph.D., Instructor
Floyd William Mohlman, ${ }^{1}$ Ph.D., Instructor
Edgar Wallace Engle, Ph.D., Instructor
Theodore Rolly Ball, Ph.D., Instructor
Frederick Osband Anderegg, Ph.D., Instructor

[^73]Herbert E Eastlack, Ph.D., Instructor
Scott Champlin Taylor, M.S., Assistant
Lloyd Brelsford Howell, A.B., Assistant
Harry Cleveland Kremers, M.S., Assistant
Edwin Arthur Rees, A.M., Assistant
Glenn Seymour Skinner, A.M., Assistant
Jay Thomas Ford, M.S., Assistant
Terrence Onas Westhaefer, M.S., Assistant
Walter Gerald Karr, M.S., Assistant
Ernest Henry Vollweiler, A.M., Assistant
Frank Farnsworth Footitt, M.S., Assistant
Albert Waffle Owens, B.S., Assistant
Floyd Elba Rowland, A.M., Assistant
William Alexander VanWinkle, B.S., Assistant
John Frederick Gross Hicks, M.S., Assistant
Henry Joseph Wieland, M.S., Assistant
Harry James Beattie, A.M., Assistant
Ralph Emerson Rindfusz, A.M., Assistant
Alfred Richard Powell, A.M., Assistant
Arthur Blaine Haw, B.S., Research Assistant
James Harris Olewine, B.S., Assistant
Lansing Sadler Wells, B.S., Assistant
Herbert August Winkelmann, B.S., Assistant
Josepi Marvin Braham, M.S., Research Assistant
Paul Anders, Assistant, Glass Blowing
James Keel Reed, A.B., Graduate Assistant
Ruth Eliza Okey, M.S., Graduate Assistant
Leonard Francis Yntema, A.B., Graduate Assistant
Ralph William Hufford, A.B., Graduate Assistant
Helen Updegraff, B.S., Graduate Assistant
Louis Jordan, A.B., Graduate Assistant
Margaret Campbell Perry, A.B., Graduate Assistant
John Bernis Brown, B.S., Graduate Assistant
Herbert Ephraim French, A.B., Graduate Assistant
Carl Shipp Marvel, A.M., Graduate Assistant
Sargent Gastman Powell, M.S., Graduate Assistant
Cecil Wayne Boyle, A.B., Graduate Assistant
William Lionel McClure, A.B., Graduate Assistant
Otтo M Smith, B.S., Graduate Assistant
Herman Edward Redenbaugh, A.B., Graduate Assistant
Lynne Herman Ulich, B.S., Graduate Assistant
Isaac Houn Godlove, A.M., Graduate Assistant
Miner Maniey Austin, A.B., Graduate Assistant
Norris Fey Murray, B.S., Graduate Assistant
Cooperating:
Fred Weaver Muncie, Ph.D., Associate, Floricultural Chemistry
Clarence George Derick, Ph.D., Assistant Professor, Summer Session
Laurence Crane Johnson, Ph.D., Research Assistant, Summer Session
Charles Henry Hecker, Ph.D., Instructor, Summer Session
Major: 20 hours, exclusive of chemistry 1, 1a, 1b, 4 and 16, and inclusive of courses in quantitative analysis and organic chemistry.

Minors: 20 hours, chosen from bacteriology, botany, geology, mathematics, philosophy, physiology, physics, and zoology.

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry 1 or $1 \mathrm{a}, 2 \mathrm{a}$ or 3a. Those continuing in the second year should take Chemistry 5 a and 5 b , or 13 a and 25 . In the third year Chemistry $14 \mathrm{a}, 14 \mathrm{~b}$, or $9,9 \mathrm{a}$, and 9 b , or $9 \mathrm{c}, 31$, and 33 should be taken. With these, more special courses may be taken if desired, but students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, should take the curriculum in chemistry, or in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry 1 or 1 a in the second semester rather than in the first.

1. Inorganic Chemistry.-The non-metallic elements. Noyes: Text-book of Chemistry. I or II; (5).
Professor Noyes, Dr. Hopkins, Dr. Deming, Dr. Sears, Dr. Cann, Dr. Engle, Dr. Anderegg, and assistants.

Note.-Students who have credit for high school chemistry should register for Chemistry 1a.

1a. Inorganic Chemistry.-Lectures; recitations; laboratory. (For students who have had one year of high school chemistry.) $I$ or $I I$; (3).
Professor Noyes, Dr. Hopkins, Dr. Deming, Dr. Sears, Dr. Cann, Dr. Engle, Dr. Anderegg, and assistants.

Prerequisite: One year of entrance chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1.

1b. Inorganic Chemistry.-Lectures; recitations; laboratory. (For students in engineering.) $I$ or $I I$; (4).
Professor Noyes, Dr. Hopkins, Dr. Deming, Dr. Sears, Dr. Cann, Dr. Engle, Dr. Anderegg, and assistants.

Note: Students who have credit for high school chemistry should register for Chemistry 1a.

2a. Inorganic Chemistry and Qualitative Analysis.-Chemistry and qualitative analysis of the more common metals and inorganic compounds. Lectures; recitations; laboratory. I or II; (5).
Assistant Professor Weber, Dr. Hopkins, Dr. Deming, Dr. Sears, Dr. Cann, Dr. Engle, Dr. Anderegg, and assistants.

Prerequisite: Chemistry 1 or 1a.
3a. Inorganic Chemistry and Qualitative Analysis.-For students in chemistry and chemical engineering. $I$ or $I I$; (6). Assistant Professor Weber, Dr. Sears

Prerequisite: Chemistry 1 or 1a.
4. Qualitative Analysis and Chemistry of the Metallic Elements.-Class and laboratory work. (For students in engineering.) $I$ or $I I$; (4).
Assistant Professor Weber in charge: Dr. Sears, Dr. Cann, Dr. Engle, Dr. Anderegg, and assistants.

Prerequisite: Chemistry 1a or 1 b .

5a. Elementary Qualitative Analysis.-Gravimetric and volumetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot: Quantitative Chemical Analysis. I or II; (5).

Assistant Professor Smith in charge. Dr. Ball, and assistants
Prerequisite: Chemistry 2a, or 3 a , or 4.
5b. Advanced Analytical Chemistry.-Advanced qualitative analysis; the quantitative analysis of silicates, ores and alloys. Lectures; recitations; laboratory. Treadwell-Hall: Analytical Chemistry. Vol. II. II; (5).

Assistant Professor Smith
Prerequisite: Chemistry 5a.
Note.-For Chemistry 5c, see Chemistry 25.
5d. Elementary Quantitative Analysis.-A modification of Chemistry 5a. (For students in mining engineering only.) $I$; (4).

Assistant Professor Smith in charge
6. ${ }^{1}$ Chemical Technology.-Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; recitations. Rogers and Aubert: Industrial Chemistry. II; (3).

Associate Professor McFarland
Prerequisite: Chemistry 5a and 14a.
7. ${ }^{1}$ Metallurgy.-General metallurgy; metallurgy of iron and steel. Lectures; assigned reading; recitations. Fulton's Principles of Metallurgy; Stoughton's Iron and Steel. I; (3). Associate Professor McFarland

Prerequisite: Chemistry 5a. (Senior students in engineering courses may be admitted to this course by special arrangement, without this prerequisite.)

7a. Metallurgy of the Non-Ferrous Metals.-Copper, lead, zinc, gold, and silver. II; (3).

Associate Professor McFarland
Prerequisite: Chemistry 5a or 13a.
9. Organic Chemistry.-Characteristics of the more typical and simple organic compounds; the important classes of derivatives of carbon. (For students of the medical preparatory and household science curriculums and others desiring a short course). II; (3).

Assistant Professor Adams
Prerequisite: Chemistry 2a or 3a.
9a. Organic Synthesis and Ultimate Analysis.-Ultimate organic analysis; preparation of typical organic compounds. Laboratory. I or $I I$; (2).

Dr. Kamm
Prerequisite: Registration in Chemistry 14a, or equivalent.
9b. Organic Synthesis and Qualitative Organic Analysis.-Continuation of 9a, to accompany Chemistry 14b. I or $I I$; (2). Dr. Kamm

Prerequisite: Chemistry 9a, 14a; registration in Chemistry 14b, or equivalent.
9c. Organic Synthesis.-Typical organic compounds. Laboratory. (For students in the medical preparatory and household science curriculums and others desiring a brief course.) I or $I I$; (2). Assistant Professor Adams, Dr. Kamm

Prerequisite: Chemistry 2a or 3a; registration in Chemistry 9, or equivalent.

[^74]10a. Water Chemistry.-History, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practise in analytical methods. II; (3). Professor Bartow, Dr. Mohlman

10b. Chemistry of Water and Sewage.-The chemical analysis of potable waters and waters for industrial purposes. Lectures on the history, sources, contamination, and standards of purity. Chemical analysis of sewage and effluents from sewage treatment plants. (For students in sanitary engineering, registered in connection with Bacteriology 6.) $I$; (21/2).

Professor Bartow, Dr. Moulman
Prerequisite: Chemistry 4.
11a-11b. Thesis.-Thesis, embodying a review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required of seniors in chemistry and chemical engineering.) $I, I I$; (5).

Professor Noyes in charge
13a. Elementary Quantitative Analysis.-Gravimetric and volumetric analysis, fertilizer and elementary food analysis. Lectures; recitations; laboratory. Talbot's Quantitative Chemical Analysis. (For students in agriculture and household science.) $I$ or $I I$; (5).

Assistant Professor Smith in charge, Dr. Beal, Dr. Eastlack, and assistants
Prerequisite: Chemistry 2a, or 3a.
13b. Advanced Agricultural Analysis.-Special methods in agricultural analysis; theory of the determinations; preparation of solutions; sampling; calculations. Treadwell: Analytical Chemistry, Vol. II. II; (5).

Dr. Beal
Prerequisite: Chemistry 5a or 13a.
14a-14b. Organic Chemistry.-Lectures; recitations. Noyes: Organic Chemistry. I; (4): II; (2). Professor Noves

Prerequisite: Chemistry 5a; should be accompanied by Chemistry 9a and 9b.
15. Physiological Chemistry.-Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic-digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk. Lectures; demonstrations; conferences; practical work; assigned reading. Mathews: Physiological Chemistry; Hawk: Practical Physiological Chemistry. (Open to graduates and undergraduates.) $I$; (5).

Dr. Lewis
Prerequisite: Two years' work in chemistry, including Chemistry 14a-14b and 9 a , or 9 and 9 c .

15a. Problems of Metabolism.-Colloids; animal oxidations; osmosis; adsorption; selective activity of cells; metabolism; activities of gastro-intestinal tract; enzymes; inorganic nutrition. Lectures; demonstrations; conferences. (For medical students.) $I I$; (2).

Dr. Lewis
Prerequisite: Chemistry 15.
16. Chemistry for Engineers.-The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For students in engineering.) $I I$; (3).

Professor Parr, Dr. Broderson
Prerequisite: Chemistry 4; junior standing.
17. Teachers' Course.-Methods of teaching elementary chemistry. $I$; (1).

Dr. Hopkins
21. Qualitative Organic Analysis.-Systematic methods for identification of pure compounds and mixtures. $I$ or $I I$; (2).

Dr. Kamm
Prerequisite: Chemistry 9a, 9b.
22. Animal Chemistry (Animal Nutrition).-The chemical composition of animal products and feeding stuffs. Lectures; conferences; assigned reading; laboratory. I or $I I$; (5). Professor Grindley

Prerequisite: Two years' work in chemistry.
25. Food Analysis.-Quantitative organic analysis, with special reference to the examination of food products: alcohols, carbohydrates, fats and oils, cereals, nitrogenous bodies, preservatives, and colors. Sherman: Organic Analysis and Food Products. Formerly Chemistry 5c. I; (5).

Dr. Beal
Prercquisite: Chemistry 5a or 13a; 9 or 14a-14b.
27. Qualitative Analysis of the Rare Elements.-The rare elements and their compounds; identification and separation of the elements; formation, solubilities, and chemical reactions of their salts. Assigned reading; laboratory. II; (3).

Assistant Professor Weber
Prerequisite: Two years' work in chemistry.
28. Advanced Qualitative Analysis.-Methods of separation; qualitative reagents; reactions of some of the less common elements. (Designed especially for those intending to teach qualitative chemistry.) Lectures, with or without laboratory. $I$; (2-5). ${ }^{1}$

Assistant Professor Weber
31. Elementary Physical Chemistry.-Physical chemistry and electro-chemistry. Lectures; recitations; problems. Washburn: Principles of Physical Chemistry. II; (4). Professor Tolman, Dr. MacInnes

Prerequisite: Chemistry 1, 2a or $3 \mathrm{a}, 5 \mathrm{a}$; Physics $1 \mathrm{a}-1 \mathrm{~b}$, and $3 \mathrm{a}-3 \mathrm{~b}$, or $7 \mathrm{a}-7 \mathrm{~b}$, and $8 \mathrm{a}-\mathrm{8b}$; Mathematics 7 or 8 .
33. Elementary Physical Chemistry.-Molecular weight in gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) $I I$; (2).

Dr. MacInnes, Dr. VanRossen
Prerequisite: Same as for Chemistry 31.
35. Electrochemistry.-(A continuation of Chemistry 31.) Electrochemical reactions. Technical applications; electric furnace processes. Lectures; recitations; laboratory. $I$; (3).

Dr. MacInnes
Prerequisite: Chemistry 31, 33.
36. The Phase Rule and Its Applications.-Equilibria in heterogeneous systems. Lectures; seminar. II; (2).

Dr. VanRossen
Prerequisite: Chemistry 31, 33.
[37. Problems in Physical and Electrochemistry.-Work in the laboratory or library with conferences. $I$; (4). Not given, 1916-17.

Professor Tolman, Dr. MacInnes

## Prerequisite: Chemistry 35 or 102b.]

61. Industrial Chemical Laboratory.-The preparation and purification of chemical products from raw materials on a scale sufficient to afford data for deter-

[^75]mining the economy of the processes employed. (Should be accompanied by either Chemistry 6 or 109.) $I I$; (3). Associate Professor McFarland Prerequisite: Chemistry 5a and 14a.
65. Technical Gas and Fuel Analysis.-Examination of gases, gas mixtures, flue gases and fuels; determination of calorific values; calculation of efficiencies. I; (2).

Dr. Broderson
Prerequisite: Chemistry 5a.
66. Technology of Gases.-The manufacture, constituents, and uses of the various forms of gaseous fuel; calorimetry; photometry; the more exact methods of analysis. Lectures; reading; reports; laboratory. $I I$; (1).

Professor Parr, Dr. Broderson
Prerequisite: Chemistry 65.
66a. Gas Manufacture.-Carbonization processes, ovens and by-products. $I I$; (1).

Professor Parr
69. Metallurgical Laboratory and Assaying.-The fire assay of gold, silver, lead, and copper ores, mattes, and bullion; fluxes, slags, and charge calculations; coal, oil, and gas furnaces; measurement of high temperatures. Fulton: Manual of Fire Assaying. I; (2). Associate Professor McFarland

Prerequisite: Chemistry 5a; Geology 5.
72. Paints, Oils, Turpentines, Varnishes, and Protective Coverings for Wood and Metals.-Lectures; laboratory. I; (2). Professor Parr, Dr. Broderson

Prerequisite: Chemistry 5a and 14a-14b.
73. Asphalt, Tar, and Oil Residues.-Sources, characteristics, composition, and examination; binders and dust preventives used in road construction. (For students in highway engineering.) $I I$; (2). Professor Parr, Dr. Broderson

Prerequisite: Chemistry 2a or 4.

## Courses for Graduates

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the ground covered should include satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to make selections from the following courses: Chemistry 31, 33 (or 102, 102a), 14a, 14b, 9a, 9b, 15 and 25. Courses of a more special nature will not, as a rulc, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5 a and 13 a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 25 university credits in chemistry, properly distributed.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and $9 \mathrm{a}, 9 \mathrm{~b}, 14 \mathrm{a}-14 \mathrm{~b}, 31$ and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.
102. Advanced Physical Chemistry.-(This course with 102a, covers a period of two years.) Thermodynamic methods. The first and second laws; the classical analytical method; the Nernst heat theorem; the concepts of energy, entropy, free energy, thermodynamir potential and fugacity; the applications of thermodynamic
reasoning to the behavior of pure substances, solutions, heterogeneous systems, and chemical equilibria. Practise in the calculation and use of free energy data. Lectures and seminar. Twice a week; I, II; (3/4 unit). Professor Tolman

Prerequisite: Chemistry 31, 33, or a suitable training in advanced physics.
[102a. Advanced Physical Chemistry.-Kinetic-molecular methods. The kinetic theory of gases; entropy and probability; the quantum theory; the molecular structure of liquids and solids; the electron theory of matter in its more qualitative aspects; the newer theories of the structure of the atom. (A continuation of course 102.) Lectures and seminar. Twice a week; I, II; ( $3 / 4$ unit). Not given, 1916-17.

Professor Tolman

## Prerequisite: Same as for 102.]

[102b. Advanced Electrochemistry.-Modern theories of solution; thermodynamics; the transformation of chemical and electrical energy. Twice a week; II; ( $3 / 4$ unit). Not given, 1916-17.

Dr. MacInnes
Prerequisite: Chemistry 102.]
102c. Advanced Problems in Physical and Electrochemistry.-Work in the laboratory or library with conferences. I; ( $1 / 2$ to 1 unit).

Professor Tolman, Dr. MacInnes
Prerequisite: Chemistry 31, 33, 102 or 102a.
76. Calorimetry of Fuels.-(Advanced Course.) Methods for determining the heat values of solid, liquid, and gaseous fuels. $I I$; (2). Professor Parr

Prerequisite: Chemistry 65.
77. Composition and Classification of Coal.-Classification, changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. $I I$; (1).

Professor Parr
Prerequisite: Chemistry 65.
78. Metallography. Constitution and microstructure of metals and alloys and the relations between their properties, chemical and mechanical treatment, and structure. Lectures; reading; laboratory. $I I$; (2).

Associate Professor Mc Farland
Prerequisite: Chemistry 7.
80. The Elements of Glass Blowing.-Laboratory. II; (1). Mr. Anders Prerequisite: Two years' work in chemistry.
[86. The Chemistry of the Higher Order Compounds.-Complex compounds from the standpoint of the Valence Theory as developed by Werner. I; (2). Not given, 1916-17.

Assistant Professor Smith
Prerequisite: Chemistry 9a, 9b, 14a-14b.]
90-91. Chemical Inspection Trips.-(Required for juniors and seniors in the courses in chemistry and chemical engineering. For the year 1916-17 the trips will occur on April 2d to 7th, 1917. The expense involved will approximate fifteen to twenty-five dollars for 'each student.) $I I$; (no credit).

Associate Professor McFarland in charge
92a-92b, 93a-93b. Journal Meeting.-(For juniors, seniors, and graduates in chemistry and chemical engineering.) $I, I I$; (1).

All members of the teaching staff in the chemical department.
Associate Professor McFarland, and Assistant Professor Smith in charge
95. History of Chemistry.-Lectures; assigned reading. $I$; (2).

Assistant Professor Smith
[102d. Electrochemistry.-Theoretical and applied electrochemistry, with emphasis on the technical side of the subject. (For students in electrical engineering.) Once a week; I; ( $1 / 2$ unit). Not given, 1916-17. Dr. MacInnes]

102e. Special Topics in Physical Chemistry.-Subject for 1916-17: General Deductive Methods. I; (1/2 unit). Professor Tolman

Prerequisite: Chemistry 102, 102a.
102f. The Chemistry and Physics of Colloids.-The classification of disperse system; adsorption; ultramicroscopy. Electrical, chemical, optical, and catalytic properties of colloids. Seminar; laboratory. (Given in 1916-17, alternating with 102b.) Twice a week; I; (3/4 unit).

Dr. MacInnes
Prerequisite: Chemistry 31, 33, or 102b.
103. Advanced Inorganic Chemistry.-Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. Two to five times a week; $I, I I ;(1 / 2$ to $11 / 4$ units).

Dr. Hopkins
103a. Advanced Analytical Chemistry.-Special topics. Lectures with or without laboratory. One to five times a week; II; ( $1 / 2$ to $11 / 4$ units).

Assistant Professor Smith
Prerequisite: Chemistry 5b, 9a, 9b, 14a-14b, 31, 33.
103b. Special Topics in Inorganic Chemistry.-Subject for 1916-17: The Chemistry of the Higher Order Compounds. Werner: Neuere Anschauungen auf dem Gebiete der Anorganischen Chemie; assigned reading from later publications. Lectures; seminar. Twice a week; I; (3/4 unit). Assistant Professor Smitr

Prerequisite: Chemistry 9a, 9b, 14a-14b.
103c. Seminar in Inorganic Chemistry.-Once a week. $I, I I ;(1 / 4$ unit $)$.
Dr. Hopkins
103d. Special Topics in Inorganic Chemıstry.-Valence; adsorption. Once a week. I, II; (1/2 unit).

Assistant Professor Weber
104. Advanced Organic Chemistry.-Scminar. The open chain compounds of carbon, hydrogen, and oxygen atoms from the standpoint of the atomic linking theory; tautomerism, stereochemistry; and the carbohydrates. Lectures; discussions; laboratory. Three times a week; I, II; ( $3 / 4$ unit).

Assistant Professor Adams
[104a. Advanced Organic Chemistry.-(Continuation of 104, with which it alternates.) The closed chain compounds of the carbon, hydrogen, and oxygen atoms and of the organic compounds of nitrogen; the ureids, alkaloids. Lectures; discussion, laboratory. Three times a week; I, II; (3/4 unit). Not given, 1916-17.

Assistant Professor Adams]
[104b. Advanced Quantitative Organic Analysis.-Proteins, alkaloids, glucosides, volatile oils, and other constituents of animal and vegetable tissues. Plant analysis. Toxicological analysis. The general methods, chemical and physical, of organic analysis. Lectures and seminar. May be accompanied by laboratory work on a selected group of compounds. Twice a week; I, II; ( $3 / 4$ unit). Not given, 1916-17.

Dr. Beal]
104c. Seminar in Organic Chemistry.-Once a week; $I I$; ( $1 / 4$ unit).
Assistant Professor Adams
105. Advanced Physiological Chemistry.-Structure and distribution of the proteins; intermediary metabolism; the glands of internal secretion. Lectures; demonstrations; assigned readings; discussions. Twice a weck; II; (3/4 unit).

Dr. Lewis
105a. Advanced Physiological Chemistry.-The more difficult biochemical preparations; the use of analytical methods. Laboratory. One to five times a week; I, II; (3/4 unit).

Dr. Lewis
105c. Advanced Physiological Chemistry.-Seminar. Some phases of the recent development of physiological chemistry. Two hours a week; $I, I I ;(1 / 2$ unit).

Dr. Lewis
105d. Chemistry of Plant Nutrition.-The occurrence of organic compounds in plants, and their relation to plant nutrition. Lectures; seminar; laboratory. Two to four times a week; II; ( $3 / 4$ to $11 / 4$ units).

Dr. Muncie
106. Animal Chemistry (Animal Nutrition.) -Recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products; the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. Five times a week; I, II; (1 to $11 / 2$ units).

Professor Grindley
Prerequisite: Two years' work in chemistry.
107. Special Problems in Technology of Fuels.- $I$; (1 unit).

Professor Parr
Prerequisite: Chemistry 77.
108. Advanced Metallography.-Constitution and microstructure of metals and alloys; the relations between their properties, chemical and mechanical treatment, and structure. Assigned reading; laboratory. Twice a week; I; ( $3 / 4$ unit). Associate Professor McFarland
Prerequisite: Chemistry 7 and 78 or equivalent.
109. Advanced Industrial Chemistry. -Seminar. Some of the more important chemical industries; the development and chemical control of processes. Twice a week; I, II; ( $3 / 4$ unit). Associate Professor MacFarland

Prerequisite: Chemistry 6, 9, 14a-14b, 21 or equivalent.
110. Water Supplies.-The sources of contamination of water supplies and the purification of water for potable or technical use. One to five times a week; I, II; ( $1 / 2$ to $11 / 2$ units).

Professor Bartow
111. Research.-A thesis is usually required of students taking the Master's degree and is always required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.) Work may be taken in the following subjects:
Physical and Electrochemistry
Professor Tolman, Dr. MacInnes
Inorganic Chemistry
Assistant Professors Smith, Weber, Dr. Hopkins, Dt. Deming
Analytical Chemistry
Assistant Professor Smith
Dr. Beal
Food Chemistry
Organic Chemistry $\quad$ Professor Noyes, Assistant Professor Adams, Dr. Kamm
Water Chemistry
Professor Bartow
Animal Chemistry (Animal Nutrition) Professor Grindley
Physiological Chemistry
Industrial Chemistry Professor Parr, Associate Professor McFarland

## Summer Session Courses

Note: All the courses in chemistry offered in the Summer Session are equivalent to the courses of the same numbers given during the academic year.

S 1. Elementary Chemistry.-For description, see Chemistry 1. (5). Dr. Hopkins, Dr. Engle, Mr. Rowland
S 1a and S 1b. Inorganic Chemistry.-For description, see Chemistry 1a and Chemistry 1b. (4).

Dr. Hopkins, Dr. Engle
S 2a. Inorganic Chemistry and Qualitative Analysis.-The general chemistry and qualitative analysis of the more common metals and inorganic compounds. (5).

Dr. Hecker, Mr. Rowland
Prerequisite: Chemistry 1 or 1a.
S 3a. Inorganic Chemistry and Qualitative Analysis.-(For students in chemistry and chemical engineering.) (6). Dr. Hecker

Prerequisite: Chemistry 1.
S 17. Teachers' Course.-The methods of teaching elementary chemistry. (1). Dr. Hopkins
Prerequisite: One year's work in chemistry.
*S 5a. Elementary Quantitative Analysis.-For description see Chemistry 5a. (5).

Dr. Beal, Dr. Sears
Prerequisite: Chemistry 1 and 3.
*S 13a. Argicultural Analysis.-For description see Chemistry 13a. (5).
Dr. Beal, Dr. Sears
*S 5c. Food Analysis.-Quantitative organic analysis, with special reference to the examination of food and drug products; alcohols, carbohydrates, fats and oils, animal and vegetable foods, nitrogenous bodies, preservatives, and colors. Sherman's Organic Analysis and Sherman's Food Products, "Bulletin 107, rev., U. S. Bureau of Chemistry." (5). Dr. Beal, Dr. Sears
${ }^{*}$ S 9a. Organic Synthesis.-For description, see Chemistry 9a. (2).
Assistant Professor Derick, Dr. Johnson
Prerequisite: Registration in Chemistry S 14.
${ }^{*}$ S 9b. Organic Synthesis.-(Continuation of S 9a.) (2).
Assistant Professor Derick, Dr. Johnson
Prerequisite: Chemistry S 9a and registration in Chemistry S 14b.
*S 14a. Organic Chemistry. -For description see Chemistry 14a. This course may be substituted for Chemistry 9 of the academic year. (3).

Assistant Professor Derick, Dr. Jounson
Prerequisite: Chemistry 2 and 3.
*S 14b. Organic Chemistry.-For description, see Chemistry 14b. (3).
Assistant Professor Derick
Prerequisite: Chemistry S 14 a or equivalent.
*S 11 and *S 111. Research.-For description, see Chemistry 11a-11b, and Chemistry 111. Assistant Professor Derick, Dr. Beal, Dr. Lewis
${ }^{*}$ S 15. Physiological Chemistry.-For description, see Chemistry 15. (5 or 7). ${ }^{1}$ Dr. Lewis
*S 92. History of Chemistry.-Periods, theories, leaders; use of literature. Lectures, reports, reference work. (1). Assistant Professor Derick

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# CIVIL ENGINEERING 

Frederick Haynes Newell, B.S., D.Eng., Professor<br>Ira Osborn Baker, B.S., C.E., D.Eng., Professor<br>Charles Alton Ellis, A.B., Professor<br>James Elmo Smith, B.S., C.E., Assistant Professor<br>Wilbur M Wilson, M.M.E., C.E., Assistant Professor<br>Carroll Carson Wiley, B.S., C.E., Associate<br>Neal Bryant Garver, B.S., C.E., Associate<br>George Wellington Pickels, Jr., B.C.E., C.E., Associate<br>William Horace Rayner, B.S., C.E., Instructor<br>Raymond Earl Davis, M.S., C.E., Instructor<br>C Stanley Sale, B.S., Instructor<br>Benjamin Lester Bowling, Assistant in Highway Laboratory

## Courses for Undergraduates

27. Plane Surveying.-Transit, and level; computation of areas and volumes and partitioning of land; the U.S. land survey methods, re-establishment of corners and boundaries, and interpretation of deeds; farm and city surveying; topographic surveying; map construction. Problems with the tape, stadia, transit, and level. Breed and Hosmer: Principles and Practise of Surveying, Vol. I.; and Davis: Manual of Surveying. I; (3).

Mr. Rayner, Mr. Davis
Prerequisite: General Engineering Drawing 1, 2; Mathematics 4.
28. Higher Surveying.-Transit, sextant, and plane-table in making topographic and hydrographic surveys; methods; determination of latitude, longitude, and azimuth by stellar and solar observations; topographic drawing; precise surveys; adjustment of a triangulation system; computations for coordinates; elements of geodesy. Breed and Hosmer: Principles and Practise of Surveying, Vol. II. Davis: Manual of Surveying. II; (3). Mr. Pickels, Mr. Rayner, Mr. Davis

Prerequisite: Civil Engineering 27; Physics 1a, 3a, and registration in Physics 1b, 3b.
31. Surveying.-The compass, level, transit, and plane-table. The determination of distances by pacing, and with chain and tape, and of areas with compass and transit; profle leveling; problems with plane-table Davis: Manual of Surveying. (For students in landscape architecture.) $I$; (3).

Mr. Pickels
Prerequisite: Mathematics 4; Architecture 31, 32.
32. Topographic Surveying.-The stadia; conventional topographic signs; contour construction; its use in grading and drainage problems; advanced work with the plane-table. Each student will prepare a large scale topographic map of a portion of the campus. Davis: Manual of Surveying. (For students in landscape architecture.) II; (3).

Mr. Pickels, Mr. Rayner
Prerequisite: Civil Engineering 31.
35. Surveying.-Compass, level, transit, and plane-table. The determination of distances with tape and by stadia; the determination of areas with the compass and transit; differential and profile leveling; the U. S. land survey methods; elements of topographic surveying. Breed and Hosmer: Principles and Practise of Surveying, Vol. I.; and Davis: Manual of Surveying. (For mining engineering students and others who do not expect to take Civil Engineering 28.) I; (3).

Mr. Rayner
Prerequistte: Physics 1 b and 3 h
51. Railroad Surveying.-Economic location, construction, and maintenance of railways. Curves, turnouts, and earthworks. Preliminary and location surveys of a line of sufficient length to secure familiarity with the methods in actual practise. Each student makes a complete set of maps, profiles, and estimates. Pickels and Wiley: Railroad Surveying. I; (5).

Assistant Professor Smitr, Mr. Wiley Mr. Pickels
Prerequisite: Civil Engineering 27, 28.
52. Roads and Pavements.-Construction and maintenance of earth, gravel, macadam, concrete, brick and bituminous roads; street pavements, and accessories. Road-building machinery. Effect of travel on road surfaces. Dust prevention and street cleaning. Baker: Roads and Pavements. II; (3).

Assistant Professor Smith, Mr. Wiley
Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering $27,28,51$.
53. Railroad Surveying.-First eleven weeks of Civil Engineering 51, for juniors in municipal and sanitary engineering. $I$; (3).

## Assistant Professor Smith

Pererquisite: Civil Engineering 27, 28.
55. Roads and Pavements.-(For students in landscape gardening.) Blanchard: Elements of Highway Engineering. I; (2).

Mr. Garver
58. Graphic Statics.-Determination of stresses in roof trusses and in threehinged arches. Malcolm: Elements of Graphic Statics. (For students in mining engineering.) II; (2). Assistant Professor Smitr

Prerequisite: Theoretical and Applied Mechanics 20, 25.
60. Structural Stresses.-The determination of stresses in roofs, bridges, and steel-skeleton buildings, by algebraic and graphic processes. II; (4).

Professor Ellis, Assistant Professor Wilson
Prerequisite: Mathematics 2, 4, 6; Theoretical and Applied Mechanics 20, 21, 29, 10; General Engineering Drawing 1, 2.
62. Structural Details.-Design of details for roofs, bridges, and steel-frame builaings; detail drawings and shop bills. Carnegie: Pocket Companion, last edition. II; (2).

Mr. Garver
Prerequisite: Registration in Civil Engineering 60.
70. Seminar.-Reading and discussion of papers. Each student presents one major and two minor papers upon assigned topics, and participates in the discussion of other papers. $I I$; (1).

Professor Baker, Mr. Davis
Prerequisite: Full junior standing in civil engineering.
76. Surveying.-(For ceramic engineering students.) Plane and topographic surveying. Adjustment and use of the transit, level, and plane-table. Computations for areas and volumes; map and profile construction; land surveying, location of contours, differential and profile leveling. Davis: Manual of Surveying. II; (2).

Mr. Pickels
Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Physics 1a-1b, 3a-3b.
77. Masonry Construction.-Baker: Masonry Construction. I; (4).

Professor Baker, Mr. Sale
Prerequisite: Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60.
79. Cement Laboratory Practise.-Standard tests for hydraulic cement. I; (1). Mr. Sale, Mr. Bowling
Prerequisite: Theoretical and Applied Mechanics, 20, 21, 29, 10; Civil Engineering 60; Registration in Civil Engineering 77.
80. Engineering Contracts and Specifications.-The law of contracts; general and technical clauses used in engineering specifications. Johnson: Engineering Contracts and Specifications. II; (2). Professor Barer

Prerequisite: Full senior standing in the College of Engineering.
81. Theory of Reinforced Concrete.-Reinforced concrete beams, columns and slabs. Hool: Reinforced Concrete Construction. I; (2). Professor Ellis

Prerequisite: Full senior standing in the College of Engineering.
32. Reinforced Concrete Design.-Plain and reinforced structures. Hool: Reinforced Concrete Construction, Vol. II. II; (4).

Prerequisite: Civil Engineering 81.
83. Bridge Design.-Determination of stresses and sections of a plate girder and a truss span; stress sheet, general design drawings, and estimate of weights. Johnson, Bryan and Turneaure: Modern Framed Structures, Part III. (For railway civil engineers, and civil engineers taking the general civil engineering option.) I; (3).

Assistant Professor Wilson
Prerequisite: Civil Engineering 60, 62.
85. Steel Bridge Design.-The same as 83 above, but a fuller course. Johnson, Bryan and Turneaure: Modern Framed Struciures, Part III. (For civil engineers taking the structural engineering option.) $I$; (5).

Assistant Professor Wilson
Prerequisite: Civil Engineering 60, 62.
87. Advanced Bridge Analysis.-Continuous, draw, cantilever, suspension, and metal-arch bridges. $I$; (2).

Professor Ellis
Prerequisite: Civil Engineering 60, 62; and registration in Civil Engineering 83 or 85 .
88. Steel Building Design.-Stresses and sections of the steel frame of mill and office buildings; footings and grillages; design drawings and estimate of weights. II; (3).

Assistant Professor Wilson
Prerequisite: Civil Engineering 60, 62.
89. Hydro-Ecomonics.-The occurrence of water in nature; its conservation, regulation, and use for power and in industries; irrigation, drainage, transportation, domestic supply; the legal title to the use of water. $I$; (2). Professor Newell

Prerequisite: Senior Standing.
90. Hydro-Economics.-(A continuation of Civil Engineering 89.) II; (2). Professor Newell

## Prerequisite: Civil Engineering 89.

91. Highway Bridge Design.-Types of highway bridges; determination of location, size, and type. Steel bridges, beam, low-truss, and through-truss; methods and cost of construction. I; (4).

Mr. Garver
Prerequisite: Civil Engineering 60, 62.
92. Concrete Bridges and Culverts.-Reinforced-concrete slab, girder, and arch bridges; falsework and forms; estimates of quantities; costs. $I I$; (2).

Mr. Garver
Prerequisile: Civil Engineering 77, 79, 81, 91.
93. Road Construction.-Design; preparation of plans, specifications, and estimates of cost. Recent developments in types and methods of construction. I; (3).

Mr. Wiley
Prerequisite: Civil Engineering 52; Theoretical and Applied Mechanics 21, 29.
94. Highway Administration.-Road iaws and administration in Europe and America; taxation and methods of financing road worls; the relation of highway improvement to social and coonomic welfare. $I I$; (3).

Mr. Wiley
Prerequisite: Senior standing in civil engineering.
96. Road Laboratory.-Esamining and testing bituminous and non-bituminous road materials; interpretation of the results. $I I$; (2).

Mr. Wiley, Mr. Bowling
Prereguisite: Civil Enginecring 52, 77, 79; registration in Chemistry 73.
97-98. Thesis.-A problem in investigation or design, subject to the approval of the head of the department. Only students of high standing are permitted to take a thesis. $I ;(1): I I$; (2 or 3 ). ${ }^{1}$

Prerequisile: Full senior standing in civil engineering.
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance on graduate work in civil engineering presupposes the full undergraduate course in that subject.
101. Irrigation and Drainage.-The survey, examination, construction, maintenance, and operation of works for irrigation and drainage of agricultural lands; water rights. Twice a week; I, II; ( $1 / 2$ unit).

Professor Newell
107. Bridge Engineering.-Deflections; the statically indeterminate frame; swing bridges and arches; special graphic methods; suspension bridges; secondary stresses; impact. Two or three times a week; I, II; (1 unit or more).

Professor Ellis
124. Steel Building Construction.-Steel framing of fireproof office buildings, hotels, and industrial buildings; wind bracing; eccentrically loaded columns; analysis of special details; erection methods and costs. Twice a week; $I, I I$; (1 unit or more). Assistant Professor Wilson

## THE CLASSICS

Herbert Jewett Barton, A.M., Professor, Chairman
Charles Meville Moss, Ph.D., Professor
William Abbott Oldfather, Ph.D., Professor
Arthur Stanley Pease, ${ }^{2}$ Ph.D., Professor
Howard Vernon Canter, Ph.D., Associate Professor
Rodney Potter Robinson, A.M., Assistant
John Douglas McKinley, A.M., Graduate Assistant

[^77]GREEK
Major: 20 hours, excluding Greek 1a-1b, 17, 18, and 19.
Minors: 20 hours chosen from foreign languages (Latin being especially recommended), English literature, history, and philosophy.

## Latin

Major: 20 hours, excluding Latin 1a, 6a, and 12.
Minors: 20 hours chosen from foreign languages (Greek being especially recommended), English literature, history and philosophy.

## CLASSICS

Major: 20 hours in Greek and Latin, excluding Greek 1a-1b, 16, 17, 18, 19, and 20, and Latin 1a, 6a, 12, 13, and 19. At least six hours shall be carried in the secondary language and the remaining hours in the primary language.

Minors: 20 hours chosen from foreign languages, English literature, history, and philosophy.

## GREEK

## Courses for Undergraduates

The courses in translation naturally follow each other in the following sequence: $1 \mathrm{a}-1 \mathrm{~b}, 3,7$ (5), 6 (8). Courses $1 \mathrm{a}-1 \mathrm{~b}, 3$, and 4 are intended for students who cannot present Greek for entrance to the University, but who desire to commence the study of the language. Course $2 \mathrm{a}-2 \mathrm{~b}$, may be taken after course $1 \mathrm{a}-1 \mathrm{~b}$ and course 14 after courses 5 or 7 . Courses $16,17,18$, and 19 are open to sophomores, juniors, and seniors; 20 is open to those who have completed one year in history or classics.

1a-1b. Grammar and Reader.-First semester: Attic forms; reading of simple prose. Second semester: Xenophon's Anabasis, Book 1. I, II; (4). Mr. Robinson
2a-2b. New Testament Greek.-First semester: Reading of selections. Second semester: Lectures on Canon and Text. I, II; (2). Professor Moss

Prerequisite: Greek 1.
3. Second year Greek.-Xenophon's Anabasis, Books II-IV; grammatical drill. $I_{\text {; ( }}$ (3). Mr. Robinson

Prerequisite: Greek 1.
4. Second Year Greek.-Homer, six Books of the Iliad. II; (3).

Mr. Robinson
Prerequisite: Greek 3.
7. Greek Drama.-Three plays from the great dramatists. II; (3).

Professor Moss
Prerequisite: Greek 4.
8. Piato.-Selected dialogues, including the Apology and the Phaedo. I; (3).

Professor Oldfather
Prerequisite: Greek 4.
14. Greek Prose Composition.-II; (1).

Prerequisite: Greek 5 and 6 , or 7 and 8 .

## Greek Life and Literature in English

(Courses 16-20 presuppose no knowledge of Greek and are open to all students except freshmen.)
16. The Private and Public Life of the Greeks.-Lectures illustrated by photographs and slides; prescribed readings; $I$; (1). Professor Moss
17. Greek Poetry in Translations.- $I$; (2). Professor Moss
18. Greek Prose in Translations.-I; (2). Professor Moss
19. Greek Drama in Translations.-II; (2). Professor Moss
20. Greek History.-(This course is described by the department of history as History 5.) $I$; (3).

Professor Oldfaterer
Prerequisite: One course in history or the classics. Not open to freshmen.

## Courses for Graduates

104. Homer and the Homeric Question.-Lectures and readings. $I, I I$; (1 unit).

Professor Oldfather
107. Greek Oratory.-One or more speeches of each of several orators; lectures and reports. I, II; ( 1 unit).

Professor Moss
110. Bibliography and Criticism.-Once a week; I, II; (11/4 unit).

Professor Oldfather and others

## LATIN

1a-1b. Ovid and Virgil.-First semester: Selections from the Amores, Heroides, and Metamorphoses. Second semester: Selections from the Aeneid. I, II; (4) Mr. McKinley
Prerequisite: Three entrance units in Latin.
2a-2b. Livy, Plautus, and Terence.-First semester: Selections from Livy, the story of Hannibal. Second semester: The Rudens and the Captive of Plautus and the Phormio of Terrence. I, II; (4). Professor Barton

Prerequisite: Four entrance units in Latin.
3. Sallust and Cicero.-Selections from the Jugurthine War; De Senectute. I; (3).

Associate Professor Canter
Prerequisite: Latin 2a-2b.
4. Horace and Catullus.-Selections. II; (3). Mr. Robinson

Prerequisite: Latin 2a-2b.
5a-5b. Latin Composition.-Grammatical drill and practise in the simpler forms of expression. I, $I I$; (1).

Mr. Robinson
Prerequisite: Latin 1a-1b or its equivalent.
6. Cicero.-Selections from the Orations. I; (4). Mr. Robinson

Prerequisite: Two entrance units in Latin.
Roman Life and Literature in English
(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen).
12. Virgil and Horace in English Translations.-The Aeneid and selections from Horace. $I$; (2).

Professor Barton
13. Roman Life.-The family, organization of society, education, marriage, amusements, with some attention to the monuments. Lectures and assigned readings illustrated by photographs and slides. II; (1). Professor Barton

## 19. Roman History.-(This course is described by the department of history

 as History 6.) Not open to freshmen. II; (3).
## Associate Professor Canter

9. Teachers' Course.-The purpose and methods of preparatory Latin instruction; the teacier's preparation. $I I$; (2).

Professor Barton
Prerequsite: 18 hours in Latin. A portion of this requirement may be waived in the case of those who have taught Latin.
10. Latin Composition.-The leading principles; imitation of assigned models. II; (2).

Professor Barton
Prerequisite: 12 hours of Latin, including Latin 5a-5b or equivalent.

## Courses for Advanced Undergraduates and Graduates

7. Horace and Juvenal.-Selections. I; (3).

Professor Barton
Prerequisit: 12 hours in Latin.
14. Seneca.-Selections from his letters and tragedies. iI; (3).

Professor Barton
Prerequisite: 15 hours in Latin.
21. Special Topics in Ancient History.-(This course is described by the department of history as History 11.) The decline of ancient civilization. II; (3). Professor Oldfather
Prerequisite: Junior Standing.

## Courses for Graduates.

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.
102. Roman Oratory.-Twice a week; II; (1 unit).

Associate Professor Canter
106. Terence.-Twice a week; II; (1 unit).

Professor Oldfather
108. Tacitus.-The Histories. Twice a week; I; (1 unit).

Professor Barton
110. Bibliography and Criticism.-Once a week; $I, I I$; ( $1 / 4 \mathrm{unit}$ ).

Professor Oldfather and others
112. Roman Historiography.-Twice a week; I; (1 unit).

Associate Professor Canter
114. Caesar.-Twice a week; II; (1 unit).

Professor Oldfather
115. Roman Elegy.-Twice a week; I; (1 unit).

Associate Professor Canter

## Summer Session Courses

S 1. Plautus.-Reading of three plays; discussions of the language and verse of comedy. ( $21 / 2$ ).

Associate Professor Canter
Prerequisite: Three or four years of high school Latin.
S 2. Catullus and Horace.-Selections from the lyric poetry of these authors. (2).

Professor Oldfather
S 3. Roman History.-Illustrated lectures; assigned readings. (2)
Professor Oldfather

S 4. Teachers' Course.-For description, see Latin 9. (1).
Associate Professor Canter
*S 115. Roman Elegy.-The origin and development of elegy as a department of literature on Greek and Roman soil; elegy in its relation to other lyric forms; lectures and reports; translations from Catullus, Tibullus, and Propertius. (1 unit). Associate Professor Canter
(Sabject to approval of Graduate School Faculty.)

## COMMERCIAL LAW

## (See Business Organization and Operation.)

## COMPARATIVE LITERATURE

## Joseph Eugene Gillet, Ph.D., Associate in Comparative Literature and German

1. Tragedy.-Theory and practise from classical times to the present day. Lectures; readings; reports. $I$; (3) Dr. Gillet
Prerequisite: Two years of college work or the permission of the instructor. Foreign language is not required.

Note.-Comparative Literature 1 may be counted toward a major in English or toward a minor in German, in French or in Romance Languages.
2. Comedy.-Theory and practise from classical times to the present day. Lectures; readings; reports. $I I$; (3).

Dr. Gillet
Prerequisitc: Two years of college work, or the permission of the instructor. Foreign language is not required.

Note.-Comparative Literature 2 may be counted toward a major in English or toward a minor in German, in French or in Romance Languages.

## COMPARATIVE PHILOLOGY

Leonard Bloomfield, Ph.D., Assistant Professor

## For Advanced Undergraduates and Graduates

1. Introduction to the Study of Language.-Phonetics; the development of forms of speech; dialects and the spread of languages; the study and teaching of language. $I$; (3).

Assistant Professor Bloomfield
Prerequisite: The consent of the instructor.
2. Comparative Philology of the Indo-European Languages.-Attention will be given chiefly to Greek, Latin, and the Germanic languages, including English. II; (2).

Assistant Professor Bloomfield
Prerequisite: The consent of the instructor.
[3. Elementary Sanskrit.-Reading and grammar. $I$; (3). Not given, 1916-17.

Assistant Professor Bloomfield
Prerequisite: The consent of the instructor.]
4. Elementary Sanskrit.-Continuation of 3. II; (3).

Assistant Professor Bloomfield
Prerequisite: Comparative Philology 3.

# DAIRY HUSBANDRY 

Harry Alexis Harding, Ph.D., Professor, Dairy Bacteriology
Wilbur John Fraser, ${ }^{1}$ M.S., Professor, Dairy Farming
Nelson William Hepburn, M.S., Assistant Professor, Deiry Manufactures
Martin John Prucha, Ph.D., Assistant Professor, Dairy Bacteriology
Ray Stillman Hulce, M.S., Associate, Milk Production
Edward Frederick Kohmann, Ph.D., Associate, Dairy Chemistry
Harrison August Ruehe, M.S., Associate, Dairy Manufactures
William Wodin Yapp, M.S., Instructor, Dairy Husbandry
Paul William Allen, M.S., Insiructor, Dairy Bacteriology
Leighton J True, B.S., Assistant, Dairy Manufactures
Chris Simeon Rhode, B.S., Assistant, Dairy Husbandry
Edward G Squire, B.S., Assistant, Dairy Manufactures
Russell Starkey Bracewell, A.B., Assistant, Dairy Chemistry

## Courses for Undergraduates

1. Milk Testing.-Babcock test; tests for purity and adulteration; lactometer; tests for acidity, moisture, and salt; qualitative separation of milk into its components; the composition of milk. Lectures; recitations; problems; laboratory; assigned readings. $I$ or $I I$; (3).

Dr. Kohmann, Mr. Bracewell
2. Dairy Cattle.-Selection, feeding, and management; dairy type; herd improvement; history, characteristics, and adaptability of breeds; milking machines; barn arrangements; herd management. (Students having credit in Dairy Husbandry 16 should register for laboratory work only, for which they will receive two hours' credit. All others must register for both lectures and laboratory.) Lectures; recitations; laboratory. $I$; (5).

Mr. Hulce, Mr. Yapp
Prerequisite: Animal Husbandry 5, 8, and 21, or their equivalent.
3. Elements of Dairy Husbandry.-The dairy herd; dairy sanitation; milk testing; milk; milk products. (Required of all freshmen in the general curriculum in agriculture.) Lectures; demonstrations. $I$ or $I I$; (1).

Mr . YAPP and other members of the department
4. Ice Cream Making.-Mixing and freezing; freezers: flavoring materials, fillers, and binders; ice cream standards; condensed milk; artificial refrigeration. (This course is accompanied by one inspection trip, costing from $\$ 10$ to $\$ 15$.) $I$ or $I I$; (3).

Mr. Ruehe, Mr. Squire
Prerequisite: Dairy Husbandry 1 or 5 .
5. The Composition of Dairy Products.-Rapid commercial tests; milk proteins; milk fat. Lectures; recitations; problems; assigned reading; laboratory. II; (3).

Dr. Kohmann, Mr. Bracewell
Prerequisite: Chemistry 13a. It is desirable that students registering in this course take Chemistry 9 or its equivalent, which after 1919-20 will be made a prerequisite.
6. Germ Life and the Dairy.-Lectures; assigned readings. $I$; (1).

Professor Harding, Mr. Allen
7. Creamery Buttermaking and Factory Management.-Types of creameries; raw product; grading; pasteurization; commercial starters; ripening, churning. salting, and working butter; butter composition and scoring; making, packing, and storing butter; creamery by-products; refrigeration. Creamery location and

[^78]plans; business management and accounting. (This course is accompanied by one inspection trip costing from $\$ 10$ to $\$ 15$.) Lectures; assigned readings; laboratory. $I I$; (5). Assistant Professor Hepburn

Prerequisite: Dairy Husbandry 1. After 1917-18 Accountancy 1a and 1b will be made prerequisite. After 1918-19 the requirements will be Dairy Husbandry 5 and Accountancy 1 a and 1 b .
8. City Milk Supply.-Production, transportation, plant, and delivery. $I I$; (2).

Professor Harding
11. Dairy Bacteriology.-The bacteria of milk and its products; methods of introduction, effect, and methods of control. Lectures. $I$; (2).

Professor Harding, Mr. Allen
Prerequisite: Bacteriology 1 or 5 ; two years of university work.
12a-12b. Dairy Bacteriology.-The bacteria in milk and its products. Laboratory. $I, I I$; (4).

Professor Harding, Mr. Allen
Prerequisite: Bacteriology 1 or 5 ; two years of university work.
13. General Course in Dairy Manufactures.-Milk production, care, and distributicn; the hand separator; handling cream and making and marketing butter on the farm; soft cheese; Neufchatel; cream; pimento; cottage; manufactured milk drinks; ice cream making; plans and equipment for the farm dairy. (For the student who has only a general interest in the subject of dairy manufactures.) $I$; (3). Assistant Professor Hepburn and other members of the department.
17. Advanced Study of Dairy Breeds.-History, environment; breed characteristics; prominent families and individuals; pedigree work; official tests; advanced registry. Lectures; assigned reading; seminar work. $I I$; (2).

Mr. Yapp

Prerequisite: Two years of university work; Animal Husbandry 8; Dairy Husbandry 2.
21. Systems of Dairy Farming.-Relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd; economy of crops and rations; systems of cropping; organization of the farm; location and arrangement of buildings and lots; accounts, records, and inventories; markets; care and disposal of milk. II; (5).

Professor Fraser

## Prerequisite: Dairy Husbandry 2.

22. Cheese Making.-Ripening and setting milk; cutting, cooking and dipping curd; cheddaring, milling, matting, and salting curd; pressing and curing cheese; cottage, Neufchatel, and other varieties; practise in making the more common varieties. I; (2).

Mr. Ruehe
Prerequisite: Dairy Husbandry 1.
23a-23b. Investigation and Thesis.-I, $I I ;(5-10) .{ }^{1}$
Professor Harding, Professor Fraser, Assistant Professor Hepburn, Mr. Hulce, Dr. Kohmann.

## Courses for Graduates

101. Economic Milk Production.-Differences in the efficiency of dairy cows, the cause and effect of these differences and their relation to successful dairy farming. Twice a week; $I, I I$; ( 1 unit). Given only second semester, 1916-17.

Professor Fraser

[^79]104. Scientific Readings.-Reading and discussion of some German or French bacteriological text. (Recommended for first and second year students.) $I, I I$; ( $1 / 2$ unit).

Professor Harding, Assistant Professor Prucha
105. Bacteriological Literature.-Assigned readings. Each student will be required to prepare and deliver an acceptable course of lectures. (Recommended for scond and third year students.) Once a week, or once in two weeks; I, II; ( $1 / 2$ or 1 unit).

Professor Harding
106. Research on Assigned Problems.-Assigned reading; laboratory ; reports. (Open to graduate students whose development permits their undertaking problems of dairy bacteriology with only general supervision.) $I, I I$; ( $1 / 2$ to 2 units). Professor Harding, Assistant Professor Prucha
107. Dairy Chemistry.-Assigned reading and problems. Once a week; $I, I T$; (1 unit).

Dr. Kohmann

## DRAWING, GENERAL ENGINEERING

Harry Willard Miller, M.E., Assistant Professor
Harvey Herbert Jordan, B.S., Associate
Francis Marion Porter, M.S., Associate
Rufus Crane, A.B., B.S., Instructor
Claarence Allen Atwzll, B.S., Instructor
Leo Starr Baldwin, B.S., Instructor
Merton Ford Banks, Assistant
Robert Emmet Murphy, Half-time Assistant

1. Elements of Drafting.-Lettering, isometric oblique and perspective drawing, oithographic projection; machine sketching; working drawings. Lettering; mechanical styles and the making of name plates and titles. Mechanical drawing; 12 plates from specifications and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines; complete working drawings. Tracings duplicated in bluc-print form. Time sketches of equipment. More advanced worl is given to students who have had nigh school drawing. Miller: Mechanical Drafting. I or II; (4).

The Department staff
2. Descriptive Geometry.-The point, line, and plane; the properties of surfaces; intersections and developments (for architects, perspective instead of intersections and developments). Practical problems; recitations. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each per week. Miller: Descriptive Geometry. I or II; (4). The Department staff

Prerequisite: Solid geometry, college algebra, plane trigonometry.
21. Advanced Descriptive Geometry.-Review of course 2; the cylinder, cone, convolute, and warped surface; intersections of these surfaces in pairs, and by planes; planes tangent; developable and approximately developable surfaces and doubly curved and complex surfaces of revolution; practical applications and methods. $I I$; (2).

Mr. Porter
Prerequisite: General Engineering Drawing, 1, 2.

## ECONOMICS

(See also Business Organization and Operation, and Transportation.)

David Kinley, Ph.D., LL.D., Professor<br>Maurice Henry Robinson, Ph.D., Professor<br>Ernest Ludlow Bogart, Ph.D., Professor

Nathan Austin Weston, Ph.D., Assistant Professor
Simon Litman, Dr.Jur.Pub.et Rer.Cam., Assistant Professor
Charles Manfred Thompson, Ph.D., Assistant Professor
John Giffin Thompson, Pli.D., Instructor
Charles Leslie Stewart, Pl.D., Instructor
Henry Elmer Hoagland, A.M., Instructor
Frederic Arthur Russell, Ph.D., Instructor
Mervin Harold Hunter, Ph.D., Instructor
Paul Howard Douglas, A.M., Instructor
Josepe Boyce Vernon, A.B., Assistant
William Henry Dreesen, A.M., Assistant
Maurice Elzin Murphy, A.M., Assistant
Pembroke Holcomb Brown; A.B., Assistant
Major: For students in the College of Liberal Arts and Sciences twenty hours, made up of Economics 1 and any other courses for which it is a prerequisite.

Minor: Twenty hours in any one or two of the following subjects: history, philosophy, political science, and sociology.

Economics, 7, 22, and 26 are open to freshmen without previous requirement. Economics 27 is also open to freshmen, but requires credit in course 26 or an approved high school course in commercial geography.

Economics 1 and 3 are the fundamental courses in economics. They are prerequisites for most of the advanced courses and students expecting to do advanced work in economics should take them both in their sophomore year.

Economics 2 though open to all students who have had 30 hours of university work, is primarily for students in the colleges of Agriculture and Engineering and in courses in household science, chemistry, chemical engineering and other sciences. It may not be used as a prerequisite for advanced courses in economics except as indicated.

## Courses for Undergraduates

1. Principles of Economics.-(See note preceding the description of courses in economics above.) $I$; (5).
Assistant Professor C. M. Thompson, Dr. J. G. Thompson, Dr. Stewart, Mr. Hoagland, Dr. Russell, Dr. Hunter, Mr. Douglas, and assistants.

Prerequisile: Thirty hours of University work
2. Principles of Economics.-(See note preceding the description of courses in economics above.) $I I$; (3).
Assistant Professor C. M. Thompson, Dr. Stewart, Mr. Hoagland, Dr. Russell, Dr. Hunter, Mr. Douglas.

Prerequisite: Thirty hours of university work.
3. Money and Banking.-The history and theory of money, credit, and banking. (See note preceding the description of courses in economics above.) $I I$; (3). Assistant Professor Weston, Dr. Stewart, Dr. Hunter, Mr. Douglas, and assistants.

Prerequisite: Economics 1.
7. English Economic History.-Industriai development; manorial system; guilds; commercial policy and expansion of the seventeenth and eighteenth centuries; industrial and manufacturing growth of the nineteenth century. (Open to freshmen and sophomores only.) $I$; (3).

Professor Bogart

16c. Agricultural Economics.-The application of the principles of economics to the problems of agriculture. II; (3). Dr. J. G. Thompson

Prerequisite: Economics 1 or 2.
22. The Economic History of the United States.-Explorations and settlements leading to the colonization of this continent; growth of industry, agriculture, commerce, transportation, and labor from the agricultural communities of tine colonies to the industrial and commercial society of today. (Open to freshmen only.) II; (3). Professor Bogart, Assistant Professor C. M. Thompson, and assistants.
23. Statistics.-Sources of data; purposes of statistics; preparation of schedules; analysis of retuins; averages and index numbers; frequency tables; graphic methods; limitations of statistics; application of statistical methods to current problems. II; (3).

Mr. Hoagland
Prerequisite: Economics 1.
26. Economic Resources.-Environment influences affecting commercial and industrial development; products and industries of different countries; the extent and distribution of the resources and the industrial and commercial activities of the United States. (Open to freshmen and sophomores only.) I; (3).

Assistant Professor Litman, Dr. Russell, Dr. Hunter, and assistants
27. Nodern Industries.-The raw materials of commerce; geographical distribution; the leading industries which utilize these materials; sources of power; investment of capital; employment of men and of machinery; stages of production; distribution of finished commodities. (Open to freshmen and sophomores only.) II; (3). Assistant Professor Litman, and assistants
Prerequisite: Economics 26, or an approved high-school course in commercial geography.
32. Marketing Farm Produce.-Prices; seasonal aspects; middlemen; speculation; transportation; terminal problems; regulative and protective legislation; crop statistics; public markets; direct sales; European and American marketing conditions. II; (2).

Dr. Stewart
Prerequisite: Economics 1 or 2.
33. Economics of Insurance.-The historical development and economic aspects of insurance. $I$; (2).

Professor Robinson
Prerequisite: Economics 1 and 3.
34. Property Insurance.-Technical characteristics and economic effects of fire, marine, title, and credit insurance and corporative suretyship. $I I$; (2).

Professor Robinson
Prerequisite: Economics 1 and 3.
35. Corporations.-Organization and financial management of corporations: promotion, issuance of securities, capitalization, financial accounting, insolvency, and reorganizations. (Open to junior and senior engineering students only.) $I$; (3).

Professor Robinson
Prerequisite: Economics 1 or 2.

## Courses for Undergraduates and Graduates

4. Financial History of the United States.-Colonial, revolutionary, and federal finances: receipts and expenditures, the debt, war finance, internal revenue and the
fiscal aspects of the tariff; currency and coinage and the inflationist movements. I; (3).

Mr. Douglas
Prerequisite: Economics 1 and 3; senior standing.
5. Public Finance.-Public expenditures; financial adininistration; taxation; public debts. I; (3). Professor Bogart, Professor Robinson, Mr. Douglas

Prerequisite: Economics 1 and 3. Students who have had 6 hours in history and Political Science 1, and who present a statement from the department of political science showing that they are taking political science as a major, may be admitted without Economics 3.
8. The Money Miarket.-II; (2).

Assistani Professor Weston
Prerequisite: Economics 1 and 3, Business Organization and Operation 1, senior standing. For the present year former Economics 6 will be accepted instead of Business Organization and Operation 1.
9. Practical Banking.-I; (2). Assistant Professor Weston

Prerequisite: Economics 1 and 3; Business Organization and Operation 1; senior standing. For the present year former Economics 6 will be accepted instead of Business Organization and Operation 1.
10. Corporation Management and Finance.-Growth, causes, and forms of corporation; promotion, financiering, incorporation, and capitalization of consolidations; organization and securities; stockholders and directors; reports; stock speculation; relation of industrial corporations to international competition; receiverships and reorganizations; social and political effects. $I I$; (3).

Professor Robinson
Prerequisite: Economics 1 and 3.
11. Industrial Consolidation.-Growth of monopoly; monopoly prices and methods; ability of trusts to affect prices, wages, interests, and profits; proposed plans for controlling trusts. $I$; (3).

Professor Robinson
Prerequisite: Economics 10.
12a-12b. Labor Problems.-First semester: The wage earning class; relations with other classes; early organizations; free land and growth of industry; modern trade unions; employers' associations; comparison with European experience. Second semester: Collective bargaining; unorganized labor; immigration; woman and child labor; industrial education; unemployment; bonus systems; industrial peace; labor legislation; attitude of the public. (The second semester's work may not be taken without the first except with the consent of the instructor.) $I, I I ;$ (3). Mr. Hoagland

Prerequisite: Graduate or senior standing; Economics 1 and 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major, may be admitted without Economics 3.
13. Economic Development of Europe Since the Industrial Revolution.-The economic history of France, Germany, and England since the industrial revolution. II; (3).

Professor Bogart
Prerequisite: Sixty hours of university work, including Economics 1 and 3. Students who present a statement from the department of history showing that they are taking history as a major, may be admitted without Economics 3.
14. Agricultural Cooperation.-The organization, financing, and management of cooperative associations for the promotion of farming. (Open to junior and senior students of agriculture only.) $I I$; (2).

Dr. Stewart
Prerequisitc: Economics 1 or 2.
15. Rural Credit.-The credit and banking needs of farmers and rural communitics and means of supplying them. (Open to junior and senior students of agriculture only.) $I$; (2).

Dr. Stewart
Prerequisite: Economics 1 or 2.
17. Economic History of Agriculture.-Land tenure and landed property; large, medium, and small farms or estates; economic conditions and results of extensive and intensive culture; agricultural credit, markets, and labor; state of the agricultural class; organization in agriculture, and its relation to other industries and to the state. $I I$; (2).

Dr. J. G. Thompson
Prerequisite: Economics 1 or 2.
19. United States Industry, 1820-1860.-Growth, distribution, and character of the population; the public domain and the westward movement; inland communication and transportation; foreign commerce and the carrying trade; distribution, extent, and methods of agriculture; manufacturing; labor and labor saving machinery; currency and banking; the tariff. $I$; (2).

Prerequisite: Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.
20. United States Industry Since 1860.-Improved methods of agriculture and the effect of exploiting new lands; the factory system; organized labor; evolution of "big business"; growth of urban centers; mining; economic effects of immigration; monetary questions; railroads and the regulation of interstate trade; foreign commerce; the tariff. $I I$; (2).

Assistant Professor C. M. Thompson
Prerequisite: Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.
21. Socialism and Economic Reform.--Proposed reforms: Utopian and scientific socialism; revisionism; socialism as a political movement; anarchism and syndicalism; current economic problems as affected by socialistic theories. $I I$; (2).

Mr. Douglas
Prerequisite: Economics 1 and 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major may be admitted without Economics 3.
28. Mechanism and Technique of Domestic Commerce. - Internal trade; wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; commercial competition; modern advertising; mercantile credit. $I$; (3).

Assistant Professor Litman
Prerequisite: Economics 1 and 3.
[29. Foreign Commerce and Commercial Politics.-International trade; changes in theories and in policies; economic systems (mercantile, free trade, protective); customs tariffs; commercial treaties; tariff legislation in the United States. II; (3). Not given, 1916-17.

Assistant Professor Litman
Prerequisitc: Economics 28.]
31. Organization of Foreign Commerce.-Exporting and importing; ocean transportation; line and charter traffic; inssitutions for furthering export trade; consular service; entry of goods; the custom house. $I I$; (3).

Assistant Professor Litman
Prerequisite: Economics 28.

## Courses for Graduates

Students entering upon graduate work in economics must have had a thoro course in the principles of the science and should also have studied some special part of the field, such as public finance or money and banking.
101. Economic Theory.-Twice a week: $I$, II; (1 unit). Professor Kinley
[102. Theory of Money, Credit, and Prices.-Twice a week; $I, I I$; (1 unit). Not given, 1916-17.]
104. Foreign Commerce of the United States.-The foreign commerce of the United States as shown in government publications. Twice a week; I, II; (1 unit).

Assistant Professor Litman
[105. Public Finance.-The history and theory of public revenue and expenditure. Twice a week; I, II; (1 unit). Not given, 1916-17.]
[107. The Corporation in Economic Evolution.-Trwice a week; I, II; (1 unit). Not given, 1916-17.]
[109. Theory of Industrial Consolidations.-The nature of industrial consolidations; the conditions and causes responsible for their development and their effects upon the production and distribution of wealth. Twice a zveek; I, II; (1 unit). Not given, 1916-17.]
110. Investments.-Nature, character, and functions of investments; classes; direct investments; securities of various types; methods of judging investments; state control. Twice a week; $I, I I ;$ ( 1 unit). Professor Robinson
118. Seminar.-I, $I I$.

Professor Kinley
120. History of Economic Thought.-Twice a week; I, II: (1 unit).

Dr. J. G. Thompson
122. Advanced Economic History of the United States.-Twice a week; I, II; (1 unit).

Professor Bogart

## Summer Session Courses

S 2. Principles of Economics.-(3). Assistant Professor C. M. Thompson Prerequisite: One year of university work or the permission of the instructor.
S 3. Money and Banking.-(21/2).
Dr. Stewart
Prerequisite: A course in the principles of economics and the permission of the instructor.

S 16c. Agricultural Economics.-The economic principles underlying the farming industry and the conditions of rural life. (21/2).

Dr. Stewart
Prerequisite: Economics 1 or 2, or the permission of the instructor.
S 26. Economic Resources.-Extractive, cultivating, and manufacturing industries of different countries, with special reference to the resources and the economic activities of the United States. (21/2). Assistant Professor Litman
*S 19. Economic Phases of United States History, 1820-1860.-Population; the public domain; the westward movement; transportation and communication;
foreign commerce and the carrying trade; agriculture; manufacturing; labor; currency and banking; the tariff. (2); (1/2 graduate unit.)

Assistant Professor C. M. Thompson
Prerequisite: At least 8 hours of economics, including the principles. Teachers of experience may be admitted at the discretion of the instructor.
*S 104. Theory and Policies of International Trade.-Significance of foreign commerce; commercial policies and their effects; growth of international competition; trade expansion; analysis of the export and import trade of the United States. (1 unit.)

Assistant Professor Litman

## EDUCATION

Willlam Chandler Bagley, Ph.D., Professor
Charles Hughes Johnston, Ph.D., Professor
Horace Adelbert Hollister, A.M., Professor
Guy Montrose Whipple, Ph.D., Professor
John Alford Stevenson, A.M., Assistant and Secretary
Noble Lee Garrison, A.M., Lecturer
Harriet Josephine Berninger, A.B., Assisíant
Warren Kenneth Layton, A.B., Assistant
Albert M Santee, A.B., Graduate Assistant
John E Stout, Professor in the Summer Session
Alvis L Rhoton, Instructor in the Summer Session
Major: 20 hours made up from any of the courses offered by the department.
Minor: 20 hours made up from either (a) courses in any one or two university subjects represented in the high school program; or (b) courses in any one or two of the following departments: psychology, sociology, philosophy, and political science; or (c) from one subject in (a) and one in (b).

The courses of the department fall into two general divisions: courses primarily for professional training and courses more specifically designed for general culture. The first division includes courses $1,4,6,10,15,18,20,27,41,42,43,45,101,106$, 112,119 , and 125. The second division, courses 2,5 , and 13 .

## Introductory Courses

1. Introduction to Education.-The American public-school system. The principles and aim of education; biological basis, heredity, and environment; instinct, habit, and habit-formation; memory, and the higher mental processes. (This course is required of all students who are given the official indorsement of the Appointments Committee for teaching positions in secondary schools.) $I$ or $I I$; (4).

Professor Bagley, Mr. Stevenson
Prerequisite: Junior standing. Psychology 1 is desirable as a prerequisite.
2. History of Education.-Evolution of educational theory, institutions, and practise of the Greek, Roman, medieval, and modern civilizations. $I I$; (5).

Professor Jounston

## Intermediate Courses

10. The Technics of Teaching.-Types of classroom exercises and preparation of teaching plans; hygiene; classroom management; professional cthics. Observation of teaching in neighboring high schools. (This course with Education 1 is required of all students who are given the official recommendation of the Appointments Committee for teaching positions in secondary schools.) I or $I I$; (3).

Miss Berninger, Mr. Garrison, Mr. Stevenson
Prerequisite: Education 1.
[16. Social Education.-I; (3). Not given, 1916-17.]
25. Educational Psychology.-(Introductory course.) Instinct; habit and the acquisition of skill; perception and memory; conception, judgment, and reasoning. Lectures; demonstrations. $I$; (3).

Professor Whipple
Prerequisite: Psychology 1 or Education 1.

## Courses for Advanced Undergraduates and Graduates

4. Problems of Educational Administration.-School systems of typical cities and states; recent experiments in administration, discipline, and methods of teaching. $I$; (3).

Mr. Garrison
Prerequisite: Education 1, 2.
5. Comparative Education.-Organization, administration, and basic national ideals of the school systems of the United States, Germany, England, and France, with reference to secondary education and to the training of teachers. $I$; (3).

Professor Johnston
Prerequisite: Education 1.
6. Principles of High-School Education.-Evolution of high schools and of secondary education; proposed reorganization; high schools and the state systems; legal status; articulation with elementary school, college, technical school, community, and home; teaching staff; reconstruction of curriculums; "controls" of instruction; "student activities." (For those who expect to teach in secondary schools.) $I$; (3).

Professor Johnston
Prerequisite: Education 1 or its equivalent.
27. High-School Curriculums.-Historic curriculums for secondary education; modern curriculum-making; professional supervision; text-books, apparatus, and teaching devices; psychology of high-school subjects; curriculums for typical communities. $I I$; (3).

Professor Johnston
Prerequisite: Education 1 or 6 (preferably both).
13-14. Educational Classics.-Educational writings of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Comenius, Rosseau, Pestalozzi, Froebel, and Herbert Spencer. (Ordinarily required for the doctor's degree in education.) $I, I I$; (3).

Mr. Garrison
Prerequisite: Education 1, 2.
15. School Hygiene.-School architecture and equipment; heating, ventilation, and lighting; posture, exercise, and fatigue; reading and writing; program of studies and daily time table; mental health of teachers and pupils; communicable diseases and the relation of school authorities to health authorities. (Graduate credit subject to approval of the Executive Faculty.) II; (2).

Professor Whipple
Prerequisite: Education 1, or normal-school graduation, or two years of teaching experience, with at least junior standing.
18. Method in Educational Research.-Statistical and other methods as applied to educational investigation. (This course is ordinarily required of all candidates for advanced degrees.) $I$; (2).

Professor Whipple
Prerequisite: Education 1, or its equivalent.
192. Readings in German Educational Literature.-I; (1).

Professor Whipple
Prerequisite: Education 1, and moderate facility in reading German.

19b. Readings in French Educational Literature.-I; (1).
Professor Whipple
Prerequisite: Education 1, and moderate ability in reading French.
[20a. Theory of Supervision.-Training teachers in service; measuring educational products; qualities of merit and causes of failure in teachers; selection of teachers; organization of teachers' meetings and other agencies for improving the teaching service. II; (3). Not given, 1916-17.

Prerequisite: Education 1, or its equivaient.]
41. Vocationai Education.-Social significance; institutions and methods in elementary and sccondary schools; federai, state, and municipal provisions; recent legislation; present tendencies. I; (3).

Professor Johnston
Prerequisite: Education 1 or an equivalent satisfactory to the instructor.
42. Auxiliary Education.-Institutions and methods for training defectives and delinquents; Binet-Simon tests and other methoas of mental diagnosis; educational treatment of morons and moral delinquents; sensory defectives (the blind and the deaf); public institutions of auxiliary education and their administration. II; (2).

Professor Whipple
43. Mental Tests.-Technics of mental tests, including tests of sensory crpacities; attention; memory; learning; suggestibility; inventiveness; diagnosis of mental age; general intellectual status; mental retardation. Laboratory. II; (2).

Professor Whiplee
Prercquisite; Education 25 or an equivalent, and the consent of the instructor.
45. Problems in Educational Psychology.-II; (2). Professor Whipple

## Courses for Graduates

101. Seminar in Educational Theory.-The philosophical bases of educational theory. J; (1 unit)

Professor Bagley, Professor Bode
106. Seminar in Secondary Ećucation.-Organization, administration, and special methods. Reports and discussions of technical investigations in the fields of high-school administration and pedagogy. II; (1 unit). Professor Johnston
112. Principles of Education.-Survey of the American public-school system; leading principles and doctrines of educational science; the technics of teaching and the problems of class management. (For graduate students who are not majoring in education and who have not taken undergraduate courses in education.) Twice a week; II; (1/2 init).

Professor Bagley
[119. The Elementary Curriculum.-The functions and values of elementaryschool studies; time allotments; practical excrises in the construction of curriculums. Twice a week; II; (1 unit). Not given, 1916-17.]
125. Seminar in Educational Psychology.-Once a week; $I$; (I unit).

Professor Whipple
Departmental Conference.-All graduate students majoring in education are expected to meet with the departmental staff every alternate Monday from 7 to 9 p. m. I, II; (no credit).

## Summer Session Courses-Education and Psychology

S 12. Principles of Education. - The function of cducation; formal and informal education; relation of physical and mental devclopment to the art of teaching. (3).

Mr. Mileer
Prerequisite: Junior standing, (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

S 1b. The Educational System. The school systen of the United States; its present organization, its origin, its distinctive characteristics as compared with other systems; its present problems. Lectures; readings. (1).

Professor Bagley
Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

S 2. History of Modern Education.-The development of educational theory and practise from the Renaissance. Text: Monroe's History of Education: Brief Course. (21/2).

Professor Rhoton
Prerequisite: Junior standing.
S 10. The Technics of Teaching.-Types of classroom exercises and the preparation of teaching plans; the hygiene of instruction; classroom management; professional ethics. (Required of all students who secure the official recommendation of the Appointments Committee for teaching positions in secondary schools.) (3).

Miss Berninger
S 25. Educational Psychology.-For description see Education 25. (2).
Professor Whipple
Prerequisite: Junior standing, (but, in the discretion of the instructor, open to teachers wino cannot meet this requirement.)
*S 4. School Organization and Administration. -The establishment of schools and provisions for their administration; units of control; maintenance; training and selection of teachers. (2).

Professor Stout
Prerequisite: Education 1 or equivalent (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).
*S 6. The Principles of High-School Education.-For description see Education 6. (2).

Professor Johnston
Prerequisite: Education 1, or equivalent. (High-school teachers and principals may in the discretion of the instructor, be admitted to the course without tine prerequisite.)
*S 18. Method in Educational Research.-For description see Education 18. (11/2).

Professor Stour
Prerequisite: Education 1.
*S 20. Supervision.-The limitations, types, functions, standards, and devices of supervisors; the subject limits and time limits of the course of study, and its adaptation to types of mind; the rating of teachers; improvement of teachers in service; the technics of criticism. Lectures; readings; investigation of special problems. (For principals, superintendents, and supervisors.) (2).

Professor Stout
Prerequisite: Education 1, or equivalent. (Superintendents, principals, and supervisors may, in the discretion of the instructor, be admitted to the courses without the prerequisite.)
*S 21. Units, Scales, and Standards.-Units, scales, and standards for measuring educational achievement or determining progress in arithmetic, spelling, handwriting, reading, composition, drawing, history, and geography. Lectures; readings; investigation of a special problem. For school superintendents. (2).

Mr. Miller
Prerequisite: Education 1 or equivalent. (Superintendents, principals, and supervisors may, in the discretion of the instructor, be admitted to the course without the prerequisite.)


#### Abstract

*S 30. Contemporary Educational Theory.-Recent writings in educational theory; analysis of the theory underlying contemporary educational movements; the Gary system; junior-high-school movement; prevocational education. (1).


Professor Bagley
*S 43. Mental Tests.-For description see Education 43. (1).
Associate Professor Whipple
Prerequisite: Education 25 or its equivalent, and the consent of the instructor.
*S 106. Seminar in Secondary Education.-For description see Education 106. (1 unit).

Professor Johnston
*S 104. Seminar in School Administration.-( $1 / 2$ unit). Professor Stout
Prerequisite: Graduate standing, with preliminary courses satisfactory to the instructor.
*S 125. Seminar in Educational Psychology.-( $1 / 2$ unit). Professor Whipple
Prerequisite: Graduate standing, with preliminary courses satisfactory to the instructor.
*S 110. Seminar in Methods of Teaching.-The problem of the study of method; the literature of methods of teaching; types of school exercises; study of reports of classroom teaching; classification of types. ( $1 / 2$ unit.) (Subject to approval of the Executive Faculty of the Graduate School.) Professor Bagley

Prerequisite: Graduate standing, with preliminary courses satisfactory to the instructor.

## ELECTRICAL ENGINEERING

Ellery Burton Paine, M.S., E.E., Professor, Acting Head of the Department
Morgan Brooks, Ph.B., M.E., Professor
Edward Hardenbergh Waldo, A.B., M.S., M.E., Assistant Professor
Philip Sheridan Biegler, B.S., E.E., Assistant Professor
Leonard Vaughan James, M.S., E.E., Associate
Ira William Fisk, M.S., E.E., Associate
Abner Richard Knight, M.E., Associate
John Williams Davis, B.S., Instructor
Peter Jacob Nilsen, B.S., Instructor
4. Elementary Electrical Engineering.-Electrical machinery; selection, installation, and operation; distribution of power; motor applications. $I I$; (2).

Prerequisite: Physics 1a-1b, 3a-3b; junior standing.
8. Electric Currents and Apparatus.-Direct and alternating current circuits and machines; storage batteries. (Especially for students in chemical engineering.) I; (3).

Mr. Davis
Prerequisite: Physics 1a-1b, 3a-3b; registration or credit in Mathematics 7; registration in Electrical Engineering 68.
11. Direct Current Apparatus.-Generators, motors, distribution curcuits; storage batteries. (For students in mechanical enginecring.) $I$; (3).

Professor Brooks
Prerequisite: Physics 1a-1b, 3a-3b; Mathematics 8 or 9.
12. Aiternating Current Apparatus.-Generators and motors, transformers, distribution systems. (For students in mechanical engineering.) II; (3).

## Professor Brooks

Prerequisite: Electrical Engineering 11, 61.
25. Direct Current Apparatus.-Laws of electric and magnetic circuits; construction and operation of direct current generators and motors. $I$; (4).

> Mr. James, Mr. Fisk, Mr. Knight

Prerequisite: Registration in Electrical Engineering 75 and Physics 4a; Mathematics 9.
26. Alternating Currents.-Mathematical and graphical treatment of periodic currents; phenomena in transmission lines and transformers. $I I$; (4).

> Mr. James, Mr. Fisk, Mr. Knight

Prerequisite: Electrical Engineering 25; Physics 4a; registration in Electrical Engineering 76.
35. Alternating Current Apparatus.-Transformers and generators. $I$; (4).

Professor Paine
Prerequisite: Electrical Engineering 26, 76.
36. Alternating Current Apparatus.-Synchronous, induction, and commutator motors; rotary converters; distributed inductance and capacity; transient phenomena. II; (4).

Professor Paine
Prerequisite: Electrical Engineering 35, 85.
55. Electrical Design.-Electromagnets and dynamos, direct and alternating; transformers. $I$; (2).

Assistant Professor Waldo
Prerequisite: Electrical Engineering 26; registration in Electrical Engineering 35.
56. Electrical Design.-Induction motors and converters; power plant design. Gebhardt: Steam Power Plant Engineering. II; (4).

Assistant Professor Waldo
Prerequisite: Electrical Engineering 35; Mechanical Engineering 2.
61. Direct Current Laboratory.-Circuits and machines. (For students in mechanical engineering.) $I$; (1). Mr. Davis
Prerequisite: Registration in Electrical Engineering 11.
62. Alternating Current Laboratory.-Alternating current circuits and machines. (For students in mechanical engineering.) $I I$; (1).

Mr. Davis
Prerequisite: Registration in Electrical Engineering 12.
64. Electrical Engineering Laboratory.-Testing of dynamos and motors. II; (1). Mr. Davis
Prerequisite: Registration in Electrical Engineering 4.
68. Electrical Engineering Laboratory.-Direct and alternating current circuits and machines. $I$; (1). Mr. Davis
Prerequisite: Registration in Electrical Engineering 8.
71-72. Electrical Engineering Laboratory.--The construction of special apparatus or other work approved by the department. (Elective for juniors and seniors.) I, II; (1-3). ${ }^{1}$

[^80]75. Electrical Engineering Laboratory.-Direct current laboratory accompanying Electrical Engineering 25. I; (2).

Mr. Nilsen
Prerequisite: Registration in Electrical Engineering 25.
76. Electrical Engineering Laboratory.-Determination of the flux and E.M.F. waves of alternators. Alternating current circuits, instruments. II; (2).

Mr. Nilsen
Prerequisite: Electrical Engineering 25, 75; registration in Electrical Engineering 26.
85. Electrical Engineering Laboratory.-Advanced alternating current testing. $I$; (2).

Assistant Professor Biegler
Prerequisite: Electrical Engineering 76; registration in Electrical Engineering 35.
86. Electrical Engineering Laboratory.-Advanced alternating current testing. II; (2).

Assistant Professor Biegler
Prerequisite: Electrical Engineering 85; registration in Electrical Engineering 36.
90. Lighting.-Electric lamps and other illuminants, and their effective use; interior wiring; methods of distribution. (For students in architecture.) $I I$; (half semester only); (1).

Professor Brooks
Prerequisite: Junior standing.
92. Lighting and Wiring.-(First haif of semester same as E. E. 90.) Distribution and fusing. Underwriters' rules; motors. (For students in architectural engineering.) $I I$; (2). Professor Brooks
Prerequisite: Junior standing.
95-96. Seminar.-Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. $I, I I$; (1).

Professor Paine
Prerequisite: Junior standing.
98. Thesis.-First semester: preliminary reading and investigation; second semester: completion. $I I$; (3).
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance upon graduate work in electrical engineering presupposes the full undergraduate course in that subject.
101. Advanced Course in Alternating Currents.-The theory of Transient Phenomena; polyphase circuits; measuring apparatus. Twice a week; I, II; (11/2 units).

Professor Paine
103. Electrical Design.-Plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. Twice a week; II; (1 unit).

Assistant Professor Waldo
104. Telegraphy and Telephony.-Once a week; I, II; (1 unit). Professor Brooks
105. Electrical Engineering Research.-Investigation of electrical phenomena, or tests of some electrical machine, or of a plant of such machines. Twice a week; I, II; (1 to 3 units).

Professor Paine
106. Illumination.-Once a week; $I, I I$; (1 unit).

## ENGINEERING

(Sce Architecture, Ceramic Engineering, Civil Engineering, Drawing, Electrical Engineering, Mechanical Engineering, Mechanics, Mining Engineering, Municipal and Sanitary Engineering, Physics, Railway Civil Engineering, Railway Electrical Engineering, and Rallway Mechantcal Exgineering.)

## THE ENGLISH LANGUAGE AND LITERATURE

(Including Celtic, Rqetoric, and Public Speaking)
Stuart Pratt Sherman, ${ }^{1}$ Ph.D., Professor
Daniel Kilham Dodge, Ph.D., Professor
Thomas Arkle Clark, B.L., Professor
Ernest Bernbaum, Ph.D., Professor
Ediaard Fulton, Ph.D., Associate Professor
Harry Gilbert Paul, Ph.D., Associate Professor
Edward Chauncey Baldwin, Ph.D., Assistant Professor
Franklin Willlam Scott, Ph.D., Assistant Professor, Chairman and Secretary
Harrie Stuart Vedder Jones, Ph.D., Assistant Professor
Jacob Zeitlin, Ph.D., A ssistant Professor
Herbert LeSourd Creer, Ph.D., Associate
Clarence Valentine Boyer, Ph.D., Associate
Gertrude Schoepperle, Ph.D., Associate
Harry Franklin Harrington, A.m., Associate
Harold Newcomb Hillebrand, Ph.D., Associate
Martha Jackson Kyle, A.M., Instructor
Clarissa Rinaker, Ph.D., Instructor
Easley Stephen Jones, A.M., Instructor
Mervin James Curl, A.M., Instructor
Roger Sherman Loomis, B.Litt., A.M., Instructor
Harrison McJobnston, A.M., Instructor
Robert Calvin Whitford, A.M., Instructor
Lynn Harold Harris, Ph.D., Instructor
Allene Gregory, Ph.D., Insiructor
Sigurd Osborn Hustvedt, Ph.D., Instructor
Robert Bruce Weirick, A.M., Instructor
Harry Torsey Baker, A.M., Instructor
Lew R Sarett, A.B., LL.B., Instructor Emerson Grant Sutcliffe, A.M., Instructor
Hamilton Jewett Smith, A.M., Instructor
John J Parry, Ph.D., Instructor
Sada Anns Harbarger, A.M., Assistant
Ruth Kelso, A.M., Assistant
Lewis Ignatius Bredvold, A.M., Assistant
James Manley Phelps, A.M., Assistant
Clyde Byron Beck, A.M., Assistant
Myrtle Amy Cruzan, A.B., Assistant
Carryl Nelson Thurber, A.B., Assistant
Beatrice Virginia Copley, A.B., Assistant
Harold Farnsworth Chlids, A.M., Assistant

[^81]Frederic Irvin Myers, A.M., Assistant
Chester Clyde Harbison, A.B., Assistant
Paul Nissley Landis, A.M., Assistant
Gerald Darfield Stopp, A.B., Assistant
Ethel Ernestine Sabin, Ph.D., Assistant
Major: 20 hours in English excluding Rhetoric 1-2 and English 10, and including at least 10 hours in English literature, at least 3 hours in composition, and at least 1 one-year course, or its equivalent, from the advanced group of courses.

Minor: 20 hours in either (a) one foreign language; or (b) in any two foreign languages; or (c) in one foreign language and philosophy; or (d) in one foreign language and history.

## A. ENGLISH LITERATURE AND LANGUAGE Elementary Courses

1-2. Survey of English Literature.-(Credit is not given for cither semester separately, nor for the course in addition to course 10-11 or course 20.) $I, I I$; (4). Assistant Professor Baldwin in charge, Associate Professor Fulton, Dr. Creek, Dr. Schoepperle, Dr. Hillebrand, Dr. Rinaker, Miss Kyle, Dr. Hustvedt.

Prerequisite: One year of College work.
10-11. Introduction to Literature.--First Semester: The forms of poetry. Second semester: The forms of prose literature. (This course is intended only for those who expect to include a considerable amount of literature, in English or in some other language, in their curriculum. Credit in not given for the course in addition to English 1-2 or 20 nor for the first semester separately. One semester's work is credited toward a major in English.) I, II; (3). Professor Dodge, Associate Professor Paul, Assistant Professor Jones, Assistant Professor Zeitlin, Mr. Baker.

Prerequisite: The minimum entrance requirements in English.
12-13. American Literature.-(Credit is not given for either semester separately.) $I, I I$; (2).

Associate Professor Paul
Prerequisite: English 1-2 or 10-11.
17. The English Language.-History, characteristics, and usage of modern English. I; (3).

Associate Professor Fulton
Prcrequisite: Rhetoric 1-2.
20. Chief English Writers.-(For those whose program admits of but one semester's work in English, and who therefore may not register for English 1. It is not accepted as a prerequisite for more advanced courses. Credit is not given for the course in addition to English 1 or 10.) I or II; (4). Dr. Boyer, Dr. Hustvedt, Dr. Harris, Mr. Jones, Mír. Whitford, Mr. Loomis, Mr. Weirick, Mr. Baier.

Prerequisite: One year of college work.
23. Introduction to Shakespeare. $-I$ or $I I$; (3).

Dr. Boyer, Dr. Hillebrand
Prerequisite: English 1-2 or 10-11.

## Intermediate Courses

Prerequisite: Eleven hours of English literature, or eight hours of English literature and cight hours of a foreign language.

21-22. Literary Study of the Bible.-Hebrew literature as an expression of the life of the race that produced it; the debt, both ethical and artistic, of modern life
to ancient Hebrew thought. (Either semester may be taken separately.) I, II; (3).

Assistant Professor Baldwin
24. English Literature of the Victorian Period.-II; (3). Miss Kyle
29. English Literature from 1557 to 1688, Exclusive of the Drama.- $I$; (3).

Assistant Professor Baldwin
31. English Literature From 1688 to 1789.-II; (3).

Associate Professor Paul
33. English Literature From 1789 to 1837.-I; (3).

Assistant Professor Zeitlin

## Courses for Advanced Undergraduates and Graduates

Prerequisite: Sixteen hours of English literature; or junior or senior standing and the approval of the instructor concerned.
3. The Poetry of Milton.-Origins, forms, artistic and ethical values; Milton's place in English literary history. II; (3). Assistant Professor Baldwin
[4. History and Principles of English Versification.- $I$; (2). Not given, 1916-17.

Dr. Creek]
5. Shakespeare.-Intensive study of a few plays, with special emphasis on Hamlet. II; (3).

Professor Dodge
25. Chaucer.- $I$; (3).

Assistant Professor Jones
[43. Browning.-Intensive reading of the principal poems. $I$; (3). Not given, 1916-17.

Miss Kyle]
8-9. Old English (Anglo-Saxon).-Grammar; short poems; Beowulf. (The first semester may be taken separately.) $I, I I$; (3).

Professor Dodge
27-28. Studies of the History of Journalism.-First semester: Evolution of the English literary periodicals and the periodical essay in the Eighteenth Century. Second semester: The magazine in America. Assistant Professor Scott

41-42. Teachers' Course.-Methods of teaching English literature and composition in the high school. (This course is not credited toward advanced degrees, or toward a major in English. Either semester may be taken separately.) I, II; (2).

Associate Professor Paul
18. Modern English Grammar.-Sentence structure and analysis; grammatical categories; peculiarities of English syntax. $I I$; (3).

Assistant Professor Zeitlin
32. The Critical Essayists of the 19th Century.-II; (3).

Associate Professor Fulton
35-36. The English Drama (Exclusive of Shakespeare). -First Semester: From the beginning to 1600 . Second Semester: From 1600 to 1700. (Either semester may be taken for separate credit.) $I, I I$; (3). Professor Dodge
37. Folk-Lore.-The elements of imaginative fiction; origins of the lyric and drama; primitive satire and gnomic literature. Superstitions surviving in English literature. $I$; (2).

Dr. Schoepperle
38. The Arthurian Tradition in England.-The historical Arthur. Celtic tales. Old French Romances (in translation). The tradition in England from the early romances to Arnold, with special attention to Malory and Tennyson. II; (2).
39. Introduction to the Literature of the Middle Ages.-European culture from the fourth century; the relation of English and continental literature, to the fourteenth century. $I I$; (3).

Dr. Creek
45. The Development of the Modern Drama.-Dramatic tendencies in the nineteenth century, bot' in England and on the Continent; representative readings, and lectures from the standpoint of comparative literature. $I$; (3).

Dr. Hillebrand
52. Language and Literature of the First Half of the Seventeenth Century. Close study of important texts, e.g., Bacon, Hooker, King James Bible, Sir Thomas Brown, etc. II; (3).

Professor Bernbaum
60a-60b. Thesis.-Special training in investigation for candidates for honors and for other seniors. $I, I I$; (1).

Assistant Professor Zeitlin, Dr. Hillebrand, and others

## Courses for Graduates

101. Research in Special Periods.-Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for study in the language or literature of the periods mentioned below.
A. Anglo-Saxon language and literature

Professor Dodge, Assistant Professor Zeitlin
B. Thirteenth and Fourteenth Centuries,

Assistant Professor H. S. V. Jones
C. Sixteenth Century

Professor Dodge

D. Seventeenth Century

Professor Bernbaum, Assistant Professor Baldiwn
E. Eighteenth Century

Associate Professor Paul
F. Nineteenth Century, Professor Bernbaum, Associate Professor Fulton
[106. English Literary Criticism from Dryden to Coleridge.-Twice a week. I, II; (1 unit.) Not given, 1916-17. Associate Professor Fulton]
108. The English Epic.-The 16th, 17 th, and 18th Centuries, from the point of view of classical theory. I, II; ( 1 unit). Associate Professor Fulton
110. Old English (Anglo-Saxon) Poetry.-Twice a week. I; (1 unit).

Professor Dodge
[112. The History and Principles of English Grammar.-Twice a week. I, II; (1 unit). Not given, 1916-17.

Assistant Professor Zeitlin]
[113. Historical Prose Syntax.-The forces, native and foreign, in the development of English prose sentence structure. I, II; (1 unit). Not given, 1916-17.

Assistant Professor Zeitlin]
114. The Development of the Essay.-An examination of the various types of the English essay with reference to Continental influences and classical origins. $I, I I$; (1 unit).

Assistant Professor Zeitlin
126. English Ballads and Metrical Romances.- $I$, $I I$; (1 unit).

Dr. Schoepperle
128. Spenser and the Beginning of the English Renaissance. -The persistence of certain medieval traditions reinforced by the Revival of Classical Learning. Catholicism and Calvinism as sources of literary inspiration. Twice a week. I, II; (1 unit).

Assistant Professor Jones
135. Problems in American Literature.-Twice a week. I, II; (1 unit).

Associate Professor Paul
[136. The Transition from the Seventeenth to the Eighteenth Century: The Rise of Classicism.-Twice a week. $I, I I ;$ (1 unit). Not given, 1916-17.

Assistant Professor Paul]
[137. Nineteenth Century Prose Writers.-The relation of literature to social forces; the works of Mill, Carlyle, Newman, Ruskin, Arnold, and Pater. Twice a week. $I, I I$; ( 1 unit). Not given, 1916-17. Professor Sherman]
[138. The Romantic Movement in England.-Twice a week. I, II; (1 unit). Not given, 1916-17.

Professor Sherman]
140. Investigation in Modern English Literature.-For second and third year graduate students. Three hours, once a week; I, II; (1 to 3 units).

Professor Bernbaum
141. English Literature from Milton to Dryden inclusive.-(1) Close study of important texts by Milton and Dryden. (2) Lectures on the history of literature from 1642 to 1700 . Twice a week. I, II; (1 unit). Professor Bernbaum
142. The Conflict of Ideas and Ideals in Eighteenth Century Literature. Twice a week. I, II; (1 unit).

Professor Bernbaum

## B. CELTIC

1-2. Celtic Civilization and Literature in Translation.-(Either semester may be taken separately. This course may not be counted towards a major in English.) I, $I I$; (2).

Dr. Schoepperle
Prerequisite: Junior standing.

## C. RHETORIC

## Elementay Courses

1-2. Rhetoric and Themes. ${ }^{1}$-Required for students in the Colleges of Liberal Arts and Sciences, Commerce, Engineering, and Agriculture. I, II; (3).
Assistant Professor Scott in charge; Associate Professor Fulton, Assistant Professor Jones, Dr. Creek, Dr. Boyer, Dr. Hillebrand, Miss Kyle, Dr. Rinaker, Mr. Jones, Mr. Curl, Mr. Weitford, Dr. Harris, Dr. Gregory, Dr. Hustvedt, Mr. Loomis, Mr. Weirich, Mr. Baker, Mr. Smith, Dr. Parry, Mr. Sutcliffe, Miss Harbarger, Miss Kelso, Mír. Beck, Mr. Thurber, Miss Cruzan, Miss Copley, Mr. Childs, Mr. Bredvold, Mr. Myers, Mr. Landis, Dr. Sabin.

Prerequisite: The minimum entrance requirements in English.

## Intermediate Courses

3a. Exposition. ${ }^{2}$-Themes or topics of general interest; analyses of facts and ideas, literary reviews, and criticisms; informal essays. $I$ or $I I$; (3).

Mr. Jones, Mies Kyle
Prerequisite: Rhetoric 1-2.
3b. Exposition. ${ }^{2}$-Themes on topics of especial interest to students in engineering, agriculture, science, and commerce. I or $I I$; (3).

Mr. Curl
Prevequisite: Rhetoric 1-2.

[^82][3c. Argument.-Wide reading on both sides of current questions; writing of briefs and of three long arguments. $I$; (3). Not given, 1916-17. Mr. Loomis Prerequisite: Rhetoric 1-2.]

3d. Description and Simple Narrative.-I; (3).
Mr. Curl
6-7. Narrative Composition. - Practise in short story writing. (Intended for those who have some aptitude for literary work.) $I, I I$; (3). Mr. Curl

Prerequisite: Two years of college work and the consent of the instructor.
10. Business Writing.-Correspondence; sales letters; practise in writing business reports and summaries. Lectures and discussions. (Not counted toward a major in English.) I or II; (2).

Dr. Creek, Mr. McJohnston, Mr. Warnock, Mr. Thurber, Miss Harbarger
Prerequisite: Rhetoric 1-2.
12. The Collecting and Writing of News.-Gathering news; writing the newsstory; types of newspaper narratives; news values considered with the aid of representative newspapers on file in the laboratory. $I$; (3). Mr. Harrington

Prerequisite: Rhetoric 1-2.
13. The Newspaper.-(A continuation of Rhetoric 12.) Intervewing and newspaper correspondence; the organization and mechanical details of the newspaper. Practise in writing for newspapers. Six laboratory periods and three lectures a week. II; (3).

Mr. Harrington

## Prerequisite: Rhetoric 1-2, 12.

22. Summarizing and Briefing.-Summarizing, briefing, and making reports; abstracts of correspondence on file; summarizing of commercial and economic data for the solution of business problems. (For students in the College of Commerce and Business A.dministration.) $I I$; (2).
.Mr. McJohnston
Prerequisite: Rhetoric 10.
25-26. Senior Conferences (Courses in Commerce and Business Administra-tion).-Each senior is required to present all papers written during the year for review and criticism. Rewriting may be required if they are open to serious criticism. (Required of all seniors in the College of Commerce and Business Administration.) $I, I I$; (1).

Mr. McJohnston
19. Agricultural News Writing.-Class exercises; lectures; assignments in gathering and preparing material for agricultural papers. $I I$; (3).

Assistant Professor Scott

## Courses for Advanced Undergraduates and Graduates

15-16. Editorials and Special Articles.-Sources and treatment of material for editorials and articles; the interpretation of news; journalistic backgrounds; the relation of current events to the social sciences. Assigned readings; preparation of editorials, articles, and reviews. I, $I I$; (3). Assistant Professor Scott
17. Advanced Composition.-Structure; criticism of current periodical literature; development of material for reports and magazine articles. (Open to a limited number of students, and only on recommendation.) $I I$; (3).

Mr. Weirick
Prerequisite: Two ycars of college work.

27a-27b. Editorial Practise.-Reading "copy"; writing headlines; making up; editorial supervision; proof reading; type selection. Five hours' work on the desk and one lecture a week. I, II; (3). Mr. Harrington

Prerequisite: Rhetoric 12, 13, or the consent of the instructor.
28. Newspaper Problems and Policies.-The relation of the newspaper to the public. $I$; (2).

Mr. Harrington
Prerequisite: Rhetoric 26-27.
29. Making a Country Newspaper.-Small town conditions; rural newsgathering; country correspondence; circulation; advertising; business efficiency; printshop equipment. Special investigations by members of the class. (For seniors who expect to enter the country field.) $I I$; (2).

Mr. Harrington
Prerequisite: Junior or senior standing.

## D. PUBLIC SPEAKING

1. Oral Expression.-Theory and practise of elocution and expression, for public and private address. $I$; (2).

Mr. Sarett in charge, Mr. Phelps, Mr. Harbison, Mr. Stopp
Prerequisite: Rhetoric 1-2.
Note.-Credit is not given for this course unless it is followed by Public Speaking 2 or 10 .
2. Extemporaneous Speaking.-Discussion of topics of current interest, assigned and chosen; adaptation of speaking manner to subject matter, length, and attendant circumstances of the address; cultivation of facility in thinking on the platform. $I I$; (2).

Mr. Sarett in charge, Mr. Phelps, Mr. Harbison, Mr. Stopp
Prerequisite: Public Speaking 1.
3. Argumentation.-Argumentative discourse; meeting the contentions of an opponent; briefing; speech-writing; criticism of the literature of debate. Text and exercises. $I$; (3).

Mr. Sarett
Prerequisite: Public Speaking 1 and 2.
4. Debate.-The spoken debate; team and individual competition; debates on current issues. $I I$; (3).

Mr. Sarett
Prerequisite: Public Speaking 3.
5. Persuasion.-The winning of individuals and audiences by means of written and spoken appeal; matter; platform manner, and methods. $I$; (2).

Mr. Sarett, Mr. Harbison
Prerequisite: Public Speaking 1 and 2.
6. The Forms of Public Address.-Types and modes of speeches; speech style, criticism, and standards; practise in using various forms. $I I$; (2).

Mr. Sarett
Prerequisite: Public Speaking 1 and 2.
7. A Study of Orators and Oratory.-The lives, times, and works of distinguished speakers; required readings and reports, chiefly oral in the form of speeches; discussions, topical speeches, and declamations. $I$; (2).

Mr. Sarett
Prerequisite: Public Speaking 1 and 2.
10. Interpretation and Dramatization of Literature.-Oral interpretation of standard literature; the interpretation and staging of plays. $I I$; (2).

Mr. Phelps
Prerequisite: Public Speaking 1.

## Summer Session Courses

## A-Literature and Language

S 1a. Survey of English Literature. With S 1 b this course covers the work of English 1. (2).

Dr. Hillebrand
Prerequisite: One year of college work or the equivalent.
S 1b. Survey of English Literature. With English S 1a, this course covers the work of English 1. (2).

Dr. Boyer
Prerequisite: One year of college work or the equivalent.
S 12. American Literature.-Bryant, Irving, Cooper, Hawthorne, Emerson, Poe, Longfellow, Whittier, Lowell. Lectures, discussions, readings, and reports. (2).

Assistant Professor Paul
Prerequisite: One year of college English or the equivalent.
S 23. Shakespeare.-Detailed study of Othello, Twelft'a Night, and Henry V, with brief consideration of several other representative plays. ( $21 / 2$ ).

Professor Upham
Prerequisite: One year of college English or the equivalent.
S 33. English Literature from 1789 to 1837.-Wordsworth, Coleridge, Scott, Byron, Shelley, Keats, and Landor; Edgeworth, Austen, Lamb, Hazlitt. (3).

Dr. Boyer
Prerequisite: Eleven hours of English literature, or eight hours of English literature and eight of a foreign language.

S 41. English for Teachers.-For description, see English 41. (2).
Assistant Professor Paul
Prerequisite: Sixteen hours of English literature. Open to any upperclassman with the consent of the instructor.
*S 39. Spenser.-The culture of the English Renaissance as illustrated by Spenser's poems. (3); (3/4 zinit). Assistant Professor Jones

Prerequisite: Sixteen hours of English literature.
*S 45. Contemporay European Drama.-The "theater of ideas," Teutonic naturalism, and the peasant drama of England and Ireland; modern stagecraft; work of contemporary dramatists. (3); ( $3 / 4$ unit).
Di. Hillebrand

Prerequisite: Sixteen hours of English literature. Open to any upperclassman or graduate student with the consent of the instructor.
*S 135. Problems in American Literature.-American prose and verse and European sources and influences. ( $1 / 2$ unit). Assistant Professor Paul

Prerequisile: Graduate standing.
*S 136. The Rise of Neo-Classicism. The literary relations of France and England at the end of the seventeenth century. Lectures, readings, theses. ( 1 unit).

Prerequisite: Graduate standing.

## B-Rhetoric

S 1. Rhetoric and Themes.-For description, see Rhetoric 1. (3).

S 2. Rhetoric and Themes.-For description, see Rhetoric 2. (3).
Mr. Sutcliffe
Prereguisite: Entrance credit in English.
S 3. English Composition.-For description, see Rhetoric 3. (3).
Assistant Professor Jones
Prerequisite: Rhetoric 1-2 or equivalent.

## C-Public Speaking

S 1. Oral Expression.-Vocal methods and the relation of the voice to the interpretation of thought. (2).

Mr. Woolbert
Prerequisite: Rhetoric 1 and 2 or equivalent.
(This course does not yield credit until supplemented by Public Speaking 2, 10, or their equivalents.)

S 10. Intrepretation and Dramatization.-Oral reading; stage action; staging and acting of several one-act plays. (2).

Mr. Woolbert
Prerequisite: Public Speaking 1 or equivalent.
S 11. Problems in the Teaching of Oral English.-Primarily for high-school teachers. (1).

Mr. Woolbert
Prerequisite: The consent of the instructor.

## ENTOMOLOGY

Stephen Alfred Forbes, Ph.D., LL.D., Professor
Alexander Dyer MacGillivray, Ph.D., Associate Professor
Justus Watson Folsom, D.Sc., Assistant Professor
Robert Douglas Glasgow, Ph.D., Instructor
Edna Mosher, Ph.D., Instructor
Charles Stockman Spooner, A.B., Assistant
Jacob Ray Stear, B.S., Assistant
Major: 20 hours from courses offered in the department, except Entomology 1,4 , and 16 .

Minors: 20 hours in botany, physiology, zoology, horticulture, and agronomy (see page 118).

Beginning courses open to freshmen and without prerequisites are $1 \mathrm{a}-1 \mathrm{~b}$, and 4 . Course $1 \mathrm{a}-1 \mathrm{~b}$ may be followed by 2 or 3 , and course 15 by 7 . Course 3 is not open to freshmen, and courses 5 and 15 are not open to freshmen or sophomores. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially $2,3,4,7,8 \mathrm{a}-8 \mathrm{~b}$, and 108 . Those preparing for the teaching of zoology should take either 2 and 4,3 and 4 , or 15 and 4 .

1a-1b. Elementary Entomology.-Lectures; laboratory; field work. (Open to all students. Not applicable on group requirements of the College of Liberal Arts and Sciences unless both semesters are taken.) I, II; (2).

Assistant Professor Folsom, Dr. Glasgow
2. General Entomology.-Field entomology; morphological and physiological entomology; the collection and preservation of specimens; laboratory studies of typical insects; the recognition of adaptive structures and their utilities. (This course, taken with Entomology 3, forms a year's work, covering the whole field, but either may be taken separately.) $I$; (5).

Assistant Professor Folsom, Dr. Glasgow
Prerequisite: Entomology 1a-1b, or 4, or equivalent.
3. General Entomology.-Classification and determination of insects; study of life histories in the insectary and by field observation; collection of information on the ecological relations of insects. $I I$; (5).

Assistant Professor Folsom, Dr. Glasgow
Prerequisite: Entomology 1a-1b, or 4, or equivalent.
4. Introduction to Economic Entomology.-Lectures; field work; laboratory. (Primarily for students in the College of Agriculture; not counted for satisfaction of group requirements in the College of Liberal Arts and Sciences.) I or II; (3).

Assistant Professor Folsom, Dr. Glasgow
5. Introduction to Research.-Preparation for thesis work. Library, language, manuscript, and advanced laboratory work on assigned topics. Three hours in this course are required as a preparation for entomological thesis work. $I$; (3-5). ${ }^{1}$ Associate Professor MacGillivray, Assistant Professor Folsom
Prerequisite: Entomology 2, 3; or 15, 7.
$6 \mathrm{a}-6 \mathrm{~b}$. Thesis Investigation.-Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor during the senior year. $I, I I ;(5)$.

Associate Professor MacGillivray, Assistant Professor Folsom
7. Systematic Entomology.-The external anatomy of insects; terminology of the parts; identification of specimens representing as many as possible of the major groups. $I I$; (5).

Associate Professor MacGillivray
Prerequisite: Entomology 2, or 15.
8a-8b. Advanced Economic Entomology.-Assigned problems. Field laboratory, insectary, library, and manuscript work, with practise in the operations of economic entomology. (Intended to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture 1, 2, and 3 should also be taken as a part of this preparation.) $I, I I$; (3).

Assistant Professor Folsom, Dr. Glasgow
Prerequisite: Entomology 4, 2, 3, or 4, 15.
9. Advanced Systematic Entomology.-The identification of the characters on which genera and species are based. I; (5).

Associate Professor MacGillivray
Prerequisite: Entomology 2 or 15, and 7.
10. Taxonomy of Immature Insects. $-I$; (5).

Associate Professor MacGillivray
Prerequisite: Entomology 2 or 15, and 7.
11. Classification of the Coccidæ.-Methods of preparing scale insects for study, the indentification of genera and species, and discussion of their morphology, metamorphosis, and phylogeny. $I I$; (5). Associate Professor MacGillivray

Prerequisite: Entomology 2 or 15, and 7.
13. Medical Entomology.-Insects and the transmission of disease; methods of control and prevention. (Primarily for advanced students preparing for medicine.) II; (3).

Dr. Glasgow
Prerequisite: Zoology 3, or its equivalent in microscopical technics.

[^83]15. Introductory Course.-Characteristics of the orders, stiborders, and more important families; habits of representative species; anatomy of immature and adult insects; identification of special adaptive structures; classification. Lectures, quiz, field, or laboratory. (Not open to students who have had courses 2 and 3. Those who have had only one of the above courses may take this course for half credit only.) $I$; (5). Associate Professor MacGillivray, Dr. Mosher

Prerequisite: Two years of university work.
16. Apiculture.-The essentials of bee-keeping. Practical operations; laboratory observations; collateral reading. II; (2).

Assistant Professor Folsom
17a-17b. Insect Organogeny.-More important systems of organs of adult and immature insects. Laboratory. $I, I I$; (3). ( $1 / 2$ unit).

Associate Professor MacGillivray, Dr. Mosher
Prerequisite: Entomology 7 and 9; senior standing.
18a-18b. Insect Taxonomy.-Structures used in the classification of insects and the identification of a representative collection of insects. Laboratory, $I, I I$; (5).

Dr. Mosher
Prerequisite: Three years of university work.

## Courses for Graduates

The prerequisite for graduate work in entomology is one year's work in biological courses, including an equivalent of either Zoology 1 or Entomology 1a-1b, or 4 . Entrance on major work in entomology requires the equivalent of Entomology 2 and 3.

Graduate students who have had at least one year of college worl in biological courses may take for graduate credit any of the preceding courses except $1 \mathrm{a}-1 \mathrm{~b}, 2$, 3, 4, 6a-6b, and 13 .
102. Research in the Morphology and Embryology of Insects.-Twice a week; I, II; (1 or 2 units). Assistant Professor Folsom
108. Research in Economic Entomology.-Once or twice a week; I, II; (1 or 2 units). Assistant Professor Folsom
109. Research in Systematic Entomology.-Twice a week; I, II; (1 or 2 units). Associate Professor MacGillivray

## Summer Session Courses

S 1. General Field and Laboratory Course.-Lectures; laboratory studies; field observations. (For high-school teachers.) (2).

Assistant Professor Folsom
S 3. Economic Entomology.-Stages of development of common injurious insects. Laboratory; field trips. (3). Assistant Professor Folsom
*S 2. Advanced Course. -Instruction to meet the purposes of the individual student. (2 or 3). ${ }^{1}$

Assistant Professor Folsom
*S 4. Advanced Economic Entomology.-Assigned problems in economic entomology, to prepare advanced students for immediate service as state and government entomologists. (3). Assistant Professor Folsom, Mr. Glasglow

Prerequisite: 15 hours' credit in general and economic entomology.

[^84]
# FARM MANAGEMENT 

(See Animal Husbandry.)

## FINE ARTS

(Sce Art and Design and Music. Attention is called also to the courses in Esthetics officed by the departments of Philosophy, Education, Architecture, and Household Science.)

FLORICULTURE
(See Horticulture.)
PRENCH
(See Romance Languages and Literature.)

## GENETICS

(See Animal Husbandry.)

## GEOEOGY

(Including Mineralogy, Paleontology, and Geography.)
Eliot Blackwelder, Ph.D., Professor
Charles Wesley Rolfe, M.S., Professor
William Shirley Bayley, Ph.D., Professor
Thomas Edmund Savage, Ph.D., Associate Professor
Fred Hall Kay, B.S., Lecturer (Assistant State Geologist)
John Lyon Rich, Ph.D., Instructor
Francis Maurice Van Tull, Ph.D., Instructor
Clarence Samuel Ross, A.M., Assistant
Henry Methusalem DuBois, A.M., Assistant
Luther Eugene Kennedy, A.M., A ssistant
Major: One of the elementary courses ( $1,3,13,5,35$, or 40 ), followed by 20 hours, in one of the following fields: (a) general geology, (b) paleontology and stratigraphy, (c) mineralogy and petrography, (d) geography. For these the following sequences of courses are suggested: (a) 1 , or 3 , or $13,5,5 a, 36,15,23,9,16$, 17; (b) 40,1 or $3,16,17,22$; (c) 1,3 or $13,5,5$ a, $15,6,7,2$; (d) $35,23,37,11$, $10,8,14$ and 24.

Thinors: 20 hours selected from any one or two of the following departments: astronon?, botany, chemistry, entomology, and zoology.

Credit will be given for only one of courses 1,3 , and 13 , and only two hours' credit in course 35 to stucents who have taken either 1 or 3 , or vice versa. Not more than two of the six elementary courses may be counted in the 20 hours required for a major.

## Courses for Undergraduates

1. General Geology.-The material and structure of the earth; the processes of change; its history. Four hours discussion; two hours laboratory; two field trips. (Not open to students who have had Geology 3 or 13.) I or $I I$; (5).

Professor Blackwelder, Dr. Van Tuyl, Mr. Kennedy
3. Elementary Geology.-Physical, historic, and economic geology and mineralogy. Lectures; laboratory; field work; occasional excursions on Saturdays. (Not open to students who have had Geology 1 or 12.) I or II; (5).

Professor Rolfe, Mr. Kennedy
35. General Physiography.-Fcatures and processes of the lands, oceans, and atmosphere. Recitations; laboratory; one or two Saturday field trips. (Students who have had Geology 1 or 3 will receive only two hours' credit in Geology 35.) $I$ or $I I$; (5)

Dr. Rich
5. General Mineralogy.--The commoner minerals of scientific and economic importance; crystallography and blow-pipe analysis. Lectures; laboratory. I; (5). Professor Bayley, Mr. Ross

Prerequisite: Chemistry 1 and 2, or equivalent.
5a. Rock-Forming Minerals.-(A continuation of course 5.) The silicate minerals. Lectures; laboratory. $I I$; (3). Dir. Van Tuyl, Mr. Ross

Prerequisite: Geology 5.
22. History of Organic Evolution.-The evolution of plants and animals, as indicated by the fossil record. $I$; (3).

Associate Professor Savage
Prerequisite: Geology 1 or 3, or Zoology 1, or Botany 1.
13a. Physical Geology.-Minerals and rocks. (Especially for students in technical courses.) Lectures; laboratory. I; (3). Dr. Van Tuyl, Mr. Ross

Prerequisite: Chemistry 1, 2a; Physics 1a-1b, or equivalent.
13b. Physical Geology.-Dynamic and structural geology. Lectures; 1a.boratory. $I I$; (3).

Professor Bayley, Mr. Ross
Prerequisite: Geology 13a.
12. Geclogy of Soils.-Geological processes in soil formation; origin of the various classes of soils; mineral compositions; physical characteristics; transformations. Occasional excursions on Saturdays. (For students of argiculture and others interested in plant growth.) $\quad I$; (5). Professor Rolfe, Mr. Kennedy

Prerequisite: Chemistry 1 or its equivalent.
14. Meteorology.-The atmosphere and its processes; ocean currents; climate, weather, and forecasting. $I$; (3).

Professor Rolfe
2. Economic Geology.-The origin and distribution of the important mineral deposits of North America. Lectures; recitations. II; (3).

Dr. Van Tuyl
Prerequisite: Geology 1 and 5, or 13b.
36. Petrology.-Laboratory and field identification of the common rocks. II; (2).

Dr. Van Tuyl
Prerequisite: Geology 5.
3. Geography of Europe.-The effect of the physiographic features of Europe on its climate, resources, population, and industries. II; (3). Professor Rolfe

Prerequisite: Geology 1, 3, or 35.
10. Geography of Central and South America.--Physiography, climate, and resources of South and Central America and their influence on development. II; (3).

Dr. Rich
Prerequisite: Geology 35, 1, or 3.
[11. Geography of North America.-Similar to Geology 10. Lectures; reading; map study. II; (3). Not given, 1916-17; given in 1917-18 and alternate years.

Prerequisite: Geology 35, 1, or 3.]
37. Principles of Geography.-The influence of topography, climate, and other geographical factors on human life and history. Recitations, readings and map studies. $I$; (3).

Dr. Rich
Prerequisite: Geology 35, 1, or 3.
[38. Regional Geology of North America.-The characteristics of individual geologic provinces. Recitations. II; (3). Not given, 1916-17; given in 1917-18 and alternate years.]
39. Geology of Illinois.-Stratigraphy, structure, geologic history, and resourcer. $I I$; (3).

Associate Professor Savage
19. Field Geology.-Excursion, during the Easter reeess, to some important district within 300 miles of Urbana. The cost of the trip will be about $\$ 30.00$. Credit on basis of written report. II; (1). Members of the department

Prerequisite: Geology 1, 3, 13b, or 35.
19a. Field Geology.-Students who have had Geology 19 and wish to visit another locality the following year should register for 19a. The conditions are the same as for 19. II; (1).

Members of the department

## Courses for Advanced Undergraduates and Graduates

Note.-Junior standing is required for these courses.
6. Optical Mineralogy.-Microscopic study of minerals, by means of their behavior in polarized light. Lectures; laboratory. I; (3).

Professor Bayley, Mr. Ross
Prerequisite: Geology 13a or 5.
7. Petrography.-Types of rocks; their origin and classification. Study of representative suite of specimens in the hand specimen and thin section. II; (3). Professor Bayley, Mr. Ross
Prerequisite: Geology 6.
9. Invertebrate Paleontology.-Fossils, in biological groups. Lectures; laboratory. I; (5).

Associate Professor Savage, Mr. DuBors
Prerequisite: Geology 1 or 3 ; or 12 hours in zoology.
23. Physiography of the Lands.-The making of topographic features as controlled by such factors as climate and rock structure. Physiographic history. Recitations; laboratory; two Saturday field trips. II; (3). Dr. Rich

Prerequisite: Geology 35, 1, 3, or 13b.
15. Structural Geology.-Rock deformation and its results. Discussions; laboratory. II; (3).

Professor Blackwelder
Prerequisite: Geology 1, 3, or 13b.
16. Stratigraphy.-The successive geologic formations and the fossil faunas by which they are correlated, with special reference to the United States. II; (5).

Associate Professor Savage, Mr. DuBors

## Prerequisite: Geology 9 or 40.

[17. Earth History.-Physical conditions and events in the geological periods, with special reference to North America; evolution of life. Discussions; lectures. II; (3). Not given, 1916-17; given in 1917-18 and in alternate years.

[^85][21. Geology of Coal.-The nature, origin, occurrence, and distribution of coal deposits. $I I$; (2). Not given, 1916-17; given in 1917-18 and alternate years.

Prerequisite: Geology 2 and 16.]
[24. Physiographic Interpretations.-Interpretation of recent earth history. $I$; (3). Not given, 1916-17 ; given in 1917-18 and alternate years.

Prerequisite: Geology 23.]
31. Geology of Oil and Gas.-Origin and relations of the natural hydrocarbons; their distribution in space and in rock sequence. (A two-day trip to the main oil fields of Illinois will be required, involving an expense of about $\$ 10.00$.) $I I$; (3). Given in 1916-17 and alternate years.

Mr. Kay
Prerequisite: One year of geology including Geology 1 or 3 or 13b, and junior standing.
41. Advanced Field Geology.-Detailed survey and analysis of a selected district. Professional standards in work and report required. (For 1917 the field will probably be in eastern Wyoming. Party limited to ten, approved in advance.) Ten weeks in the summer; (10).

Professor Blackwelder
Prerequisite: Geology 15, 36, and 16, or equivalent.
45a-45b. Geological Conference.-All members and advanced students of the department meet to consider the results of investigations, reviews, and special lectures. Credit given only to those advanced students authorized to register for the course. $I, I I$; (1).

Professor Biackwelder
Prerequisite: An elementary course in geology.

## Courses for Graduates

For graduate work in geology the student must have a thoro training in the principles of the science, and must have done advanced work in at least one of its branches. Except in unusual cases, which will be decided on their merits, at least 20 hours of geology and two or more weeks of field experience will be required. Graduate students with adequate technical preparation in other sciences may be admitted to graduate courses in certain subjects, such as crystallography and the history of organic evolution.
101. Advanced Crystallography.-Measuring, projecting, and calculating crystal forms, and determining the physical properties of crystallized bodies. Three to five times a week; I, II; (1 unit). Professor Bayley
[102. Igneous Petrography.-The igneous rocks, identification of types, classification, and relationships. Lectures; laboratory. Twice a week; I, II; (1 unit). Not given, 1916-17.]
[103. Metamorphic Petrography.-Microscopic study of the metamorphic rocks and the interpretation of their origin. Twice a week; I, II; ( 1 unit). Not given, 1916-17. Given in 1917-18 and alternate years.

Professor Bayley]
105. Paleontologic Problems.-Fossil invertebrates, either by zoological groups or by geological periods. One to three times a week; $I, I I ;$ ( 1 unit.)

## Associate Professor Savage

[107. Structural Problems.-Interpretation of selected districts; based on geologic maps and other field data. Once a week; I, II; (1 unit). Not given, 1916-17. Given in 1917-18 and alternate years.]
[108. Ore Deposition.-Problems in the origin of ore deposits, as illustrated by selected mining districts. Three times a week; I, II; (1 unil). Not given, 1916-17.
[125. Sedimentation.-The interpretation of sedimentary rocks in terms of their origin. Twice a week; I, II; (1 unit). Not given, 1916-17. Given in 1917-18 and alternate years.

Professor Blackwelder]
[126. Historical Problems.-Important questions of geologic history. Twice a week; I, II; (1 unit). Not given, 1916-17.

Professor Blackwelder]
135. Research.-Individual work under the supervision of members of the staff in their respective fields. Once a week; $I, I I$.
Professor Blackwelder, Professor Bayley, Associate Professor Savage, Dr. Rich
136. Seminar in Physical Geology.-Special problems in mineralogy, petrography, economic geology, metamorphism, and related subjects. Once a week; I, II; (1 unit).

Professor Bayley
137. Seminar in Historical Geology.-Special problems in historical geology, palcontology, correlation, and allied subjects. Once a week; I, II; (1 unit).

Professor Blackwelder, Associate Professor Savage

## GERMANIC LANGUAGES AND LITERATURE

(Including Scandinavian.)
Julius Goebel, Ph.D., Professor
Otto Eduard Lessing, Ph.D., Professor
George Toblas Flom, Ph.D., Associate Professor, Scandinavian
Neil Conwell Brooks, Ph.D., Assistant Professor
Leonard Bloomfield, Ph.D., Assistant Professor, Comparative Philology
Joseph Eugene Gillet, Ph.D., Associate, German and Comparative Literature
Charles Allyn Williams, Ph.D., Associate
Daisy Luana Blaisdell, A.M., Instructor
Armin Hajman Koller, Ph.D., Instructor
Heinrich Waldemar Nordmeyer, Ph.D., Instructor
Oscar Friedrich Wilhelm Fernsemer, Ph.D., Instructor
Maximilian Josef Rudwin, Ph.D., Instructor
Bernhard Alexander Uhlendorf, A.M., Instructor
Hermann H Wiebe, A.M., Assistant

GERMAN
Major: 20 hours in German, excluding German 1, 2, and 3, and including at least 6 hours of primarily fourth-year courses.

Minors: 20 hours in not more than two subjects chosen from the following list: languages, education, history, philosophy, and psychology, provided that $\delta$ hours must be selected from a language other than German.

## GERMANIC LANGUAGES

Major: 20 hours in German and the Scandinavian languages, provided that at least 8 hours must be in German and 8 hours in one Scandinavian language. Only German courses above the second year, and Scandinavian courses exclusive of Scandinavian 6 and 12 will be acceptable.

Minors: 20 hours in not more than two subjects chosen from the following list: languages, education, history, philosophy, and psychology.

## A. GERMAN

## First-Year Courses

1. Elementary Course.-Grammar and easy reading for beginners. (Two sections are offered in the second semester for students who enter the University in the second semester.) $I$ or $I I$; (4). Assistant Professor Brooks, Assistant Profes or Bloomfield, Dr. Gillet, Miss Blaisdell, Dr. Koller, Dr. Nordmeyer, Dr. Fernsemer, Dr. Rudwin, Mr. Uhlendorf.
2. Narrative Prose.-Grammar and reading. $I$; (4)

Miss Blaisdell, Mr. Uhlendorf, Mr. Wiebe
Prerequisite: One year of high-school German or German S 1, or German 1 taken in the second semester.

Note.-Students who have had no German for one yeat or more will be required to take a written test before entering German 2. This will be regarded as a test of present ability in German and not as an examination on any particular course previously taken in this subject.
3. Narrative Prose.-(Continuation of German 1.)-Reading and grammar. II; (4). Assistant Professor Brooks, Assistant Professor Bloomfield, Dr. Gillet, Dr. Koller, Dr. Nordmeyer, Dr. Rudwin, Mr. Uhlendorf.

Prerequisite: German 1.

## Second-Year Courses

4. Prose Reading.-Selections from standard prose writers; sight reading; composition. I or $I I$; (4). Assistant Professor Bloomfield, Dr. Gillet, Dr. Williams, Miss Blaisdell, Dr. Koller, Dr. Nordmeyer, Dr. Fernsemer, Dr. Rudwin, Mr. Uhlendorf, Mr. Wiebe.

Prerequisite: German 2 or 3, or two years of high-school German.
5. Narrative and Historical Prose.-At the option of the instructor one classic in verse may also be read. Composition. I or $I I$; (4). Dr. Gillet, Dr. Willlams, Miss Blaisdell, Dr. Koller, Dr. Nordmeyer, Dr. Rudwin.

Prerequisite: German 4, or three years of high-school German.
б. Scientific Prose.-The rapid reading of works of a general scientific character. (Parallel with 5. Students may not take both 5 and 6 for more than a total of four hours' credit without special permission of department.) $I I$; (4).

Dr. Williams, Dr. Fernsemer, Dr. Rudwin, Dr. Uhlendorf
Prerequisite: German 4, or three years of high-school German.

## Third-Year Courses

7. Modern Fiction.-(Intended primarily for students who take course 5 in the first semester. Not open to those who have had any course more advanced than 5.) $I I$; (3).

Assistant Professor Brooks, Miss Blaisdell
Prerequisite: German 5, or equivalent.
10. Introductory Goethe Course.-Reading of works illustrating different periods in Goethe's development: Gretz von Berlichingen; Egmont; Iphigenie auf Tauris; selections from Dichtung und Wahrheit. II; (3).

Assistant Professor Brooks, Dr. Fernsemer
Prerequisite: German 14, or 16 , or 24 , or 28 a.
14. Introductory Schiller Course.-Works illustrating different periods in Sciniller's development: Lyrics and Bailads; Kabale und Liebe; Braut von Messina. I; (3).

Assistant Professor Brooks, Dr. Fernsemer
Prerequisite: German 5, or equivalent.
16. Elementary Comnosition and Conversation. $-I$ or $I I$; (2).

Assistant Professor Brooks, Miss Blaisdell, Dr. Rudiwin
Prerequisite: German 5, or equivalent.
17. Intennediate Composition and Conversation. - I or $I I$; (3).

Assistant Professor Bloomfield, Dr. Fernsemer, Dr. Rudwin
Prerequisite: German 16.
24. Modern Drama.-Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others. $I$; (3).

Dr. Koller
Prerequisite: German 5, or equivalent.
28a-28b. Lyrics and Ballads.-Their forn, development, and different types, the Volkslicd of the eighteenth and nineteenth centuries and its influence. First semester: the early eighteenth century and the classical period. Second semester: the nincteenth century. (The first semester may be taken separately, but not the second without the first.) I, II; (2).

Dr. Williayis
Prerequisite: German 5, or equivalent, and sophomore standing.

## Primarily Fourth-Year Courses

Note.-For a major in Gerraan students are required to take at least six hours of these primarily fonith-year courses; seniors who are preparing to teach German should take German 29.
8. Schiller.-The life of Schiller; Wallenstein and other selections. II; (3).

Professor Lessing
Prerequisite: Three years of college German, or equivalent.
11. German Literature After the Reformation.-Lectires; recitations; reports on assigned collateral reading. $I I$; (3). Professor Lessing

Prercquisite: German 26.
25. Teacbers' Course.-Discussion of methods; examination of text-books. (Open to seniors and special students who have 20 hours credit in German. This course may not be taken for credit by graduate students.) $I I$; (2).
Di. Koleer

Prerequisite: German 29a or equivalent; completion of or registration in Education 1 or equivalent.
26. German Literature to the end of the Reformation.-Lectures; recitations; reports on assigned reading. $I$; (3).

Professor Lessing
Prerequisite: German 10, or 24 , or $28 \mathrm{a}-28 \mathrm{~b}$.
27. Lessing.-The life of Lessing. Study of his plays and dramatic theory. I; (3).

Professor Lessing
Prerequisite: Three years of college German, or equivalent.
29a-29b. Advanced Composition.-Themes on Germany and German life, based on suitable reading, discussed in German. $I, I I$; (3). Dr. Nordmeyer

Prerequisite: German 17 for 29a; 29a for 29b.

30a-30b. Thesis Course.-(Intended primarily for candidates for honors in German, but open to other seniors.) $I, I I$; ( or 2 ). ${ }^{1}$ Professor Goebel, Professor Lessing, Assistant Professor Brooks, Assistant Professor Bloomfield.

Prerequisite: Senior standing in College, and three years of college German or equivalent.
31. Middle High German.- $I$; (2).

Professor Goebel
Prerequisite: Senior or graduate standing; three years of college German.
[32. History of German Civilization.-Readings; lectures; discussions. Not given, 1916-17. $I$; (3).

Assistant Professor Brooks]
[39a-39b. Goethe and Schiller.-Interpretation of Goethe's poems. Goethe's Tasso; Schiller's Ueber naive und sentimentalische Dichung. I, II; (2). Not given, 1916-17.

Professor Goebel]

## Courses for Graduates

Students desiring to take German as a major should have completed a four years' course of undergraduate study in German, corresponding to the four years' course at this University, and should be familiar with the principal works of the writers of the classical and modern periods of German literature, show a general knowledge of the history of German literature, and be able to follow lectures in the German language.

A reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Doctor of Philosophy have some knowledge of Greek. All students are expected to have had a course in German history.
101. Seminar in Germanic Philology.-Training in original research; results of special value may be published in the Journal of English and Germanic Philology. Once a week; I, II; (1 unit).

Professor Goebel
103. Introduction to the Historical Study of the Germanic Languages.History of German philology; comparative grammar of the Old Germanic dialects. Lectures; discussions of special topics. Twice a week; II; (i unit).

Professor Goebel
104. Gothic.-Grammar and literature. Twice a week; $I$; (1 unit).

Professor Goebel
105. Old High German.-Grammar and interpretation of the oldest literary documents. Three times a week; II; (1 unit). Dr. Williams
109. Goethe's and Schiller's Philosophy.-Twice a week; I, $I$; (1 unit).

## Professor Goebel

110. Early German Drama.-German drama to the time of the Reformation; medieval religious drama; Shrovetide plays; beginning of the humanistic drama. Twice a week; I; (1 unit).

Assistant Professor Broons
113. German Literature of the Fifteenth and Sixteenth Centuries.-Survey of the literature on the background of the general history of the time; Luther and the Reformation; Mastersingers and folksongs; the Reformation drama; Hans Sachs; Brant; Fischart; the chap books; the English comedians. Twice a week; II; (1 unit).

Assistant Professor Brooks
115. History of German Literature of the Nineteenth Century.-Twice a week; I, II; (1 unit).

Professor Lessing

[^86][1i6. Medieval German Literature with Reference to Political, Religious, and Social History.-Research. Twice a week, I; (1 unit). Not given, 1916-17. Professor Lessing]
[117. History of German Literature during the Eighteenth Century.-Twice a week; I, II; (1 unit). Not given, 1916-17. Professor Lessing]
118. The German Drama Since Schiller.-Research. Twice a week; I; II; (1 unit). Professor Lessing
[119. The German Novel.-Research. Twice a week; I, II; (1 unit). Not given, 1916-17.

Professor Lessing]
[121. Walther von der Vogelweide.-Lectures and interpretations. Twice a weeek; II; (1 unit). Not given, 1916-17. Professor Goebel]
121a. The Nibelungenlied.-Lectures and interpretations. Twice a week; II; (1 unit).

Professor Goebel
[121b. Gudrun.-Lectures and interpretations. Twice a week; II; (1 unit). Not given, 1916-17.

Professor Goebel]

## B. SCA NDINA VIA N

## Undergraduate Courses Not Open to Freshmen

1a-1b. Elementary Norwegian.-Grammar; conversation; reading from Björnson, Lie, and Ibsen. I; (3); II; (2). Associate Professor Flom
[2a-2b. Elementary Swedish.-Grammar; pronunciation; composition; easy reading. $I, I I ;$ (2). Not given, 1916-17. Associate Professor Flom]
$4 \mathrm{a}-\mathrm{s} \mathrm{b}$. Swedish (Intermediate Course).-Review of parts of the grammar; composition; Strindberg: Lycko-Pers resa; lyric poetry; Tenger: Frithiofs saga. I, II; (2). Associate Professor Flom

Prerequisite: Scandinavian 2a-2b.
6. Ibsen's Social Dramas.-Lectures; interpretation of four dramas; Ibsen's technique. Archer's translation is used. II; (2). Associate Professor Flom

Prerequisite: Junior standing.
12. Norse Mythology.--Primitive religion; the religious beliefs of the Norseman in pre-christian times; sources; interpretation of the principal myths. $I$; (2). Associate Professor Flom
Prerequisite: Junior standing.
16. Introduction to the History of Scandinavian Culture.-Lectures on the civilization of Scandinavia from the Stone Age to 1000 A. D. I; (2).

Associate Professor Flom
[40. Gerinanic Mythology.-Lectures; interpretation of the sources. II; (2). Not given, 1916-17.

Associate Professor Flom]

## Courses for Advanced Undergraduates and Graduates

14. History of Old Norse Literature.-Lectures. II; (2).

Associate Professor Flom

## Courses for Graduates

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.
101. Old Norse.-The language as a menber of the Germanic group; relationship to Gothic and Old English; phonological exercises. Reading of prose texts (Edda and Volsungasaga). I, II; (1 unit). Associate Professor Flom

## Summer Session Courses

## A. GERMAN

S 1. Beginners' Course.-(4). Assistant Professor Bloomfield, Dr. Gillet
S 2. Intermediate Course.-(Open to those who have had German 1 the regular university year or its equivalent.) (3). Mr. Kline

Prerequisite: German 1 or its equivalent.
S 3. Prose Reading.-Narrative prose; sight translation; composition. (3).
Mr. Kline
Prerequisite: Gcrman 3 or its equivalent.
S 4. Readings from the Classics.-Suderman's Teja (2).
Dr. Puckett
Prerequisite: German 4 or its equivalent.
S 5. Prose Composition and Conversation.-Translation of ordinary prose into German; idiomatic constructions; free composition and conversation. (2).

Dr. Green
Prerequisite: Two years of university German or the equivalent.
S 6. Modern Drama.-Rapid reading of dramas by Kleist, Hebbel, and others. (2).

Dr. Green
Prerequisite: Two years of university German or the equivalent.
S 7. Modern Fiction.-Rapid reading of representative short stories. (2).
Di. Puckett

Prerequisite: Two years of university German or an equivalent.
*S 11. History of German Literature Since the Reformation.-(2).
Dr. Puckett
Prerequisite: Three years of university German or the equivalent.
*S 14. Elementary Readings in Middle High German.-Geiman language and literature of the Middle Ages. ( $11 / 2$ ). Dr. Green

Prerequisite: Three years of university German or the equivalent.
*S 16. The Development of the Drama in Europe.-Reading of representative dramas; lectures; reports. (Knowledge of French and German desirable but not required. May be counted toward a major in German.) (11/2). Dr. Gillet

Prerequisite: Junior standing.
*S 17. Science of Language for Teachers.-Phonetics; applications of linguistic science to methods and practise in language-teaching. (May be counted towarl a major in German.) (1). Assistant Professor Bloomfield

Prerequisite: Senior standing.

## GREEK

(See Classics.)

## HISTORY

Evarts Boutell Greene, Ph.D, Professor Clarence Wal worth Alvord, Ph.D., Professor
Laurence Marcellus Larson, Ph.D., Professor

Albert Howe Lybyer, Ph.D., Professor
William Spence Robertson, ${ }^{1}$ Ph.D., A ssistant Professor
Paul Van Brunt Jones, Ph.D., Associate
Theodore Calvin Pease, Ph.D., Associate
Arthur Charles Cole, Ph.D., Associate
Niels Henrissen Debel, Ph.D., Instructor
Elizabeth Parnham Brush, A.M., Assistant
Jay Earll Mller, A.M., LL. B., Assistant
Franklin Charles Palm, A.m., Assistant
Cooperating:
William Abbott Oldfather, Ph.D., Professor, Greek
Howard Vernon Canter, Ph.D., Associate Professor, Latin
Frank Mallory Anderson Pli.D., Professor of History at Dartmouth College (Summer Session)
William T Laprade, Ph.D., Professor of History at Trinity College (Summer Session)
Major: 20 hours, excluding History 1a and 2a, and including (a) either History 1 b or 2 b ; (b) six hours selected from courses for advanced undergraduates and graduates; and (c) any other courses offered in the department.

Minors: 20 hours, including (a) either Economics 1 or Political Science 1 and 3 ; and (b) one or two of the following subjects; economics, political science, law, sociology, the history of any literature, history of education, philosophy, and physiography. Courses in any foreign language may be accepted in satisfaction of this requirement, if the student can show his ability to read ordinary historical prose in that language.

## Courses for Undergraduates

1a-1b. Continental European History.-Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.) I, II; (4). Professor Lybyer, Dr. Jones, and assistants

## Note.-Three credits for seniors.

2a-2b. English History.-First semester: political history of England to 1603; the larger social, economic, and religious movements. Second semester: the modern history of England; colonial and imperial development. $I, I I$; (3).

Professor Larson, Mr. Miller
Note.-Two credits for seniors.
3a-3b. History of the United States.-First semester: the Colonial era; the Revolution; genesis of the Federal Constitution. Second semester: the United States under the Constitution. (Either semester may be taken separately.) $I, I I$; (3).

Professor Greene, Dr. Cole, Dr. Debel
Prerequisite: One year of college work.
5. History of Greece.- ; (3). (See Greek 20.) Professor Oldfather

Prerequisite: One college course in history or the classics, sophomore standing.
6. History of Rome-II; (3). (See Latin 19.)

Prerequisite: One college course in history or the classics; sophomore standing.
17. The History of Illinois.-The political, economic, and social development of a typical commonwealth in the Middle West, considered in its relation to the general course of American History. I; (2).

Dr. Pease
Prercquisite: Junior standing in any college of the University.

[^87]18. The Teaching of History.-Preparation of students for the teaching of history in secondary schools. $I$; (2).

Dr. Cole
Prerequisite: History 1a-1b, 3a-3b, or their equivalent; senior standing.
28a-28b. Thesis.-Special training in investigation for candidates for honors and for other seniors. $I, I I ;(2)$.

Professor Greene

## Courses for Adivanced Undergraduates and Graduates

(Open to seniors and to juniors of high standing. The ability to use French and German is desirable.)

4a-4b. The Constitutienal History of England.-First semester: institutional origins. Second semester: modern constitutional practise. (Important for students specializing in history, political science, or law.) I, $I$; (3).

Professor Larson
Prerequisite: One year of college history.
8. Medieval Civilization.-The religious, economic, and intellectual development of medieval society. $I$; (3).

Professor Larson
Prerequisite: History 1a-1b.
$9 \mathrm{a}-9 \mathrm{~b}$. The Renaissance and the Reformation. The transition from medieval to modern ideals. $I, I I$; (3).

Dr. Jones
Prerequisite: History 1a-1b.
11. Special Topics in Ancient History.-Methods of research in Greek and Roman listory. The decline of ancient civilization. II; (3).

Professor Oldfather
13. The American Revolution, 1760-1783.-Colonial institutions on the eve of the Revolution; the controversy with the mother country; war and diplomacy; the transition from provincial to republican institutions. $I$; (3).

Professor Greene
Prerequisite: History 3a.
14b. Constitutional Fistory of the United States Since 1789.—II; (3).
Dr. Cole
Prerequisite: History 3b.
15. The Civil War and Reconstruction in the United States.-II; (3).

Dr. Cole
Prerequisite: History 3a-3b.
16a-16b. The Exploration and Colonization of the Wrest.-First semester: the Mississippi Valley from the earliest European explorations to the close of the war of 1812. Second semester: the Mississippi Valley since 1815, and the progress of western expansion to the Pacific. (Either semester may be taken separately.) $I, I I$; (2).

Professor Alvord
Prerequisite: History 3a-3b.
19. France in the Feudal and Later Middle Ages.-(A reading knowledge of French is desirable.) $I I$; (3).

Dr. Jones
Prerequisite: History 1a-1b.
20a. Europe From 1815 to 1871.-I; (3).
Professor Lybyer
Prerequisite: One year of college work in history or political science.
20b. Europe Since 1871.-II; (3). Professor Lybyer
Prerequisite: One year of college work in history or political science.
21. The United States Since the Reconstruction.-Historical introduction to contemporary American politics. I; (3).

Dr. Cole

## Prerequisite: History 3a-3b.

23. England in the Seventeenth Century with Special Reference to the Puritan Revolution.-The influence of Puritanism on the institutions and ideals of modern England and Anmerica. II; (2).

Dr. Pease
Prerequisite: History 1a-1b or 2a-2b.
[26. The Latin-American Colonies.-The political, economic, social, and intellectual life of Spain during the period of discovery; the exploration, settlement, and civilization of Spanish America and the Philippines; the exploration and colonization of Brazil. I; (3). Not given, 1916-17. Assistant Professor Robertson

Prerequisite: History 1a-1b or 3a-3b.]
[27. The Eistory of Latin-America From the Wars of Independence to the Present Time.-The leading Latin-American states; political parties; existing goverments; relations with Europe and the United States; the Old Regime in Texas, Mexico, and California. II; (3). Not given, 1916-17.

Assistant Professor Robertson
Prerequisite: History 3a-3b.]
29. The Far East.-The contact of Western nations with the Far East from the sixteenth century to the present time. $I I ;$ (2).

Professor Greene
Prerequisite: One year of college history, economics, or political science, and senior standing.
30. The Ottoman Empire and the Near East.-The history of the lands around the eastern Mediterranean; their international relations since the great Crusades. $I$; (3).

Professor Lybyer
Prcrequisite: One year of college history, economics, or political science, and senior standing.

## Courses for Graduates

Graduate work in history presupposes two years of college work in this subject, or sixteen semester hours, which should include courses ir. European and Anerican history corresponding roughly to History $\mathrm{la}-\mathrm{lb}$ and $3 \mathrm{a}-3 \mathrm{~b}$ in this University. Linguistic preparation, especially in French and German, is important. For medieval history some knowledge of Latin is essential, and Spanish is useful for certain fields of American history.

Advanced courses in history at the University of Illinois are of three kinds:
(1) For information and guidance in general reading. (2) Instruction in methodology, historiography, and bibliography. A part of this work (in course 103) is required of all graduate students in history during their first year. (3) Seminar courses for the study of special fields with a view to training in the methods of historical criticism and research.

Illinois Historical Survey.-Students have an apportunity to pursue research in western history in connection with the Illinois Historical Survey, an organization for the purpose of carrying on systematic studies in the history of Illinois.

Attention is also called to the fact that the University of Illinois has for some time cooperated with the Illinois State Historical Society and the Trustees of the State Historical Library, in the gathering and editing of archive material. As a result instructors and graduate students in the department have contributed from
time to time to the publications of these state organizations, and have been given useful training in the study of manuscript as well as printed material.

The Fistorical Club, consisting of graduate students in the department, which meets twice a month, gives an opportunity for informal discussion of historical topics.
101. Seminar in American History.-Bibliography; solution of typical problems; reports on the progress of investigations. Two hours, once a week; $I, I I$; (1 to 2 units).

In connection with this course, direction in research is offered as follows:
A. American history before 1789 . Professor Greene
B. American history since 1789 .
C. The history of the West.

Dí. Cole
D. American church history.

Professor Alvord
[E. Latin-American history. Not given, 1916-17.
Professor Greene
Assistant Professor Robertson]
102. Studies in English History.-Selected problems from the history of England in the later middle ages and the early modern period. Twice a week; $I, I I$; (1 unit).

Professor Larson
103. Historiography and Historical Method.-Selected problems; studies of representative historians; readings in French and German historical literature. (Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere.) Twice a week; I, II; (1/2 unit).

Professor Lybyer
104. Research in European History.-Direction is offered by members of the department as follows:
A. Medieval history.

Professor Larson
B. Modern history of Continental Europe.

Professor Lyeyer
C. English history.
D. Renaissance and Reformation.

Professor Larsov
E. Asiatic Relations.

Professor Greene, Professor Libyer
I, II; (1 to 2 units).
105. Studies in the History of the West.-Subject for 1916-17: The French Colonization of the Mississippi Valley. Once a week; I, II; (1 unit).

Professor Alvord

## Summer Session Courses

S 1b. European History, 378-1300.-For description see History 1. (21/2). Professor Laprade,
S 3c. American History, 1783-1861.-For description see History 3b. (21/2).
Dr. Cole (At least junior standing required.)
*S 22. The West in American History, 1850-1872.--The part played by the West in the sectional controversy, in the Civil War, and in the problems of the early Reconstruction era. (21/2). Dr. COle

Prerequisite: One college course in American history or its equivalent.
*S 23. The Foreign Policy of Great Britain, 1713-1815.-(21/2).
Professor Laprade
Prerequisite: One college course in European history or its equivalent.
*S 24. History of France since 1815. -The changes of government in 1830, 1848, 1851-2, 1870-5; the connection of France with the unification of Germany and Italy; and the political, colonial, and diplomatic history of the Third Republic. (21/2).

Professor Anderson
Prerequisite: One college course in modern European history, or equivalent preparation.
*S 101. Investigation of Selected Topics.-Personal conferences with graduate students who desire guidance in research.

Dr. Cole

## HORTICULTURE

Josepf Cullen Blair, M.S., Professor, Horticulture
John Williak Lloyd, ${ }^{1}$ M.S., Professor, Olericulture
Charles Spencer Crandall, M.S., Professor, Pomology
Charles Mulford Robinson, A.M., Projessor, Civic Design
Herman Bernard Dorner, M.S., Assistant Professor, Floriculture
Bethel Stewart Pickett, M.S., Assistant Professor, Pomology
Ralph Rodney Root, M.L.A., Assistant Professor, Landscape Gardening
Ernest Winfield Balley, M.S., Assistant Professor, Pomology
Charles Elaler Durst, M.S., Associate, Olericulture
Warren Albert Ruth, A.M., Associate, Horticultural Chemistry
Simeon James Bole, A.M., Associate, Pomology
Fred Weaver Muncie, Ph.D., Associate, Floricultural Chemistry
Frederick Noble Evans, M.L.A., Associate, Landscape Gardening
Alfred Joseph Gunderson, B.S., Instructor, Pomology
William Sanford Brock, A.B., B.S., Instructor, Pomology
Arthur Samuel Colby, M.S., Instructor, Pomology
Duane Taylor Englis, Ph.D., Instructor, Floricultural Chemistry
Ernest Michael Rudolpi Lamkey, Ph.D., Instructor, Floricultural Pathology
William Tell Nicolet, M.L.A., Insiructor, Landscape Gardening
Howard Dexter Brown, B.S., Assistant, Olericulture
August George Нecht, B.S., Assistant, Floriculture
Leon Deming Tilton, B.S., Assistant, Landscape Extension
James Hutchinson, Assistant, Floriculture
Edward George Lauterbach, B.S., Assistant, Floricultural Pathology
12. Elements of Horticulture.-Fruit growing, vegetable gardening, and ornamental planting, with special reference to the farm home. Recitations; practical exercises. (Required of all freshmen in the General Curriculum in Agriculture.) $I$; (2). Assistant Professor Pickett, Mr. Ruth, Mir. Bole, Mr. Gunderson, Mr. Brock, Mr. Colby
13. Elements of Horticulture.-(Continuation of 1a. Required of all freshmen in the General Curriculum in Agriculture.) II; (2).
Assistant Professor Pickett, Mr. Ruth, Mr. Gunderson, Mr. Brock, Mr. Colby
2. Small Fruits and Grapes.-The grape, strawberry, raspberry, blackberry, dewberry, currant, gooseberry. History; extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting, marketing. Lectures; reference readings; laboratory. II; (3).

Mr. Bole
Prerequisite: Horticulture 1a.

[^88]3. Vegetable Gardening.-Commercial vegetable production; survey of trucking sections; analysis of types of vegetable gardening; factors influencing earliness, fertilizing, insects, and diseases; irrigation; equipment́; labor and nanagement problems; rarketing the leading crops. Lectures; reference readings; practical experience in the greenhouse and departrent gardens. $I I$; (5).

Mir. Durst, Mr. Brown
Prerequisite: Horticulture 1a and 1 b or their equivalents.
4. Plant Houses.-Construction, cost, and maintenance; heating; ventilating. $I$; (4).

Assistant Professor Dorner
5. Plant Propagation.-Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. II; (5). Assistant Professor Dorner, Mr. Lauterbach
6. Nursery Methods.-Some details of nursery management and their relation to horticulture in general. Lectures; reference readings. $I I$; (2).

Assistant Professor Bailey
Prerequisite: Horticulture 5; Entomology 4.
7. Spraying.-Materials, appliances, and methods employed in combating insects and fungus diseases. Lectures; reference readings; laboratory; field work. $I I$; (3). Mr. Ruth
Prerequisite: Horticulture 1a and 1 b or their equivalents; Chemistry 1 ; Entomology 4.
8. Orcharding.-Pomaceous, drupaceous, and nut fruits; management of large commercial orchards; harvesting; grading; packing; storing; marketing. I; (5).

Professor Crandall, Assistant Professor Bailey
Prerequisile: Two years of university work; Horticulture 1a and 1b or their equivalents; Horticulture 5; Botany 1; Entomology 4.
[9. Forestry.-Forest trees; uses; distribution; artificial production; relations of forest and climate; forestry legislation and economy. II; (2). Not given, 1916-17.

Prerequisite: Botany 1, or its equivalent.]
10a. Rural Improvement.-Landscape gardening in the open country and its relation to rural conditions, with special reference to the farm group. Lectures; reference readings; reports; occasional field trips. $I$; (2).

Assistant Professor Root
10b. Town Improvement.-The development of the town as an organism and the improvement of small communities, with special reference to the home grounds. Lectures; reference readings; reports; occasional field trips. $I I$; (2).

Mr. Evans
11. Study of Cultivated Plants.-The relationship and classification of economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. I; (2).

Professor Blair, Professor Crandall
Prerequisite: Botany 4a.
12. Evolution of Horticultural Plants.-History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors that influence variation, particularly food supply, climate, and cross-fertilization. $I$; (3).

Professor Crandall
Prerequisite: Two years of university work; Horticulture 8 and Botany 4 .

15a. Principles of Plant Growing.-Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. II; (5). Assistant Professor Dorner, Mr. Hecht

## Prerequisite: Horticulture 5; Botany 1.

15b. Commercial Crops.-Greenhouse plants and cut flowers for wholesale and retail markets; care and marketing of the crops. Lestures; greenhouse work. I; (5).

Mr. Hecht
Prerequisite: Horticulture 15a.
17. Commercial Fruit Culture.-Practical work in orchards and greenhouses; reference readings; seminar. (A limited number of trips will be taken, cost not to exceed $\$ 10.00$. For students specializing in pomology.) $I$; (5).

Assistant Professor Bailey
Frerequisite: Horticulture 8 or its equivalent.
18. Experimental Horticulture.-Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpretation of results. (For adranced students preparing for experiment station work.) $I I$; (5).

Professor Blair, Assistant Professor Pickett
Prerequisite: Twenty hours' work in horticuiture.
19. Amateur Floriculture.-Window gardening; growing of flowers upon the home grounds; containers; potting soils; fertilizers; preparation and planting of flower beds; propagation and culture of plants for window and garden. $I$; (3).

Mr. Lauterbach
21a. Landscape Design (Elementary Course). -Simple composition as applied to landscape design; types of drafting and presentation used in office practise. $I ;\left(\frac{1}{4}\right)$.

Assistant Professor Root, Mr. Tilton
Prerequisite: Architecture 32.
21b. Landscape Design (Second Course).-Private estates and gardens in city and suburban developments. II; (4).

Assistant Professor Root, Mr. Tilton
Prereguisite: Horticulture 21a.
22. Special Investigation and Thesis.-I or $I I$; (5-10). ${ }^{1}$

23a-23b. Landscape Design (Third Course).-Drafting; field trips; assigned readings; reports; occasional lectures. I, $I I$; (4). Assistant Professor Roor

Prerequisite: Horticulture 21b.
24a. Trees and Shrubs.-Lectures; reference readings; field trips. $I I$; (3).
Assistant Professor Root, Mr. Tilton
Prerequisite: Botany 1.
24b. Trees and Shrubs.-(Continuation of 24a.) Lectures; reference readings; field trips. $I$; (3).

Assistant Professor Root, Mr. Tilton

## Prerequisite: Horticulture 24a.

25a-25b. Advanced Landscape Design.-Drafting; field trips; assigned readings; reports; occasional lectures; 15 hours' drafting per week. $I, I$; (5).

Mr. Evans
Prerequisite: Horticulture 23b.

[^89]26a. Planting Design (First Course).-The plantiing of private estates and gardens. Problems. Planting; lectures; drafting; reference readings; field trips; planting specifications; reports. Six hours' drafting; one lecture. II; (3).

Assistant Professor Root
Prerequisite: Horticulture 23a, 24b.
26b. Planting Design (Second Course).-The planting of public properties, parks, city forestry work, golf courses, cemeteries. Problems. Lectures; drafting; conferences. Six hours' drafting; one lecture. $I$; (3).

Mr. Evans
Prerequisite: Horticulture 26a.
27a-27b. Landscape Practise.-Principles of construction. The preparation of construction drawings such as grading plans, working drawings, specifications, and reports. $I, I I$; (3).

Mr. Tilton
Prerequisite: Civil Engineering 32.
28. Exotics.-Temporary decorative plants used in landscape gardening. Lectures; planting plans; field trips. $I I$; (1).

Mr. Evans
Prerequisite: Horticulture 23b, 24b.
29a. Garden Design.-The garden in its relation to the house; architectural harmony, utilization, topographic conditions, and planting for architectural or horticultural emphasis. Eight hours' drafting; one lecture. $I$; (3).

Assistant Professor Root
Prerequisite: Architecture 32.
29b. Garden Design.-The designing of period gardens and their relation to garden design. Eight hours' drafting; one lecture. II; (3). Mr. Evins

Prerequisite: Horticulture 23a or Architecture 33.
30. Decorative and Bedding Plants.-Tropical and sub-tropical plants used in decorative work in the conservatory; tender plants used in outdoor bedding. Lectures; practical greenhouse work. $I I$; (5).

Mr. Месht
Prerequisite: Horticulture 15a.
31. Garden Flowers.-The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. I; (3).

Assistant Professor Dorner
Prerequisite: Horticulture 5; Botany 1.
32. Floral Decoration.-Cut flowers and plants in decorative work; arrangement of flowers in baskets, designs, and bouquets; table decoration; house decoration. (For floricultural students.) $I I$; (4). Assistant Professor Dorner
33. Systematic Pomology.-Description, nomenclature, and classification of native and sub-tropical fruits; critical descriptions and identification with special reference to relationships and classifications of varieties. Training is given in judging and displaying fruits. $I$; (2).

Assistant Professor Bailey
34. Vegetables Under Glass.-Practical training in the forcing of vegetables. Lectures; reference readings; laboratory. I; (3). Mr. Durst, Mr. Brown

Prerequisite: Horticulture 3, 15a.
35. Private Conservatory Work.-Types of plants for large conservatories; arrangement; care. $I I$; (3).

Assistant Professor Dorner
Prerequisite: Horticulture 15a, 4.
36. History of Landscape Gardening.-Lectures; reference readings; library sketches; reports. $I I$; (2).

Assistant Professor Root

37a. Civic Design.-Town remodeling; remedial problems in town planning. Lectures; field trips; reference readings; reports; drafting. $I$; (3).

Professor Robinson, Mr. Evans
Prerequisite: Horticulture 41 or Political Science 4 or 34.
37b. Civic Design.-Town extension; prevertive and preservative aspects of town planning. Lectures; reference readings; drafting; textbook. $I I$; (3).

Professor Robinson

## Prerequisite: Horticulture 37a.

38. Office Practise in Landscape Gardening.-Lectures; office work; reports. Practise in carrying out landscape plans in the field. $I$ or $I I$; (2).

Assistant Professor Root, Professor Robinson, Mr. Evans
Prerequisite: Horticulture 27b, 23b.
39a-39b. Special Lectures.-Lectures by members of the faculty and invited lecturers, on the working out of problems in landscape gardening. (Certain inspection trips will be required of the class. The expense of these trips will be about $\$ 2.00$.) One lecture a week with written reports. $I, I I$; (1).

Assistant Professor Roor
Prerequisite: Permission of the instructor in charge.
40a. Trees and Shrubs (Advanced Course).-Laboratory; field and herbarium work; assigned readings; seminar conferences. I; (3).

Assistant Professor Root, Mr. Evans
Prerequisite: Horticulture 24b.
40b. Trees and Shrubs (Advanced Course).-Special problems in the classification and arrangement of plants as to their leaf color. II; (3). Mr. Evans

Prerequisite: Horticulture 24b.
41. Civic Design (Elementay Course).-Lectures introductory to city planning; reference readings; reports. $I I$; (1).

Professor Robinson, Mr. Evans
Prerequisite: Horticulture 23a.
42. Landscape Design (Elementary Course).-Design of private grounds in the country and city. Lectures; reference readings; reports; six hours' drafting per week. $I I$; (3).

Assistant Professor Root, Mr. Tilton

## Courses for Advanced Undergraduates and Graduates

43. Nutrition of Greenhouse Crops.-Soils and fertilizers; moisture and carbon dioxide content of the air; temperature as related to greenhouse crops; greenhouse practise in application to fertilizers, in watering, and in temperature and humidity regulation. Lectures; seminar; laboratory. $I$; (5). Dr. Muncie, Dr. Englis

Prerequisite: Botany; Agronomy 9; Horticulture 3 or 15a.
44. Pomology Seminar.-Assigned topics; review of books, current technical journals, and other publications. For seniors and graduates specializing in pomology. $I, I I ;(1)$.

Assistant Professor Pickett

## Courses for Graduates

At least two years of collegiate work in horticulture and allied subjects and specific preparation for the chosen topics are required for entrance upon major work in this department.
103. Olericulture.-Horticultural relationships, origins, breeding, fertilizing, cultural requirements, and improvement of vegetables. Conferences. I, II; ( 1 to 2 units; a student working part time and exterding his study for the master's degree over two years may register for $1 / 2$ to 1 unit for each of the four semesters).

Professor Blair, Professor Lloyd
108. Pomology.-Special problems in the ralationship, adaptation, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of small fruits and orchard fruits. Conferences. I, II; (1 to 2 units; a student working part time and extending his study for the master's degree over two years may register for $1 / 2$ to 1 unit for each of the four semesters).

Professor Blair, Professor Crandall, Assistant Professor Pickett
115. Floriculture.-The horticultural status of flowering plants, or special problems in the culture of greenhouse plants. $I, I I$; ( 1 to 2 units).

Assistant Professor Dorner, Dr. Muncie
116. Chemistry of Plant Nutrition.-The occurrence of organic compounds in plants; their significance in plant nutrition. Methods of analysis and investigation. Lectures; seminar; laboratory. I, II; ( $3 / 4$ to $11 / 4$ units).

Dr. Muncie

## HOUSEHOLD SCIENCE

Isabel Bevier,Ph.M., Professor and Director
Ruth Wheeler, Ph.D., Assistant Professor
Lurene Seymour, Ph.B., B.S., Associate
Cora Emeline Gray, M.S., Associate
Maud Edna Parsors, A.B., Associate and Director of Lunch Room
Florence Harrison, B.S., Associate
Lorinda Perry, Ph.D., Associate
Lucile Wheeler, A.M., Associate
Georgia Elizabeth Fleming, B.S., Instructor
Anna Waller Willlams, A.M., Instructor
Leona Hope, Instructor
Mary C DeGarmo, A.M., Instructor
Jean Gllbert MacKinnon, A.M., Instructor
Viola Jennie Anderson, M.S., Instructor
Marie E Freeman, A.B., Assistant
Bernice Cornelia Wait, Assistant
Mary Melvina Records, ${ }^{1}$ Assistant

## extension staff

Isabel Bevier, Ph.M., Vice Director
Mamie Bunch, A.B., State Leader in Home Economics
Olive B Percival, B.S., Assistant
Fannie Maria Brooks, A.B., Assistant
Anne I Green, B.S., Assistant
Naomi Olive Newburn, A.B., Assistant
Major: 20 hours from any courses offered by the department, excluding Household Science 2 and 7, and including Household Science 3, 5, 6, and 12.

Minors: 20 hours from either (a) chemistry, bacteriolagy, and physiology; or (b) economics (a minimum of eight hours), along with one or two of the following subjects: art and design, education, history, psychology, and sociology.

## Food

1. Selection and Preparation of Food.-Nature and uses; chemical composition; changes effected by heat, cold, or fermentation; selection; marketing expeditions; processes of manufacture; combinations. II; (3).

Miss Luclle Wheeler, Miss MacKinnon, Miss Anderson
Prerequisite: Entrance credit in physics; Chemistry 1.

[^90]6. Economic Uses of Food.-(Continuation of Course 1.) The economics of the food question; uses and applications of preservatives. $I$; (3).

Miss Lucile Wheeler, Miss MacKinnon, Miss Anderson
Prerequisite: Household Science 1.
14. Problems in the Preparation and Service of Food.-(Continuation of Courses 1 and 6.) Preparation and service of meals for a family; cost and dietetic values; preparation of food in quantities; individual problems in the manipulation of food materials. (Open to: (a) those who are preparing for lunch-room management; (b) those who are preparing for extension work; (c) in special cases, those who have completed the major in household science.) I or II; (3). Miss Gray, Miss Williams
Prerequisite: Household Science 1, 6; Chemistry 1, 2a; junior standing, and the consent of the instructor.
5. Dietetics.-Diet; the relation of food to health; influence of age, sex, and occupation on diet; the construction of dietaries; dietetic treatment of certain diseases. Laboratory. $I$ or $I I$; (3).

Miss De Garmo
Prerequisite: Household Science 1, 6; Physiology 4; Chemistry 1, 2a.
18. Lunch-Room Management.-Organization and equipment of lunch rooms. Laboratory practise. (The class takes a trip to Chicago to inspect various types of lunch rooms. The cost of the trip is about $\$ 15.00$.) $I$ or $I I$; (5).

Miss Parsons
Prerequisite: Household Science 1, 5, 6, 14; Economics 1 or 2, and senior standing.
4. Food and Nutrition.-The physiological, chemical, and bacteriological problems of food and nutrition. Individual investigation. $I$; (5).

Assistant Professor Wheeler
Prerequisite: Bacteriology 5; Chemistry 1, 2a, 13a, 9, 9c, five hours in botany or zoology; Household Science 1, 5, 6.
20. Infant Nutrition.-Lectures; readings, discussions. $I I$; (2).

Assistant Professor Wheeler
Prerequisite: Houschold Science 5, and senior standing.

## The House

2. Home Architecture and Sanitation.-Situation, surroundings, and construction of the house; hygiene, heating, lighting, ventilating, water supply, and drainage. House planning and sanitary plumbing, fixtures, and internal drainage؛ making skeleton plans. $I$; (2).
Professor Bevier, Miss Fleming, Miss Williams, Miss Hope, Assistant Professor Asir, and others.
3. Elementary Home Decoration.-Evolution of the house and home; homes of primitive peoples; theory of color and its application in home decoration; furnishings from a sanitary and artistic standpoint. $I I$; (2).

Professor Bevier, Miss Hope
Prerequisite: Art and Design 12; Household Science 2; junior standing.
10. Household Equipment and Management.-Expenditure of the income; organization of the household; care of the house and family; home nursing; domestic service problem. Laboratory work in practise apartment. $I I_{\text {; ( }}$ (2).

Miss Gray, Miss Williams
Prerequisite: Household Science 1, 2, 6; Economics 1 or 2; junior standing.

## Textiles and Clothing

7. Textiles.-Development of the textile industry from primitive times to the present; the important fibers and materials made from them; movements for bettering textile conditions. $I$ or $I I$; (2).

Miss Seymour
21. Weaving.-Application of the principles of design to weaving. Lectures and laboratory. $I$; (1).

Miss Seymour
Prerequisite: Art and Design 1, 12; Household Science 7.
19. Dress Design.-Study of dress from artistic, historic, economic, and hygienic standpoints. Application of principles of design to silhouette, proportion, line, and color. $I$; (3).

Miss Hope
Prerequisite: Art and Design 1, 12; Household Science 7.
12. Clothing.-(Continuation of Course 19)-Demonstrations and laboratory work in drafting, cutting, fitting, and making of garments from designs previously prepared in Household Science 19. II; (3).

Miss Fleming
Prerequisite: Household Science 19.
17. Problems in the Study of Textiles.-Microscopic and chemical analysis of fabrics; dyeing; special problems. $I I$; (3).

Miss Seymour
Prerequisite: Household Science 7, 12; Chemistry 1, 2a.

## Courses for Teachers

11. Teachers' Course. ${ }^{1}$-The best methods of presenting the work, and its correlation with other subjects. Practise in planning and presenting of courses. (Two inspection trips are made to other schools, one in April and one in May. The total cost does not exceed $\$ 5.00$.) $I I$; (3).

Professor Bevier, Miss Seymour, Miss Harrison
Prerequisite: Household Science 1, 2, 3, 5, 6, 7, 12, 13, and 19; laboratory work in sewing, Saturday morning, first semester; senior standing.
13. History of Home Economics.-The development of home economics as one of the factors in the education of women; the work in different types of institutions; the planning of courses for these types. $I$; (2).

Professor Bevier, Miss Harrison, Miss Seymour
Prerequisite: Senior standing.
9. Individual Problems.-Different phases of home economics. $I I$; (3).

Professor Bevier
Prerequisite: Senior standing.

## Economics of the Family

15. Economics of the Family Group.-The economic relations of the family as a whole and as individuals. Retail market; sources of income, and social and industrial conditions affecting them; child labor; economic position of women. I or $I I$; (3).

Dr. Perry
Prerequisite: Household Science 3, 6, 10, 12.

## Courses for Graduates

101. Home Economics.-Origin and development of home economics; industrial, educational, and sociological aspects. Twice a week; I; (1 unit.)

[^91]102. Special Investigations.-Problems in the application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in the preparation of food; problems in nutrition. Twice a week; I, II; ( 1 unit).

Professor Bevier, Assistant Professor Wheeler
103. Seminar.-Recent advances in nutrition. Once a week; II; ( $1 / 2$ unit). Assistant Professor Wheeler
104. Economic Problems of the Family Group.-An intensive study of the economic phases of selected problems of the household. Twice a week; I, II; (1 unit).

Dr. Perry

## Summer Session Courses

Foods.-The work offered in foods is of two grades: (a), that designed for those who have studied or taught household science and wish to prepare themselves to teach it in high schools; (b) advanced work dealing with the general subject of nutrition.

S 1. Sources and cost of foods, the cooking of various types; planning and service of meals. ( $11 / 2$ ).

Miss MacKinnon
S 2. Relative nutritive value of foods; dietetic values; the relation of foods to the human body. ( $11 / 2$ ).

Miss MacKinnon
Prerequisite: A year's work of college rank with foods; a year of general chemistry; a course in general physiology.

S 4. Clothing.-Textiles used in clothing; cost and care of clothing; use of patterns; drafting; making of clothing. Lecture; discussion; laboratory. (2).

Miss Fleming
Note: S 4 may be substituted for Household Science 12 with the exception of the lecture in Household Science 12.

S 5. Millinery.-Wire, buckram, and cape net frames; covering with velvet and straw. Demonstrations; laboratory. (1).

Miss Fleming
S 6a. Costume Design.-Appropriate dress; proportion of parts; outline of figure and color harmony. Lectures and laboratory. (11/2). Miss Hope

Nóte: S 6a may be taken as an equivalent for Household Science 19 by arranging with the instructor for extra work.

S 6b. House Decoration and Furnishing.-History of furniture; perspective drawing of rooms; color schemes; weaving. Lectures and laboratory. (11/2).

Miss Hope
Note: S 6 b may be taken as an equivalent for Household Science 3 by arranging with the instructor for extra work.

## ITALIAN

## (See Romance Languages and Literature.)

## JOURNALISM

(See Rhetoric 12, 15, 17, 19, under The English Language and Literature.)

## LANDSCAPE GARDENING

(See Horticulture.)
LATIN
(See Classics.)

## LAW

Henry Winthrop Ballantive, A.B., LL.B., Professor and Dean
Oliver Albert Harker, A.M., LL.D., Professor
Frederick Green, ${ }^{1}$ A.M., LL.B., Professor
Edward Harris Decker, A.B., LL.B., Professor
John Norton Pomeroy, A.M., LL.B., Professor
William Green Hale, B.S., LL.B., Professor, Secretary
Barry Gilbert, A.B., LL.B., Professor
Charles Ernest Carpenter, A.M., LL.B., Assistant Professor

## First Year Courses

1a-1b. Contracts.-Keener's Cases on Contracts and Ballantine's Problems in Law of Contracts. I; (4): II; (2). Professor Decker
2a-2b. Torts.-Ames and Smith's Cases on Torts. I; (2): II; (3).
Professor Hale
3. Real Property.-Warren's Cases on Property. II; (3).

Assistant Professor Carpenter
5. Criminal Law.-Mikell's Cases on Criminal Lave and Procedure. I; (3). Professor Ballantine
6. Personal Property.-Warren's Cases on Property. I; (3).

Assistant Professor Carpenter
7. Domestic Relations.-Kales' Cases on Persons (2nd edition). II; (1).

Professor Gilbert
11a. Agency.-Wambaugh's Cases on Agency. II; (3).
Assistant Professor Carpenter
37. Introduction to the Study of Law and Brief Making.-I; (2): $I I$; (2) Professor Decker

## Second or Third Year Courses

4. Common Law Pleading.-Whittier's Cases onz Common Lave Pleading. I; (3).

Professor Ballantine
8. Evidence.-Thayer's Cases on Evidence (2nd edition). II; (4).

Professor Hale
9. Sales.-Williston's Cases on Sales (2nd edition). I; (3).

Professor Hale
10. Real Property.-Aigler's Cases on Property (2nd edition). II; (4).

Professor Ballantine
12a-12b. Equity.-Ames' Cases on Equity. I; (3): II; (2).
Professor Pomeroy
13. Damages.-Beale's Cases on Damages (2nd edition). I; (2).

Professor Decker
[14. Carriers.-Green's Cases on Carriers. II; (3). Not given, 1916-17.]
15. Bills and Notes.-Huffcut's Cases on Bills and Notes (Colson's edition). I; (3).

Professor Gilbert
16. Trusts.-Ames' Cases on Trusts (2nd edition). II; (3).

Professor Gilbert

[^92]18. Wills.-Gray's Cases on Property Vol. IV (2nd edition). II; (2).

Professor Pomeroy
19. Partnership.-Gilmore's Cases on Partnership (2nd edition). I; (2).

Professor Hale
20. Equity Pleading.-Selected Illinois and Federal Cases on Equity Pleading; II; (2).

Professor Harker
24. Municipal Corporations.-Beale's Cases on Municipal Corporations. II; (2). Professor Pomeroy
[27. Future Interests in Property.-II; (3). Not given, 1916-17. Given in alternate years.]
[28. Insurance.- $X$; (2). Not given, 1916-17. Given in alternate years.]
30. Public International Law.-Lawrence's Principles of International Law and Scott's Cases on International Law. I; (3). Professor Garner
32. Quasi-Contracts.-Thurston's Cases on Quasi-Contracts. I; (2).

Assistant Professor Carpenter
34. Public Utilities.-Burdick's Cases on Public Service Companies (2nd edition). II; (2).

Professor Ballantine
35a. Brief Making.-Lectures and problems for briefing. $I$; (1).
Professor Decker
35b. Moot Court.-II; (1).
Professor Harker
Prerequisite: Law 4 and 35a.
Third Year Courses
4a. Illinois Procedure.- $I$; (3).
Professor Harker
17. Private Corporations.-Canfield and Wormser's Cases on Private Corporations. II; (4).

Professor Gilbert
21. Suretyship.-Ames' Cases on Suretyship. II; (3). Professor Decker Prerequisite: Law 15.
22. Constitutional Law.-McClain's Cases on Constitutional Law. I; (4).

Professor Gilbert
23. Mortgages and the Recording Acts.-Wyman's Cases on Mortgages. II;

Professor Pomeroy
25. Bankruptcy.-Williston's Cases on Bankruptcy (2nd edition). I; (2).

Professor Pomeroy
29. Office Practise.-II; (2).

Assistant Professor Carpenter
31. Conflict of Laws.-Beale's Shorter Selection of Cases on Confict of Lazw.

36a-36b. Moot Court.-I; II, (2).
Professor Harker
Prerequisite: Law 4, 20, and 35a.

## IIBRARY SCIENCE

Phineas Laivrence Windsor, Ph.B., Director
Frances Simpson, M.L.., B.L.S., Assistant Director, Assistant Professor
Ernest James Reece, Ph.B., Associate
Ethel Bond, A.B., B.L.S., Instructor and Catalog Reviser
Emma Felsenthal, Ph.B., B.L.S., Instructor and Reference Assistant
Sabra W Vought, A.B., B.L.S., Instructor
Edna Lyman Scott, Special Lecturer
Fanny E Price, B.S., Reviser and Assistant

## Lecturers from the Staff of the Library

Francis Keese Wynkoop Drury, A.M., B.L.S., Lecturer, Order Work
Philip Sanford Goulding, A.B., Lecturer, Cataloging
Charles Edward Graves, A.B., Lecturer, Exchanges
Alice Sarai Johnson, A.B., B.L.S., Lecturer, General Reference
Emma Reed Jutton, B.L.S., Lecturer, Loans
Adah Patton, B.L.S., Lecturer, Cataloging
Margaret Hutchins, A.B., B.L.S., Lecturer, General Reference
Ola M Wyeth, A.B., B.L.S., Lecturcr
Mary Torrance, A.B., B.L.S., Lecturer
Winifred Fehrenkamp, B.L.S., Lecturer
Eva Cloud, Lecturer in the Summer Session
2a-2b. Reference Work.-Methods of bibliographic research; use of reference books; practical work in the reference department of the University library. $I$, $I I$; (3).

Assistant Professor Simpson
3a-3b. Selection of Books.-Selection for libraries of different types; standard lists, critical periodicals, and other aids; practise in writing book annotations. I, II; (2).

Miss Felsenthal
4a-4b. Practise Work.-Work in the various departments of the University library. (To be taken with Library 2, 16, 17, 18, 19, 20, and 21.) $I, I I$; (2).

Mr. Reece
6a-6b. Subject Bibliography.-Books in special subjects; literature and bibliography. Lectures by professors in the respective departments of the University. $I, I I$; (2).

Director Windsor, and others
7. History of Libraries.-The foundation, development, and resources of libraries of Europe and the United States. I; (2). Given, 1916-17, and in alternate years.

Assistant Professor Simpson
8. Advanced Reference.-Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. $I$; (2).

Assistant Professor Simpson
Prerequisite: Library 2a-2b.
[9. History of Books and Printing.-The early forms of books; the invention and spread of printing; book illustration; book-binding. II; (2). Given in alternate years. Not given in 1916-17.

Director Windsor]
10a-10b. Practise Work.-(Continuation of Course 4, supplemented by one month of work on the staff of an assigned public library.) $I, I I$; (4).

Mr. Reece

12. General Reference.-Classification and arrangement of books in the University library; card catalogs; reference books. (Intended for freshmen and sophomores in the University, not for students in Library School.) $I$ or $I I$; (2). Miss Hutchins, Miss Felsenthal, Miss Johnson, Miss Vought, Miss Williams

13a-13b. Public Documents.-13a: Production and distribution of United States documents; their treatment and use as reference books. 13b: American state and municipal documents; publications of foreign governments. $I, I I$; (2).

Mr. Reece
15a-15b. Seminar in Library Economy.-Special problems; library economy publications. $I, I I$; (2).

Mr. Reece and others
16. Order, Accession, and Shelf Work.-Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; care of pamphlets, clippings, and maps. $I$; (2).

Miss Vought
17. Classification and Subject Headings.-Dewey Decimal and Cutter expansive systems; subject headings for dictionary catalog; book numbers. $I$; (3).

Miss Bond
18. Cataloging.-Dictionary catalog; classed catalog. $I$; (3). Miss Bond
19. Trade Bibliography.-Books and periodicals used as tools of the book trade of America, England, Germany, and France. II; (1). Mr. Reece
20. Loan Department.-Records; representative systems; rules, regulations, and practises. $I I$; (1). Miss Bond
21. Printing, Binding, and Indexing.-Printing: Printing for libraries; preparing copy and reading proof. Binding: Materials and methods of bookbinding for libraries; practise in preparing books for the bindery and in making necessary records. Indexing: Magazine and book indexing; marking copy, choice and arrangement of entries. $I I$; (2).

Director Windsor, Miss Bond
22. Library Legislation.-Organization and administration of public libraries, special libraries, state library agencies, library training, library periodicals; field trip (see p. 186). $I I$; (3). Miss Vought
23a-23b. Library Administration and Current Library Literature.-Current library periodicals, bulletins, reports, catalogs, and reading lists; organization, reorganization, and administration of small libraries; planning and equipment of reading rooms and small library buildings; library accounts and business forms. $I, I I$; (1).

Miss Vought
24a-24b. Selection of Books.-English translation of representative works of French, German, Spanish, Italian, and Russian novelists, dramatists, and short story writers of the 19th and 20th centuries; examination of about forty newly published books each month. $I, I I$; (2).

Assistant Librarian Drurx, Miss Felsenthal
29. Comparative Classification and Cataloging.-The principal systems; rales for cataloging. $I I$; (2). Miss Bond
Prerequisite: Library 17, 18.
26a-26b. Library Administration.-Advanced trade bibliography; library organization; library architecture; legislative and municipal reference work; library work with children; special topics; feld trip (see page 186). $I$, $I I$; (3).

Assistant Professor Simpson and others
27. Bibliographical Institutions.-Organization and work of societies and institutions of America and Europe; cooperative bibliographical undertakings; international bibliography. $I$; (1).

Mr. Reece
28. Practise Work.-Advanced practise work in departments of the University library. $I I$; (1-4). ${ }^{1}$ Mr. Reece

## Summer Session Courses

Note: The courses indicated covered six weeks and received no university credit. Only people employed in libraries were admitted.

[^93]S 1. Classification; Cataloging; Book Numbers.-Five times a week.
S 2. Reference Work.-Reference books suited to the small public library. Twice a week.

S 3. Selection of Books.-Book selection and subject bibliography. Twice a week.

S 4. Work with Children.-Selection and discussion of children's books; administration of children's libraries; classification and cataloging. Twice a week.

S 5. Order and Accession; Loan Department; Binding and Repair.-Twice a week.

S 6. Library Administration and Extension.-Twice a week.

## MANUAL TRAINING

## Summer Session Only

Joseph C Park, Director of Industrial Education, Oswego, New York Fred L Griffin, Assistant in Art Metal Work James Merion Duncan, Assistant in Pattern Making

The courses in manual arts have been arranged to satisfy the needs of three classes of students who attend the summer sessions; (1) superintendents, principals, and teachers in small schools who pursue the work with the idea of eithei teaching or supervising it in their schools; (2) manual arts teachers and supervisors who take the courses to increase their knowledge and experience; (3) students in other courses who take the work to enrich their experience.

S 1. Industrial Education.-Typical schools and systems of manual arts; schemes for the promotion of industrial education; organization; equipments and materials. ( $21 / 2$ ).

Mr. Park
S 2. Woodworking.-(For teachers in the seventh and eighth grades and high schools.) Tools; joints; arts and crafts furniture; talks, papers, problems, work at the bench. (Fee, \$5.) (3). Mr. Park, Mr. Duncan

S 3. Woodworking.-(For teachers who have completed S 2). Cabinet making; designing and making furniture; wood turning. (Fee, \$5.) (3).

Mr. Park, Mr. Duncan
S 4. Art Metal Work.-Use and care of tools; hammering from sheet copper, brass, and silver; raising, annealing, filing, sawing or piercing, etching, repousse, enameling, coloring; art lamps, lanterns, candlesticks, boxes, furniture fittings. (Fee, \$3.) (21/2).

Mr. Griffin
S 5 Jewelry.-Buckles, fobs, chains, necklaces, pendants, rings, setting of stones; casting silver; polishing and finishing metals; coloring by chemical and electrical methods. (Fee, $\$ 3$. ) ( $21 / 2$ ). Mr. Griffin

## MATHEMATICS

Edgar Jerome Townsend, Ph.D., Ll.D., Professor
George Abram Mhleer, Ph.D., Professor
Henry Lewis Rietz, Ph.D., Professor
James Byrnie Shaw, D.Sc., Associate Professor
Charles Hirschel Sisam, Ph.D., Assistant Professor
Arnold Emch, Ph.D., Assistant Professor
Robert D Carmichael, Ph.D., Assistant Professor
Arthur Robert Crathorne, Ph.D., Assistant Professor

Ernest Barnes Lytle, Ph.D., Associate
Gustaf Eric Wahlin, Ph.D., Associate
Aubrey John Kempner, Ph.D., Associate
Whliam Wells Denton, Ph.D., Instructor
Edward Wilson Chittenden, Ph.D., Instructor
Levi Thomas Wilson, Ph.D., Instructor
Lyman M Kells, Ph.D., Instructor
John Rogers Musselman, Ph.D., Instructor
Clarence Mark Hebbert, M.S., Assistant
Raymond Franklin Borden, A.M., Assistant
John Sherman Beekley, A.b., Assistant
Charles Francis Green, A.M., Assistant
Clarence Hudson Richardson, B.S., Assistant
Jessie Marie Jacobs, A.M., Graduate Assistant
Ruby Mabel Grimes, A.M., Graduate Assistant
Cooperating:
Joel Stebbins, Ph.D.,Professor of Astronomy
Frank Walter Reed, Ph.D., Instructor in Astronomy
Hobart D Frary, M.E., M.S., Assistant in Summer Session
Major: 20 hours made up from any undergraduate courses offered by the department, except Mathematics 2, 4, and 8, and including Mathematics 7 and 9.

Minors: 20 hours selected from physics, chemistry, and astronomy.

## Courses for Undergraduates

2. College Algebra.-I or $I I$; (3). Assistant Professor Sisams, Assistant Professor Emch, Dr. Lytle, Dr. Wahlin, Dr. Kempner, Dr. Reed, Dr. Denton, Dr. Chittenden, Dr. Wilson, Dr. Kells, Dr. Musselmin, Mr. Richardson, Mr. Borden, Mr. Hebbert, Mir. Beekley, Mr. Green.

Prerequisite: Entrance algebra, $11 / 2$ units; plane geometry, 1 unit.
4. Plane Trigonometry. -I or $I I$; (2). Assistant Professor Carmichael, Dr. Lytle, Dr. Wahlin, Dr. Kempner, Dr. Reed, Dr. Denton, Dr. Chittenden, Dr. Wilson, Dr. Kells, Dr. Musselman, Mr. Richardson, Mr. Borden, Mr. Hebbert, Mr. Beekley, Mr. Green.

Prerequisite: Entrance algebra, $11 / 2$ units; plane geometry, 1 unit.
6. Analytic Geometry.-Plane and solid analytic geometry. $I I ;$ (5).

Professor Miller, Associate Professor Shaw, Assistant Professor Carmichael, Assistant Professor Crathorne, Dr. Lytle, Dr. Wahlin, Dr. Kempner, Dr. Reed, Dr. Denton, Dr. Chittenden, Dr. Wilson, Dr. Kells, Dr. Musselman, Mir. Richardson, Mr. Borden, Mr. Hebbert, Mr. Beekley, Mr. Green.

Prerequisite: Mathematics 2, 4.
7-9. Differential and Integral Calculus.-The principles developed and applied to functions of one and of several variables. (Section A1 is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.) $I$; (5): $I I$; (3). Professor Townsend, Professor Rietz, Assistant Professor Sisam, Associate Professor Shaw, Assistant Professor Emch, Assistant Professor Carmichael, Assistant Professor Crathorne, Dr. Lytle, Dr. Wahlin, Dr. Kempner, Dr. Denton, Dr. Chittenden, Dr. Kells, Dr. Musselman.

Note: Two sections of Mathematics 7 are given the second semester.
8. Differential and Integral Calculus.-(For students in chemistry and chemical engineering.) $I$; (5).

Professor Miller, Dr. Musselman
Prerequisite: Mathematics 6.
9a. Differential and Integral Calculus.-(Second Course.) The definite (single and multiple) integral; the formation of problems in applied mathematics; line, surface, and volume integrals; the theorem of Stokes and Green; partial differentiation; exact integrals with applications of the conditions for exactness; elements of differential equations, approximate quadrature and integration of differential equations. I; (2). Professor Shaw, Assistant Professor Crathorne, Dr. Dentox, Dr. Wilson.

Prerequisite: Mathematics 7 and 9 , or 8 .

## Courses for Advanced Undergraduates and Graduates

10. Theory of Equations and Determinants.-Fundamental properties of ain algebraic equation in one unknown; the solutions of systems of simultaneous equations; theory of a system of linear equations; some fundamental properties of determinants. $I$; (3).

Professor Miller
Prerequisite: Mathematics 7 and 9 , or 8 .
16-17. Differential Equations and Advanced Calculus.-Ordinary and partial differential equations; special topics of calculus, of value in the application of mathematics. $I, I I$; (3).

Professor Townsend
Prerequisite: Mathematics 7 and 9 , or 8 .
18. Constructive Geometry.-Development and training of space perception; properties of lines, planes, and the simpler surfaces of the second order, studied by methods of parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. $I I$; (3).

Assistant Professor Emch

## Prerequisite: Mathematics 6.

19. Solid Analytic Geometry.-Equations of the plane and right line in space; properties of surfaces of the second degree; the classification and special properties of quadrics; the theory of surfaces. $I I$; (3). Assistant Professor Sisim

Prerequisite: Mathematics 10.
21. Method of Least Squares.-Law of probability and error; adjustment of observations; precision of observation; independent and conditional observations. $I$; (2).

Professor Stebbins
Prerequisite: Mathematics 7 and 9 , or 8.
23. Averages and Mathematics of Investment.-Meaning, use, and abuse of different kinds of averages; their relation to the theory of probability; application of the elements of probability to annuities, insurance, and branches of science; loans and investments; problems in the evaluation of investment securities. $I I$; (3).

Dr. Wilson
Prerequisite: Mathematics 2; junior standing.
30-31. Actuarial Theory.-Mathematical treatment of life contingencies; construction of life tables, and of monetary tables; valuation of policies to meet statutory requirements; mathematical theory of risk; distribution of surplus; preparation of annual reports; inheritance taxes; old age pensions; workmen's compensation; theory and practise of investing the funds of an insurance company. $I, I I$; (3).

Professor Rietz
Prerequisite: Mathematics 7 and 9 , or $8,23$.
32. History of Mathematics.-The elementary subjects; rise and growth of the higher mathematics chiefly in the nineteenth century; biography of persons influential in this development. Lectures; reports on assigned reading. II; (2).

Dr. Lytle
Prerequisite: Eighteen hours of mathematics.
35. Teachers' Course.-Secondary algebra and geometry; their educational value; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order and importance of topics; textbooks; literature. Lectures; discussions; reports. I; (2).

Dr. Lytle
Prerequisite: Junior standing and after 1916-17 cighteen hours of mathematics.
[40. Fundamental Concepts of Mathematics.-The number concept; concepts of unity; aggregate, order and correspondence; irrationals and limits, transcendence of e and $n$; parallel axiom and non-euclidian geometries; ruler and compass constructions; function; logic of mathematics. $I I$; (2). Not given in 1916-17.

Dr. Lytle]

## Courses for Graduates

100. Seminar and Thesis.-Three times a week; I, II; (1 or 2 units).

Professors in department
101. Functions of Real Variables.-A general introductory course in the functions of real variables, including a critical study of the fundamental processes of analysis and a discussion, based upon the theory of assemblages, of the existence proofs in differential and integral calculus. Three times a week; I, II; (1 unit).

Professor Townsend
Prerequisite: Mathematics 16, 17.
[102. Functions of a Complex Variable.-Three times a week; $I, I I ;(1$ unut). Not given, 1916-17. Professor Townsend]
[104. Expansions in Fundamental Functions.-Theory of integral equations; methods of expansion of arbitrary functions in terms of the characteristic functions of a given nucleus. Three times a week; I, II; (1 unit). Not given, 1916-17. Associate Professor Shaw]
[105. Calculus of Variations.-Conditions for a maximum or minimum in simple and isoperimetric problems. Three times a week; I, II; ( 1 unit). Not given, 1916-17. Assistant Professor Crathorne]
[110. Elliptic Functions.-The elements of the theory with applications to geometry and mathematics. Introduction to the theory of the elliptic modular functions. Three times a week; I, II; (1 unit). Not given, 1916-17.

Assistant Professor Carmichael]

111. Automorphic Functions.-First semester: The group-theoretic side of the theory. Second semester: Function-theoretic developments and applications. Three times a week; I, II; (1 unit).

Assistant Professor Emch
Prerequisite: Mathematics 102, 110, and preferably 132.
113. Theory of Linear Differential Equations.-Oscillation theorems for ordinary linear equations of the second order in real variables; general existence theorems and function-theoretic considerations of ordinary linear equations of order in complex variables; general theory of linear partial differential equations. Three times a week; I, II; (1 unit).

Assistant Professor Carmichael
Prerequisite: Mathematics 102.
120. Elementary Theory of Groups.-Groups in arithmetic, geometry, and trigonometry; groups which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. Three times a week; I, II; (1 unit).

Professor Miller
Prerequisite: Mathematics 33-34.
[121. Theory of Groups.-This course presupposes about one year's work in group-theory. Three times a week; I, II; (1 unit). Not given, 1916-17.

Professor Miller]
122. Modern Algebra.-Theory of matrices; system of linear equations; bilinear and quadratic forms; properties of polynomials; algebraic invariants; elementary divisors. Three times a week; I, II; (1 unit).

Dr. Kempner
Prerequisite: Mathematics 7, 9, 10.
[124. Theory of Numbers.-Three times a week; I, II; (1 unit). Not given, 1916-17. Dr. Wahlin]
[129. Theory of Statistics.-The general methods of statistical investigation. and the application of the principles developed to problems in economics, sociology, and biology. Three times a week; I, II; (1 unit). Not given, 1916-17.

Professor Rietz]
130. Invariants and Higher Plane Curves.-Algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. Three times a week; I, II; (1 unit). Assistant Professor Sisam

Prerequisite: Mathematics 16, 17, 132.
[131. Algebraic Surfaces.-The application of homogenous co-ordinates and the theory of invariants to geometry of three dimensions; the general theory of surfaces; the special properties of surfaces of the third and fourth order. Three times a week; I, II; (1 unit). Not given, 1916-17.

Assistant Professor Sisam]
132. Projective Geometry.-Fundamental concepts; anharmonic ratio; projective pencils and ranges; transformations and groups; theory of conics and quadric surfaces; pencils and ranges of conics; quadratic transformations and projective theory of cubics; applications in mechanics. Three tımes a week; $I, I I$; ( 1 unit).

Assistant Professor Crathorne
Prerequisite: Graduate standing in mathematics.
135. Differential Geometry.-Applications of the calculus to the general theory of curves and surfaces based primarily in the use of Cartesian co-ordinates. Relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. Three times a week; $I, I I$; (1 unit).

Assistant Professor Sisam
141. Vector Methods.-The algebras of quaternions, space analysis, and dyadics; differentiation and integration; rational mechanics, elasticity, hydrodynamics, electrodynamics. Three times a week; $I, I I$; (1 unit).

Associate Professor Shaw
Prerequisite: Mathematics 16-17.
[142. General Algebra.-Three times a week; I, II; (1 unit). Not given, 1916-17.

Associate Professor Shaw]

## Summer Session Courses

[^94]S 4. Plane Trigonometry.-(Equivalent to course 4.) Kenyon and Ingold's Trigonometry. (2).

Prerequisite: $21 / 2$ units entrance mathematics.
S 6. Analytic Geometry.-(Equivalent to course 6.) Ziwet and Hopkin's Analylic Gcometry. (5). Assistant Professor Crathorne

Prerequisite: Mathematics 2 and 4.
S 7. Differential Calculus.-(Equivalent to course 7.) Townsend and Goodenough's Esscntials of Calculus. (5).

Dr. Chittenden
Prerequisitc: Mathematics 6.
S 9. Integral Calculus.-(Equivalent to Mathematics 9.) Townsend and Goodenouggh's Essentials of Calculus. (3). Professor Townsend

Prerequisite: Mathematics 7.
*S 102. Advanced Calculus.-Properties of functions of two or more variables; the application of these properties to problems in geometry and mechanics. ( 1 unit).

Professor Townsend
Prerequisite: Mathematics 7, 9.
*S 105. Calculus of Variations.-Those elements of the science most needed in the study of the higher subjects of mathematical astronomy and physics. (1 unil).

Dr. Crathorne
Prerequisite: Mathematics 16.

## MECHANICAL ENGINEERING

Charles Russ Richards, M.M.E., Professor
George Alfred Goodenough, M.E., Professor, Thermodynamics
Bruce Willet Benedict, B.S., Dircctor, Shop Laboratories
Oscar Adolph Leutwiler, M.E., Professor, Machine Design
Arthur Cutts Willard, B.S., Assistant Professor, Heating and Ventilation
Elisea Noel Fales, A.B., B.S., Assistani Professor, Aeronautics
John Adlum Dent, M.E., Associate
Alonzo Plumsted Kratz, M.S., Research Associate, Engineering Expcriment Station
Robert Thomas Kennedy, Associate, Foundry Practise
Harry Frederick Godeke, B.S., M.E., Instructor
Edwin Frank, B.S., Instructor
Harry Willam Waterfall, B.S., Instructor, Machine Design
Horatio Sprague McDewell, M.M.E., Instructor
Arthur C Harper, B.S., Instructor, Machine Design
Claude Lowell Harrell, B.S., Instructor, Mechanical Engineering
Edgar Thomas Lanham, Instructor, Forge Practise
Gustave Adolph Gross, Instructor, Pattern Making
Gustave Howard Radebaugh, Instructor, Machine Practise
James Harvey Hogue, Instructor, Foundry Practise
Jeremiail Amos De Turk, Instructor, Machine Practise
Leroy Alonzo Wilson, M.M.E., First Assistant, Engineering Experiment Station
James Merion Duncan, Assistant, Pattern Making
Peter Joseph Rebman, Assistant, Forge Practise
John Alexander Frisk, Assistant and Mechanician

1. Steam and Air Machinery.-The construction, operation, and care of boilers, engines, and air compressors; elementary thermodynamics; steam engine performance; transmission of compressed air and its applications. (For students in civil and mining engineering.) $I$; (3). Mr. Dent, Mr. Harper

Prerequisite: Junior standing.
2. Steam Engineering.-Engines, boilers, pumps, condensers, and other steam machinery. II; (3). Mr. Godeke, Mr. McDewell, Mr. Frank

Prerequisite: Physics 1a-1b, 3a-3b.
3. Steam Engineering.-The steam engine, steanı turbine, and other steam machinery. (For students in mechanical engineering.) $I$; (3).

Mr. Godeke, Mr. Waterfall
Prerequisite: Junior standing.
11. Thermodynamics and Heat Engines.-(For students in electrical engineering.) $I$; (3).

Professor Goodenough, Mr. Dent
Prerequisite: Mechanical Engineering 1 or 2.
12. Thermodynamics.-The transformation of heat into work; the second law and its connection with irreversible processes; the properties of heat media; the perfect gases; saturated and superheated vapors; the flow of fluids. $I I$; (5).

Professor Goodenough
Prerequisite: Mathematics 9a; Theoretical and Applied Mechanics 27.
15. Gas Power Engineering.-Internal combustion engines; liquid and gaseous fuels and their combustion; gas producers. $I$; (3).

Professor Richards, Mr. McDewell
Prerequisite: Mechanical Engineering 12.
23. Mechanical Equipment of Buildings.-Designing simple systems for the mechanical equipment of buildings, including heating and ventilation, refrigeration, fire protection, vacuum cleaning, elevators, lighting, and small power plants. Lectures; laboratory. $I$; (5).

Assistant Professor Willard, Mr. Harrell
Prerequisite: Senior standing.
25. Heating and Ventilation for Architects.-Direct and indirect steam and hot water heating; furnace heating; ventilation and air analysis; air condition; temperature and humidity control. $I$; (2).

Assistant Professor Willard, Mr. Harrell
Prerequisite: Senior standing.
26. Heating and Ventilation.-Steam boilers and water heaters of steel and cast iron for heating service; heat losses from buildings; direct and indirect steam and hot water heating, using gravity systems; furnace heating; fan blast or mechanical indirect systems; exhaust steam heating; district heating by steam and water; ventilation and air analysis; air conditioning; temperature and humidity control. II; (3). Assistant Professor Willard, Mr. Harrell

Prerequisite: Mechanical Engineering 65.
30. Mechanics of Machinery.-Mechanisms and mechanical movements; cams, gears, valve gears, and quick-return motions; graphical constructions for displacement, velocity, and acceleration; kinetics of the steam engine mechanism and similar mechanisms; balancing; critical speeds; force and mass reduction. $I I$; (5).

Mr. Dent, Mr. Harper
Prerequisite: Theoretical and Applied Mechanics 27.
32. Power Transmission.-Shafting, belts, ropes, cables, water, air, gas, and steam as power transmitters; the measurement and storage of power. $I I$; (3).

Professor Richards, Mr. Waterfall
Prerequisite: Mechanical Engineering 12 and 43.
33. Aeronautic Engineering.-The history and development of aeronautic science, with a critical analysis of the design and construction of air craft. $I ;$ (3). Assistant Professor Fales
Prerequisite: Senior standing in the College of Engineering.
37. Principles of Management.-Industrial development; modern industrial tendencies; principles of organization; selection and compensation of labor; application of science to industrial problems; practical shop systems of management; production. $I$; (3).

Director Benedict
Prerequisite: Mechanical Engineering 81, 82.
43. Engineering Design.-Machine design; investigation of machines similar to the one to be designed; machinery subjected to heavy and variable stresses; punches, shears, presses, riveters, and cranes. $I$; (5).

Professor Leutwiler, Mr. Waterfall, Mr. Harper
Prerequisite: Theoretical and Applied Mechanics 29; Mechanical Engineering 30.
44. Engineering Design.-Special tools, fixtures, jigs, dies, and gauges used in modern high production manufacturing. $I I$; (2).

Professor Leutwiler, Director Benedict, Mr. Waterfall
Prerequisite: Mechanical Engineering 37 and 43.
52. Power Plant Design.--Steam power plant. $I I$; (3).

Professor Leutwiler, Mr. Waterfall, Mr. Harper
Prerequisite: Mechanical Engineering 43 and 65.
61. Power Measurement.-The testing and calibration of instruments and apparatus; use of the indicator; calculation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) $I$; (2).

Mr. Godere, Mr. McDewell, Mr. Frank, Mr. Harrell
Prerequisite: Mechanical Engineering 1 or 2.
62. Power Measurement and Steam Engines.-Laboratory work, substantially the same as that given in Mechanical Engineering 61, supplemented by lectures on steam machinery. $I I$; (3).

Mr. Godeke, Mr. McDewell, Mr. Frank, Mr. Harrell
Prerequisite: Junior standing.
64. Power Measurement.-Apparatus for engine and boiler tests-scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines; pumps, and gas engines. Reports. $I I$; (3).

Mr. Godeke, Mr. McDewell, Mr. Frank, Mr. Harrell
Prerequisite: Mechanical Engineering 2; registration in Mechanical Engineering 12 or Chemistry 31.
65. Power Laboratory.-Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and the refrizerating machines. I; (3). Assistant Professor Willard, Mr. Godeke, Mr. McDewell, Mr. Frank, Mr. Harrell

Prerequisite: Mechanical Engineering 12 and 64.
66. Power Laboratory.-Special research work in the mechanical engineering laboratory. II; (2).

Prerequisite: Mechanical Engineering 65; senior standing.
71. Forge Work for Agricultural Students.-Forging and welding; tempering tools; pointing and hardening cultivator shovels, plow shares. Six hours a week, either half of I or II; (1).

Mr. Lanham, Mr. Rebman
73. Wood Work for Agricultural Students.-Carpentry for the farmer; use of tools; layout and construction of building joints; repairs to buildings and equipment. Six hours a week, either half of I or II; (1).

Mr. Gross, Mr. Duncan
75. Forge Work.-( 9 weeks.) Hand and power forging and welding of metals; heat treatment of carbon and high speed steels in modern gas, electric, and cyanide furnaces; case carbonizing. $I$ or $I I$; (1). Mr. Lanham, Mr. Rebman
77. Foundry Work.-( 9 weeks.) Modern foundry practise; bench, floor, and machine moulding; all branches of core making; operation of cupola and brass furnace; casting of iron, brass, and alloys. $I$ or $I I$; (2).

Mr. Kennedy, Mr. Hogue
79. Pattern Work.-( 18 weeks.) Hand and machine methods in the production of useful patterns. $I$ or $I I$; (3).

Mr. Gross, Mr. Duncan
81. Machine Work.-Modern manufacturing methods; machine operation; shop management; organization; production methods; dispatching work; ordering, storing, and routing materials; time studies; shop accounting; inspection and all activities of the machine department of a manufacturing plant. $I$; (3).

Mr. Radebaugh, Mr. DeTurk
82. Machine Work.-(Continuation of 81). $I I$; (2).
98. Thesis.-Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. $I I$; (3).
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance upon graduate work in mechanical engineering presupposes the full undergraduate course in that subject.
105. Heat Motors.-The internal combustion motor; steam turbine. Principles and methods of refrigeration. Twice a week; $I$; ( 1 unit).

Professor Goodenough
107. Thermodynamics.-Thermodynamics; their application to the solution of physical and engineering problems. Twice a week; I; (1 unit).

Professor Goodenough
109. Machine Design.--Rational design; the application of mechanics of materials. Individual problems. Twice a week; I or II; (1 unit).

Professor Leutwiler
112. Laboratory Investigation.-Combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. Three times a week; $I, I I ;(11 / 2$ units).

Professor Richards and others
114. Dynamics of Machinery -Advanced problems. Balancing; whirling and vibration of shafts; theory of governors; fly wheels; force and mass reduction; stresses in rotating masses. Trwice a week; I, II; (1 unit).

Professor Goodenough

## MECHANICS, THEORETICAL AND APPLIED

Arthur Newell Talbot, C.E., D.Sc., Professor, Municipal and Sanitary Engineering; in charge of Theoretical and Applied Mechanics
Herbert Fisher Moore, M.M.E., Professor
Melvin Lorenius Enger, C.E., Assistant Professor
Virgil R Fleming, B.S., Associate
Fred B Seely, M.S., Associate
George Paul Boomsliter, M.S., Associate
Newton Edward Ensign, A.B., B.S., Associate
William James Putnam, B.S., Instructor
Harold Malcolm Westergaard, Ph.D., Instructor
Frank E Richart, M.S., Instructor
Solomon C Hollister, B.S., Instructor

1. Analytical Mechanics.-Especially designed for graduates and advanced undergraduates in Arts and Sciences. I; (3). Mr. Ensign
Prerequisite: Mathematics 8 or 9 .
2. Analytical Mechanics.-(A continuation of Theoretical and Applied Mechanics 1.) Lamb's Dynamics. II; (3). Mr. Ensign
Prerequisite: Theoretical and Applied Mechanics 1.
3. Hydraulics.-The pressure and flow of water; its utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; determination of experimental coefficients. Laboratory weekly. II; (3).

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 21.
14. Elements of Mechanics.-Kinematics, kinetics, and statics. (For architects and others who have not taken the calculus.) $I I$; (4).

Mr. Boomsliter, Mr. Hollister
Prerequisite: Mathematics 2, 4.
15-16. Strength of Materials.-Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; properties and tests of engineering materials. (For students in architecture and others without the prerequisites required for Theoretical and Applied Mechanics 29.) Laboratory every other week. I, II; (3).

Mr. Boomsliter
Prerequisite: Theoretical and Applied Mechanics 14.
20. Analytical Mechanics.-The mechanics of engineering rather than that of astronomy and physics. Fundamental concepts; equilibrium, centroids and center of gravity, friction; engineering problems; statement of conditions and use of data. II; (3).

Mr. Ensign
Prerequisite: Mathematics 7; registration in Mathematics 9.
21. Analytical Mechanics.-Continuation of Theoretical and Applied Mechanics 20. Kinematics and kinetics. I; (2). Professor Enger

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.
25. Resistance of Materials.-A briefer course than Theoretical and Applied Mechanics 29. (For students in architectural, ceramic, chemical, electrical, and mining engineering.) $I$; (4).

Professor Enger
Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.
26. Analytical Mechanics and Hydraulics.-Kinematics, kinetics, and hydraulics; problems; experiments in the hydraulic laboratory. (For students in architectural engineering, electrical engineering, and mining engineering.) Laboratory weekly during the last half of the semester. $I I$; (4).

Mr. Seely
Prerequisite: Theoretical and Applied Mechanics 25.
29. Resistance of Materials.-The mechanics of materials; the properties and requirements for materials of construction; the effect of methods of manufacture upon the quality of the material; specifications and standard tests; experiments and investigations in the materials laboratory. (For students in civil engineering, mechanical engineering, and municipal and sanitary engineering.) Recitations; lectures; assigned reading. Laboratory weekly. $I$; (5).

Professor Talbot
Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 21.
36. Analytical Mechanics.-The portion of Theoretical and Applied Mechanics 26 , which involves analytical mechanics. (Open only to railway electrical engineering students.) $I I$; (2).

Mr. Putnam
Prerequisite: Theoretical and Applied Mechanics 25.

## Courses for Graduates

Entrance upon graduate work in theoretical and applied mechanics presupposes a full undergraduate course in that subject.
101. Analytical Mechanics.-Methods; problems and applications; critical and comparative study of texts. Twice a week; $I$; ( 1 unit).

Professor Moore
102. Resistance of Materials.-Properties of materials used in engineering construction and the methods of determining these properties; analysis and investigation in mechanics of materials; the effect of form of member in a structure or machine; the method of application of forces; comparative study of texts. Treice a week; II; (1 unit).

Professor Moore
103. Hydraulics and Hydraulic Engineering.-The laws of hydraulics and their application to engineering problems; hydraulic power and its development; design and investigation. Trice a week; II; (1 unit). Professor Talbot
104. Experimental Work in the Laboratory of Applied Mechanics.-Investigation on materials and on their action as used in machines and structures; experiments with pumps, motors, and measuring devices; investigation of the laws of hydraulics, the development of power, and the study of various hydraulic problems. Twice a week; I, II; ( $1 / 2$ to 2 units). Professor Moore
105. Experimental and Analytical Work in Reinforced Concrete.-Research; interpretation of available experimental results and their application to the design of structures; principles of construction. Twice a week; $I, I I$; ( $1 / 2$ unit or more).

Professor Talbot
Summer Session Courses
S 10. Hydraulics.-(For description see Theoretical and Applied Mechanics 10 above.) (3)

Mr. Vallance
Prerequisite: Theoretical and Applied Mechanics 21.
S 14. Elements of Mechanics.-(For description see Theoretical and Applied Mechanics 14 above.) (4).

Mr. Ensign
Prerequisite: Mathematics 2, 4.

S 20. Analytical Mechanics.-The first half of analytical mechanics as given in Maurer's Technical Mechanics. (3).

Mr. Ensign
Prerequisite: Mathematics 7; registration in Mathematics 9.
S 21. Analytical Mechanics.-The second half of analytical mechanics as given in Maurer's Technical Mechanics. (2). Mr. Seely

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.
S 25. Resistance of Materials.-The mechanics and properties of materials used in construction; experiments in the testing laboratory; problems. Merriman's Mechanics of Materials. (4). Mr. Seely, Mr. Vallance

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.

## MEDICINE

(See under College of Medicine.)

## METEOROLOGY

(See under Geology.)

## MILITARY SCIENCE

Robert Walter Mearns, Major, U. S. Infantry, Professor and Commandant Clement Augustus Trott, Captain, U. S. Infantry, Assistant Professor William James Davis, Captain, 22nd U. S. Infantry, Assistant Professor
Joseph Howard Barnard, Captain, 17th U. S. Cavalry, Assistant Professor Robert Ross Welshimer, Captain, C. A. C., Assistant Professor
Frederick William Post, 1st Sergeant, U. S. A., retired, Administrative Assistant William Oscar Nelson, Assistant John Howard Powers, Assistant
William Franklin Campbell, Assistant
John Taylor Lewis, Assistant
Robert Henry Engle, Assistant
John Rodger Lindsey, Assistant
Manierre Barlow Ware, Assistant
Lyle Henry Gift, Assistant
Harry Lee Husson, Assistant
Abraham Reuel Keagy, Assistant

1. Drill Regulations.-Infantry Drill Regulations. For all freshman men. $I I$; (1).

Professor Mearns
2a-2b-2c-2d. Military Drill.-Infantry: Infantry drill regulations; small-arm firing regulations; bayonet exercise; ceremonies. Signal Company: Flag; telegraph; wireless; heliograph. Engineer Company: Field engineering; map reading; entrenchments; bridge building. Hospital Company: U. S. Army Hospital Corps Drill Regulations. Freshman and sophomore years. Two drill periods a week. I, II; (1).

Professor Mearns
3a-3b. Advanced Theoretical Instruction.-For sophomore officers: Infantry drill regulations; small-arm firing regulations. For junior and seniors: Field Service Regulations. This course is obligatory for commissioned officers and sergeants, recommended to corporals, and open to others. $I$, $I I$; (no credit).

Professor Mearns

## MINERALOGY

(See Geology 5, 5a, 6, 7.)

## MINING ENGINEERING

Harry Harkness Stoek, B.S., E.M., Professor
Elmer Allen Holbrook, B.S., E.M., Assistant Professor Clinton. Mason Young, B.S., E.M., Assistant Professor, Mining Research Alfred Copeland Callen, E.M., M.S., Associate

1. Earth and Rock Excavation.-Explosives; blasting; boring; tunneling; shaft-sinking; coal-cutting; timbering and prospecting. $I$; (3).

Mr. Callen
Prerequisite: Chemistry 1a or 1b; Geology 13a and 13b.
3. Mining Principles.-Terminology; explosives; blasting; drilling; tunneling; shaft-sinking; mining and timbering of flat deposits. (For students in engineering courses other than mining.) $I$; (2).

Mr. Callen
Prerequisite: Chemistry 1a or 1 b .
4. Mining Methods.-Mining and timbering of bedded, vein, and placer deposits. $I I$; (3).

Professor Stoek
Prerequisite: Mining 1.
5. Mine Ventilation.-Mine gases; safety lamps; mine ventilation; lighting and signaling; explosions and mine fires; rescue work and first aid. Laboratory work. I; (3).

Professor Stoek, Mr. Callen
Prerequisite: Chemistry 1a or 1b, 4; Physics 1a-1b, 3a-3b; Mining 4.
6. Mechanical Engineering of Mines.-Hoisting: Ropes, cages, hoisting engines, and other appliances. Haulage: the different systems used underground and on the surface; the methods of loading and unloading; mine stables; transportation of workmen. Drainage of mines: mine dams, mine pumps. $I I$; (2).

Mr. Callen
Prerequisite: Mechanical Engineering 1, or equivalent.
8. Mine and Metallurgical Law, Administration, and Accounts.-Laws governing location, ownership, and policing of mines. Trade agreements, relations between employers and employees. Sociology. Accounts and cost sheets. $I I$; (3).

Professor Stoek, Assistant Professor Holbrook
Prerequisite: Mining 3 or 4 or senior standing and 10 hours of geology.
9. Preparation of Coal and Ores.-History, principles, processes, machines; applications to dry coal preparation and coal washing. Breaking, sizing, and concentrating ores. Laboratory practise in coal washing. $I$; (3).

Assistant Professor Holbrook
Prerequisite: Chemistry 5; Physics 3a-3b.
13. Utilization of Fuels.-The manufacture, handling, and utilization of wood, charcoal, peat, lignite, bituminous coal, anthracite, coke, petroleum, natural and artificial gas, and refractories in mining and metallurgical practise. $I I$; (2).

Assistant Professor Holbrook
Prerequisite: Senior standing.
15. Principles of Mine Ventilation.-Mine ventilation, signaling, and lighting.
$I$; (1). Mr. Callen
Prerequisite: Physics 3a-3b; Mining 3 or 4.
17. Problems.-Problems, library research, and reports on mining and metallurgical subjects. $I$; (1).

Professor Stoek
Prerequisite: Senior standing in mining engineering.
19. Ore and Coal Preparation.-Principles and machines used in breaking, pulverizing, sizing, classifying, and concentrating ores and mineral products. Wet and dry concentration. Practical limits of ore dressing. Principles applied in coal preparation. Laboratory practise in ore concentration. $I$; (3).

Assistant Professor Holbrook
Prerequisite: Chemistry 5; Geology 13a and 13b or equivalent.
21. Examination and Valuation.-The methods of examining, valuing, and reporting on mines, mining and metallurgical plants. Estimation and prospecting of mineral deposits. $I$; (2).

Professor Stoek
Prerequisite: Mining 3 or 4, or registration in Mining 3; Geology 13a and 13b, or equivalent.
41. Principles of Coal Plant Design.-Design of mine structures of wood, steel, and masonry, with drafting practise in design of coal tipples and general surface plant. $I$; (3).

Assistant Professor Holbrook
Prerequiṣite: Civil Engineering 58, or equivalent.
42. Coal Plant Design.-General layout; design; estimates for construction and specifications for coal mining plant. $I I$; (2).

Assistant Professor Holbrook
Prerequisite: Mining 41.
43. Principles of Ore Plant Design.-Design of mine structures of wood, steel, and masonry, with drafting practise in design of rock houses, ore bins, and crushing plants. $I$; (3).

Assistant Professor Holbrook
Prerequisite: Civil Engineering 58, or equivalent.
44. Ore Plant Design.-General layout; design; estimates for construction and specifications for ore mining plants. $I I$; (2).

Assistant Professor Holbrook
Prerequisite: Mining 43.
45. Principles of Mill and Smelter Design.-Flow sheets and structures of wood, steel, and masonry; drafting practise on individual designs. $I$; (3).

Assistant Professor Holbrook
Prerequisite: Civil Engineering 58 or equivalent.
46. Mill and Smelter Design.-Flow sheets; design; estimates for construction, and specifications for concentrating plant or smelter. $I I$; (2).

Assistant Professor Holbrook
Prerequisite: Mining 45.
62. Mine Surveying.-Instruments employed underground and in connecting surface and underground surveys; platting and use of mine maps; mineral land surveying; solar attachments; determination of the meridian. (A surveying trip is made to neighboring mines, of which the estimated cost is $\$ 10.00$.) $I I$; (3).

Mr. Callen

## Prerequisite: Civil Engincering 35.

64. Coal Mining Laboratory.-Different coals; their availability for crushing, dry preparation, washing, and briquetting. Complete commercial tests, using small commercial machincs wherever possible; design of flow sheets; analysis of products. Estimation of probable costs. II; (3).

Assistant Professor Holbrook
Prerequisite: Mining 9.
66. Ore Concentration Laboratory.-Complete commercial wet and dry concentration tests on raw ores of lead, zinc, iron, etc. Amalgamation and cyanidation of a gold ore. Sampling, preparation, and analysis or assay of the products recovered. $I I$; (3).

Assistant Professor Holbrook
Prerequisite: Mining 19.
68. Mine Topography.-Stadia; application of topographic and railroad surveying to mining conditions. $I I ;(1)$. Mr. Callen

Prerequisite: Civil Engineering 27.
90. Mining and Metallurgical Reports.-Review of mining and metallurgical literature; reports; technical writing. $I I$; (1).

Professor Stoek
Prerequisite: Mining 1 and 4 or Chemistry 7 and 7a.
98. Thesis.-Individual investigation of a special mining subject; preparation of thesis giving review of the literature, the results of experimental work, and a general discussion of the subject. $I I$; (3).
(Hours arranged when thesis is permitted, in accordance with regulations of the College of Engineering.)
99. Inspection Trip.- $I$; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance upon graduate work in mining engineering presupposes a full undergraduate course in that subject.
100. Seminar-Once a week; I, II; (1 unit).

Professor Stoek
101. Advanced Mining Methods.-Coal and ore fields of the United States; methods and economics of mining; utilization, marketing, storage, and transportation of coal and ores. Twice a week; I, II; (1 unit).

Professor Stoek
102. Advanced Preparation of Coal and Ores.-Detailed investigation and discussion of settling ratios; laws of crushing; sorting vs. sizing; specific mill and washing problems. Twice a week; I, II; (1 unit).

Assistant Professor Holbrook
103. The History of Miners' Organizations.-The effect of organizations upon the development of mining practise. Twice a week; I, II; (1 unit).

Professor Stoek
104. Mining Reports.-The law of the apex; classification of coal and ore lands; conservation of mineral resources; mine examinations and reports. Twice a week; I, II; (1 unit). Professor Stoek, Assistant Professor Holbrook
105. Welfare Work and Education Among Mine Employees.-The organization and operation of mining institutes, night classes, welfare, mine rescue and first-aid work. Twice a week; I, II; (1 unit). Professor Stoek

## MODERN LANGUAGES

(See English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

# MUNICIPAL AND SANITARY ENGINEERING 

Arthur Newell Talbot, C.E., D.Sc., Professor<br>Melvin Lorenius Enger, B.S., C.E., Assistant Professor, Mechanics and Hydraulics<br>Harold Eaton Babbitt, B.S., Instructor

2. Water Supply Engineering.-Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. $I$; (4).

Professor Enger, Mr. Babbitt
Prerequisite: Theoretical and Applied Mechanics 29, 10; Chemistry 1; Mechanical Engineering 1 or 2.
3. Sewerage.-Design and construction of sewerage systems; sanitary necessity of sewerage; separate and combined water carriage systems; surveys, and general plans; hydraulics of sewers; house sewage and its removal; relation of rainfall to storm water flow; determination of size and capacity of sewers; forms and strength of sewer appurtenances; modern methods of sewage disposal; estimates and specifications. Designing weekly. $I I$; (3). Mr. Babbitt

Prerequisite: Theoretical and Applied Mechanics 29, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

6a-6b. Water Purification, Sewage Disposal, and General Sanitation.Impurities in water supplies and methods and processes of their removal; sewage disposal by filtration, chemical precipitation, irrigation; representative purification plants; garbage collection and disposal; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. $I$; (3): $I I$; (2).

Professor Talbot, Mr. Babbitt
Prerequisite: Municipal and Sanitary Engineering 2, 3; Chemistry 1, 3, 10b.
9. Hydraulic Design and Construction.-Reservoirs, dams, conduits, and waterways; hydraulic engineering problems. $I I$; (2).

Professor Enger
Prerequisite: Municipal and Sanitary Engineering 2.
98. Thesis.-Investigation or design of an engineering problem. $I I$; (2).

Professor Talbot, Mr. Babbitt
99. Inspection Trip.-I; (no credit).

Prerequisite: Senior standing.

## Courses for Graduates

Entrance upon graduate work in municipal and sanitary engineering presupposes a full undergraduate course in that subject.
102. Water Supply Engineering.-Water supply; general water-works construction; pumps and pumping; design of reservoirs and elevated tanks; waterworks operation and the valuation of plants. One to three times a week; I or II; (1 unit).

Professor Talbot
103. Sewerage.-Design and construction; systems; hydraulics of sewers; a study of run-off. Once or twice a week; II; (1 unit). Professor Talbot
106. Water Purification, Sewage Disposal, and General Sanitation.-The design, construction, and operation of water purification plants and of sewage disposal works; the study of existing plants; comparison of results and cost of construction and operation; experimental work on water filters and septic tanks; garbage disposal; general sanitation. Once a week; II; (1/2 unit).

Professor Talbot

## MUSIC

John Lawrence Erb, F.A.G.O., Director, University Organist<br>George Foss Schwartz, A.M., B.Mus., Assistant Professor, Theory and History of Music<br>Henri Jacobus van den Berg, Instructor, Piano<br>Albert Austin Harding, Instructor, Wind Instruments, Director of the Band<br>Edna Almeda Treat, B.Mus., Instructor, Piano<br>Edson Wilfred Morphy, Instructor, Violin<br>Heber Dignam Nasmyth, Instructor, Voice<br>Frank Tatham Johnson, Instructor, Voice<br>Mabel Genevieve Wright, A.B., B.Mus., Instructor, Piano<br>Olga Edith Leaman, Instructor, Voice<br>Edward Earle Swinney, A.B., Instructor, Public School Music<br>Cora E Wallace, Instructor, Piano, Summer Session

1-2. History of Music.- $I, I I$; (2).
Assistant Prcfessor Schwartz
Prerequisite: One year of University work.
3-4. Theory of Music (Harmony).- $I$, $I I$; (2).
Assistant Professor Schwartz
5-6. Theory of Music (Harmony).-Continuation of 3-4. I, II; (3).
Assistant Professor Schwartz
Prerequisite: Music 3-4.
7-8. Counterpoint, Canon, and Fugue.-I, $I I$; (3).
Assistant Professor Schwartz
Prerequisite: Music 5-6.
9-10. General Theory and Analysis.-I, $I I$; (2). Director Erb Prerequisite: Music 7-8.
11-12. Acoustics.-I, $I I$; (1). Director ERB
Prerequisite: Music 3 to 8 inclusive.
13-14. Constructive Listening (Musical Appreciation).-I, II; (1).
Director Erb

## Public School Music

21a-21b. Ear Training, First Year.-Two hours a week; required of all music students. I, II; (no credit).

Mr. Swinney
22a-22b. Ear Training, Second Year.-Two hours a week, required of students in the curriculum in Music in the sophomore year. $I, I I ;$ (1).

Mr. Swinney
23a-23b. Sight Singing, First Year.-Two hours a week; required of students in the curriculum in Music in the sophomore year. I, II; (no credit).

Mr. Swinney
24a-24b. Sight Singing, Second Year.-Two hours a week; required of students in the curriculum in Music in the junior year. $I$, $I I$; (1).

Mr. Swinney
25a-25b. Methods of Teaching.-Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school. (Primarily for students preparing to teach music in the public schools.) $I, I I$; (4).

Mr. Swinney
27a-27b. Ensemble.- $I, I I$; (1).
28a-28b. Sight Singing, Elementary.-Two hours a week for beginners. $I, I I$; (no credit.)

Mr. Swinney

## Piano

## Mr. van den Berg, Miss Treat, Miss Wright

Note: A student enrolled in piano is required to take either choral or orchestra; a student absent from choral or orchestra more than three times without an excuse acceptable to the Director of the School of Music receives a failure in his course in piano.

41a-41b. Preparatory Course in Piano, First Year.-I, II; (no collegiate credit).

41c-41d. Preparatory Course in Piano, Second Year.-I, II; (no collegiate credit).

41e-41f. Preparatory Course in Piano, Third Year.-I, II; (no collegiate credit).

42a-42b. Piano, First Year.- $I, I I$; (4).
43a-43b. Piano, Second Year.- $I, I I$; (4).
44a-44b. Piano, Third Year.- $I, I I$; (4).
45a-45b. Piano, Fourth Year.-I, $I I$; (4).
46a-46b, 46c-46d. Piano, Two Years.-The first two years' work in piano taken as a minor by students majoring in voice or violin. $I, I I$; (2).

47a-47b. Piano.-For students from other departments of the university. I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions). ${ }^{1}$

## Voice

## Mr. Nasmyth, Mr. Johnson, Miss Leaman

Note: A student enrolled in voice is required to take either choral or orchestra; a student absent from choral or orchestra more than three times, in the course of a semester, without an excuse acceptable to the Director of the School of Music receives a failure in his course in voice.

51a-51b. Preparatory Course in Voice, First Year.-I, II; (no collegiate credit).

51c-51d. Preparatory Course in Voice, Second Year.-I, II; (no collegiate credit).

51e-51f. Preparatory Course in Voice, Third Year.-I, II; (no collegiate credit).

52a-52b. Voice, First Year.-I, $I I$; (4).
53a-53b. Voice, Second Year.-I, $I I$; (4).
54a-54b. Voice, Third Year.-I, $I$; (4).
55a-55b. Voice, Fourth Year.-I, $I I$; (4).
56a-56b, 56c-56d. Voice, Two Years.-The first two years' work in voice taken as a minor by students majoring in piano or violin. $I, I I$; (2).

57a-57b. Voice.-For students from other departments of the University. $I, I I$; (no credit, except in the College of Liberal Arts and Sciences under certain conditions). ${ }^{1}$

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## Violin

## Mr. Morphy, Mr. Schwartz.

Note: A student enrolled in violin is required to take either choral or orchestra; a student absent from choral or orchestra more than three times, in the course of a semester, without an excuse acceptable to the Director of the School of Music receives a failure in his course in violin.

61a-61b. Preparatory Course in Violin, First Year.-I, II; (no collegiate credit).

61c-61d. Preparatory Course in Violin, Second Year.-I, II; (no collegiate credit).

6le-6lf. Preparatory Course in Violin, Third Year.-I, II; (no collegiate credit).

62a-62b. Violin, First Year.-I, II; (4).
63a-63b. Violin, Second Year.-I, $I$; (4).
64a-64b. Violin, Third Year.-I, $I I$; (4).
65a-65b. Violin, Fourth Year.-I, $I I$; (4).
66a-66b, 66c-66d. Violin, Two Years.-The first two years' work in violin taken as a minor by students majoring in piano or voice. $I, I I$; (2).

67a-67b. Violin.-For students from other departments of the University. I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions). ${ }^{1}$

## Violoncello

## Mr. Schwartz

Note: A student enrolled in violoncello is required to take either choral or orchestra; a student absent from choral or orchestra more than three times, in the course of a semester, without an excuse acceptable to the Director of the School of Music receives a failure in his course in violoncello.

71a-71b. Preparatory Course in Violoncello, First Year.-I, II; (no collegiate credit).

71c-71d. Preparatory Course in Violoncello, Second Year.-I, II; (no collegiate credit).

71e-7lf. Preparatory Course in Violoncello, Third Year.-I, II; (no collegiate credit).

72a-72b. Violoncello, First Year.-I, $I I$; (4).
73a-73b. Violoncello, Second Year.-I, II; (4).
74a-74b. Violoncello, Third Year.- $I, I I$; (4).
75a-75b. Violoncello, Fourth Year.-I, II; (4).
76a-76b, 76c-76d. Violoncello, Two Years.-The first two years' work in violoncello taken as a minor by students majoring in piano, voice, or violin. $I, I I ;$ (2).

77a-77b. Violoncello.-For students from other departments of the University. I, II; (no credit, except in the College of Liberal Arts and Sciences under certain conditions). ${ }^{1}$

## Organ

## Director Erb, Miss Treat

Note: A student enrolled in organ is required to take either choral or orchestra; a student absent from choral or orchestra more than three times, in the course of a semester, without an excuse acceptable to the Director of the School of Music receives a failure in his course in organ.

Students desiring to take organ will be obliged to pass without conditions the entrance examination in piano. Under no circumstances will they be accepted if their piano work falls below the standard represented by this examination.

81-82. Organ, First Year.-I, $I I$; (4).
84-85. Organ, Second Year.- $I, I I$; (4).
86-87. Organ, Third Year.-I, $I I$; (4).
88-89. Organ, Fourth Year.-I, $I I$; (4).
83a-83b, 83c-83d. Organ, Two Years.-First two years' work in organ taken as a minor by students majoring in piano, voice, or violin. $I, I I ;$ (2).

## Band, Orchestra, and Ensemble Work

92a-92b. Band Instruments.- $I, I I$; (no credit). A student enrolled in this course is required to take either choral or orchestra, and if absent from choral or orchestra more than three times, in the course of a semester, without an excuse arceptable to the Director of the School of Music receives a failure in the course. Harding
94a-94b. Recital Course in Practical Music.-(For seniors in Music 45a-45b, 55a-55b, 65a-65b, 88-89.) $I, I I$; (1).

96a-96b. Band Instrumentation.- $I, I I$; (no credit).
Harding
97a-97b. Band Arranging. $I, I I$; (no credit).
Harding
98a-98b. Band Conducting.-I, $I$; (no credit).
Harding

## Summer Session Courses

S 1. Musical History.-Biography, including critical discussions of important compositions, and the investigation of national tendencies in modern music. Collateral reference work and note books are required. (2). Director ERB

S 2. Advanced Harmony.-The Septchords; harmonization with three clefs on four staffs; sequences; key relations and simple diatonic modulations; harmonic analysis; keyboard work. (2).

Director ERb
S 3. Harmony.-Summary and drill in scales and keys, intervals, triad construction and connection; derivation and figured bass from given melody, harmonization in two clefs. (2).

Miss Wallace
S 4. Sight Singing, Advanced Course.-Drill in one, two, three, and four part reading; suitable exercises for breath control, enunciation and phrasing. (1). Miss Wallace
S 5. Sight Singing, Elementary Course.-Music notation; scale structure; ear and eye training; solfeggio. (No credit.) Miss Wallace

## PALEONTOLOGY

(See Geology 1a, 16, 18, 19, 20, 21.)

## PHILOLOGY

(See Classics, Comparative Philology, English Language and Literature, Germanic Languages and Literature, and Romance Languages and Literature.)

## PHILOSOPHY

(See also Psychology and Education.)
Arthur Hill Daniels, Ph.D., Professor
Boyd Henry Bode, Ph.D., Professor
Queen Lois Shepherd, Ph.D., Instructor
Carl Herman Haessler, A.B., Assistant
Major: Twenty hours from any courses offered by the department, including Philosophy 1, 2, 3, and 4, and one other advanced course. Six hours in psychology may be counted toward a major in philosophy.

Minors: Twenty hours in (a) psychology (at least six additional hours, if psychology is counted toward a major), and one other subject in the following list; or (b) any two subjects in the same group in the following list: (A) economics, history, political science, education, sociology; (B) English, French, German, Greek, Latin; (C) botany, chemistry, mathematics, physics, zoology. No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

## Courses for Undergraduates

1. Logic.-The principles of reasoning; detection of fallacies; evidence. $I$ or $I I$; (3).

Professor Bode, Dr. Shepherd, Mr. Haessler
Prerequisite: One year of university work.
2. Introduction to Philosophy.-Philosophic problems in their relation to the doctrine of evolution and in their bearing on conduct and religion. $I I$; (3).

Professor Bode, Dr. Shepherd
Prerequisite: Two years of university work.
9. Political and Social Ethics.-Moral principles applied to political and social relations. $I$; (3). Professor Daniels, Mr. Haessler

Prerequisite: Two years of university work.

## Courses for Advanced Undergraduates and Graduates

3. History of Ancient and Medieval Philosophy.-I; (3).

Professor Daniels
Prerequisite: Three hours in philosophy; junior standing.
4. History of Modern Philosophy.-From the Renaissance to the present time. $I I$; (3).

Dr. Shepherd
Prerequisite: Three hours in philosophy; junior standing.
7. Ethics.-The beginnings and growth of morality; the fundamental questions of ethical theory; social and economic problems of the present. $I I$; (3).

Professor Daniels
Prerequisite: Three hours in philosophy; senior standing.
11. Philosophy of Religion.-The philosophical interpretation of religious consciousness. Topics: God, revelation, inspiration, dogma, prayer, faith, immortality, the problem of evil; the relation of morality and religion. $I I$; (2).

Professor Daniels
Prerequisite: Senior or graduate standing; six hours in psychology or philosophy, or in both.
15. British Philosophers of the Eighteenth Century.-Locke, Berkeley, and Hume. I; (3).

Professor Bode
Prerequisite: Philosophy 2 or 3 or 4.
16. Philosophy of Pragmatism.-II; (3). Professor Bode Prerequisite: Philosophy 15.
18. Philosophers of the Nineteenth Century.-Philosophical tendencies in materialism, naturalism, idealism, and pragmatism. I; (3). Dr. Shepherd

Prerequiste: Philosophy 2 or 3 or 4.
19. Rationalism and Religion in the Eighteenth and Nineteenth Centuries.$I$; (3).

Dr. Shepherd
Prerequisite: Philosophy 2 or 3 or 4; junior standing.

## Courses for Graduates

Students entering upon graduate work in philosophy must have had a thoro course in the history of philosophy, a course in logic, and a general course in psychology.
103. Seminar in Ethics.-British ethics from Hobbes to Sidgwick. Twice a week; I, II; (1 unit). Professor Daniels

107a-107b-107c. History of Philosophy.-a: Plato and Aristotle. Twice a week; (1 unit). b: Descartes, Spinoza, and Leibnitz. Twice a week; (1 unit). c: Kant and Schopenhauer. Twice a week; ( 1 unit); I, II. The subject for $1916-17$ is 107 a.

Professor Daniels
108a-108b-108c. Seminar in Contemporary Philosophy.-a: Idealism. b: Realism and pragmatism. c: The philosophy of Bergson. Twice a week; (1 unit). I, II. The subject for 1916-17 is 108 b .

Professor Bode

## PHOTOGRAPHY

## Arthur Grenville Eldredge, Instructor

1-2. The Principles and Practise of Photography.-(For advanced students who use photography in connection with their special subjects.) Lenses; cameras; plates and films; exposure; development; printing; copying; positives; landscape, architectural, and scientific photography; speed work; color photography. Lectures and demonstrations; each student is required to produce a stated amount of work covering the processes treated. I, II; (one hour a week, no credit).

Mr. Eldredge
Prereguisite: Junior standing and the consent of the instructor.

## PHYSICAL TRAINING FOR MEN

George A Huff, Director
Harry Lovering Gill, Associate, Track
Ralph Jones, Associate, Basket Ball
Robert Carl Zuppre, Ph.B., Associate, Foot Ball
Roy Newton Fargo, B.S., Director of the Men's Gymnasium

Edward John Manley, Instructor, Sreimming
Walter Roore Evins, Instructor, Wrestling and Boxing
Samuel E Bilik, Assistant
Alvin Romeiser, Assistant, in Charge of Fencing
Olaf Harold Glinstedt, Assistant, Summer Session
O C Mauthe, Assistant, Summer Sessiont
1-2. Gymnasium Practise.-Two hours' gymnasium drill each week. (Required of freshmen. First semester given in conjunction with 1 a below.) $I ;(1 / 2)$. II; (1). Mr. Fargo
1a. Personal Hygiene.-Six lectures by the Dean of Men. Required in conjunction witf Physical Training 1. I; (First six weeks).

Dean Clark
3. Elementary and Intermediate Gymnastics on Heavy Apparatus.-Preparation of men for teaching physical training. Three exercises a week. $I$; (1).

Prerequisite: Physical Training 1-2 and the consent of the instructor.
4. Advanced Physical Training.-(Continuation of course 3.) Three exercises a week, $I I$; (1).

Prerequisite: Physical Training 3 and the consent of the instructor.

## Summer Session Courses <br> Athletic Coaching

Note: Summer courses in physical training for men continue through only six weeks. Not more than five credit-hours in physical training may be counted for graduation in any of the colleges of the University.

S 10. Baseball.-Batting; base running; fielding each position; team work and coaching; rules; physical condition; indoor practise. Lectures; practical work. (11/2).

Director Huff
S 11. Track and Field Athletics.-Starting, sprinting, distance running, hurdling, high and broad jumping, pole vaulting, shot putting, hammer throw, and discus; preparing contestants; individual peculiarities; rules; physical condition, endurance, speed, fatigue, and means of training; promotion, management, and officiating of games and meets. Lectures; practical work. (11/2). Mr. Gill

S 12. Basketball.-Coaching; passing; goal throwing; dribbling; team play; condition; styles of play used by leading coaches. Lectures; practical work. (11/2). Mr. Jones
S 13. Football.-Theoretical: Rules from the standpoint of coach, players, and officials; offense and defense; generalship and strategy. Practiccal: Training, conditioning, and players' equipment; punting, drop kicking, place kicking, kick off, forward passing; tackling dummy and charging sled; special drills for linemen, ends, and backs; following the ball, interference, team work; fundamental plays, freak plays, signal systems. Lectures; practical work. (11/2). Mr. Zuppre

S 14. Training.-Theories of training, massage, treatment of sprains, bruises, etc.; bandaging and first aid. Lectures and practical work. This course should be taken by all who take S $10, \mathrm{~S} 11, \mathrm{~S} 12$, or S 13 . ( $1 / 2$ ).

Mr. Glimstedt

## Gymnastics

S 15. Calisthenics.-Typical lessons for corrective and responsive work given. Simple drills with wands, dumb-bells, and bar-bells. (1/3). Mr. Fargo

S 16. Elementary Swedish Gymnastics.-Simple floor work and elementary exercises on apparatus. (1/3).

Mr. Fargo

S 17. Elementary Gymmastics; Heavy Apparatus.-Elementary exercises on lieavy apparatus, mats, horse, horizontal bar, rings, and parallel bars. ( $1 / 2$ ).

Mr. Fargo
S 18. Intermediate Heavy Gymnastics.-M.ore advanced work along the same lines as Course S 17 . ( $1 / 2$ ). Mr. Fargo

S 19. Advanced Gymmastics; Heavy Apparatus.-Advanced exercises on heavy apparatus. ( $1 / 2$ ).

Mr. Fargo
S 20. Advanced Gymnastics with Light Apparatus.-Advanced exercises with light apparatus; wands, dumb-bells, single stieks, bar-bells, and Indian clubs. (1/2).

Mr. Mauthe
S 21. Gymnastic Dancing for Men.-Elements of steps, simple steps, and series of dancing steps to be given to classes in single file, pairs, and in open order. (1/2).

S 22. Advanced Gymuastic Dancing.-(1/2).
Mr. Mauthe
Mr. Mauthe
S 23. School Room Gymnastics.-Gymnastic games, exercises, and simple folk dances for all grades. ( $1 / 3$ ).

Mr. Mauthe

## PHYSICAL TRAINING FOR WOMEN

Louise Freer, A.b., B.S., Director
Verna Brooks, A.B., Instructor
Nellie Eileen Bussell, A.B., Instructor
Anna Lue Hughitt, Instructor
Caroline Ruth Morris, A.b., Assistant
Rosa-Lee Gaut, B.Mus., Assistant
Eunice Badger, Student Assistant
7a-7b. Practise.-Class work; light gymnastics; gymnastic dancing; games; personal hygiene; corrective work. (Required of freshmen.) $I, I I$; (1).

Miss Freer, Miss Brooks, Miss Hughitt, Miss Morris, Miss Bussell
8a-8b. Practise.-(Continuation of 7 a - 7 b . Second year, elective.) $I, I I$; (1).
Miss Brooks, Miss Hughitt, Miss Morris, Miss Bussell
Prerequisite: Physical Training 7a-7b.
9. Hygiene.-(Required of freshmen.) $I$; (1).

Dean Gates
10a-10b. Teachers' Course.-(Third year.) Theory and practise; practise teaching in the gymnasium and in public schools. Lectures and outside reading. Two hours a week. I, II; (1).

Miss Bussell
Prerequisit: One year of gymnasium work, and psychology, or education; registration in Physical Training 7 or 8.

11a-11b. Teachers' Course.-(Fourth year.) Massage, theory and practise; emergencies (including bandaging); anthropometry, practise work in measurements for physical examinations. I, II.

Miss Hughitt
Prerequisite: Physical Training 10.
12a-12b. Aesthetic and Interpretative Dancing.-Exercises in technics. I, II.
Miss Brooks
Prerequisite: Physical Training 7a-7b.
13a-13b. Advanced Aesthetic and Interpretative Dancing.-Technics; pantomime. $I, I I$.

Miss Hughitt
Prerequisite: 8a-8b, 12a-12b.

## Summer Session Courses

S 1. Teacking of Play, Games and Folk Dances in the Grades and High School.-Theory and practise. Lectures. Miss Brooks
S 2. Swimming.
Miss Brooks

## PHYSICS

Albert Pruden Carman, D.Sc., Professor
Charles Tobias Knipp, Ph.D., Associate Professor
Floyd Rowe Watson, Ph.D., Associate Professor
Jakob Kunz, Ph.D., Associate Professor, Mathematical Physics
William Frederick Schulz, Ph.D., Assistant Professor
Elmer Howard Williams, Ph.D., Associate
William Henry Hyslop, A.M., Assistant
Earle Horace Warner, A.M., Assistant
Paul Levern Bayley, A.M., Assistant
Charles Francis Hill, A.M., Assistant
Walter Andrew Shewhart, A.M., Assistant
Charles Stever Fazel, A.M., Assistant
Harry Tyler Booth, M.S., Assistant
Carl Eli Pike, B.S., Assistant
Roy Andrew Nelson, B.S., Assistant
Laurence Elmer Voorhees, A.B., Assistant
Major: Twenty hours from any courses offered by the department.
Minor: Twenty hours in astronomy, mathematics, chemistry, and mineralogy.
Physics $7 \mathrm{a}-7 \mathrm{~b}$ and $8 \mathrm{a}-8 \mathrm{~b}$ are recommended to students not specializing in mathematics, chemistry, or engineering. For undergraduate students taking advanced work or a major in physics, the following outline of work is suggested:

Freshman year: Trigonometry (Math. 4) and Chemistry.
Sophomore year: Physics 1a-1b, 3a-3b, or Physics 7a-7b, 8a-8b.
Junior year: Physics 15, 16, 17, 23, or 24.
Senior year: Physics 4a-4b, 14a-14b, 20, 22, 25, 30, or 31.

## Introductory Courses for Undergraduates

1a-1b. General Physics.-Lectures with class-room demonstration; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) $I$; (3): $I I$; (2).
Professor Carman, Assistant Professor Schulz, Mr. Hyslop, Mr. Warner, Mr. Bayley, Mr. Fazel, Mr. Booth.

Prerequisite: Registration in Physics 3a-3b; freshman mathematics.
3a-3b. Physical Measurements.-Laboratory experiments; quizzes in connection with Physics 1a-1b. I, II; (2).
Assistant Professor Schulz, Mr. Hyslop, Mr. Warner, Mr. Bayley, Mr. Fazel, Mr. Воотн.

Prerequisite: Physics 1a-1b, or registration therein.
7a-7b. General Physics.-Lectures; class-room demonstrations; recitations. (For students in arts and science.) $I, I I$; (21/2).
Associate Professor Watson, Dr. Williams, Mr. Shewhart, Mr. Pike, Mr. Nelson
Prerequisite: Mathematics 4, or registration therein; registration in Physics $8 \mathrm{a}-8 \mathrm{~b}$.

8a-8b. Introductory Laboratory Physics.-Physical measurements. I, II; (21/2). Dr. Williams, Mr. Shewhart, Mr. Pike
Prerequisite: Registration in Physics 7a-7b.
9a-9b. General Physics.-Lectures; class-room demonstrations; recitations. (For students in architecture.) $I, I I$; (2).
Associate Professor Watson, Dr. Willians, Mr. Shewhart, Mr. Pike, Mr. Nelson
Prerequisite: Mathematics 4; registration in Physics 10a-10b.

# 10a-10b. Introductory Laboratory Physics.-Physical measurements. $I, I I$; <br> Dr. Williams, Mr. Shewhart, Mr. Pike <br> Prerequisite: Registration in Physics 9a-9b. 

 (2).
## Intermediate Courses

15. Electricity and Magnetism.-Recommended to students in non-technical courses who wish a knowledge of electricity and magnetism beyond the course in general physics. Two recitations or lectures and one three-hour laboratory exercise weekly. Brooks and Poyser: Electricity and Magnetism. I; (3).

Associate Professor Knipp
Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.
16. Heat.-Fundamental heat phenomena, the mechanical theory of heat and elementary thermodynamics. Laboratory experiments in thermometry, calorimetry, vapor pressure, expansion of bodies, transmission of heat, and mechanical equivalent. I; (3). Associate Professor Watson, Mr. Nelson

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.
17. Light.-Reflection, refraction, interference, diffraction, and polarization; the theory and use of optical instruments; lectures and laboratory. For students in general physics, but also adapted to those who wish to learn the use of the refractometer, telescope, microscope, polarising microscope, polarimeter, saccharimeter, spectrometer and interferometer. Houstoun: Treatise on Practical Light. II; (3).

Assistant Professor Schulz
[18. Teachers' Course.-Discussion of text-books, reference books, laboratory manuals, apparatus ordering, and methods of conducting work in physics. Manipulative work with glass and apparatus. Discussion of selected topics in advanced general physics. $I I$; (3). Not given, 1916-17.

Prerequisite: A course in general physics, or experience in teaching.]
[23. Sound.-The phenomena of sound, its origin, propagation, velocity, interference, and diffraction; the vibrations of strings and organ pipes and the physical theory of music and speech. Lectures, recitations, laboratory. II; (3). Not given, 1916-17.

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.]
24. Properties of Matter.-Weight, mass, gravitation, elasticity, viscosity, surface tension, and diffusion. Lectures; recitations; laboratory measurements, including the use of the dividing engine, chronograph, etc. Poynting and Thomson: Properties of Matter; Watson: Text-book of Practical Physics. II; (3).

Dr. Williams

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

## Courses for Undergraduates and Graduates

4a-4b. Electrical and Magnetic Measurements.-Exact electrical and magnetic measurements with accompanying theory. First semester: the more refined and special methods of measuring very high and very low resistances; galvanometers both aperiodic and ballistic; the measurement of electric currents and quantity; the comparison of capacities. A special section is reserved for students of chemistry, including a course of experiments on the measurement of electrolytic resistance, the use of the Dolezalek electrometer, of thermo-couples, and of platinum resistance thermometers for measuring temperatures; the determination of the dielectric constants of solids and liquids; and special uses of the potentionreter. Second semester: the absolute determination of capacity; the determination of the
damping factor of a ballistic galvanometer; circuits containing resistance and selfinduction; classical methods for the measurement of self and mutual induction; the magnetic properties of iron; plotting of curves and determination of hysteresis losses. Work with various types of potentiometers. $I, I I$; (2).

Associate Professor Knipp, Mr. Hill, Mr. Voorhees
Prerequisite: Physics 1a-1b, 3a-3b, or 7a-7b, 8a-8b; Mathematics 7, 9.
14a. Introduction to Theoretical Physics.-Dynamics. First course in theoretical physics, intended to put in systematic form the fundamental facts and concepts of motion, mass, and force, with problems from pure and applied physics. For the student of general science as well as for students of physics and mathematics. Recitations; problems; lectures. Jean: Theoretical Mechanics. I; (3). Professor Carman
Prerequisite: Physics 1a-1b, 3a-3b, or $7 \mathrm{a}-7 \mathrm{~b}, 8 \mathrm{a}-8 \mathrm{~b}$; Mathematics 8 or 7 and 9.
20. Light.-Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. I; (2).

Assistant Professor Schulz
Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 8, or 7 and 9.
22. Light-Photometry.-The scientific principles and methods of photometry; comparison of light sources with standards; determination of reflective power and transmission coefficients; spectrophotometry. Lectures; recitations; laboratory. I; (2-5). ${ }^{1}$

Assistant Professor Schulz
Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.
25. Heat.-Advanced laboratory work in heat; the theory and methods of measurement of temperatures by thermocouples, resistance thermometers, and optical pyrometers. II; (3). Associate Professor Watson, Mr. Nelson

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Physics 16 advised.
26. Architectural Acoustics.-Acoustics of auditoriums; the common acoustical defects and their cures; the transmission of sound through materials; acoustical properties of building materials. Lectures; problems. (For eight weeks only.) $I I$; (1).

Associate Professor Watson
Prerequisite: Physics 1a-1b, 3a-3b; or 9a-9b, 10a-10b.
30. Introduction to Theoretical Electricity.-Electrical and magnetic phenomena discussed with calculus methods. Magnetism, electrostatics, electrolysis, thermo-electricity, electromagnetics, varying currents, alternating currents, units, electromagnetic radiation, conduction through gases, radio-activity and electrons. (For advanced students in physics, chemistry, mathematics, and engineering.) Lectures; recitations; demonstrations. Starling: Electricity and Magnetism. II; (3). Associate Professor Knipp
31a-31b. Special Problems in Advanced Physical Measurements. $I$, $I I$; (2 or 3). ${ }^{1}$ Professor Carman, Associate Professors Knipp and Watson, Assistant Professor Schulz, Dr. Williams.

## Courses for Graduates

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subjects,

[^96]mathematics or chemistry, has been strong and complete. He should also have a knowledge of French and German sufficient to use references in these languages. The courses named below are those open for candidates for the Master's or Doctor's degree. A large part of the last year's work of the candidate for the Doctor's degree is investigational in either experimental or theoretical physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory, are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light, and electricity and magnetism (Physics 15, 16, 17, 24), may be offered by students making a minor in physics, and with certain limitations by students in their first year of graduate work for major credit.
[121. Recent Advances in Physics and the Electron Theory.-A series of lectures of a non-mathematical character describing the more recent discoveries in physics. The molecular and atomic structure of matter; the universal occurence of electrons; determination of the $2 / \mathrm{m}$ and v of the electron and of the ion; determination of the elementary charge of the electron by means of the fog method, by Brownian movement, by radio-activity. Three times a week; $I I ;(1 / 2$ unit). Not given, 1916-17. Associate Professor Knipp, Associate Professor Kunz]
123. Sound.-Wave motion; forced vibrations; the velocity and energy relations of sound waves; resonance; vibrations of strings and organ pipes. Three times a week; II; (1 unit).

Associate Professor Watson
124. Conduction of Electricity Through Gases.-The classical experiments relating to discharge phenomena. In the second semester an original problem is assigned. Laboratory, collateral reading; discussion. Three times a week; I, II; ( 1 to 2 units). Associate Professor Knıpp
126. Physics Colloquium.-Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems in physics. Attendance is expected of all graduate students. Once a week; I, II; (no credit).

127a. Electron Theory.-(Mathematical part, Seminar.) Theory of radiation of the black body; entropy and probability; the energy quantum and its applications in the theory of the specific heat; the photoelectric and related effects. Topics are selected in advance. Once in two weeks; I; (1 unit).

Associate Professor Kunz
127b. Electron Theory.-(Physical part, Seminar.) The method of physical intuition is used, avoiding deeper mathematical analysis. The Zeeman and corresponding electric phenomena; electro and magneto-optics; emission and absorption spectra; dispersion; photoelectricity; phosphorescence; chemical action of light and electrons; electron theory of metals and of magnetism; constitution of the atom. Of special interest to students in chemistry and general science. Twice a week; II; (1 unit).

Associate Professor Kunz, Assistant Professor Schulz
131. Investigation of Special Problems.-Advanced laboratory or design and calculation. A problem worked out with the advice and direction of the instructor. Two or four times a week; I, II; (1 to 2 units). Professor Carman, Associate Professors Knipp, Watson, Kunz, Assistant Professor Schulz, Dr. Williams
132. Mathematical Physics.-Special phases in theoretical physics.
[(a). Dynamics. Newton's equations, general methods of integration, poten-tial-theory, potential of the ellipsoid, application to celestial mechanics, the principles of least constraint, of virtual work of D'Alembert, of Hamilton; special problems of hydrodynamics and of electricity. Three times a week; I, II; (2 units). Not given, 1916-17.

Associate Professor Kunz]
(b). Electrodynamics.-The potential theory applied to electrical and magnetic polarization; spherical harmonics; images and inversion; conjugate functions; elliptic coordinates and integrals; magnetic actions of currents; determination of coefficients of capacity; self and mutual induction; absolute measurements; Maxwell's theory with some applications in optics. Lectures; collateral reading. Four times a week; I, II; (2 units).

Associate Professor Kunz
[(c). Thermodynamics and Kinetic Theory of Matter.-The two fundamental principles developed and applied to various physical and chemical phenomena, the theory of chenical equilibrium; the Nernst theorem; the direct method of Carnot's cycle together with the method of the thermodynamic potentials and the derived functions; Maxwell's theory of the distribution of velocities in a gas; Boltzman's H theory; the theory of radiation; Planck's theory of quanta. I, II; ( 1 to 2 units). Not given, 1916-17. Associate Professor Kunz]
(d). Elasticity and Hydrodynamics.-Problems of elasticity and hydrodynamics of technical interest. Advanced mathematics, but not advanced dynamics, is required. The current literature of physical and technical journals is used. Twice a week; I; (1 unit).

Associate Professor Kunz
133. Seminar.-Three or five times a week; I, II; (1 to 3 units). Professor Carman, Associate Professors Knipp, Watson, Kunz, Assistant Professor

Schulz, and Dr. Williams

## Summer Session Courses

S 7I. General Physics, Part I.-Mechanics; motion; forces and their effects; equilibrium. Kimball's College Physics. (11⁄2).

Assistant Professor Knipp, Mr. Bayley
Prerequisite: Plane geometry and high-school algebra; registration in Physics S 8I. Plane trigonometry desired.

S 81. Introductory Laboratory Physics, Part 1.-Physical measurements on mechanics, properties of matter. Laboratory to accompany S 7I. Schulz's Laboratory Manual. (11/2).

Mr. Bayley
Prerequisite: Registration in Physics S 7I.
[S 7II. General Physics, Part II.-Electricity and magnetism. Kimball's College Physics. (11/2). Not given, 1916.

Prerequisite: See S 7I.]
[S 8II. Introductory Laboratory Physics, Part II.-Laboratory to accompany S 7II. (11/2.) Not given, 1916.

Prerequisite: Registration in S 7II.]
S 7III. General Physics, Part III.-Heat, light; sound. Lectures; demonstrations; recitations. Text: Kimball's College Physics. (112).

Associate Professor Knipp, Mr. Booth

Prerequisite: Same as S 7I.
S 8III. Introductory Laboratory Pinysics, Part III.-Heat, light; sound. Laboratory. Schulz's Laboratory Manual. (112). Mr. Warren, Mr. Booth

Prerequisite: Registration in Physics S 7III.
S 4. Electrical and Magnetic Measurements.-Laboratory; recitations; reports. (2). Dr. Williams, Mr. Fazel

Prerequisite: A course in general physics and calculus.
S 15. Electricity and Magnetism.-Lectures, recitations; laboratory. Brooks and Poyser, Magnetism and Electricity. (11/2).

Dr. Williams, Mr. Fazel
Prerequisite: A course in general physics.

S 16. Heat.-Thermometry, calorimetry, expansion, and vapor pressure. Lectures; demonstrations; recitations; laboratory. Edser's Heat for Advanced Students. (11/2). Mr. Warner, Mr. Booth
Prerequisite: A course in general physics.
IS 17. Light.-For description see Physies 17 above. (11/2.) Not given, 1916.

Prerequisite: A course in general physics.]
S 18. Teachers' Course.-For description see Physics 18 above. (1).
Dr. Williams
Prerequisite: A course in general physics, or teaching experience in physics.
S 24. Properties of Matter.-The fundamental properties of matter, weight, mass, gravitation, elasticity, viscosity, surface tension, and diffusion. Poynting and Thomson's Properties of Matter. (11/2).

Dr. Williams
Prerequisite: A course in general physics.
S 21. Recent Advances in Physical Science.-See S 126.
*S 31. Special Problems in Advanced Physical Measurements.-Special laboratory problems. (1-2). ${ }^{1}$ Associate Professor Knipp, Dr. Williams

Prerequisite: A course in general physics; calculus.
*S 126. Physics Colloquium.-Lectures on liquid air, x-rays, and cathode rays. Associate Professor Knipp, Dr. Williams
*S 131. Investigation of Special Problems.-
Associate Professor Knipp, Dr. Williams
Prerequisite: Registration in the Graduate School.
*S 133. Seminar and Thesis.-
Associate Professor Knipp, Dr. Williams
Prerequisite: Registration in the Graduate School.

## PHYSIOLOGY

William Edward Burge, Ph.D., Assistant Professor
Alma Jessie Neill, A.M., Assistant
Josephine Kennedy, A.B., Assistant
Major: 20 hours made up from any courses offered in the department, exclusive of Physiology 4.

Minors: 20 hours in bacteriology, botany, chemistry, and zoology.

1. Histology.-A microscopic study of the fundamental mammalian tissues. Continued in Physiology 8. I; (3). Assistant Professor Burge, Miss Kennedy

Prerequisite: Two years of university work, including five hours in botany or zoology.
2. Experimental Physiology.-Nerve and muscle, circulation, respiration, secretion, digestion, and metabolism. Lectures; laboratory. $I I$; (5).

Assistant Professor Burge, Miss Neill
Prerequisite: Two years of university work; Physiology 4 and 8.
4. General Physiology, Chemical and Experimental.-Lectures; demonstrations; recitations; laboratory work. $I$ or $I I$; (5).

> Assistant Professor Burge, Miss Neill, Miss Kennedy

Prerequisite: One semester of university work, including five hours in botany or zoology and five hours in chemistry.

[^97]5. Physiology of Nutrition.-Utilization of food material by the body in health under various conditions and in disease. Lectures; demonstrations. $I I$; (2).

Assistant Professor Burge
Prerequisite: Physiology 4.
6. Physiology of the Nervous System.-The functions of the principal motor and sensory tracts of the mammal. $I$; (3).

Assistant Professor Burge
Prerequisite: Physiology 1.
7. Investigation.-II; (2).

Assistanit Professor Burge
8. Histology.-Microscopic anatomy of the organs. Lectures; laboratory. II; (3). Assistant Professor Burge, Miss Kennedy

Prerequisite: Two years of university work, including Physiology 1.

## Courses for Graduates

101. Journal Club.--Review of literature, and discussion of investigations carried on in the department. Once a weeek; I, II.

Members of the department
103. Research.-Three times a week; I, II; (1 to 2 units).

Assistant Professor Burge

## POLITICAL SCIENCE

(See also Economics, History, and Sociology.)
James Wilford Garner, Ph.D., Professor
John Archibald Fairlie, Ph.D., Professor
John Mabry Mathews, Ph.D., Assistant Professor
Russell McCulloch Story, A.M., Instructor
Robert Eugene Cushman, A.B., Instructor
Frank Mallory Anderson, Ph.D., Professor of History, Dartmouth College, Summer Session
John Mez, Ph.D., Lecturer for the American Association for International Relations, Summer Session
Major: Twenty hours from any courses offered by the department. A major may include three hours of constitutional history (History 4 and 14).

Minors: Twenty hours, selected from two of the following subjects: history, economics, law, sociology, philosophy, and education.

## Courses for Undergraduates

Note: Courses 1 and 3 give a survey of national, state, and local government in the United States, and should be taken by students specializing in political science. Course 1a is open only to students in the Colleges of Engineering and Agriculture who desire an introductory course in American Government.

1. American National Government.-Historical development, organization, powers, limitations, and practical working of the national government of the United States. I; (3).

Professor Garner, Assistant Professor Mathews, Mr. Story, Mr. Cushman
Prerequisite: Thirty hours of university work.
3. State and Local Government.-Powers, obligations, and rights of the states in the Federal Union; formation and admission of states; development of state constitutions; organization of state and local government; political methods. (A continuation of course 1; may be taken independently.) $I I$; (3).

Professor Garner, Assistant Professor Mathews, Mr. Story, Mr. Cushman Prerequisite: Thirty hours of university work.

Note: Students may not take both 3 and 16 for more than a total of four hours' credit without special permission of the department.

1a. American Government and Politics.-National, state, and local government. (Open only to students in the Colleges of Engineering and Agriculture.) $I$; (2).

Mr. Cushman
Prerequisite: Thirty hours of university work. No credit is allowed for this course if the student has already had or subsequently takes course 1 or 3.
16. Government of Illinois.-Constitutional development; the legislature; the executive departments; the administrative boards and commissions; the judiciary; county, town, and city government. Lectures; discussion. II; (2).

Mr. Story

Prerequisite: Thirty hours of unviersity work.
Note: Students may not take both 3 and 16 for more than a total of four hours' credit without special permission of the department.

## Courses for Advanced Undergraduates and Graduates

Note: Junior standing is required for admission to the following courses:
4. Municipal Government.-The growth of cities; their legal and social status; municipal organization in the United States, including mayor and council, commission, and city manager plans; municipal organization abroad; municipal functions. I; (3).

Mr. Story
Prerequisite: Senior standing, or junior standing and one of the following: (1) Three hours in either political science or sociology; (2) Five hours in either economics or history; (3) Major work in civil or in municipal and sanitary engineering.
5. Constitutional Law of the United States.-The judicial interpretation of the constitution. Judicial power to declare laws unconstitutional; separation of governmental powers; relation of state and national governments; national taxation; control of interstate commerce; protection of civil and political rights (due process of law); jurisdiction of the courts. I; (3).

Mr. Cushman
Prerequisite: Political Science 1.
6. International Law.-The development, nature, source, and present status of the law of nations; the doctrine of intervention; the laws of war and peace; the rights and duties of neutrals; the arbitration movement. Lectures; assigned readings; reports. I; (3).

Professor Garner
Prerequisite: Graduate or senior standing, or junior standing with six hours of history and five hours of political science.
7. American Diplomacy.-The genesis and present organization of the Department of State; the diplomatic service; the treaty making power; the methods and traditional principles of the foreign policy of the United States; diplomatic controversies with foreign powers; the United States as a world power. II; (3). Assistant Professor Mathews
Prerequisite: Political Science 1 or History 3a-3b; junior standing.
9. Principles of Jurisprudence.-The nature and sources of law; development and comparison of the Roman and English legal systems; English law in the United States; classification of law. $I I$; (2). Professor Fairlie

Prerequisite: Political Science 1 or its equivalent.
10. Administrative Law in the United States.-Organization of federal and state administrative systems; separation of powers and delegation of legislative power; powers of administrative officers; administrative procedure; remedies of the individual against unlawful action of public officers. $I I$; (3). Mr. Cushman

Prerequisite: Political Science 5, or senior standing and six hours of political science.
11. Constitutional Aspects of Social and Industrial Problems.-The nature of the police power; legislation concerning public health, order, and safety; constitutionality of labor legislation; control of combinations of capital; regulation of public service companies. II; (3).

Mr. Cushman
Prerequisite: Six hours of political science or economics.
12. National Administration.-Administrative powers of the President and Congress; principles of administrative organization; the President's cabinet, the executive departments, boards and commissions and administrative services of the national government; judicial administration and the relation of the courts to the executive authorities. $I I$; (3).

Professor Fairlie
Prerequisite: Political Science 1; junior standing.
13. State Administration in the United States.-Organization and methods of the executive departments of the state governments: the governor, heads of administrative departments, boards and commissions, and the civil service. Tendencies toward centralization in taxation, education, and the enforcement of state law. $I$; (3).

Assistant Professor Mathews
Prerequisite: Political Science 3 or its equivalent.
14. Folitical Parties and Methods.-Development and organization of political parties and political methods, primarily in the United States; recent legislation on primary elections and corrupt practises; criticism and defense of the party system. I; (2).

Professor Fairlie
Prerequisite: One course in political science.
14a. Primary and Election Problems.-(Supplemental to course 14.) Special reports and discussions. I; (1).

Professor Fairlie
Prerequisite: Registration in Political Science 14.
18. Legislation in the United States.-Nature of the legislative power; constitutional limitations; organization, rules of procedure, and practise of American legislative bodies; bill drafting; reference bureaus; criticism of bills and discussion of principles of legislation. $I I$; (3).

Mr. Story
Prerequisite: Six hours of political science; junior standing.
21. British Government.-Political institutions in the United Kingdom and the British dominions; the Crown, the Cabinet, the House of Commons and the House of Lords; the party system; the courts of law; local government; the crown colonies and the self-governing dominions; recent developments and proposed changes. $I$; (3).

Professor Fairlie
Prerequisite: Graduate or senior standing, or junior standing with six hours of political science.
22. Continental European Governments.-The political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations; methods of legislation and administration; constitutional guaranties for the protection of individual rights. II; (3). Professor Garner

Prerequisite: Open to graduate students and seniors who have had six hours in political science. History 20a-20b and Political Science 21 recommended.
28. Problems of Contemporary Politics.-Reorganization of state government; state socialism; immigration; foreign and colonial policies; parliamentary government; direct popular government. I; (2).

Mr. Story
Prerequisite: Senior standing and one course in political science.
34. Municipal Problems.-Municipal administration in the United States and Europe; principles of administrative organization; city planning and housing; public utilities; police and sanitary administration; municipal finances: Lectures; readings; special reports. $I I$; (3).

Professor Fairlie
Prerequisite: Open to graduate students, and to undergraduate students who have had Political Science 4 or who have senior standing in the curriculum in municipal or highway engineering.

36a-36b. Thesis Course.-Research work for candidates for honors and other seniors. I, II; (2).

## Courses for Graduates

[101. History of Political Theories.-Ancient, medieval, and modern political thought; political theories of Aristotle, Plato, Machiavelli, Hobbes, Locke, Montesquieu, and others. American political philosophy. Alternating with course 102. Twice a week; I; (1 unit). Not given, 1916-17; given in 1917-18. Professor Garner]
102. The Nature of the State.-Principles, methods, and nature of political science, the origin, attributes, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions, their nature and forms; principles of legislative, executive and judicial organization. Twice a week; I; (1 unit). Professor Garner
103. Seminar in Political Science and Public Law.-Special problems; reports; discussions and criticism. The research work of candidates who are writing theses is under the direction of some instructor to whom they report frequently. $I, I I$.
106. International Law as Applied During the European War.-Causes of the war; treatment of alien enemies; contraband; blockades; transfers of flag; reprisals; fines; contributions and requisitions; rights and duties of neutrals. Twice a week; II; (1 unit).

Professor Garner
112. Studies in Public Administration.-Special topics in comparative national or local administration. Twice a week; I; (1 unit). Professor Fairlie
113. Topics in State Government and Administration.-Studies in the organization and methods of state governments in formulating and executing public policies; investigation of problems. Different topics in succeeding years. Twice a week; II; (1 unit).

Assistant Professor Mathews

## Summer Session Courses

S 1. American Government.-For description see Political Science 1. ( $21 / 2$ ).
Assistant Professor Mathews
Prerequisite: Thirty hours of university work.
S 2. American Diplomacy.-For description see Political Science 7. (21/2).
Assistant Professor Mathews
S 3. The Governments of Europe.-For description see Political Science 21 and 22. (21/2).

Professor Anderson

## PORTUGUESE

## PSYCHOLOGY

Madison Bentley, Ph.D., Professor
Christran Alban Reckmich, Ph.D., Associate
Carl Rahn, Ph.D., Instructor
Anna Sophie Rogers, A.M., Assistant
Gerold Carl Wichmann, A.B., Assistant
Coleman R. Griffith, A.B., Assistant
Major: Twenty hours chosen from courses announced by the department, except that six hours may be chosen from one or more of the following subjects: Philosophy 1, 2, 3, 4; Physies 1a-1b, 3a-3b, 7a-7b; Zoology 2, 5, 9, 15; and Animal Husbandry 30.

Minors: Twenty hours chosen from education, genetics, philosophy, physics, physiology, sociology, and zoology.

## Laboratories

The departmental laboratories occupy twenty rooms in University Hall. They make provision for research, undergraduate instruction in drill-courses, demonstrations in the lecture-room, the testing of mental capacity and of mental defect, and the study of the animal mind. Besides standard equipment in all branches, the laboratories contain special apparatus for spectroscopic and chronographic methods and for the investigation of memory and association. Provision is made for research in psychological optics and acoustics. The work-shop, which is in charge of a skilled mechanician, is equipped for the construction of delicate apparatus and of instruments of precision. The departmental library contains complete files of foreign and American journals and a working collection for experimental and historical study.

Summer Session courses in psychology will be found under Educatron.

1. Introduction to Psychology.-The facts and laws of mind. Lectures; sectional meetings. $I$; (3).

Professor Bentley, Dr. Ruckmich, Dr. Rafn, and assistants
Prerequisite: One year of university work.
2. General Psychology.-Mental inheritance, habit, custom, and fashion; psychology and the biological and social sciences; comparative and genetic psychology; the abnormal; applications of psychology to the arts and professions. $I I$; (3).

Dr. Ruckmich, Dr. Rahn, and assistants
Prerequisite: Psychology 1.
3. Laboratory Practise (Elementary).-Classical experiments in the fields of sensation, feeling, attention, perception and action. $I$ or $I I$; (2).

Professor Bentley, Dr. Ruckmich and assistants

## Prerequisite: Psychology 1.

5. Comparative Psychology.-Mind in animal forms; psychological implications of organic evolution; a comparison of human and animal minds; criticism of current literature. (Recommended to students who intend to elect advanced courses either in animal psychology or in the study of behavior.) Lectures; laboratory. $I$; (2).

Professor Bentley, Dr. Rahn
Prerequisite: Psychology 1.
6. Comparative Psychology (Advanced Laboratory).-Individual studies in animal psychology. $I I$; (2-4). ${ }^{1}$

Professor Bentley, Dr. Rahn
Prerequisite: Psychology 1 and 5.

[^98]9. Physiological Psychology.-Correlations between the structure and functions of the nervous system and the phenomena of human consciousness; a formulation of the problem of psychophysical relationship. Lectures; readings; discussions. $I I$; (3).

Dr. Rahn
Prerequisite: Psychology 1 and 2, or 1 and 3, and laboratory training in one of the biological sciences.
10. German Reading.-Translation into English of a German psychological text. I; (1).

Professor Bentley
Prerequisite: Psychology 1 and an elementary knowledge of German.
12-13. Minor Problems (Advanced Laboratory). The formulation and application of methods suitable to new problems. $I, I I ;(2-5) .{ }^{1}$

Professor Bentley, Dr. Ruckmice, Dr. Rahn
Prerequisite: Psychology 1, 2, 3.
14. Social Psychology.-The social consciousness and the collective mind; analysis of the conditions upon which social consciousness depends; perceptual, ideational, and emotional factors in social consciousness; genetic development of the collective mind as revealed in tradition and institutions. $I$; (2). Dr. Rabn

Prerequisite: Psychology 1 and one other course.
15. The Psychological Basis of Music.-(An elementary course.) Summary of experimental and theoretical literature on the origin of music, harmony, melody, rhythm, consonance, tonal quality, psychology of appreciation and performance. $I$; (2).

Dr. Ruckmich
17. The History of Psychology.-Lectures, discussions and readings in the sources. $I I$; (2).

Dr. Ruckmice
Prerequisite: Psychology 1, 2, and one other course.
20. Systematic Psychology.-The nature of psychology analysis; classification of elementary processes; description of sensory and imaginal processes and the simpler complexes based upon historical and current researches. Lectures and essays. (For graduates and advanced undergraduates.) $I I$; (3).

Professor Bentley
Prerequisite: The consent of the instructor.
21-22. Special Studies.-Individual investigations, for advanced students, in the form of essay or experiment. $I, I I$; (3).

Dr. Bentley, Dr. Ruckmich, Dr. Rahn
Prerequisite: Psychology 1, and one other course.

## Courses for Graduates

103. Research.-Experimental and historical investigations. $I, I I$; $1 / 2$ to 2 units). Professor Bentley, Dr. Ruckmich, Dr. Rahn
104. Seminar.-Discussion of current topics in their historical setting. $I, I I$; (1/2 unit).

Professor Bentley
PUBLIC SPEAKING
(See under English Language and Literature.)

## RAILWAY ADMINISTRATION

(See Transportation.)

[^99]
## RAILWAY ENGINEERIMG

Edward Charles Schmidt, M.E., Professor
William Freeman Myrick Goss, M.S., D.Eng., Professor
John McBeath Snodgrass, B.S., Assistant Professor, Railway Mechanical Engineering
Alonzo Morris Buck, M.E., Assistant Professor, Railway Electrical Engineering
Arthur Frances Comstock, C.E., Associate, Railway Civil Engineering
Otto Sternoff Beyer, Jr., M.E., Research Assistant, Engineering Experiment Station
Harold Houghton Dunn, M.S., Research Assistant, Engineering Experiment Station Railway Civil Engineering-Courses 31-51.
Railway Electrical Engineering--Courses 60-68.
Railway Mechanical Engineering-Courses 2-9.
Common to all groups-Courses 25, 98 and 99.
2. Locomotive Design.-Calculations and designs of engine and boiler details; current standards and proportions. I; (3). Assistant Professor Snodgrass

Prerequisite: Mechanical Engineering 12, 62; Railway Engineering 6.
5. Railvay Laboratory.-Locomotive testing; experimental work with electric and steam railway test cars, brakeshoe testing machine, drop testing machine, and air-brake apparatus. I; (3). Mr. Beyer

Prerequisite: Mechanical Engineering 12, 62; Railway Engineering 6.
6. Locomotives.-Mechanics; performance; design. II; (1).

Professor Schmidt
Prerequisite: Theoretical and Applied Mechanics 21, 29; registration in Mechanical Engineering 12 and 62.
7. Advanced Design.-Problems in locomotive and car design. $I I$; (3).

Assistant Professor Snodgrass

## Prerequisite: Railway Engineering 2.

8. Railway Laboratory.-Investigation of train resistance and locomotive tractive effort by the use of the railway test car. Analysis of the results and their application to the problems of tonnage rating. $I I$; (2).

Mr. Beyer
Prerequisite: Railway Engineering 5.
9. Seminar.-Discussion of assigned topics and reports. $I$; (1).

Professor Schmidt
25. Railway Development.-History and organization of steam and electric railways; statistics; costs. $I$; (3).
Professor Schmidt, Assistant Professor Snodgrass, Assistant Professor Buск, Mr. Comstock

Prerequisite: Open to juniors in railway courses only.
31. Railway Yards and Terminals.-Theory of design; arrangement of grades in gravity yards; problems in yard design. II; (3). Mr. Сомstock

Prerequisite: Civil Engineering 51.
32. Railway Construction.-Design of railway structures; estimates of cost, working drawings, and contracts and specifications for assigned problems. $I$; (3). Mr. Сомstock

## Prerequisite: Civil Engineering 51.

33. Economic Theory of Railway Location.-Influence of volume of traffic, alignment, and gradient on operating expenses; locomotive and grade problems; relocation of existing lines. $I I$; (4). Mr. Сомstock
Prerequisite: Civil Engineering 51; Theoretical and Applied Mechanics 20, 21.
34. Railway Maintenance.-Organization; track design; theory and practise of track maintenance. $I I$; (4).

Mr. Сомstock
Prerequisite: Civil Engineering 51.
35. Ratlway Signaling.-Block and route signaling; systems in use; history of railway accidents. $I$; (1).

Mr. Comstock
Prerequisite: Civil Engineering 51.
50-51. Seminar.-Discussion of assigned topics and reports. $I, I I$; (1).
Mr. Comstock
60. Electric Railway Principles.-Mechanics of traction; train resistance; braking of electric railway trains; methods of solving fundamental electric railway problems. $I I$; (2).

Assistant Professor Buck
Prerequisite: Theoretical and Applied Mechanics 25; Electrical Engineering 25, 75.
61. Electric Traction.-Selection and operation of equipment. (A condensed course for students in railway mechanical engineering and others.) $I I$; (3).

Assistant Professor Buck
Prerequisite: Theoretical and Applied Mechanics 21 or 25; Electrical Engineering 11,61 , or $25,75$.
62. Electric Railway Laboratory.-Tests of electrical machinery used in railway service. $I$; (2).

Assistant Professor Buck

## Prerequisite: Railway Engineering 60.

63. Electric Railway Laboratory.-(A continuation of Course 62.) Tests with the electric test car and the dynamometer car to determine train resistance and power consumption. $I I$; (2).

Assistant Professor Buck
Prerequisite: Railway Engineering 62, 64.
64. Electric Railway Practise.-Types of equipment; energy consumption; methods of distribution. $I$; (3).

Assistant Professor Buck
Prerequisite: Theoretical and Applied Mechanics 25; Electrical Engineering 26, 76; Railway Engineering 60.
65. Electric Railway Economics.-Location and operation; choice of systems; location of power plant and sub-stations; calculation of transmission and distribution circuits; maintenance of way and of equipment; electrification of steam roads. $I I$; (4).

Assistant Professor Buck
Prerequisite: Railway Engineering 64.
60. Electric Railway Machinery.-Theory and characteristics of electrical machinery used for railway service and of transmission and distribution lines. $I$; (3).

Assistant Professor Buck
Prerequisite: Railway Engineering 60; Electrical Engineering 26, 76.
67-68. Seminar.-Discussion of assigned topies and reports. $I, I I$; (1).
Assistant Professor Buck
98. Thesis.-Independent solution of some railway problem or the investigation of some subject. The thesis may be an original design or an original experimental investigation, or the analysis and discussion of facts already in existence. II; (3). Professor Schmidt, Assistant Professor Snodgrass, Assistant Professor Buck, Mr. Сомsтоск
99. Inspection Trip. $-I$; (no credit).

Prereguisite: Senior standing.

## Courses for Graduates

The prerequisite for graduate work in railway engineering is the equivalent of the undergraduate curriculums required for the degree of Bachelor of Science in railway engineering in the branches of the subject in which registration is desired.
102. Locomotive Design.-Modern practise concerning steam pressure, compounding, superheating. $I, I$; (1).

Professor Goss
106. Locomotive Operation.-Train resistance and locomotive tractive effort; establishment of tonnage ratings. $I, I I$; (1).

Professor Schmidt and Assistant Professor Snodgrass
108. Electric Railways.-Design, selection, and operation of electric railway equipment. $I, I I$; (1).

Assistant Professor Buck
110. Railway Locations.-Effects of the location of a railway on its earning capacity; engineering and economic problems met with in original location; relocation and reduction of grades of existing lines. I, II; (1). Mr. Сомstock

## RHETORIC

(See English Language and Literature

## ROMANCE LANGUAGES AND LITERATURE

Kenneth McKenzie, Ph.D., Professor
Thomas Edward Oliver, Ph.D., Professor
John Driscoll Fitz-Gerald, II, Ph.D., Professor of Spanish
David Hobart Carnahan, Ph.D., Associate Professor
David Simon Blondheim, Ph.D., Assistant Professor
Arthur Romeyn Seymour, Ph.D., Associate
Olin Harris Moore, Ph.D., Associate
Charles Seraphin Carry, Assistant
Louis Allen, A.M., Assistant
Rafael Arcangel Soto, B.S., A.B., Assistant
Eric Allen Dawson, A.M., Assistant
Herbert King Stone, A.B., Assistant
John Raymond Shulters, A.M., Assistant
Manuel Lopez, A.B., Assistant
Louis Philip Costa, A.M., Assistant
Park Powell, A.B., B.S., Assistant
Orlando d'Amato, A.B., Assistant
Pedro Bach y Rita, Assistant
Cincinnati Giovanni Battista Laguardia, A.B., Assistant, Summer Session

FRENCH
Major: 20 hours of French, exclusive of French 1a, 1b, 2a, 6a, 6b, 9a, and 9 b .

Minors: 20 hours in not more than three of the following subjects: English (excluding Rhetoric 1-2), German, Greek, Italian, Latin, Spanish, history, and philosophy, provided that 8 hours must be taken in one subject other than a Romance language.

## ROMANCE LANGUAGES

Major: 20 hours in French and one other Romance language, exclusive of French 1a, 1b, 2a, 6a, 6b, 9a, 9b, Italian 1a, 1b, Portuguese 1a, 1b, Spanish 1a, 1b.

Minors: 20 hours in not more than three of the following subjects: English (excluding Rhetoric 1-2), German, Greek, Italian, Latin, Spanish, history, and philosophy, provided that the minor does not include any language contained in the inajor in Romance languages.

## A. FRENCH

## Courses for Undergraduates

ia-1b. Elementary Course.-Grammar; pronunciation; reading of modern authors; composition; conversation. $I, I I$; (4).
Professor McKenzie, Dr. Moore, Mr. Carry, Mr. Allen, Mr. Dawson, Mr. Stone, Mr. Shulters, Mr. Powell

2a-2b. Modern Prose, Poetry, and Drama.-Rapid reading of modern authors; advanced syntax and composition. $I, I I$; (4).
Professor Oliver, Associate Professor Carnahan, Assistant Professor Blondhem, Dr. Moore, Mr. Stone

Prerequisite: French 1a-1b.
5a-5b. Introduction to French Literature.-Authors of the last three centuries. Composition; review of the grammar. $I, I I ;$ (3).

Professor Fitz-Gerald, Dr. Moore
Prerequisite: French $2 \mathrm{a}-2 \mathrm{~b}$, or an equivalent.
6a-6b. Second-Year Conversation.-Mainly classroom work. (Does not count toward a major in French.) I, II; (1). Mr. Carry

Prerequisite: French 1a-1b, with a grade of at least 85.
7a-7b. Intermediate Composition and Conversation.-Conducted entirely in French, giving facility in idomatic expression in writing and speaking. Reading; themes; talks upon France and French life. I, II; (2).

Mr. Carry
Prerequisite: French 2a-2b, or 6a-6b.
Note: Required of those who are given the recommendation of the department to teach French.

8a-8b. Advanced Composition and Conversation.-French life and literature. Idiomatic construction; syntax; themes. Conducted entirely in French. I, II; (2).

Mr. Carry
Prerequisite: French 7a-7b.
25. Course for Teachers.-Methods of teaching French in this country and abroad; actual contact with classroom problems. I; (2).

Associate Professor Carnahan
Prerequisite: Twenty-four hours' credit in French, including French 7a-7b.
28a-28b. Senior Thesis.-For candidates for honors in French; open to other seniors. $I, I I$; (1).

Members of the department

## Courses for Advanced Undergraduates and Graduates

Prerequisite for the courses following: at least three years of college French or the equivalent.

10a-10b. Survey of French Literature.-Special periods and authors. The main currents of French literature from the beginning to the present time. I, II; (3).

Associate Professor Carnailan
24a-24b. Seventeenth and Eighteenth Century Drama.-Corneille, Racine, Moliere, Voltaire, Marivaux, Sedaine, Beaumarchais. Lectures and interpretation. I, II; (2).

Professor Oliver
17a-17b. Nineteenth Century Drama.-Victor Hugo, Dumas, Augier, Sardou, Becque, Brieux, Hervieu, Bourget, Donnay, Rostand, and other dramatists. Dramatic criticism. I, II; (2).

Professor McKenzie
45b. French Realism.-Flaubert, Maupassant, E. and J. de Goncourt, Daudet, Zola. Lectures; reports on collateral reading. Conducted in French if desired. II; (2).

Dr. Moore
50a-50b. French Phonetics and Pronunciation.-Elementary phonetics; a detailed study of present-day pronunciation; practical exercises. $I, I I$; (1).

Assistant Professor Blondheim

## Courses for Graduates

Before entering upon the study of Romance Languages as a major for an advanced degree, a candidate must have had at least (a) three years of college work in French, together with a reading knowledge of Italian or Spanish; or (b) two years of college work in French and the same in Italian or Spanish. The candidate must also have had satisfactory training in Latin, and be able to read German prose.

Graduate students who select Romance languages as a first or second minor must have had at least two years of college work in the language desired and be able to read German prose.
101. Old French Epic Literature.-Critical reading and interpretation of national and courtly epics and collateral study of their history. Twice a week; I, II; (1 unit).

Professor Oliver
[102. Old French Lyric and Prose Literature.-Critical interpretation of the earlier Old French didactic, chronicle, and lyric writers; history of these types of medieval literature. Twice a week. I, II; (1 unit). Not given, 1916-17.

Professor Oliver]
106. Early French Drama.-Origins of the drama in France, and its development up to the Renaissance. Twice a week. I, II; (1 unit).

## Associate Professor Carnarian

[103. Seventeenth Century Prose Writers.-French culture, society, and prose literature of the seventeenth century; the great preachers and moralists; Jansenism and Port Royal; formation of the classic ideals. Once a week; I, II; ( $1 / 2$ unit.) Not given, 1916-17.

Professor Oliver]
104. Eighteenth Century Prose Writers.-Society, culture, and prose literature of the eighteenth century; attack on the classic ideals; the revolutionary spirit; first movements towards romanticism. Once a week; I, II; (1/2 unit).

Professor Oliver
119. Belgian Literature in French Since 1880.-Reading and reports. Once a week; I, II; (1/2 unit).

Dr. Gillet
[127. French Romanticism.-Origin and development of the romantic movement in France. Twice a week; I, II; (1 unit). Not given, 1916-17.

Associate Professor Carnahan]
[137. French Literary Criticism before the French Revolution.-History of criticism in antiquity and in the Italian Renaissance; the French critics; classicism. Twice a week; I, II; (1 unit.) Not given, 1916-17.

Assistant Professor Blondheim]
139. French Literary Criticism in the Nineteenth Century.-The leading critics; development of literary movements. Twice a week; I, II; (1 unit).

Assistant Professor Blondeeim

## B. ITALIAN <br> Courses for Undergraduates

1a-1b. Elementary Course.-Grammar; composition; conversation; reading. I, II; (3). Professor McKenzee, Mr. d’Amato

## Course for Advanced Undergraduates and Graduates

2a-2b. Italian Literature.-Italian writers of the nineteenth century. Composition; conversation. Introduction to the study of Dante. $I, I I$; (2)

Professor McKenzie
Prerequisite: A reading knowledge of Italian.

## Courses for Graduates

[140. Italian Literature of the Thirteenth and Fourteenth Century.-Dante, Petrarch, Boccaccio. Twice a week; I, II; (1 unit). Not given, 1916-17.

Professor McKenzie]
143. Italian Literature of the Fifteenth and Sixteenth Centuries.-Special attention will be given to the romances of chivalry. Twice a week; I; (1 unit).

Professor McKenzie
[146. Modern Italian Literature.-Critical study of important Italian writers of the nineteenth century. Twice a week; II; (1 unit). Not given, 1916-17.

Professor McKenzie]

## C. PORTUGUESE

Courses for Undergraduates
1a-1b. Elementary Course.-Grammar; conversation; reading. $I, I I$; (4). Mr. Costa

## D. SPANISH

## Courses for Undergraduates

1a-1b. Elementary Course.-Grammar; pronunciation; reading; composition; conversation. $I, I I$; (4).
Dr. Seymour, Mr. Allen, Mr. Soto, Mr. Dawson, Mr. Shulters, Mr. Lopez, Mr. Costa, Mr. Powell, Mr. d'Amato, Mr. Bach y Rita

2a-2b. Modern Spanish.-Rapid reading of modern authors; advanced grammar; conversation; composition; commercial correspondence. I, II; (4).

Professor Fitz-Gerald, Mr. Soto, Mr. D'Amato
Prerequisite: Spanish 1a-1b, or equivalent.
3a-3b. Introduction to Spanish Literature.-Rapid reading of modern authors, and of the more important writers of the seventeenth century. $I, I I$; (3). Dr. Seymour
Prerequisite: Spanish 2a, 2b.
$4 \mathrm{a}-4 \mathrm{~b}$. Business Correspondence and Conversation.-Reading of facsimile business correspondence; writing of business letters; conversation. Reports in Spanish on consular and governmental documents. Conducted in Spanish. I, II; (2).

Dr. Seynour
Prerequisite: Spanish 2a-2b.

## Course for Advanced Undergraduates and Graduates

11a-11b. The Spanish Drama of the Sixteenth and Seventeenth Centuries.Earlier dramatists; representative plays of Lope de Vega, Calderon, Ruiż de Alarcon and Tirso de Molina. Reports on outside reading. I, II; (2). Dr. Seymour

Prerequisite: Spanish 3a-3b.

## Courses for Graduates

[132. The Novela of the Golden Age.-Political and social conditions in Spain from 1560 to 1700; Don Quixote and the Novelas Exemplares of Cervantes. Twice a week; I, II; (1 unit). Not given, 1916-17. Professor Fitz-Gerald]
133. Origin of the Spanish Novela and of the Comedia.-The development of Spanish prose fiction and of Spanish dramatic art for the period previous to the Golden Age. Twice a week; I, II; (1 unit).

Professor Fitz-Gerald
134. The Spanish Ballad.-Types of the ballad. Lectures; collateral readings; reports. Twice a week; I, II; (1 init). Dr. Seymour
[135. The Modern Novel in Spain.-Development of the modern novel in Spain from the middle of the nineteenth century to the present time; development of the novel in Spain, France, and Italy. Twice a week; I, II; (1 unit). Not given, 1916-17. Dr. Seymour]

## E. ROMANCE PHILOLOGY <br> Courses for Graduates

[171. Introduction to Romance Philology.-Historical phonology and Morphology of the Romance languages. Twice a week; I, II; (1 unit). Not given, 1916-17.

Professor Fitz-Gerald]
175. Old French Phonology and Morphology.-Development of Old French from Vulgar Latin. Twice a week. I, II; (1 unit).

Assistant Professor Blondheim
181. Origins of the Italian Language.-Italian literature previous to Dante. Twice a week; II; (1 unit).

Professor McKenzie
185. Oldest Monuments of the Spanish Language.-Origins of Spanish poetry. Historical grammar. Twice a week; I, II; (1 unit). Professor Fitz-Gerald
195. Seminar.-Research work in preparation for theses. I, $I I$; (1 unit).

Members of the department.

## Summer Session Courses <br> FRENCH

S 1a. Elementary Course.-Pronunciation, grammar, composition, reading. (4).

Dr. Moore
S 1b. Elementary Course (continued).-(4).
Mr. Carry
Prerequisite: French 1a, S1, one year of high-school French, or the consent of the instructor.

S 2. Modern French.-Papid reading; composition, conversation. Comport's French Prose Composition; Loti's Peucheur d'Islande; Merimee's Colomba; Erck-man-Chartrian's Le Juif Polonais; Bazin's Les Oberle; Hugo's Ruy Blas; Scribe's Bataille de Dames. (3).

Mr. Carry
Prerequisite: One year of university French or its equivalent.
S 3. Composition and Conversation.-Practise in speaking and writing simple French. (1).

Mr. Carry
Prerequisite: The approval of the instructor.
S 4. Composition and Conversation (intermediate course).-Conducted in French. (1).

Mr. Carry
Prerequisite: Ability to understand spoken French, and the approval of the instructor.

S 9. Modern French Drama.-Rapid reading of modern plays. (1).
Associate Professor Carnaran
Prerequisite: Two years of university French, or an equivalent.
*S 100. Seminar.-An opportunity for graduate work in French literature will be afforded properly qualified students.

Dr. Moore
Spanish
S 1a. Elementary Course.-Grammar, reading. (4). Mr. Laguardia Equivalent: Spanish 1a.
S 2. Conversation and Composition.-For description see Spanish 2a-2b. (1). Mr. Laguardia
Prerequisite: One year of university Spanish or its equivalent.

# SCANDINAVIAN LANGUAGES AND LITERATURE 

(See Germanic Languages and Literature.)

## THE SOCIAL SCIENCES

(See Economics, History, Political Science, and Sociology.)

## SOCIOLOGY

Edward Cary Hayes, Ph.D., Professor
James Garfield Stevens, Ph.D., Associate
Herbert Knight Dennis, A.M., Assistant
Cooperating:
Henry Elmer Hoagland, A.M., Instructor in Economics
James P Lichtenberger, Ph.D., Professor of Sociology, University of Pennsylvania, Summer Session
Major: 20 hours from any courses offered in the department.
Minors: 20 hours chosen from two or three of the following subjects: History, economics, political science, philosophy, and psychology.

## Courses for Undergraduates

1. The Principles of Sociology and Their Application to Present Problems.$I$ or $I I$; (3).

Professor Hayes, Dr. Stevens, Mr. Dennis
Prerequisite: Junior standing.
2. Social Psychology and Social Control.-A summary of certain teachings of Tarde, Le Bon, Durkheim, Giddingi, Ward, Ross and others, with special reference to the ways in which the sentiments, opinions, and conduct of the members of society are shaped. $I I$; (3).

Mr. Dennis
Prerequisite: Sociology 1.
7. The Social Problems of the Rural Community.-II; (2).

Professor Hayes, Mr. Dennis
Prerequisite: Junior standing.

## Courses for Advanced Undergraduates and Graduates

3. Social Evolution.-Modes of social activity among savage, barbarous, and civilized people; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts, as to the theory of social evolution and the method of progress. $I I$; (3).

Professor Hayes

## Prerequisite: Sociology 1.

8. Charities.-Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. $I$; (3).

Dr. Stevens
Prerequisite: Sociology 1 or Economics 1; junior standing.
9. Criminology.-Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. $I I$; (3).

Dr. Stevens
Prerequisite: Sociology 1 or senior standing.
10. Population.-Theories and policies of population; Malthus' Principle and its critics; problems in the population of the United States; immigration, racemixture, conditions affecting public health, death-rate, birth rate, "race-suicide," marriage, divorce; selective influences at work on the "population type." $I$; (3). Di. Stevens

Prerequisite: Sociology 1 or Economics 1; senior standing.
11. Rasis of Social Theory.- $I$; (2). Professor Hayes

Prereguisite: Senior standing and the consent of the instructor.
12. The Labor Problem.-The same as Economics 12.

Mr. Hoagland
Prerequisite: Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3 .
14. Social Statistics.-Social investigation and research. Vital statistics and population in the light of data afforded by official publications. Social and community surveys. The statistical method applied to sociology and social problems. II; (3).

Dr. Stevens
Prerequisite: Sociology 1 or Economics 1, and, Sociology 10; senior standing. Juniors having the other prerequisites may be admitted by special permission of the instructor.
[15. The Family.-Evolution of the family and marriage; its educational, moral, and political significance at different stages of social development. II; (3). Not given, 1916-17.]

## 21. Socialism and Social Reform.-The same as Economics 21.

Mr. Hoagland
Prerequisite: Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3 .

## Courses for Graduates

Preparation for graduate work in sociology must include the equivalent of twelve semester hours in the social sciences, of which at least three must be in sociology, and three in the principles of economics. The remainder may be in any combination of these two subjects, or of history and political science.
[101. Sociological Method.-Methods of advancing the science of sociology; adaptability to sociological investigation of methods described in Pearson's Grammar of Science, Wundt's Methodenlehre, zweite abtheilung, Seignobos' La Methode Historique Appliquee aux Sciences Sociales, Bernheim's Historische Methode, Spencer's Study of Sociology, and Giddings' Inductive Sociology. Three times a week; I; (1 unit). Not given, 1916-17.]
102. The development of Sociology.--Reading of sociological works; discussions; lectures. Twice a week; I, II; (1 unit).

Professor Hayes
150. Seminar.-Detection and statement of problems. Preparation of theses. Twice a week; I, II; (1 or 2 units).

Professor Hayes

## Summer Session Courses

S 1. Social Causation.-Cause and effect in society. (2).
Professor Lichtenberger
S 5. Practical Social Problems.-A survey of the most important contemporary social civic problems. (1).

Professor Lichtenberger
*S 15. The Family.-For description see Sociology 15. (2).
Professor Lichutenberger

## SPANISH <br> (See Romance Languages and Literature.)

## TRANSPORTATION

Ernest Ritson Dewsnup, A.M., Professor

## Courses for Undergraduates

1. Transportation System of the United States.-The development and economic problems of railway and other transportation in this country. $I$; (3).

Professor Dewsnup
Prerequisite: Economics 1 or 2; junior standing.
35a-35b. Thesis.-Investigation of problems in railway administration. A preliminary outline must be filed with the department by the second Friday of October, an extended outline and bibliography by the second Friday in November, and a first draft of at least fifteen pages of the thesis must be submitted by the second Friday in January. $I, I I$; (2). Professor Dewsnup

Prerequisite: Full senior standing in railway administration.

## Courses for Undergraduates and Graduates

2. Transportation Policy in Europe and in the United States.-The regulation of railways in the United States and Europe. II; (3). Professor Dewsnur

Prerequisite: Transportation 1; Economics 1.
7. Railway Organization.-The departments and functions of the American railway; traffic and operating departments; relative merits of the departmental, divisional, and unit systems of organization; organizations of foreign railways; railway associations, labor, discipline, and training. $I$; (2). Professor Dewsnup

Prerequisite: Accountancy 1 and Economics 1, previously or concurrently. For senior students in the College of Engineering, Economics 2.
12. Freight Shipment.-Preparation of goods for shipment, chiefly by railway; freight classifications; class ratings; rate adjustment in New England, Trunk Line and Central Freight Association Territory; main features of southern and western rate adjustment; the express and parcel post systems. $I I$; (2).

Professor Dewsnur
Prerequisite: Transportation 7, or 60 hours of university work.
[13. Railway Traffic Administration.-Methods of passenger traffic management. $I$; (3). Not given, 1916-17.

Prerequisite: Transportation 7, or credit or concurrent registration in Transportation 1.]
17. Railway Terminal Management.-Freight and passenger terminals. $I$; (3).

Professor Dewsnup
Prerequisite: Transportation 7, or credit or concurrent registration in Transportation 1; Economics 1.
[22. Railway Train Service.-The standard code of train rules; its application to train dispatching; block-signaling practise; time-table construction. An inspection trip to Chicago of four days' duration forms part of this course. Expenses average about $\$ 12.00$. $I I$; (3). Not given, 1916-17.

Prerequisite: Transportation 1, 7, and 13.]
26. The Economics of Railway Construction and Maintenance.-The bearing of traffic conditions upon location and types of construction; the present maintenance policy of the railways in regard to roadway and equipment. An inspection trip to Chicago of four days' duration, April 2, 3, 4, and 5, 1917 forms part of the course. Expenses average about $\$ 12.00$. II; (3) Professor Dewsnup

Prerequisite: Transportation 1, 7, and 17.

## Courses for Graduates

[101. Railway Rate Policy.-Twice a week; I; (1 unit). Not given, 1916-17.]
[102. The Fiscal Administration of American Railways.-Twice a week; II; (1 unit). Not given, 1916-17.]
103. Foreign Railway Administration.-T Twice a week; I; (1 unit).

Professor Dewsnup
104a. Standards of Railway Operation.-The work of this course requires a cycle of three years for its completion, though credit will be given for each semester's work. 104a deals with organization and maintenance of standards, 104 b with freight service, 104c with passenger service. Once a week or, at the option of the instructor, twice a week; II; (1 unit).

Professor Dewsnur

## ZOOLOGY

(Including Human Anatomy.)
Henry Baldwin Ward, Ph.D., Professor
John Sterling Kingsley, D.Sc., Professor
Frank Smith, A.M., Professor
Charles Zeleny, Ph.D., Professor

Victor Ernest Shelford, Ph.D., Assistant Professor
Harley Jones VanCleave, Ph.D., Associate
Henry Gustav May, B.S., Research Assistant
Joseph Krafra, Jr., M.S., Research Assistant
Bessie Rose Green, A.M., Assistant
George Marsh Higgins, A.M., Assistant
Ralph Harlan Lingins, A.M., Assistant
James Ernest Kindred, A.M., Assistant
Robert Hills Kingman, A.B., Assistant
William Sidney Spicer, M.S., Assistant
Morris Jounson Kernall, A.M., Graduate Assistant
Francis Marsh Baldwin, A.M., Graduate Assistant
Minna Ernestine Jewell, A.M., Graduate Assistant
Jesse Roy Christie, B.S., Graduate Assistant
Gertrude Mellen Hooper, A.B., Graduate Assistant
Major: 20 hours from any courses offered in the department, excluding Zoology 1, and including Zoology 3, 4, and 5.

Minors: 20 hours chosen from two or three of the following subjects: animal husbandry (Animal Husbandry 30), bacteriology, botany, chemistry, entomology, physics, physiology, psychology, paleontology, and physiography.

Courses 1 and 2 constitute an introduction to later work in zoology. In the second year, a student may choose as a line of work either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technics (3), heredity and evolution (5), and current literature (20) are of value for all students. Medical students should take courses 3 and 6 the second year. Those preparing to teach zoology in the high school should take invertebrate morphology (4), field zoology (16, 17), and ecology ( 9,11 ), and a course in general entomology.

## A. ZOOLOGY

## Courses for Undergraduates

1. General Zoology.-Animal biology, principles of structure; function, interrelations, origin, and development of animal life; simpler and best-established generalizations in zoological theory. Lectures, laboratory; quiz work. I or $I I$; (5). Professor Ward, Assistant Professor Shelford, Dr. Van Cleave, and assistants
2. Vertebrate Zoology and Comparative Anatomy.-Classification of the Chordata; the early stages of vertebrate embryology; structure of vertebrate tissues; anatomy of systems of organs considered in respect to their function, ontogeny, and evolution in the vertebrate series; anatomical studies of types of the Chordata. Lectures; laboratory; quiz work. II; (5).

Professor Kingsley and assistants
Prerequisite: Zoology 1.
4. Invertebrate Morphology.-Morphology of a series of invertebrates; invertebrate structure and development; the application of biological principles. Laboratory; lectures; demonstrations. II; (3).

Dr. Van Cleave
Prerequisite: Zoology 1.
5. Heredity and Evolution.-Facts and present views; proofs of organic evolution; probable factors involved. Lectures; demonstrations; assigned reading. II; (2).

Professor Zeleny
Prerequisite: One year of university work.
16. Economic Ornithology.-Common birds of the vicinity. Identification; food relations; seasonal distribution; migration activities. Economic importance of birds and their conservation. Letures; assigned reading; a few field trips in the latter part of the semester. II; (2).

Professor Smith
19a-19b. Advanced Ornithology.-(Continuation of 16.) Systematic and field work; economic and technical literature. $I, I I$; (2-5). ${ }^{1}$ Professor Smith

Prerequisite: Zoology 16 or equivalent.

## Courses for Advanced Undergraduates and Graduates

3. Microscopical Technics and Vertebrate Embryology.-Vertebrate embryo in early stages of development; methods of fixation, embedding, section cutting, staining, and mounting; preparation of material for use in introductory embryology. Lectures; laboratory. $I$; (3).

Professor Kingsley

## Prerequisite: Zoology 1, 2.

6. Vertebrate Organogeny.-Development of the organs of the vertebrate body. Lectures; assigned readings; laboratory studies on embryos of the chick, dogfish, Amblystoma, and pig. (A continuation of course 3.) II; (3).

Professor Kingsley

## Prerequisite: Zoology 1, 2, 3.

9. Animal Ecoiogy.-The relations of animals to their natural environments. Field and experimental work; lectures on the natural history of mammals, birds, reptiles, and amphibians. II; (3) Assistant Professor Shelford

Prerequisite: One year of zoology or one and one-half years of university work, including Zoology 1.
11. Experimental Ecology and Geography.-The physiology of environmental relations; analysis of behavior. World and regional aspects of behavior and ecology; animal distribution as related to climate and vegetation. $I$; (2-4). ${ }^{1}$

> Assistant Professor Shelford

Prerequisite: One year of zoology and senior standing.
25-26. Experimental Zoology.-Experimental embryology; regeneration; heredity; variation; evolution. Laboratory; assigned reading; conference. $I$, II; (5).

Professor Zeleny
Prerequisite: Two years of university work, including one year in zoological courses.
17. Fieid Zoology.-Collection, preservation, and identification of common representatives of the lower vertebrates and of the various groups of land and freshwater invertebrates (excluding insects) in the vicinity; identification work on living and preserved material from larger rivers and lakes; observations on the habits and life histories of selected forms. Field and laboratory work; assigned readings. $I$; (4).

Professor Smith
Prerequisite: One year in zoology, and senior standing.
18. Advanced Field Zoology.-(A continuation of course 17.) Taxononnic or distributional problems in connection with the local fauna. $I I ;(3-5) .{ }^{1}$

Professor Smith
Prerequisite: Zoology 17.

[^100]22-23. Morphology of Vertebrates.-The skeleton and the brain, the cranial nerves, and the eye and ear. Lectures; laboratory work; dissection of types. $I, I I$; (2-4). ${ }^{1}$

Professor Kingsley
Prerequisite: Zoology 1, 2, 3, and 6.
21a-21b. Introduction to Zoological Research.-Morphology, life history, or reciprocal relations of invertebrates, especially parasites of man and other animals. Laboratory; conferences; assigned reading. $I, I I$; (2-5). ${ }^{1} \quad$ Professor Ward

Prerequisite: One year in zoological courses, and senior standing.
20a-20b. Current Literature.-Presentation and discussion of the results of recent zoological investigation. (Open to all students in zoology; should be taken by those intending to graduate with a thesis.) $I, I I$; (1). Professor Zeleny

Prerequisite: Three years of university work, including one year in zoology.
8a-8b. Senior Thesis.-Individual work on assigned topics. $I, I I$; (5).
Members of the department
Prerequisite: Two years of zoology.

## Courses for Graduates

Students entering on graduate study in the department of zoology should have had two years of undergraduate work in the subject. When chosen as a minor the courses listed for graduates and undergraduates must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be evaluated on conference with the head of the department.
102. Vertebrate Morphology.--The origin of vertebrates, the segmentation of the head, and the morphology of special systems. Lectures; required reading. Twice a week; $I$; ( $1 / 2$ unit).

Professor Kingsley
107. Parasitology.-Structure and life history of animal parasites; the relations to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. Twice a week; $I$, II; (1 unit). Given in 1916-17 and alternate years.

Professor Ward
109-109a. Physiological Ecology.-The regulatory mechanism of organisms; neutrality, osmotic pressure, immunity, and temperature in relation to natural environments. 109 twice a week; 109a assigned readings and reports; II; ( $1 / 2$ unit each).

Assistant Professor Shelford
[110-110a. Economic Ecology.-Application of principles of physiology and ecology to problems of fisheries and pollution; insect pests and weather, forestry and conservation, etc. 110 twice a week; 110a assigned reading and reports; ( $1 / 2$ unit each). Not given, 1916-17. Assistant Professor Shelford]
111. Experimental Ecology.-The repetition of published experiments in physiology and ecology. The student selects a topic on animal reactions or on the measurement of osmotic pressure, temperature, acidity, or conductivity, with modern apparatus. $I, I I$; ( $1 / 2$ to 2 units). Assistant Professor Shelford
115. Factors of Individual and Racial Development.-Experimental embryology; regeneration; heredity; variation; evolution. Twice a week; I, II; (1 unit).

Professor Zeleny
117. Faunistic Zoology.-Problems in taxonomy and distribution; field work, conference, and lectures. Students have the advantage of the collections, library, apparatus, and operation of a natural history survey of the State now in progress at the University. Twice a week; I, II; (1 to 2 units). Professor Smith

[^101][127. Theories of Animal Phylogeny.-Relations of various groups of animals; signification of so-called intermediate forms; study of invertebrate larval forms and of theories of descent based on them. Lectures; assigned readings; demonstrations. Once or twice a week; $I, I I$; (1 unit). Not given, 1916-17. To be given in 1917-18 and alternate years. Professor Ward]
121. Invertebrate Morphology and Parasitology.--Individual research course. I, II; ( 1 to 2 units). Professor Ward
122. Vertebrate Morphology.-Individual research course. $I, I I$; ( 1 to 2 units). Professor Kingsley
123. Faunistic and Systematic Zoology.-Individual research course. I, $I I$; ( 1 to 2 units). Professor Smith
124. Experimental Zoology.-Individual research course. $I$, $I I$; (1 to 2 units).

Professor Zeleny
125. Animal Ecology and Behavior.-Individual research course. $I, I I$.

Assistant Professor Shelford

## B. HUMAN ANATOMY

1. Introduction to Human Anatomy.-The human skeleton; dissection of the viscera of the dog. $I$; (3)

Mr. Spicer
Prerequisite: Zoology 1, 2, 3, 6.
2. Introduction to Human Anatomy.-Dissection of the human extremities and the brain of man. $I I$; (3).

Mr. Spicer
Prerequisite: Anatomy 1.

## Summer Session Courses

S 1. General Zoology.-For description see Zoology 1. (4).
Assistant Professor Shelford, Mr. Baldwin
S 13. Elements of Embryology and Microscopical Technics.-Laboratory work, lectures, and quizzes. The fundamental features of cell structure and of animal development; training in the simpler methods of preserving, sectioning, and mounting. (2).

Mr. Baldwin
*S 9. Animal Ecology.-The relations of animals to their natural environments. Field and experimental work and lectures. (2 or 4). ${ }^{1}$

Assistant Professor Shelford
*S 125. Animal Ecology and Behavior.-Individual research course. ( $1 / 2$ to 2 units).

Assistant Professor Shelford

[^102]

## PART IV <br> UNIVERSITY EXTENSION

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## UNIVERSITY EXTENSION

Extension work has not been organized as a separate administrative unit in the University of Illinois. Several departments, however, have initiated activities, both on the campus and in the State at large, which serve to make some of the facilities of the University available to groups of mature persons who are engaged in various industries and professions.

## AGRICULTURE

Each of the departments of the College of Agriculture does extension work and so far as possible provides special men for this purpose. In addition to this, a separate service known as Agricultural College Extension, offers courses in the principles and methods of extension work (see page 248), conducts extension enterprises that do not deal with technical subjects, and cooperates with the other departments in projecting their work in the State.

Some of the more gencral College extension enterprises are:
(1) A two-weeks course in agriculture, known as the Corn Growers' and Stockmen's Convention, held annually at the College of Agriculture since 1898. The work includes lectures, conferences, and demonstrations in the subjects of stockjudging, milk-testing, farm mechanics, and farm crops. (Omitted in 1915 and 1916 on account of the "foot-and-mouth disease".)
(2) Agricultural-extension schools of a week's duration. About forty such schools were held in different parts of the State during 1915-16.
(3) Demonstrations held in connection with soil-fertility and crop fields throughout the State.
(4) Cooperation, by furnishing teachers and lecturers, with other educational agencies for rural communities, e. g., farmers' institutes, special lecture railway trains, the Boys' State Fair School.
(5) Educational exhibits at fairs and expositions.
(6) School and community excursions to the University.

For the Cooperative Extension Service in agriculture and home economics conducted by the University of Illinois and the United States Department of Agriculture, under the provisions of the Federal Smith-Lever Act of May 8, 1914, sce pp. 402-403.

## CERAMIC ENGINEERING

In addition to the regular four-year technical curriculum, the department of ceramic enginering cooperates with the clay and allied industires by offering annually, at Urbana, during the second and third weeks in Jantary, a two-weeks industrial course in the principles underlying the maunfacture of clay products, for those who have not the time nor the preparation required for academic studies. The work includes lectures, laboratory work, practise in firing kilns, and informal gatherings for question-asking. A common-school education is sufficient to enable one to do the work of this course. No charge of any kind is made. The number enrolled in January, 1915, was 47 ; in January, 1916, 25. The course was omitted in 1916-17.

# COOPERATIVE EXTENSION SERVICE 

University of Illinois and United States Department of Agriculture Under the Smith-Lever Act<br>Eugene Davenport, M.Agr., LL.D., Director of Agricultural Extension Service<br>\section*{Agriculture}<br>Walter Frederick Handschin, B.S., Vice-Director of Extension Service, State Leader of County Advisers<br>George Nelson Coffey, Ph.D., Assistant State Leader<br>James Dater Bilsborrow, B.S., Assistant State Leader<br>James Henry Greene, M.S., State Leader in Junior Extension<br>Harold Clayton M Case, B.S., Assistant in Farm Management Demonstration

Agronomy Depariment Specialists
Elmer Tyron Ebersol, ${ }^{1}$ M.S.
Animal IIusbandry
Daniel Otis Barto, B.S.
William Herschel Smith, M.S.
Dairy Husbandry
Harrison A Ruehe, M.S. Ernest M Clark, B.S.

## Horticulture

Bethel Stewart Pickett, M.S.
Alfred Josepf Gunderson, B.S.
County Advisers County
William George Eckhardt, B.S. . . . . . . . . . . . . . . . . . . . . . . . DeKKalb
John S Collier, M.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Kankakee
Roy C Bishop, B.S.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Livingston
Arthur J Gafke, B.S........................................ . . . . McHenry
Jerome Edward Readhimer, B.S............................... . . . Kane
Edward B Heaton, B.S.A. . . . . . . . . . . . . . . . . . . . . . . . . . . Dupage
Ernest Thompson Robbins, B.S. . . . . . . . . . . . . . . . . . . . . Tazewell
Frank Cravens Grannis, B.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . Will
William E Hedgcock, B.S..................................... . . . Peoria
Charles Hubert Oathout, B.S.. . . . . . . . . . . . . . . . . . . . Champaign
Albert M TenEyck, M.S. . . . . . . . . . . . . . . . . . . . . . . . . . Winnebago
Lewis W Wise, B.S.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Iroquois
Charles Judson Mann, B.S.. . . . . . . . . . . . . . . . . . . . . . . . . . . Bureau
Ira Sanford Brooks, B.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . LaSalle
Frank H Demaree, M.S.. . . . . . . . . . . . . . . . . . . . . . . . . . . . Grundy
Earl W Rusk, B.S.. ............................... . . . . . . . . . . . Adams
J H Lloyd, ${ }^{2}$ B.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Hancock
David O Thompson, B.S.. . . . . . . . . . . . . . . . . . . . . . . . . . . McLean

M L Mosher, M.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Woodford
I F Gillmor, ${ }^{2}$ B.S.A. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Mercer
Leland Stanford Griffith, B.S. . . . . . . . . . . . . . . . . . . . . . . . . . . . Lee

[^103]Under the provisions of the Smith-Lever Act, approved by the President of the United States on May 8, 1914, and the terms of its acceptance by the State of Illinois, the University becomes cooperatively responsible for a system of demonstration service designed to combine the results of scientific discovery with the most approved practise on the farms and in the households of the State.

A further cooperative relation has been established by the Department of Agriculture whereby the University undertakes to become jointly responsible for certain extension work which the department is conducting out of its own funds. This cooperative work consists of the following:
(1) Cooperation with county farm bureaus in the employment of agricultural advisers.
(2) Cooperation with local associations in home-economics demonstrations.
(3) Employment of extension specialists in agriculture and home economics as special advisers in the field.
(4) Cooperation with the United States Department of Agriculture in its extension activities:
a. In support of county advisory work.
b. In farm management demonstrations.
c. In junior extension.

## Home Economics

Isabel Bevier, Ph.M., Vice-Direcior of Home Economics Extension
Mamie Bunch, A.B., State Leader in Home Economics Demonstration
Olive B Percival, B.S., Assistant in Home Economics Demonstration
Fannie Maria Brooks, A.B., Assistant in Home Economics Demonstration
Anne I Green, B.S., Assistant in Home Economics Extension
Naomi Olive Newburn, A.B., Assistant in Home Economics Extension
Floyd E Fogle, Assistant in Home Economics Demonstration
The service in home economics may be classified as follows:

1. Correspondence.-Numerous requests come from individuals and clubs for help in solving some problem of preparing food, planning a house, feeding a child, or in preparing topics for club study. All such requests receive careful attentention. In 1915-16, 50,440 pieces of mail were sent out.
2. Service for Organizations.-This includes demonstrations and addresses before farmers' institutes, federated or local clubs, parents' and teachers' associations, the State Fair School, or other groups of people. In 1915-16, 149 such organizations were served, reaching 14,710 people.
3. The Schcol for Housekeepers.-This is held annually, at Urbana, during the last two weeks in January. It offers instruction in food, clothing, and shelter, and provides an opportunity for the discussion of some of the fundamental problems of home life and management. The attendance has increased during the past seven years from 45 to 426 . No fees are charged in connection with this school.
4. Movable Schools.-The department of household science will, in so far as possible, provide instruction on request for a movable school in any community which is sufficiently interested to pay the local expenses (hire of hall, etc.) and the traveling and living expenses for the week of one or two instructors. During the year 1915-16, sisty-one movable schools were held in the State, with an enrollment aggregating 17,649 . Nineteen of these were two-instructor schools, and fortytwo were one-instructor schools. Seventy-five counties were served through all these avenues.
5. Demonstration Car.-This car marks a new departure in demonstration work. Hitherto, demonstrations in Home Economics have been confined largely to the cooking of food. It is the purpose of this car to extend this method of presentation to power equipment and house furnishings; to show the machines, the kitchen utensils, and the color schemes, not just to talk abotit them.

In accordance with this idea, this car shows how power commonly used upon the farm may also be employed in performing a large part of the heavy labor of the home, thereby contributing to the health and comfort of the housekeeper; how to secure an adequate water supply for both the house and barn with the necessary provision for sewage disposal; and, finally, how, by attention to equipment and to the principles of form and color, the essentials of comfortable living may be secured for the country home at a reasonable cost.

The car and its equipment provide sufficient material for demonstration work for a week. The University pays the salaries of the demonstrators and furnishes the exhibit. The local committee is responsible for the following details:
I. Proper advertising of the car.
II. Arranging with local railroad as to the location of the car on a spur or switch where it will not be bumped and where it is readily accessible.
III. Securing a suitable hall for lectures and demonstrations that cannot be held in the car.
IV. Providing hard coal for the heater, gasoline for the engines, and janitor service.
V. Providing board, room, and comfortable living conditions for the demonstrators, whose hours of service are long and duties exacting.
VI. Niileage of the car.

|  | Program for a Movable School with One Instructor |  |
| :--- | :--- | :--- |
| Monday | $2: 00-4: 00$ | Lecture: Food and its functions. <br> Exhibit showing relative values of foods. |
| Tuesday | $2: 00-4: 00$ | Lecture: Foods containing nitrogen. |
| Wednesday | $2: 00-4: 00$ | Demonstration of milk, egg, cheese, or vegetable protein dishes. <br> Lecture: Meats and meat substitutes. |
| Thursday | $2: 00-1: 00$ | Demonstration of various modes of preparation. <br> Lecture: Cai bohydrate foods. |
| Friday | $2: 00-4: 00$ | Demonstration of breads or cereals and starchy vegetables. <br> Lecture: Water and mineral salts in the diet. <br> Demonstration of saleds or a balanced meal. |

## Program for a Movable School with Two Instructors Health and Home Problems

| Monday | 1:30 | Domestic science in its various relations to the home. |
| :---: | :---: | :---: |
|  | 2:30 | Demonstration: The bed room prepared for the sick. |
| Tuesday | 10:00 | Essentials in home decoration. |
|  | 11:00 | First aid (or camp fire girls). |
|  | 1:30 | Fabrics in their relation to home uses. |
|  | 2:30 | Demonstration: Invalid cookery. |
| Wednesday | 10:00 | Home sanitation. |
|  | 11:00 | Selection and care of clothing. |
|  | 1:30 | First aid tc mothers. |
|  | 2:30 | Planning meals-Food values illustrated by charts and exhibits. |
| Thursday | 10:00, | Helpful devices for home care of the sick. |
|  | 11:00 | Tissue building foods. |
|  | 1:30 | Personal hygiene. |
|  | 2:30 | Demonstration: Dishes rich in tissue builders. |
| Friday | 10:00 | Carbohydrates and fats in the diet. |
|  | 11:00 | The dress, care, and feeding of infants. |
|  | $\begin{aligned} & 1: 30 \\ & 3: 30 \end{aligned}$ | Demonstration of dishes supplying water and mineral salts to the diet Health laws and state aids. |

## Single Lectures

Any one of the following list of subjects will be treated in a single lecture:
The care of food in the home.
The planning of meals.
The cost of living.
Infant foods and feeding.
Food for the child.
The composition and cooking of meals.
The use of vegetables as food.
The lunch basket.
Selection of textiles for the home.
Suggestions for home dressmaking-use of patterns.
Color and furnishing and their relation to interior decoration.
The well dressed woman.
Planning the farm house.
The bedroom and its furnishings.
The dining room and its appointments.
Household science and the home.
Essentials and non-essentials in good housekeeping.
How to improve our homes.
System in housekeeping.

## PROGRAM OF DEMONSTRATION LECTURES WITH THE HOME ECONOMICS CAR, 1916-17 <br> M ONDAY



# PART V <br> EXPERIMENT STATIONS AND OTHER SCIENTIFIC BUREAUS 

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# THE AGRICULTURAL EXPERIMENT STATION 

Edmund Janes James, Ph.D., LL.D., President of the University
STAFF ${ }^{1}$
Eugene Davenport, M.Agr., LL.D., Director
Cyril George Hopkins, Ph.D., Vice-Dirccior
Thomas Jonathan Burrill, ${ }^{2}$ Ph.D., LL.D., Professor of Botany, Emeritus
Stephen Alfred Forbes, Ph.D., Consulting Entomologist
Henry Lewts Rietz, Ph.D., Statistician
Anna Cushman Glover, Secretary
Florence E Smith, Editorial Assistant
In Agronomy
Crril George Hopkins, Ph.D., Chief, Agronomy and Chemistry
Jereminh George Mosier, B.S., Chief, Soil Physics
Louie Henrie Suith, Pl.D., Chief, Plant Breeding
Robert Stewart, Ph.D., Associaie Chief, Soil Fertility
William Leonidas Burlison, Ph.D., Associate Chief, Crop Production
Axel Ferdinand Gustafson, M.S., Assistant Chief, Soil Physics
Ernest Van Alstine, B.S., Assistant Chief, Soils Laboratory
Joseph Paul Aumer, B.S., Associate, Soil Analysis
Frederick Charles Bader, B.S., Associate, Soil Fertility
Walter Byron Gernert, Ph.D., Associate, Plant Breeding
Sidney Viel Holt, B.S., Associate, Soil Plyysics
Henry Clyde Wheeler, B.S., Associate, Soil Physics
John Ezra Whitchurch, B.S., Associate, Soil Fertility
Albert Lemuel Whiting, Ph.D., Associate, Soil Biology
Wilbur Roy Leighty, B.S., First Assistant, Soil Analysis
Frank William Garrett, B.S., First A ssistant, Soll Fertility Frederick Martin Willian Wascher, B.S., First Assistant Soil Physics
Forrest Addison Fisher, B.S., First Assistant, Soil Physics Orr Milton Allyn, ${ }^{3}$ B.S., First Assistant, Crop Production Edward Harvey Walworth, B.S., First Assistant, Crop Production Howard John Ssider, B.S., First Assistant, Soil Fertility Warren Rippey Schoonover, B.S., First Assistant, Soil Biology Harry Charles Gilkerson, B.S., First Assistant, Soil Fertility
George Edward Gentle, B.S., First Assistant, Soil Physics Harrison Fred Theodore Fahrnkopf, B.S., First Assistant, Soil Fertility
Orland I Ellis, B.S., First Assistant, Soil Physics
Robert William Dickenson, B.S., First Assistant, Soil Physics
Clinton B Clevenger, M.S., First Assistant, Soil Analysis
Frank Archibald Wyatt, Ph.D., First Assistant, Soil Fertility
Arthur Mixwell Brunson, B.S., First Assistant, Plant Breeding
Edward Fritchoff Torgerson, B.S., Assistant, Soil Physics

[^104]Henry August de Werff, B.S., Assistant, Soil Physics
Alfred Thorpe Morison, B.S., Assistant, Crop Production
Washington Irving Brockson, M.S., Assistant, Crop Production
Clyde Maurice Linsley, B.S., Assistant, Soil Fertility
Everett E Glick, B.S., Assistant, Soil Fertility
Charles Thurman Hufrord, B.S., Assistant, Soil Physics
In Animal Husbandry
Herbert Windsor Mumford, B.S., Chief, Animal Husbandry
Harry Sands Grindley, D.Sc., Chief, Animal Nutrition
Walter Castella Coffey, M.S., Chief, Sheep Husbandry
Henry Perly Rusk, M.S., Assistant Chief, Cattle Husbandry
James Lloyd Edmonds, B.S., Assistant Chief, Horse Husbandry
John A Detlefsen, D.Sc., Assistant Chief, Genetics
Walter Frederick Handschin, B.S., Assistant Chief, Farm Organization and Management
Sleeter Bull, M.S., Associate, Animal Nutrition
Harold Hanson Mitchell, Ph.D., Associate, Animal Nutrition
William Herschel Smith, M.S., Associate, Animal Husbandry Extension
Elmer Roberts, B.S., First Assistant, Genetics
Wilbur Jerome Carmichael, M.S., First Assistant, Animal Husbandry
Charles Ivan Newlin, M.S., First Assistant, Animal Husbandry
James Burton Andrews, B.S., First Assistant, Animal Husbandry
Roscoe Raymond Snapp, B.S., First Assistant, Animal Husbandry
Claude Harper, B.S., Assistant, Animal Husbandry
James Wilbur Whisenand, M.S., Assistant, Animal Husbandry
Mary Helen Keith,B.S., A.M., Assistant, Animal Nutrition
Earl Kirkwood Augustus, B.S., Assistant, Animal Husbandry
Roy Harold Wilcox, B.S., Assistant, Animal Husbandry
Maynard Elmer Slater, B.S., Assistant, Animal Nutrition
John Benjamin Rice, B.S., Assistant, Animal Husbandry
Lawrence Emerson Thorne, B.S., Assistant, Agricultural Statistics and_Genetics
William Garfield Kammlade, B.S., Assistant, Aninual Husbandry
John Carl Ross, ${ }^{1}$ Ph.D., Assistant, Animal Nutrition
Henry Carl Eckstein, B.S., Assistant, Animal Nutrition
In Dairy Husbandry
Harry Alexis Harding, Ph.D., Chief, Dairy Bacteriology
Nelson William Hepburn, M.S., Assistant Chief, Dairy Manufactures
Martin John Prucha, Ph.D., Assistant Chief, Dairy Bacteriology
Ray Stillman Hulce, M.S., Associate, Milk Production
Edward Frederick Kohmann, Ph.D., Associate, Dairy Chemistry
Frank Ashmore Pearson, B.S.A., First Assistant, Dairy Husbandry
Harry Montgomery Weeter, A.B., Assistant, Dairy Husbandry
William Barbour Nevens, B.S., Assistant, Dairy Husbandry
Frank Turner, B.S., Assistant, Dairy Husbandry
Padl William Allen, M.S., First Assistant, Dairy Bacteriology
Harold Kirk Rulison, B.S., Assistant, Dairy Husbandry
William Harold Chambers, B.S., Assistant, Dairy Bacteriology
Leighton J True, B.S., Assistant, Dairy Manufactures
Chris Simeon Rhode, B.S., Assistant, Dairy Husbandry
Russell Starieey Bracewell, A.B., Assistant, Dairy Chemistry

[^105]In Horticulture
Joseph Cullen Blatr, M.S., Chief, Horticulture
Join William Lloyd, ${ }^{1}$ M.S., Chief, Oleviculture
Charles Spencer Crandall, M.S., Chief, Plant Breeding
Herman Bernard Dorner, M.S., Assistant Chief, Floriculiure
Bethel Stewart Pickett, M.S., Assistant Chief, Pomology
Ernest Winfield Balley, M.S., Assistant Chief, Plant Breeding
Warren Albert Ruth, A.M., Associate, Horticultural Chemistry
Charles Elmer Durst, M.S., Associate, Olericulture
Simeon James Bole, A.M., Associate, Pomology
Fred Weaver Muncie, Ph.D., Associate, Floricultural Chemistry
Alfred Joseph Gunderson, B.S., First Assistant, Pomology
William Sanford Brock, B.S., A.B., First Assistant, Pomology
Duane Taylor Englis, Ph.D., First Assistant, Floricultural Chemistry
Ernest Michael Rudolph Lamkey, Ph.D., First Assistant, Floricultural Pathology
James Hutchinson, Assistant, Floriculture
Howard Dexter Brown, B.S., Assistant, Olericulture
August George Hecht, B.S., Assistant, Floriculture
Edward George Lauterbaci, B.S., Assistant, Floricultural Pathology
Howard Russel Stanford, B.S., Assistant, Plant Breeding
Julia Alberta Harper, A.B., Editorial Assistani
By an act approved March 2, 1887, the national government appropriated $\$ 15,000$ a year to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the Agri cultural Experiment Station of the University of Illinois was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The federal grant has since been increased to $\$ 30,000$ a year. This is supplemented by state appropriations which make an aggregate fund of nearly a quarter of a million dollars devoted wholly to research in agriculture.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement of the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Between forty and fifty fields and orchards are operated in various portions of the State for the study of local problems, and assistants are constantly on the road to conduct experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 40,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

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# THE ENGINEERING EXPERIMENT STATION 

Edmend Janes James, Ph.D., LL.D., Presidext<br>STAFF

Wieliam Freeman Myrick Goss, M.S., D.Eng., Director
Clarence Stanley Sate, B.S., Assisfant to the Director
the helds of the departmests of the college of exgineering

## Special Incestigators

Herbert Fisher Moore, M.M.E., Reseurch Professor of Enginecring Materials in the Department of Theoretical cind AFplied Mechanics
Samuel Wilson Parr, M.S., Professor of Applied Chemistry in the Department of Chemistry
Whlis Aplleford Sliter, M.S., C.E., Research Assistant Professor of Applied Mechanics in the Departiment of Theoretical and Applied Mechanics
Clinton Mason Young, B.S., E.M., Assistant Professor of Mining Research in the Department of Mining Engineering
Alonzo Plumsted Krity, M.S., Research Associate in the Department of Mechanical Engineering
Harkison Frederick Gomaerman, M.s., Research Assistant in the Department of Theorctical and Applied Mechanics
Leroy Alonzo Wilsox, M.E., M.M.E., Research Assistant in the Department of Mechanical Engineering
Otto Sternoff Beyer, Jr., M.E., Research Assistant in the Department of Railzay Engineering
Haromid Hougnson Dunn, M.S., Rescarch Assistant in the Department of Realazay Engineering
Walter Arther G.atward, M.S., Rescarch Assistant in the Department of Electrical Engineering

## Research Fellows

Harry Rheinhardt Fritz, E.E., Electrical Engineering
Louns J Larson, B.S., C.E., Theoretical and Applied Mechanics
Bemito Rene Ordonez, B.S., Ruilauzy Engineering
Stetpan Fuita Tanabe, B.S., M.S., Physics
Richard Laurence Templin, B.S., Theoretical and Applicd Mechhnics
Camilo Weiss, Graduate of Kaiserl. Koenigl. Technische Hochschule, Vienna, Civil Engincering
Eraest Edward Charlion, B.A., M.S., Chemistry
Ray Stuint Quick, B.S., Electricul Engineering
Bernard Pepmsky, C.E., Theoretical and Applied Mechanics
Edward Alexander Roberts, B.s., Raikuay Enjineering
Harold Parsoxs Vale, B.s., Alechanical Engineering
Frederic Pacl Straccia, B.s., Mechanical Enginecring
The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation
of engineering education, and the study of problems of special importance to professional engineers, and to the manufacturing, railway, mining, and industrial interests of the State and the country.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time ninety bulletins of value to engincering science have been published. The experinents have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams; stresses in chain links; extensions of the Dewey decimal system of classification; tests of electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal; thermal conductivity of fireclay; heat transmissions; freight train resistance; tests of a suction gas producer; tests of concrete; reinforced concrete beans and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotire water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines; effects of cold weather upon train resistance and tonnage rating; coking of coal at low temperatures; characteristics and limitations of the series transformer; electron theory of magnetism; entropy-temperature and transmission diagrams for air; tests of reinforced concrete buildings under load; the steam consumption of locomotive engines from indicator diagrams; properties of saturated and super-heated ammonia vapor; reinforced concrete wall footings and column footings; strength of I-beams in flexture; coal washing in Illinois; mortar-making qualities of Illinois sands; bond between concrete and steel; magnetic and other properties of electrolytic iron melted in vacuo; acoustics of auditoriums; tractive resistance of a 28ton electric car; thermal properties of steam; analysis of coal with phenol as solvent; the effect of boron upon the magnetic and other properties of electrolytic iron melted in vacuo; a study of boiler losses; the coking of coal at low temperatures with special reference to the properties and composition of the products; wind stresses in the steel frames of office buildings; influence of temperature on the strength of concrete; laboratory tests of a consolidation loconotive; magnetic and other properties of iron-silicon alloys melted in vacuo; tests of reinforced concrete flat slab structures; strength and stiffiness of steel under biaxial loading; the strength of I-beams and girders; correction of echoes in the Auditorium, University of Illinois; dry preparation of bituminous coal at Illinois mines; specific gravity studies of Illinois coals: and graphical methods in elestric motor car calculations.

# THE STATE LABORATORY OF NATURAL HISTORY 

Edmund Janes James, Ph.D., LL.D., President

STAFF
Stephen Alfred Forbes, Ph.D., LL.D., Director
Charles Arthur Hart, Systematic Entomologist
Robert Earl Richardson, A.M., Biologist in charge of Biological Statioin
Victor Ernest Shelford, Ph.D., Biologist in charge of Research Laboratories
Mary Jane Snyder, Secretary
Charles Edwin Janvrin, Ph.B., B.L.S., Librapian
In 1885 the General Assembly passed an act transferring the State Laboratory of Natural Fistory from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. Material of all classes has been collected in all parts of the State, field observations and experiments have been conducted, extending over many years, and fifteen volumes have been published in the form of bulletins and final reports.

The most important problem upon which the work of the survey is at present concentrated is the effect of drainage operations, sewage contaminations, and other results of industrial occupancy upon the general system of life in our principal rivers.

# THE STATE ENTOMOLOGIST'S OFFICE 

## STAFF

Stephen Alfred Forbes, Ph.D., LL.D., State Entomologist Charles Arthur Hart, Systematic Entomologist Wesley Pillsbury Flint, Assistant for Central Illinois Lindley Malcolm Smith, B.S., Assistant for Southern Illinois<br>David Kent MacMillan, B.S., Assistant for Northern Illinois Pressley Adams Glenn, A.M., Chief Horticultural Inspector John Russell Malloch, Illustrator and Custodian

The work of the State Entomologist's Office has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the Trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injury to persons or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries and all importations of nursery stock, and to maintain a general supervision of the horticultural property of the State with respect to its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-nine reports have now been published by the Entomologist, fifteen of them since the transfer of his office to the University.

# THE STATE WATER SURVEY 

Edmund Janes J.mes, Ph.D., LL.D., President

## STAFF

Edward B.artow, Ph.D., Director
Shmuel Wilson Parr, M.S., Consulting Chemist
Arthur Newell Talbot, C.E., Consulting Engincer
George Conrid Habermeyer, B.S., Engincer
Floyd Willinm Mohlmax, ${ }^{1}$ Ph.D., Chemist and Bacteriologist
Marry Foster Ferguson, B.S., Assistant Engineer
john Francis Schnellbach, B.S., Assistant Engineer
Arthur Norton Bennett, M.S., Assistant Chemist
William Durrell Hatfield, M.S., Assistant Bacteriologist
Friend Lee Mickle, A.B., Assistant Chemist
Madeline Binby, B.S., Assistant Chemist
Edman Greereield, A.M., Assistant Bacteriologist
Sidney Dale Kirkpatrici, B.S., Assistant Chemist
Otтo M Suith, B.S., Assistant Chemist
Henry Rhodes Lee, M.S., Summer Assistant, 1916
Perci Wright Ott, Summer Assistant, 1916
Wilbur Fred Kinm, B.S., Summer Assistant, 1916
A chemical survey of the waters of the State was begun in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establisin a chemical and biological survey of the waters of the State. In 1911 the legislature made an increased appropriation and imposed additional duties on the State Water Survey, authorizing it to employ field men to inspect water supplies and watersheds, and to make, free of charge, sanitary examinations of water for citizens of Illinois. The Survey has collected data concerning the most of the water supplies and sewerage systems, and many watersheds, making chemical and bacteriological examinations to demonstrate the sanitary condition of water supplies and streams, and to determine standards of purity for drinking waters. The survey advises municipal authorities how best to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes. In 1915 a small appropriation was made for the establishment and maintenance of a serwage-experiment station.

The Survey is a division of the department of chemistry of the University of Illinois. Offices and special laboratories are equipped in the Chemistry Building for conducting the work.

# THE STATE GEOLOGICAL SURVEY 

COMMISSION<br>Governor Frank O. Lowden, Chairman<br>Professor T. C. Chamberlin, Ph.D., D.Sc., LL.D., Vice-Chairman<br>President Edmund Janes James, Ph.D., LL.D., Secretary

## STAFF

Frank Walbridge DeWolf, B.S., Director, Urbana
Edward Bartow, Ph.D., Consulting Chemist in Water Analysis, University of Illinois, Urbana
Ulysses Sherman Grant, Ph.D., Consulting Geologist in Lead and Zinc Studies, Northwestern University, Evanston
Samuel Wilson Parr, M.S., Consulting Chemist in Coal Investigations, University of Illinois, Urbana
Rollin D Salisbury, A.M., LL.D., Consulting Geologist in Preparation of Educational Series, University of Chicago, Chicago
Fred Hall Kay, B.S., Assistant State Geologist, Urbana
Thomas Edmund Savage, Ph.D., Geologist, University of Illinois, Urbana
Stuart Weller, Ph.D., Geologist, University of Chicago, Chicago
Gllbert H Cady, A.M., Geologist, Urbana
Albert D Brokaw, Ph.D., Geologist, University of Chicago, Chicago
Stuart St. Clair, M.S., Geologist, Urbana
Helen Jeanne Skewes, A.B., Assistant Geologist, Urbana
E Wesley Shaw, B.S., Assistant Geologist in Cooperative Surveys, Urbana, Ill., and Washington, D. C.
Charles Butts, M.S., Assistant Geologist in Cooperative Surveys, Urbana, Ill., and Washington, D. C.
William G Gwynn, Engineering Draftsman, Urbana
Justa M Lindgren, A.M., Chemist, Urbana
Glenn S Smith, B.S., Geographer in charge of Topographical Surveys in Illinois, Urbana, Ill., and Washington, D. C.
The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of the State Geological Survey. The Survey is under the control of a Commission, of which the President of the University is an ex officio member.

The purpose of the Survey is primarily the study and exploration of the mineral resources of Illinois. Field parties are organized for the investigation of oil, clay, coal, stone, artesian water, cement materials, and road materials, and for general scientific investigations. The Survey is charged also with the duty of making a complete topographical and geological survey of the State. Topographical and geological surveys are now being carried on in cooperation with the United States Geological Survey. These will lead to the publication of a series of bulletins and maps, eventually covering the entire State.

The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to
their reclamation. Work has been carried on in cooperation with the Rivers and Lakes Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kaskaskia, Big Muddy, Little Wabash, Embarrass, Spoon, Pecatonica, and Saline rivers. Reports have been issued on the Little Wabash, Kaskaskia, Spoon, and Embarrass.

The laboratory work is done in connection with various department laboratories of the University. The equipment includes a working library, maps, and a growing collection, illustrating the geological and the economical resources of the State. Thirty-five bulletins, a monograph, and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the Engineering Experiment Station on the one hand, and the United States Bureau of Mines on the other, a branch station has been located at Urbana for a cooperative investigation of the Illinois coal mining industry. The Forty-seventh General Assembly made appropriations to carry on the work for two years, and the Forty-eighth and Forty-ninth General Assemblies repeated the appropriations for equal periods. See page 420.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY 

Edmund Janes James, Ph.D., LL.D., President

## BOARD OF EXAMINERS

James Hall, C.P.A., Chairman, Chicago
Clarence Martin Delany, A.B., C.P.A., Secretary, Chicago
Nathan William MacChesney, A.B., LL.B., Chicago

## UNIVERSITY COMMITTEE

David Kinley, Ph.D., LL.D., Chairman
Charles Maxwell McConn, A.M., Secretary
Edward Harris Decker, A.B., LL.B.
By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in the theory of accounts, commercial law, auditing, and practical accounting.

The Illinois Society of Certified Public Accountants offers annually a gold medal and a silver medal to be awarded to the persons passing the C. P. A. examination with the highest total marking in all subjects and with the second highest total marking in all subjects respectively.

# CO-OPERATIVE INVESTIGATION OF ILLINOIS COAL PROBLEMS 

Edmund Janes James, Ph.D., LL.D., President

STAFF<br>Engineering Experiment Station

William Freeman Myrick Goss, M.S., D.Eng., Director
Harry Harkness Stoek, B.S., E.M., Professor of Mining Engineering Clinton Mason Young, B.S., E.M., Assistant Professor of Mining Research Special Mining Engineers and Field Samplers

State Geological Survey

Frank Walbridge DeWolf, B.S., Director
Fred Hall Kay, B.S., Assistant State Geologist
Gilbert Haven Cady, A.B., M.S., Geologist
Thomas Edmund Savage, M.S., Ph.D., Geologist
Walter Stephen Nelson, Engineer

## United States Bureau of Mines

Van H Manning, A.B., Director, Washington, D. C.
George S Rice, E.M., Chief Mining Engineer, Washington, D. C.
Howard Ira Smith, B.S.(Min.), District Mining Engineer, Urbana, Ill.
James Russell Fleming, E.M., Assistant Mining Engineer, Urbana, Ill.
Frank K Ovitz, B.S., Assistant Chemist, Urbana, Ill.
The Engineering Experiment Station through the department of mining engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are cooperating in the investigation of some of the problems connected with the mining of coal in the State of Illinois, under authority granted by the Forty-seventh General Assembly.

This cooperative work is constructive as well as statistical, based upon accurate data and taking account of all existing conditions, to enable the operators and miners of the State to produce coal more safely, more cheaply, and with less waste.

A staff of trained mining engineers, geologists, and chemists has been placed at the disposal of the coal industry of Illinois.

## PART VI <br> LIST OF STUDENTS, ETC. (1916-1917)



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## LIST OF STUDENTS, 1916-17 <br> THE GRADUATE SCHOOL

Adler, Leon-Chemistry Work for B.S. completed, 1917
Akers, Miriam Cynthia-Scholar in Latin A.B. ${ }^{1}$ (Illinois College) 1916

Albrecht, William Albert-Agronomy A.B., B.S., M.S., 1911, 1914, 1915

Alexander, John Alva-Education A.B., 1916

Allen, Louis-French
A.B., A.M., 1913, 1915

Allen, Lucille Marie-History
A.B. (Miama Univ.) 1916

Allen, Otho William-French
A.B., A. M., 1915, 1916

Allen, Paul William-Dairy Bacterionogy B.S. (St. Lawrence Univ.) 1910 M.S. (Cornell Univ.) 1914

Allison, Worth Arthur-Scholar in Animal Husbandry B.S., A.B., 1916
d'Amato, Orlando-Romance Languages A.B. (Columbia Univ.) 1915

Amos, Douglas Jacques-Dairy Husbandry B.S., 1916

Amsterdam, Harry-Philosophy A.B. (Lake Fcrest Coll.) 1915 A.M., 1916

Anderson, Harry Warren-Botany A.M.' (Washington Univ.) 1910

Andrews, Harry Lee-Zoology A.B., 1916

Andrews, James Burton-Animal Husbandry B.S., 1913

Atwell, Clarence Allen-Electrical Engineering B.S. (Univ. of Nebraska) 1914

Augustus, Earl Kirkwood-Animal Husbandry B.S., 1914

Austin, Miner Manley-Chemistry A.B. (Lawrence Coll.) 1916

Babbitt, Harold Eaton-Municipal and Sanitary Engineering B.S. (Massachusetis Inst. of Tech.) 1911

Bach y Rita, Pedro-Spanish Master Superior (Superior Normal, Barcelona, Spain) SS
Bagley, Glen David-Electrical Engineering B.S., M.S., 1912, 1913

Bailey, Ernest Winfield-Genetics B.S. (Massachusetts Agr. Coll.) 1908 M.S., 1909.

Baldwin, Francis Marsh-Zoolcgy A.B., A.M. (Ctark Coll.) 1906, 1907

Ballantine, Mary Frances-Sociology A.B. (Wellesley Coll.) 1914

Ballew, Margaret Esther-English A.B. (Hedding Coll.) 1909 A.M., 1910

Barnes, Mildred-English A.B. (Vassar Coll.) 1912

Barnes, Otis Avery-Chemistry B.S., 1916

Bauer, Frederick Charles-Agronomy B.S., 1909

Bayley, Paul Lavern-Experimental Physics A.B. (Univ. of Arkansas) 1913 A.M., 1914

Beach, Amy Adaline-Latin A.B., 1914

Beach, Walter Spurgeon-Plant Pathology B.S. (Minnesota Coll. of Agr.) 1914 M.S. (Michigan Agr. Coll.) 1915
$\dagger$ St. Louis, Missouri

* $\dagger$ St. Louis, Missouri

SS ${ }^{2}$ Flanagan
SS Amorita, Oklahoma

* $\dagger$ Clinton
* † Urbana
* $\dagger$ Clinton

SS * $\dagger$ Urbana

* $\dagger$ Clarleston
* $\dagger$ Los Angeles, California
* † Cairo
* $\dagger$ Zeludok, Vilno, Russia

SS * $\dagger$ Crawfordsville, Indiana
SS Washburn

* $\dagger$ Urbana
* † Urbana
* Urbana
* † Waterloo, Wisconsin

SS * † Urbana
SS * $\dagger$ Barcelona, Spain
Pitlsburgh, Pennsylvania
SS * $\dagger$ Worcester, Massachusetts
SS * † Champaign

* Springfield, Massachusetts
* $\dagger$ Lexington
* † Lansing, Michigan
* $\dagger$ Auburn
* $\dagger$ Champaign

SS * †Ft. Smith, Arkansas
Antwerp, New Ycrk

SS * $\dagger$ Hutchinson, Minnesota

[^107]Beattie, Harry James-Inorganic Analytical Chemistry
A.B., A.M. (Univ. of Denver) 1914, 1915

Beatty, Albert James-Education
B.S. (N. Illinois Normal School) 1894
A.B. (Knox Ccll.) 1900
A.M., 1915

Beck, Clyde Byron-English
A.B. (Earlham Coll.) 1906
A.M., 1916

Bedient, Ethel Louise-Scholar in Economics
A.B. (Albion Coll.) 1916

- Beekley, John Sherman-Mathematics
A.B. (Miami Univ.) 1915

Belting, Paul Everett-Education A.B., 1912

Bennett, Arthur Norton-Sanitary Chemistry B.S., M.S., 1907, 1915

Bentley, Rufus Clarence-Education A.B., A.M. (Univ. of Nebraska) 1894, 1896

Berninger, Harriett Josephine-Education A.B., 1915

Biegler, Philip Sheridan-Electical Engineering B.S. (Univ. of Wisconsin) 1905

Bisseil, Don Warren-Oiganic Chemistry B.S. (New Hampshire Coll.) 1914 M.S., 1916

Bixby, Madeleine-Chemistry B.S. (Tufts Coll.) 1916

Black, Howard Benjamin-Education
B.S. (Baldwin Univ.) 1911

Bodfish, Elisabeth-Scholar in Zoology Ph.B. (Brown Univ.) 1914
Boehmer, Florence Elsie-Education A.B. (Drury Coll.) 1912

Bogart, Mrs. Stella-Italian A.B. (Oberlin Coll.) 1901

Bole, Simeon James-Horticulture A.B. (Univ. of Michigan) 1906 A.M., 1912

Booth, Harry Tyler-Physics B.S. (Carletcn Coll.) 1915 M.S., 1916

- Borden, Raymond Franklin-Mathematics Ph.D., A.M. (Brown Univ. ) 1914, 1915
Boughton, Thomas Harris Pathology
M. S. (Univ. of Chicago) 1904
M.D. (Rush Medical Coll.) 1906

Boyle, Cecil Wayne-Chemistry
A.B. (Purdue Univ.) 1910

Bracewell, Ray Herman-Education B.S. (Illinois Coll.) 1915

Bracewell, Russell Starkey-Chemistry A.B. (Univ. of Kansas) 1916

Braham, Joseph Marvin-Physical Chemistry B.S. (Univ. of Idaho) 1914 M.S., 1915

Braley, Silas Alonzo-Fellow in Analytical Inorganic Chemistry A.B. (Marningside Coll.) 1913
M.S., 1915

Brede, Elfrieda-Latin
A.B. (McKendree Coll.) 1912

Bredvold, Louis Ignatius-English Literature
A.B., A.M. (Univ. of Minnesota) 1909, 1910

Brewbaker, Charles Earl-Education A.B. (McKendree Coll.) 1914

Brock, William Sanford-Horticulture A.B. (Waynesville Coll.) 1910 B.S., 1915

Brockson, Washington Irving-Agronomy B.S. (Delaware State Coll., Newark) 1915
M.S. (Iow'a State Coll.) 1916

Brooks, Frances-Economics
A.B., 1914

Brown, Howard Dexter-Horticulture B.S., 1914

Brown, Hugh Alexander2-Electrical Engineering

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\text { B.S., } 1911
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Brown, John Bernis-Organic Analysis B.S., 1915

Brown, Pembroke Holcomb-Economics

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\text { A.B., } 1915
$$

Brunson, Arthur Maxwell-Agronomy B.S., 1913

* $\dagger$ Palmer, Massachusetls

SS $\dagger$ Springfield, Misscuri

* Urbana
* † Champaign
* † Lake City, Minnesota
* $\dagger$ Aquidneck, Rhode Island

SS * $\dagger$ Evansicn

- $\dagger$ Evenston

Lerna

* † Urbana
* $\dagger$ Spokane, Washington
* $\dagger$ Urbana

Collinszille

* $\dagger$ Urbana

SS
Altamont

* $\dagger$ Urbana
* $\dagger$ Middlelown, Deloware
$\dagger$ Urbana
* $\dagger$ Denver, Colorado

SS * $\dagger$ Urbana

* $\dagger$ Richmend, Indians
* $\dagger$ Albion, Michigan
* † West Chester, Ohio Illiopolis
* $\dagger$ Laurence, Michigan
* $\dagger$ Urbana
* $\dagger$ Mi. Carmel
* † Urbana
* Keene, New Hampshire
* † North Andover, Massachusetls

Massillon, Ohio

* † Urbana

Fayetteville, Arkansas

* $\dagger$ Rock Falls
* $\dagger$ Champaign
* $\dagger$ Chamfaign

In Graduate Courses in Medical Sciences, offered in Chicago, Summer Session, 1916.
${ }^{2}$ Candidate for professional degree in engineering.

Brush, Eiizabeth Parnham-History

$$
\text { A.B. (Smith Coll.) } 1909
$$

A.M., 1912

Brjant, William Thoreau-Industrial Chemistry B.S. (Texos A. © M. Coll.) 1911

Buck, Alonzo Morris ${ }^{2}$ - Electrical Engineering M.E. (Sibley Coll.) 1904

Bunting, Herbert Robins-Chemistry
A.B., B.S. (Unir. of Nebraska) 1914, 1916

Burlison, William Leonidas-Botany B.S. (Oklahoma Agricultural and Mechanical College) 1905 M.S., Ph.D., 1908, 1915

Butzow, Emma Bertha-German A.B., 1914

Callen, Alfred Copeland-Mining Engineering B.S., M.S. (Lehigh Univ.) 1909, 1911

Castle, Russell D VV-Economics A.B., 1916

Chadderdon, Hazel Mildred-English A.B. (Hedding College) 1912

Chambers, William Harold-Dairy Bacteriology B.S., 1915

Chandler, Edward Marion Augustus-Fellow in Organic Chemistry A.B. (Howard Univ.) 1913

Chang, Hung Lieh-Political Science A.B. (Baldwin-Wallace Coll.) 1916

Charlton, Ernest Edward-Fellow in Industrial Chemistry A.B. (Grinnell Coll.) 1913
M.S., 1915

Checkley, Joseph Harvey-Economics B.S., 1913

Chen, Lan Sung-Transportation A.B., $1916^{\circ}$

Chen, Queh King-Political Science
Childs, Harold Farnsworth-English Literature A.B., A.M., (Ohio State Univ.) 1913

Christie, Jesse Roy-Zoology B.S. (Kentucky State Univ.) 1914

Clayberg, Harold Dudley-Feliow in Botany A.B., 1913, M.S. (Univ. of Chicago) 1914

Clevenger, Clinton B-Agronomy
B.S., M.S. (Ohio Stale Univ.) 1912, 1913

Clippinger, Frank Warren-Scholar in English A.B. (Wabash College) 1916

Colby, Arthur Samuel-Botany B.S. (New Hampshire Coll.) 1911 M.S.. 1915

Collings. Gilbeart Hooper-Fellow in Agronomy B.S. (Virginia Poly. Inst.) 1915

Collins, Ray Arthur-Electrical Engineering B.S., 1909

Cooke, Delmar Gross-Fellow in English A.B., A.M., 1912, 1915

Cooley, Verna-History A.B. (Knox Coll.) 1913

Cooper, Arthur Reuten-Honorary Fellow in Zoology A.B. (Victcria Coll., Toronto Univ.) 1910 A.M. (Univ. Coll., Toronto Univ.) 1911

Copley, Beatrice Virginia-English A.B., 1915

Cordell, Vail-Education A.B., 1916

* † Urbana

SS * Pekin, China

* † Honan, China
* $\uparrow$ Columbus, Ohio
* † Manchester. New Hampshire
* † Oak Park
* Fletcher, Ohic
* $\dagger$ Indianapolis, Indiana
* † Creme, Virginia

Chicago

* $\dagger$ Piper City
* $\dagger$ Toulon
* $\dagger$ Ontario, Canada

SS * $\dagger$ Joliel
orzine, Bruce Herbert-Education
SS Macomb A. B., 1916

Cox, Edward Hill-Fellow in Physiological Chemistry B.S., M.S. (Univ. of Louisville) 1914, 1916

Crawford, Henry Gordon MacGregor-Scholar in Entomology B.S. (Toronlo Univ.) 1915

Croan, Melvin-Education A.B. (Unio. of Kansas) 1913

Croll, Hilda Marion-Scholar in Household Science A.B., 1916

Crooker, Sylvan Jay-Fellow in Physics
B.S. (Carleton Coll.) 1914 M.S. 1915

Crooks, Harold Fordyce-Geology A.B., 1916

Cruzan, Myrtle Amy-English A.B., 1914
${ }^{1}$ Candidate for professional degree in engineering.

Culver, Harry-Pathology and Bacteriology
B.S. (Univ. of Wisconsin) 1910
M.D. (Rush Medical Coll.) 1913

Curtis, Harry Pennybacker-Agronomy
B.S. (Ohio State Univ.) 1915

Cuthbert, Dorothy Lucile-Scholar in Latin A.B., 1916

Dalbey, Nora Elizabeth-Botany
A.B., A.M. (Unvv. of Kansas) 1913, 1914

Davis, John William-Electrical Engineering
M. E. (Cornell Univ.) 1910

Davis, Roy Lefevre-Education
A.B., A.M. (Illinois Wesleyan Univ.) 1915, 1916

Davis, Samuel Sylvester-Agronomy B.S., 1915

Dawson, Eric Allen-French
B.S., A.M. (Univ. of Mississippi) 1908, 1914

Dean, Ralph Hipple-Scholar in Chemistry A.B. (Lake Forest Coll.) 1916

Dent, John Adlum-Mechanical Engineering M.E. (Lehigh Univ.) 1905

DeTurk, Jeremiah Amos-Mechanical Engineering B.S. (Pennsylvania State Coll.) 1912

Dickenson, Robert William-Agronomy B. S., 1912

Dickey, Lloyd Blackwell-Zoology A.B., (Fargo Coll.) 1915

Doane, Alice Mary - Scholar in English A.B. (Earlham Coll.) 1914

Dodds, Lois Ellen-French
A.B., 1916

Dolkart, Leol-Electrical Engineering B.S., 1903

Doisy, Edward Adelbert-Physiological Chemistry A.B., M.S., 1914, 1916
-Dotterer, John Ezra-Scholar in Mathematics A.B. (Blue Ridge Coll.) 1912

Doty, George Lewis-Scholar in Romance Languages A.B. (Albion Coll.) 1916

Douglas, Mrs. Dorothy W-Sociology A.B. (Bryn Maur Coll.) 1912 A.M. (Columbia Univ.) 1915

Dreesen, William Henry-Economics

> A.B. (Greenville Coll.) 1907 A. M., 1916

DuBois, Henry Mathusalem-Paleontology A.B., A.M. (Indiana Univ.) 1913, 1914

DuFrain, Frank James-Education A.B.. 1916

Dunbar, Louise Burnham-Scholar in History A.B. (Mt. Holyoke Coll.) 1916

Dunn, Max Shaw-Chemistry A.B. (Simpson Coll.) 1916

Durst, Charles Elmer-Genetics B.S., M.S., 1909, 1912

* $\dagger$ Appleton, Wisconsin
* Lillle Hocking, Ohio
* $\dagger$ Gilsum, New Hampshire
* $\dagger$ Sterling, Kansas
* $\dagger$ Petersburg, Virginia

SS * $\dagger$ Porcmac

* $\dagger$ Newport, Indiana
* † Okolona, Mississippi
* $\dagger$ Somonauk
$\dagger$ Champaign
* $\dagger$ Reading, Pennsylvania
* $\dagger$ Urbana
* $\dagger$ Esmond, North Dakota
* † New York City, New York
$\dagger$ Champaign
Moline
Champaign
* $\dagger$ New Windsor, Indiana
* $\dagger$ Monroe, Michigan
* $\dagger$ Urbana
* $\dagger$ Urbana
* † Rcchester, Indiana
* $\dagger$ White River Junction, Vermon
* $\dagger$ Milo, Iowa

Dyar, Herbert Lee-Education A.B. (Eureka Coll.) 1905

Eckstein, Herry Charles-Chemistry A.B., 1915

Edwards, Forrest Glenn-Education A.B. (Lombard Coll.) 1907

Edwards, M Reece-Agronomy B.S., M.S., 1916

Edwards, Robert Dean-Dairy Husbandry B.S. (Cornell Univ.) 1915

Ellis, Harry Delmar-Education A.B. (Univ, of Michigan) 1909

Enger, Melvin Lorenius-Theoretical and Applied Mechanics B.S., C.E., 1906, 1916

Engle, Robert Henry-Animal Husbandry Work for B.S. ccmpleted, 1917
Ensign, Newton Edward -Theoretical and Applied Mechanics A.B. (McKendree Coll.) 1905
A.B. (Oxford Univ.) 1908 B.S., 1911

Fahnestock, Rhoda-Scholar in Household Science B.S. (Rackford Coll.) 1916

Falls, Frederick Howard ${ }^{2}$ Pathology B.S. (Univ. of Chicago) 1908
M.D. (Rush Medical Ccll.) 1910 M.S., 1916

Fanning, Ralph Stanlee-Architecture B.Arch. (Cornell Univ.) 1912

[^108]Faust, Ernest Carroll-Fellow in Zoology
A.B. (Oberlin Coll.) 1912
A.M., 1914

Fazel, Charles Stever-Physics
A.B. (Fairmount Coll.) 1914
A.M., 1915

Feng, Kaimin Kay-Civil Engineering B.S., M.S., 1915, 1916

Ferguson, Constance Wilberta¿Scholar in French
A.B. (Illincis Wesleyant Univ.) 1916

Fishman, Alvin Texas-Scholar in Genetics B.S., 1916

Fitz-Gerald, Mrs. Leora Almita-Spanish Literature A.B., 1916

Fleming, Denna Frank-Political Science A.B., 1916

Flowers, Roy Warner2-Architectural Engineering B.S., 1906

Footitt, Frank F-Chemistry A.B. (Albion Coll.) 1914 M.S., 1916

Ford, Jay Thomas-Individual Chemistry A.B. (DePauw Univ.) 1914 M.S., 1916

Foster, Lucy Ray-English Ph.B. (Syracuse Univ.) 1908
Francis, Helen Elizabeth-History A.B., 1916

Frank, Edwin Diederich August-Mechanical Engineering B.S. (Massachusetts Inst. of Tech.) 1906

- Frary, Hobart Dickinson-Fellow in Mathematics M.E., M.S. (Univ. of Minnesota) 1908, 1909

French, Beals Ensign Litchfield-Education B.S. (Alfred Univ.) 1913

French, Herbert Ephraim-Organic Chemistry A.B. (Morningside Ccll.) 1915

Fritz, Harry Rheinhardt-Fellow in Electrical Engineering C.E. (Univ. of Texas) 1914

Fullenwider, Elizabeth Leah-Scholar in English A.B. (James Millikin Univ.) 1916

Fulton, Edward Irving-English A.B. (Central Univ. of Kenlucky) 1916

Gantz, Richard Alonzo-Botany A.B. (Michigan University) 1912

Gatward, Walter Arthur-Electrical Engineering B.S. (Washington State Coll.) 1913 M.S., 1916

Gauger, Marguerite Elston-Scholar in Household Science A.B., 1913

Gaynor, Elizabeth Webb-History A.B. (Univ. of Wisconsin) 1907

Geiling, Eugene Maximilian Karl-Animal Nutrition A.B. (Univ. of Cope of Good Hope) 1911 M.S., 1915

Geyer, Denton Loring-Education A.B., A.M. (Univ. of Wisconsin) 1910, 1911 Ph.D., 1914
Godeke, Harry Frederick-Mechanical Engineering B.S., 1905

Godlove, Isaac Hahn-Organic Chemistry B.S., A.M. (Washington Univ.) 1914, 1915

Goldman, Marcus Selden-Scholar in English A.B. (Miami Univ.) 1916

Goldsmith, Margaret Lola-Scholar in German A.B. (Illinois Woman's Ccll.) 1916

Green, Bessie Rose-Zoology A.B., A.M., 1907, 1910

- Green, Charles Francis-Mathematics A.B., A.M. (Univ. of Kansas) 1914, 1915

Greenfield, Edman-Chemistry A.B. (Univ. of Kansas) 1914 A.M., 1916

Griffith, Coleman Roberts-Psychology A.B. (Greenville Coll.) 1915

Grimes, Ruby Mabel-Mathematics A.B. (Yanbton Coll.) 1911 A.M. 1913

Gross, Alfred William-Education Ph.B. (North Western Coll.) 1909
Gross, Cecil Robert-Bacteriology B.S. (Cornell Univ.) 1915

* $\dagger$ Carthage, Missouri

SS * $\dagger$ Wichita, Kansas

* Peilui, Kwangsi, China
* Normal
* † Bosky Del?
* † Champaign

Paris
Gary, Indiana

* † Pendleton, Indiana
* $\dagger$ Champaign
* $\dagger$ Wyoming
* † Milwaukee, Wisccrsin
* $\dagger$ Urbana

Ellicottville, New York

* $\dagger$ Sioux Cily, Icwa
* † Dallas, Texas
* $\dagger$ Mechonicsburg

Anchorage, Kentucky

* $\dagger$ Urbana
* $\dagger$ Urbana
* $\dagger$ Champaign

Grand Rapids, Wisconsin
SS * $\dagger$ Vryberg, South Africa
SS

* † Urbana
* † St. Louis, Missouri
* $\dagger$ Middletcwn, Ohio
* † New York, New York
* $\dagger$ Ivesdale
* $\dagger$ Holton, Kansas
* † Lawrence, Kansas
* $\dagger$ Greenville
* $\dagger$ Rapid City, South Dakota

SS * † Urbana

* $\dagger$ I haca, New York

Gulick, Edward Everett-Education B.L., 1892

Gulley, Lawrence Richard-Mechanical Engineering B.S., M.S., 1910, 1911

Gunderson, Alfred Joseph-Pomology B.S., 1911

Gusle, Gilbert-A nimal Husbandry B.S. (Ohio State Univ.) 1912

Gutling, Leo Arthur-Electrical Engineering B.S., 1911

Haessler, Carl Herman-Philosophy A.B. (Univ. of Wisconsin) 1911 A.B. (Oxfard Univ.) 1914

Haessler, Clara Luise-Fellow in German A.B., A.M. (Univ. of Wisconsin) 1912, 1914

Hahn, Fred Charles-Organic Chemistry B.S., 1916

Handschin, Walter Frederick-Animal Husbandry B.S., 1913

Hanna, Helen Irene-German A.B. (Central Coll.) 1916

Hao, Tso Chang-Economics A.B., 1916

Harbison, Chester Clyde-Sociology A.B. (Univ. of Michigan) 1914

Harper, Claude Ligonier-Animal Husbandry B.S. (Purdue Univ.) 1914

Harris, James WaldoL-Civil Engineering B.S., 1886

Hatficld, William Derrell-Chemistry B.S. (Illinois Coll.) 1914 M.S., 1916

Haw, Arthur Blaine-Chemistry B.S. (Harvard Univ.) 1913

Hayes, Augustus Washington-Economics B.S., 1907

Heath, Dwight Frederick-Scholar in Mathematics A.B., 1916

Hebbert, Clarence Mark-Mathematics B.S. (Otterbein Univ.) 1911 M.S., 1914

Hecht, August George-Horticulture B.S., 1914

Hedges, Bertram Atkinson-Education A.B., 1916

Heimburger, Harry Virl-Zoology A.B. (DePaw Univ.) 1911 A.M., 1915

Henderson, James Bruce-Animal Husbandry B.S., M.S., 1916

Henrich. Louis.' Joseph-Education B.S. (Kentucky State Univ.) 1913 M.S. (Iowa State Coll.) 1915

Henry, Theodore Spafford-Education A.B. (Hedding Coll.) 1903 A.M., 1916

Hepburn, Nelson William-Dairy Manufacture B.S., M.S., 1907, 1910

Hicks, John Frederick-Industrial Chemistry B.S. (Univ. of Pennsylvania) 1906 M.S., 1916

Higgins, George Marsh-Zoology B.S. (K nox Coll.) 1914 A.M., 1916

Hight, Eugene Stuart-Electrical Engineering M.S., 1911

Higley, Ruth-Fellow in Zoology A.B. (Grinnell Coll.) 1909

Hill, Charles Francis-Physics A.B., A.M., 1914, 1916

Hill, Howard Rice-Zoology A.B. (Carroll Coll.) 1913 M.S., 1916

Hill, Robert McClaughey-Scholar in Chemistry B.S. (Carthage Coll.) 1915

Hobler, Mrs. Harriet Wells-History A.B. (Rockford Coll.) 1882

Hofacker, Olga Vera-English A.B., 1911

Hoffman, William Samuel-Sociology A.B. (Greenville Coll.) 1916

Hofto, Jacob Arnold-Fellow in History A.B., A.M. (Univ. of North Dakota) 1913, 1914

* $\dagger$ Urbana
* † Epworth, Lowa
* $\dagger$ Wuchinghsien, China
* $\dagger$ Urbana
* $\dagger$ Urbana

Beloit, Wisconsin

SS * † Urbana

* † Oltumwa, Iowa
* Pleasant Plains
* † Chicago
* $\dagger$ Bloomdale, Ohio
* $\dagger$ Overland, Missonri
* Downing, Missouri

Kcwanna, Indiana
$\dagger$ Urbana

* $\dagger$ Des Plaines

Peoria

* $\dagger$ Grandviev, Iowa
* Champaign
* $\dagger$ Chicago
* † Carthage
* † Batavia

SS
Peoria

* $\dagger$ Greenville
* Grand Forks, North Dakota

[^109]Hohman, Elmo Paul-Scholar in History A.B., 1916

Holbrook, Elmer Allen-Mining Engineering B.S. (Mass. Inst. Tech.) 1904 E.M., 1916

Hooper, Gertrude Mellen-Zoology A.B. (Jackscn Coll.) 1915

Hoskinson, Bruce Quin-Education A.B., 1916

Hormel, Olive Dean-English A.B., 1916

Howell, Liloyd Brelsford-Chemistry A.B. (Wabash Coll.) 1909

Hsu, Chuan-Ying-Economics A.B. (Nanking Univ.) 1905 A.M., 1915

Huffer, Charles Morse-Scholar in Mathematics A.B. (Albion Ccll.) 1916

Hufferd, Ralph William-Organic Chemistry A.B. (Washington Univ.) 1915

Hulce, Ray Stillman-Animal Husbandry B.S. (Univ. of Wisconsin) 1911 M.S., 1913

Humphrey, Herbert Kay L-Electrical Engineering B.S., 1911

Hunsaker, Andrew Franklin-Political Science A.B., A.M., 1909

Hursh, Ralph Kent-Ceramic Engineering B.S., 1908

Hurst, Lawrence-History A.M. (Wisconsin Univ.) 1914

Huston, Earl Albert-Horticulture B.S. (Purdue Univ.) 1916

Hyslop, William Henry-Experimental Physics A.B. (Knox Coll.) 1908 A.M., 1911

Ireland, Washington Parker²-Civil Engineering B.S., 1903

- Jacobs, Jessie Marie-Mathematics A.B. (McPherson Coll.) 1914 A.M. (Univ. of Kansas) 1916

James, Helen Dorcas-Scholar in English A.B. (Univ. of New Mexico) 1914

Jennings, Walter Wilson-Fellow in History A.B., A.M., 1915, 1916

Jewell, Minna Ernestine-Zoology A.B. (Colorado Coll.) 1914 A.M., 1915

Jinguji, Genjiro-Electrical Engineering B.S., 1912

Johnson, Dorothea Pearl-Scholar in Latin A.B. (McKendree Coll.) 1915

Johnson, Leslie F-Agronomy B.S., (Iowa State Coll.) 1917

Jones, Easley Stephen-English A.B. (Univ. of Colcrado) 1907 A.M. (Harvard Univ.) 1913

Jones, Lester Seaman-Education B.S. (Norlhwestern Univ.) 1905

Jordan, Louis-Inorganic Chemistry A.B. (Bates Coll.) 1915

Jordan, Vera Elizabeth-English A.B. (Drake Uni\%.) 1909

Jordan, William Gharrett-Chemistry A.B. (Drake Univ.) 1913

Kamm, Wilbur Fred-Chemistry A.B., 1916

Kammlade, William Garfield-Animal Husbandry B.S. (Univ. of Wisconsin) 1915

Karr, Walter Gerald-Chemistry B.S. (Alfred Unio.) 1913 M.S., 1916

Krarrer, Sebastian-Fellow in Physics A.B., A.M. (Univ. of Washington) 1911, 1913

Keen, Dora-Education A.B. (Georgelown Coll.) 1916

Keiser, Albert-Fellow in English Philology A.B. (Wartburg Coll.) 1911 A.M. (Univ. of Monlana) 1915

Keith, Mary Helen-Animal Nutrition B.S. (Ml. Holycke Coll.) 1894 A.M. (Columbia Univ.) 1904

* $\dagger$ Nashville

SS * † Urbana

* $\dagger$ Tufts College, Mossachusetts

West York
$\dagger$ Wichila, Kansas

* $\dagger$ Urbana
* $\dagger$ Urbana
* $\dagger$ Albion, Michigan
* $\dagger$ St. Louis, Missouri
* $\uparrow$ Urbana

Houston, Texas
$\dagger$ Rantoul
SS Macomb

* Martensville
* $\dagger$ Mishawaka, Indiana
* $\dagger$ Urbana

Galesburg

* McPherson, Kansas
* † Las Cruces, New Mexico
* † Champaign
* $\dagger$ Colorado Springs, Colorado
$\dagger$ Choshi, Japan
Belleville
$\dagger$ Omaha, Ncbraska
* $\dagger$ Boulder, Colorado

Oak Park

* $\dagger$ Portland, Maine
* † Des Moines, Iozra
* $\uparrow$ Des Moines, Iowa

Highland

* † Sparta, Wisconsin
* $\dagger$ Almond, New York

SS * † Seatlle, Washington

* $\dagger$ Gcorgetown, Kentucky

SS * $\dagger$ Sterling, Nebraska

* $\dagger$ Braintree, Massachusetls

[^110]Keitoku, Sakae-Industrial Chemistry

$$
\text { A.B., } 1916
$$

Kelso, Ruth-English

$$
\text { A.B., A.M., 1908, } 1909
$$

Kempton, Forrest Ellwood-Botany
B.S. (Earlham Coll.) 1906
M.S. (Univ. of Wisconsin) 1913

Kennedy, Josephine Wheaton-Physiology
A.B. (Wheaton Ccll.) 1912

Kennedy, Luther Eugene-Economic Geology

$$
\text { A.B., A.M., } 1915
$$

Kernall, Morris Johnson-Zoology
A.B. (Univ. of North Dakota) 1906
A.M. 1914

Kindred, James Ernest-Zoology
A. B. (Tufts Coll.) 1914
A.M., 1915

Kingman, Robert Hills-Zoology
A.B. (Washburn Coll.) 1913

Kingsley, Mary Winship-History
A.B., A.M. (Tufts Coll.) 1903, 1904

Kirkpatrick, Harold H -Education

$$
\text { А.B., } 1897
$$

Kirkpatrick, Sidney Dale-Chemistry B.S., 1916

Knight, Abner Richard-Electrical Engineering M.E. (Ohio State Univ.) 1909

Knight, Henry Granger-Chemistry
A.B. (Unuv. of Chicago) 1903
A.M. (Univ. of Washington) 1905

Knight, Paul Kenneth-Economics

$$
\text { A.B., } 1916
$$

Knudsen, Charles William-Chemistry B.S., 1913

Koons, Guy J-Education

$$
\text { A.B. } 1912
$$

Krafka, Joseph, Jr.-Zoology

$$
\text { A.B., A.M. (Lake Forest Coll.) } 1915
$$

Kremers, Harry Cleveland-Inorganic Chemistry
A.B. (Hope Coll.) 1913
M.S., 1915

Krieger, Augusta May-Education
A.B., 1910

Kumano, Kichijiro-Education
Graduate of Hiroshima Higher Normal Coll. 1908
Landis, Paul Nissley-English
A.B., A.M.(Franklin © Marshall Coll.) 1913, 1915

Langwill, Bertha-Zoology
B.S.' (Rockford Coll.) 1916

Larson, Louis J-Research Fellow in Theoretical and Applied
Mechanics B.S., C.E. (Univ. of Minnesota) 1914, 1915
Lathrop, Charlton Page-Scholar in Pomology
B.S., 1916

Lauer, Willard Wood-Theoretical and Applied Mechanics
B.S. (Carnegie Inst. of Technology) 1916

Lauterbach, Edward George-Botany

$$
\text { B.S., } 1915
$$

Layton, Warren Kenneth-Education
A.B. (Northwestern Univ.) 1911

Leach, Mac E-Scholar in English

$$
\text { A.B. } 1916
$$

Leighty, Wilbur Roy-Chemistry
B.S. (Illinois Wesleyan Univ.) 1910

Lewis, Thomas Kirk-Chemistry

$$
\text { B.S. (Center Coll.) } 1915
$$

Linkins, Ralph Harlan-Zoology
A.B. (Illinois Coll.) 1911
A.M., 1914

Littleton, Ananias Charles-Economics A.B., 1912

Liu, Yi-Engineering
(Associale of Tangshan Engineering Coll.) 1916
Lopez, Manuel Leon-Spanish
A.B. (Ohio Wesleyan Univ.) 1916

Lucas, Peter Horatio-Physics
A.B. (Cornell Univ.) 1916

Ludvik, Benjamin Edward-History
A.B., 1916

Lundahl, Raymond Rudolph ${ }^{\text {- C Civil Engineering }}$ B.S., 1911

Luney, Francis Solon'-Mechanical Engineering B.S., 1907

* $\dagger$ Fukushima, Japan
* $\dagger$ Los Angeles, California

SS $* \dagger$ Centerville, Indiana

* $\dagger$ Wheaton
* $\dagger$ Springfield
* $\dagger$ Valley City, North Dakota
* $\dagger$ Dorchester, Massachuselts
* $\dagger$ Topeka, Kansas
* † Urbana

SS West Chicago

* $\dagger$ Urbana

SS * $\dagger$ Champaign

SS Laramie, Wyoming

* † Urbana

SS
SS
New Berlin
Murthysboro

* $\dagger$ Ottumwa, Iowa

SS * $\dagger$ Urbana
Peoria

* $\dagger$ Tokyo, Japan
* $\dagger$ Womelsdorf, Pennsylvania


## Rockford

* $\dagger$ Windom, Minnesota

SS * $\dagger$ Chicago

* $\dagger$ Pallsburgh, Pennslyvania

SS † Bushnell

* $\dagger$ Potomac
* $\dagger$ Urbana
$\dagger$ Urbana
SS Skylight, Kentucky
* $\dagger$ Jacksonville

SS * $\dagger$ Urbana
$\dagger$ Tientsin, China

* $\dagger$ Delaware, Ohio
* $\dagger$ Hammonton, New Jersey
* † Chicago

Milwaukee, Wisconsin
Dekalb

[^111]McClugage, Harry Bruce-Chemistry A.B., 1915

SS A.B. (Drury Coll.) 1916

McCoy, Alva Elisha-Scholar in Agronomy B.S., 1916

McHarry, Jessie-History
A.B., A.M., 1911, 1912

MacInnes, Frances Jean-Botany B.S., 1916

McKinley, John Douglas-Greek
A.B., A.M. (Harvard Univ.) 1915, 1916

McKown, Harry Charles-Education B.S. (Kncx Ccll.) 1913

McLaughlin, Maud Katharine-Latin A.B. (Knox Coll.) 1909

McMillan, George Burr-Transportation A.B., 1915

McNally, Mary Cecilia-History A.B., 1915

Magaret, Melitta Anna-Education
A.B.' (Univ. cf Chicagc) 1911

Magath, Thomas Byra-Fellow in Zoology
Ph.B. (Emory Ccll.) 1913
M.S. (Millikin Univ.) 1914

Mahannah, A Ernest-Fellow in Political Science A.B. (Fairmcunt Coll.) 1914
A.M. 1916

Manuel, Herschel Thurman-Educational Psychology A.B. (DePaw Univ.) 1909
A.M. (Univ. of Chicago) 1914

Marker, Albert Washington-Physics
Ph.B. (Northwestern Coll.) 1907
Marston, Leslie Ray-Scholar in Education A.B. (Greenville Ccll.) 1916

Marten, Jane Frances-French
A.B. (Oxford Coll. for Women) 1916

Marvel, Carl Shipp-Organic Chemistry
A.B. (Illincis Wesleyan Univ.) 1915
A.M., 1916

Mattoon, Edwin Whitaker-Education A.B., 1915

May, Ethel Jane-History
A.B., A.M. (Univ. of North Dakota) 1911, 1912

May, Henry Gustav-Zoology
B.S. (Univ. of Rcchester) 1913

- Meredith, Ina Valeria-Mathematics A.B., 1914

Merrymon, William Walter-Physics
A.B. (Univ. of Missouri) 1912

Mickle, Friend Lee-Sanitary Chemistry A.B. (Allegheny Coll.) 1911

Mikami, Goro-Economics B.S. (Waseda Univ.) 1912

Miles, Lee Ellis-Plant Physiology A.B. (Wabash Coll.) 1914

Millar, William James-Education A.B. (Hanover, Coll.) 1911

Miller, J Earll-History
A.B., LL.B. (Univ. of Kansas) 1910, 1912 A.M., 1913

Milligan, Adah E-English
A.B. (Monmouth Coll.) 1914

Mizuno, Tsunekichi-Education A.B. (Hiroshima Normal Coll.) 1908

Moore, Josiah John ${ }^{1}$-Pathology
B.S. (Univ. of Montana) 1907
M.D. (Rush Medical Coll.) 1912

Moore, Leonard L.-Education A.B (Drake Unir.) 1914

Morison, Alfred Thorpe-Agronomy
B.S. (Pennsylvania State Coll.) 1915

Morrison, Rodger Leroy:-Civil Engineering B.S., 1912

Murphy, Maurice Elgin-Economics
A.B. (Central Normal Coll.) 1910
A.B. (Indiana Univ.) 1913
A.M., 1916

Murray, Ethel Ruth-Scholar in Latin A.B. (Morningside Ccll.) 1909

Murray, Norris Fey-Chemistry B.S., 1912

Peoria

* † Lawlan, Oklahoma
* $\dagger$ Allamonl
$\dagger$ Rantoul
* $\dagger$ Urbana
* $\dagger$ Lowell, Massachusetts
* $\dagger$ Gibson
* Galesburg
* $\dagger$ Champaign

Pueblo, Colorado
Belleville

* $\dagger$ Oxford, Georgia
* † Sedgwick, Kansas
* † Greencastlc, Indiana

Danville

* $\dagger$ Lakeview, Michigan
* Tolono
* $\dagger$ Normal

Champaign

* $\dagger$ Downing, Wisconsin
* $\dagger$ Dallas, Oregon
* Perry
* $\dagger$ Carbondale
* $\dagger$ Garland, Pennsylvania
* Okamada, Kopu, Japan
* † Crawfordsville, Indiana

Madison, Indiana

* † Champaign

Monmouth
Koizumi, Japan

* $\dagger$ Chicago

Zearing, Iowa

* Urbana

College Station, Texas

* $\dagger$ Eldorada
* $\dagger$ Schaller, Iowa

Mazon

[^112]Myers, Arthur Leslie ${ }^{3}$-Mechanical Engineering B.S., 1913

Myers, Frederick Irwin-English

$$
\text { A.B., A.M. (Indiana Univ.) 1914, } 1915
$$

Nebel, Merle Louis-Fellow in Economics Geology B.S., M.S., 1913, 1915

Willstille, Missouri

Neill, Alma Jessie-Physiology
A.B., A.M., 1913, 1915

Nelson, Benjamin-Mechanical Engineering B.S., 1911

Nelson, Milton Nels-Economics A.B., 1915

Nelson, Roy Andrew-Physics B.S. (K nox Ccll.) 1916

Nevens, William Barbour-Dairy Husbandry B.S. Agr. (Univ. of Wisconsin) 1914

Newlin, Charles Ivan-Animal Husbandry B.S., M.S., 1912, 1914

Newlove, George Hillis-Economics
Ph.B. (Hamlin Univ.) 1914
A.M. (Univ. of Minnesola) 1915

Nickoley, Emma May Rhodes-English
A.B., A.M., 1899, 1915

Nilsen, Peter Jacob-Electrical Engineering B.S., 1915

Nolan, Willis James-Scholar in Entomology
A.B. (Western Reserve Univ.) 1914

Okey, Ruth Eliza-Chemistry
B.S. (Monmoutl Coll.) 1914 M.S., 1915

Oldham, William Brown-Farm Crops B.S. (Utah Agr. Coli.) 1910

Olewine, James Harris-Organic Chemistry B.S. (Pennsylvania State Coll.) 1915

Ordonez, Benito Rene-Research Fellow in Railway Electrical Engineering B.S., 1914
Owens, Albert Waffle-Inorganic Chemistry B.S. (Bucknell Univ.) 1909

Palm, Franklin Charles-History
A.B. (Oberlin2 Coll.) 1914
A.M., 1915

Parish, William Love-Scholar in Architectural Engineering B.S., 1916

Parr, Rosalie Mary-Botany A.B., A.M., 1906, 1911

Partridge, Newton Lyman-Fellow in Horticulture B.S., M.S., 1913, 1914

Pauli, Adolph Frederick-Scholar in Latin A.B., 1916

Pearson, Frank Ashmore-Economics B.S. (Cornell Univ.) 1912

Pepinsky, Bernard-Scholar in Engineering Mechanics C.E.' (Univ. of Cincinnati) 1916

Perry, Margaret Campbell-Chemistry A.B., 1915

Pfeil, Mary Esther-English A.B., 1908

* $\dagger$ Geneva, Indiona
* $\dagger$ Champaign
* $\dagger$ Chillicothe

Chicago

* $\dagger$ Chicago
* $\dagger$ Galesburg

SS * $\dagger$ Urbana

* † Urbana
* $\dagger$ Milton, North Dakota
†. Beirut, Syria
* $\dagger$ Urbana
* $\dagger$ Madison, Ohio
* $\dagger$ Kirkwood
* $\dagger$ Rexburg, Idaho
* $\dagger$ Bellefonte, Pennsylvania
* $\dagger$ Saltillc, Mexico
* $\dagger$ Lenvisburg, Pennsylvania
* $\dagger$ Wilmar, Minnesola
* $\dagger$ Greenfield

Urbana

* $\dagger$ Chompaign
* $\dagger$ Peoria

SS * $\dagger$ Urbana

* $\dagger$ Cincinnati, Ohio

SS * $\dagger$ Urbana
SS * $\dagger$ Arenzrille

* DeǨalb

Sullivan

* † Louisville, Kentucky

SS * $\dagger$ Granite City
SS * † Oak Park

* $\dagger$ Central City, Iowa

Chicago
SS
Clinton

* $\dagger$ Ottawc, Kansas
* $\dagger$ Urbana
* $\dagger$ Seatlle, Washington

SS * $\dagger$ Waxahachie, Texas

Prichard, Waltcr-ITistory
A.B., A.M. (Indiana Cuiz) 191.t, 1915

Pulnam, William James-Theoretical and Applied Mechanics B.S., 1910

Quick, Ray Stuart-Research Electrical Engineering B.S. (Uuiv. of Califoru: 1916

Quinby, John Calvin - Animal Husbandry B.S. (Ohio State Univ.) 1912

Randolph, James Robbins-Mechanical Engineering M.E. (Yirginia Pcly. Inst.) 1913

Rayner, William Horace-Education B.S., 1909

Redenbaugh, Iferman Edward-Chemistry A.B. ( Tabor Coll.) 1912

Reece, Ernest Jannu-Political Science Pin.B. (EVesteran Reserre Uizit.) 1913
Reed, James Kee!-Oıganic C"nemistry A.B. (1V.sbas) Coll.) 1915

Reeder, Claude Hazlett-Eleetrical Engincering B.S., 1910

Reeder, Joan Corwin-Education
Worlis for A.B. completed, 1917
Rees, Alice Edna-Latin
A.B. (Eurhoni Coll.) 1913

Rees, Edwin Arthur-Chemistry A.B., A.M. (Ënir. of Denzer) 1913, 1914

Reinecke, Theodore Gerald Wellesley-Cinemistiy B.S. (Unive of Cape of Gool Hope) 1907

Renich, Mary Emma-Boteny A.B., A.M., 1911, 1912

Ryerson, Lloyd Hilton-Physical Chemistry A.B. (Curlelca Cc!!.) 1915

Rhode, Chris Simeon-Genctic: B.S. (Purdue Unia.) 1915

Rhoton, Alvis Lemucl-Seholar in Edecation: A.B. (Georzetozer Coll.) 1899 A.M. (Washing:on Univ.) 1901

Rice, Johr Benjamin-Animal Husbandry B.S. (Unir. of Nebrastav) 1915

- Richardsoa, Charence Fuduson-Mathematics B.S. (Uni: of Kenhucky) 1913

Richart, Franik Erwin-Theoretical and Applied Mecbanics B.S., M.S., 1914, 1915

Rindfusz, Raiph Enerson-Cinemistry A.B., A.M. (Obarlin Ccll.) 1911, 1916

Ripley, Leris Bradiord-Fellow in Entomology B.S. (Trintity Coll.) 1915 M.S. 1916

Roberts, Edward Alexander-Research Fellow in Railway Enginepring, 13.S. (Ilavard Unzi.) 1914
Roberts, Elmer-Genctics B.S., 1913

Roberts, Gwladys Ellen-Scholar in Latin A.B. (If anjer Coll.) 1916

Roberts, Nellie Read-Enclisix A.B., B.L.S., 1913, 1915

Robertson, Eva Love A.B., 1913

Robinson, Rodney Potter-Yatin
A.B., A.M. (Ünit. of Missouri) 1910, 1911

Rogers, Anna Sophie - Sychology A.B., A.M., 1911, 1914

Ross, Charles Marion-Scholar in Physiology B.S. (Etrcka Coll.) 1916

Ross, Clarence Samuel-Economic Geology A.B., A.A., 1913, 1915

Roes, Kenneth Divignt-Scholar in Economics A.B., 1916

Rowland, Tloyd Eiba-Industrial Chemistry B.S. (Oregon Afgr. Coll.) 1907 A.B., A.M., 1914, 1915

Rudolfs, Willem-Botany
(Government Unic., Trageningens, IIolland)
Rugg, Earle Underncod-Political Science A.B., 191.5

Rulison, Harold Kirk-Economics B.S. (Cornell Chie.) 1915

Russel, Robert Royal-Fellor in Histozy A.B. (31cPinersen Coll.) 1914 A.M. (Unis? of Kentas) 1915

Ruth, Warren Albert-Botany A.B., A. Af., (1'abash Coll.) 1906, 1909

* if Ediaburg, Indiand
* $\uparrow$ Urbana
* † Berkelcy, Colijoraia
* † Bridgepart, Okio
* Blacksöurs, Virsinia
* † Urbana
* † Tabor, Iowa
* $\dagger$ Urbana
* † Indianapu!is, iniians

Chicago
$\dagger$ Urbanue
SS * Vermilioia Grove

* † Garficill, Clurn
* † Cape Prorizec, Suuhin Ifricu
* $\dagger$ Clinton

SS * † Dazssh, Mizzesola

* † Brooksicn, Indinna

SS * † Somersel, Kentwiny
SS * $\dagger$ Urbana
SS * $\dagger$ Buffula, Kenhucky
: Uibena
SS * $\dagger$ Larvill, Indiana

* $\uparrow$ Ghastonbury, Connecticul
*     + Cabizjilge, Massachusents

SS * $\dagger$ Urbana

* † Bedford, Indiana
* $\dagger$ Chompaign
*     + Champaign
* $\dagger$ Urbana
\% + Bushacll
* † Fairbury
* $\dagger$ Champrign
* † Champaign

SS * $\dagger$ Corrallis, Oregon $\dot{\dagger}$ Urbana
SS * † Fitikbarg, Arassachuseds

* † Auselica, Ner York
* † Gaisa, Kiansas

SS * $\dagger$ Crbana

Santee. Albert Merritt-Education A.B. 1916

Sargent. Rachel Louisa-Scholur in Latin
A.B. (Bates Coll.) 1914

Saunders, Jeannettc-History
Ph.B. (Wooster Coil.) 1915
A.M. (Unis'. of Minnesola) 1916

Sayer, Watson Russell-Chemistry
B.S. (Uniz. of West Virginia) 1914

Sayre, Rollo Clifton-History
B.S. (McKendrec Coll.) 1909

Schaarman. Emil Ferdinand-Education
A.B., A.M., 1914, 1915

Schalck, Michacl Andrew-Agronomy B.S., 1916

Schecter, Raloh-English
A.B., 1916

Schlinck, Frederiek John-Mechanical Engineering B.S.. 1912

Schoepperle, Helen Katherine-Fellow in IIstory A.B.. A.M1., 1915, 1916

Schoonover, Warsen Rippey-Agronomy
B.S. (Occidental Coll.) 1912 M.S., 1916

Schrader, Frederick Ambrose-Education A.B. (Illinois Coll.) 1908

Schulz, Ernest Rudolf-Scholar in Agronomy B.S. 1916

Weofeld, Harriet-Mathematics B.S. (Carthage Coll.) 1915

Scott. James Robinson ${ }^{\text {- }}$-Thoretical and Applied Mechanics B.S., 1907

Scott. Roy Sunderlund-Eennomics Work for A.B. completed, 1917
Seifert, Herbert Frank-Seholar in Entomology A.B., 1916

Sekine, Sentaro-Rnilway Engincering B.S., A.B., 1913. 1914

Sexsmith, Edno. K ${ }^{2}$-Pathology A.B., (Univ. of Iozca) 1913

Seyster. Ernest Willford-Experimental Zoology A B., 1915
Shaw, Hazel Yearsley-Political Science A.B., A.M., 1907, 1908

Shawl, Ray Iris-Animal Husbandry B.S., 1916

Sherrill. Paul McLoud-History A.B. (Trinity Coll.) 1914

Sherwood, Franklin Frederick-Fellow in Inorganic Chemistry A.B.. A.M. (Unir: of South Dakota) 1914, 1915

Shewhart. Walter Andrew-Pliysics A.B., A.M., 1913, 1914

Shonle, Horace Abbott-Fellow in Animal Nutrition B.S., 1916

Shulters., John Raymond-French A.B., A.M., 1910. 1911

Sicver, Carl Henry-Chemistry A.B. (Unir. of Kansas) 1913

Simpson, Gearge Eric-Chemistry B.S.. 1913

Simpson. Seioastian Solon-History Work for A.B. completed, 1917
Skinner, Glenn Seymour-Organic Chemistry A.B. (Kansas State Manial Training Normal) 1913 A.M., 1915

Slater. Maynard Elmer-Animal Husbandry B.S., 1915

S'oan, Willian Finlay-Education B.S.: 1916

Sluss. Alfred Higgins ${ }^{2}$ - Mechanical Engineering B.S. 1901

Smith, Arthur Matthias-Agronomy B. S. (Pennsyirenia State Coll.) 1916

Smith. Carl Ambrosc-Education A. B. (Hinbash Coll.) 111.3

Smith, Cecil Weldon'-Mining Engineering B.S., 1913

Smith. Clara Mabel-Education Work for A.B. completed, 1917
Smith, Guy Watson-Mathematics
B.S., M.S. (Univ.of Colcrade) 1908, 1909

* $\dagger$ Champaign
* $\dagger$ Exeter, New IIampshire
* † Sireatcr
* $\dagger$ Evans, Wrest Virginia
* $\dagger$ Champaigr

Buller, Kentucky
Danville
Wrashinglon, D. C.

* $\dagger$ Hamburg, New Jork
* Lrbcna

14urphysborc

* $\dagger$ Champuign

Corthage
Denver, Colorado

* Lrbana
* $\dagger$ Thiensiille, Wisconsin
* † Saitama, Japsn

Greenfield

* $\dagger$ Champoign
*     + Urbana
* $\dagger$ Peoria
* $\dagger$ Charlolle, North Caroliza
* $\dagger$ Madison, South Dakcia
* $\dagger$ Urbana
* $\dagger$ Tuscola
* $\dagger$ Bristol, New I crk
* $\dagger$ Urbana

Chicago

* $\dagger$ Lrbana

SS * † Cherokee, Kansas
SS * Belvidere
SS Urbanc
Loverence, Kiansas

* $\dagger$ Beraick, Pennsylvania

New Ross, Indiana
Nokomis

* † St. Clair, Michigan
* I Castle Reck, Colcralo

[^113]Smith, Herbert E-Educatic:
A.B., 1916

SS
Smith, Irene Fern-Chemistry B.S., 1916

Smith, Isabel Seymour-Botany A.3. (Oberlin) 1901
M.S. (Univ. of Chicago) 1905

Smith, Linton Millard-Scholar in Chemistry B.S. (Shurtleff Coll.) 1916

Smith, Marsha!l Eugenc-Education
B.Ph., A.B. (Greenville Coll.) 1911, 1916

Smith, Merlin Grant-Fellow in Mathematies B.S. (Grecnuille Coll.) 1915 A.M., 1916

Smith, Otto Mitchell-Chemistry B.S. (Drury Coll.) 1907

Snapp, Roscoc Raymond-Animal Husbandry A.B., B.S., 1913

Snider, Earl Quinter-Education A.B., 1906

Snodgrass, John McBeath-Mechanical Engineering B.S., 1902

Soto, Rafael Arcangel-Spanish S.S., A.B., 1912, 1915

Spooner, Charics Stockman-Entomology A.B. (Cornell Univ.) 1907

Squire, Edward G-Dairy Husbandry B.S. (Iowa State Coll.) 1916

Stanford, Howard Rissel-Horticulture B.S., 1908

Stanton, William Macy-Fistory of Architecture B.S., M.S. (Uniz. of Pennsylvania) 1913, 1914

Stear. Jacob Ray-Entomology B.S. (Ohic State Uniq.) 1916

Stearn, Allen Edwin-Fellow in Chemistry A.B., A.M. (Stanford Uuv.) 1915, 1916

Stephens, Ethel Gertrude-History Work for A.B. completed, 1917
Stephenson, Bird Richard-Scholar in Physies A.B. (Albion Coll.) 1916

Stephenson, Rascoe Elmo-Agronomy B.S. (Purdue Unio.) 1915

Stevenson, John Alford-Education A.B. (Exeing Cnll.) 1908
A.M. (Unir. of Wisconsin) 1911

Stcwart, Melville isoicourt-Mining Engincering Work for B.S. completed, 1917
Stone, Herbert King-Firench A.B. (Uniz. of Michigan) 1905

Stopn, Gcrald Darfield—English A.B., 1915

Stowell, Charles Jacob-Fellow in Economics B.S. (Illinois Wesleyan) 1911 A.M., 1912

Strauch, Frederick Paul-Research Fellow in Chemistry B.S. (Armonr Institute) 1916

Strauch, Henty Harry"-Chemistry B.S. (Univ. of Chicogo) 1916

Strombeck, George Mauritz 1 -Mechanical Engineering B.S., 1907

Stromquist. Walter Gottfred—Municipal and Sanitary Engineering B.S., 1910

Sutclifie, Dorothy-English A.B., 1916

Sutcliffe, Emerson Grant-English A.B. (Harvard Unve.) 1911 A.M., 1914

Swift. Lola Ernesta-Zoology A.B. (1/1. Morris Ccll.) 1911

Sydennstricker, Harry Sidney-Entomology B.S. (West Virginia Univ.) 1914

Talbot, Kenneth Hammet - Civil Engineering B.S., 1909

Talbot, Mildred Virginia-Education A.B., 1912

Tanabe, Stetfan Fugta-Research Fcllow in Physics B.S. (Knox Coll.) 1911 M.S., 1914

Taylor, Scott Champlin-Chemistry B.S., M.S., 1913. 1915

Teare, John Lawrence-Scholar in Political Science A.B. (Monmouth Coll.) 1916

SS

Ontario, Canada

* $\dagger$ Red Bud

Oberlin, Ohio

* † Danville
* Greenville
* $\dagger$ Youngstozn, Ohic
* $\dagger$ Urbana
* $\dagger$ Urbara

SS Urbana
Urbana

* $\dagger$ Sabaua Grande, Porto Rico
* Middletown, New York
$\dagger$ Grinnell, Ioza
* † Urbana
* $\dagger$ Phaladelphia, Pennsylvania
* Irondale, Ohio
* $\dagger$ St. Lonis, Missouri
$\dagger$ Murphysboro
* $\dagger$ Lake Odessa, Michigan
* $\dagger$ Bedford, Indiana
* † Lrbana
* Metropalis
* $\dagger$ Urbana
* † Urbana
* $\dagger$ Urbena
* $\dagger$ Chicage

SS * $\dagger$ Thomson
Moline
Chicago

* $\dagger$ Urbana
* $\dagger$ Urbana
* $\dagger$ DeKalb
* $\dagger$ Morgantown, West Virgimia

Pittsburgh, Pemsylvania
Urbana
${ }^{1}$ Candidate for professional degree in engineering.

[^114]Tebbe, Gcrald Stamper-Scholar in Educational Psychology
A.B., A.M. (Univ. of Oklahoma) 1915, 1916

Tehon, Leo Roy-Botany
A.B. (Univ. of Wyoming) 1916

Tcmplin, Richard Laurence-Research Fellow in Theoretical and Applied Mechanics B.S. (Univ. of Kouses) 1915
Thompson, Francis-Educa:ion

$$
\text { A.B., } 1915
$$

Thurber, Carryl Nelson-English Literature
A.B. (Cornell Univ.) 190 S

Tieje, Ralph Earle-Fellow in English
A.B., A.M., 1910, 1912

Tohill, Louis Arthur-American History
A.B., A.M., 1912, 1914

Torrence, Helen Nettie-Latin
A.B. (Monmouth Coll.) 1911

Towns, Orla Alamon-History

$$
\text { A.B., } 1912
$$

Townsley, Fred Delzell-Education

$$
\text { A.B. (Wabosh Coll.) } 1911
$$

Turner, Frank Clayton-Education B.S., 1914

Uhlendorf, Bernhard Alexander-German Literature
A.B., A.M. (Washingtcn Univ.) 1916

Ulich, Lynne H-Chemistry B.S. (Grimuell Coll.) 1914

Ulrici, Helena Maric-Scholar in German A.B. (Rockford Coll.) 1915

Updegraff, Helen-Chemistry
A.B. (Cornell Univ.) 1915

Urban, Harvey Benjamin-Education

$$
\text { A.B., } 1908
$$

Vail, Harold Parsons-Research Scholar in Mechanical Engineering, B.S. (Pennsylvania State Coll.) 1916
Van Alstine, Ernest-Agronomy B.S. (Michigan Agr. Coll.) 1907

Van Winkie, William Alexander-Industrial Chemistry B.S. (Univ. of Michigan) 1911

Vanzee, George Wallace-Zoology
B.S. (Ccntral Coll., Pella, lovea) 1915

Voigt, Edwin Frederick-Ba.cteriology B.S. (Purdue Univ.) 1915

Vollweiler, Ernest Henry-Organic Chemistry A.B. (Miami Univ.) 1914
A.M., 1916

Voorhees, Laurence Elmer-Physics A.B., 1916

Wade, Vernon Matthew-Chemistry B.S. (Shutrtleff Coll.) 1916

Wait. Bernice Cornelia-Household Science B.S. (McKendree Coll.) 1914

Waldo, Edward Hardenburgh L-Electrical Engineering A.B. (A mherst Coll.) 1898

Walker, Georgc William-Agronomy B.S. 1916

Walker, Quinton Forrest-Economics A.B., M.A. (Univ. of Michigan) 1911, 1915

Walworth, Edward Harvey-Agronomy B.S., 1913

Wang, Chi Nyok-Botany A.B. (Mount Holyoke Coll.) 1916

Wang, Te Chang-Animal Husbandry B.S., 1916

Warner, Earle Horace-Physics A.B. (Univ. of Denver) 1912 A.M., 1914

Warren, George Edward ${ }^{1}$-Civil Engincering B.S., 1912

Watson Jane Coulson-Spanish A.B., 1915

Weese, Asa Orrin-Zoology B.S. (Univ. of Minnesota) 1909

Weese, Josephine Mousley-History A.B. (Univ. of Minnesota) 1909

Weeter, Harry Montgomery-Dairy Bacteriology A.B. (Allegheny Coll.) 1911

Welland, Henry Joseph-Physical Chemistry B.S. (Uriy. of Rochester) 1913 M.S., 1915

Weirick, Robert Bruce-English A.B. (Colorado Coll.) 1911 A.M. (Harvard Usiov.) 1913

* $\dagger$ Richmond Hill, Nev IVcrls
* † Chompaisn
* $\dagger$ Flat Rock

Hanoser
Macomb
Idaville, Iudiana
Du@uoin

* $\dagger$ St. Lonis, Missanti
* † Villisca, Icwa
* $\dagger$ Rockford
* † Vallejo, California

Urbana

* $\dagger$ Erie, Pennsylvania
* † Urbana
*     + Bay Cily, Michigan
* † Pclla, Iowa
* Camden, Nére Jersey
* † Shondon, Ohio
* $\dagger$ Upper Alion
* $\uparrow$ Alton
* $\dagger$ Grecnville

Urbana

* † Mackinare
* † Jackson, Michigan
* $\dagger$ Urbana
* $\dagger$ Soochow, Clina

SS

* $\dagger$ U゙rbana

Chicago

* $\dagger$ Champaign

Huichinson, Minnesola
Litclifield, Mimuesota
SS * $\dagger$ Fredell, Pennsyluania
SS * $\dagger$ Pillsford, New York

* $\dagger$ Urbana

Wciss, Camillo-Fellow in Civil Engineering
C.E. (Kaiserlich-Koenigliche Technische Hochschule, V'ienna, Ausiria) 1910
We:!man, Orpha May-Englisi A.B., A. A1., 1911, 1913

Weits, Lansing Sadier-Inorganic Chemistry A.B. (Unii', of Mcntana) 1915

Wes:hafer, Terrence Onas-Industrial Chemistry A.B. (Univ. of Oklahcma) 1914 M.S., 1916

Whisenand, James Wibur-Animal Husbandry B.S. (Uniz. of Nebraska) 1914 M.S., 1916

Whise, Marian Elizabetlı-English A.B. (Mount Irolyoke Coll.) 1902

Weitford, Robert Calvin-English
A.B. (Coll. of the City of New York) 1912
A.M. (Columbic Univ.) 1913

Whitson, Anna Verlinda-English
A.B. (Oxford Coll. for Women) 1915

Wichers, Edward-Fellow in Inorganic Chemistry A.B. (IIcpe Coll.) 1913 M.S., 1915

Wichmann, Gerold Carl-Psychology A.B. (Univ. of Chicago) 1914

Wis3e, Herman H-German Literature A.B. (Univ. of Ncbraska) 1913 A. A1. (Uni?. of Wisconsin) 1916

Wiedrick, Jacob Christian-Education A.B. (Empcria Coll.) 1913

Wiliox, Roy Harold-Animal Husbandry B.S. (Mianesoht Agr. Coll.) 1915

Wiliard, Charles Julius-Agronomy B.S., 1910

Filliams, Lewis Ward-Education B.Ph. (Hiram Coll.) 1909

Williams, Roy Arlyn-Education A.B. (DePauш Univ.) 1912.

Williams, Walter Leonard-Animal Husbandry B.S. (Ohio State Univ.) 1914

Wilson, Frank Boyden-English B.S. (Fisk Univ.) 1914

Wisson, William Farold, Fellow in Mathematics A.B. (Albion Coll.) 1913 A.M., 1914

Wisikelmann, Herbert August-Organic Analysis B.S. (Noyth-Western Coll.) 1914 M.S., 1915

Witmer, Samuel Wenger-Botany A.B. (Goshen Coll.) 1914 A.M. (Unic. of Wisconsin) 1915

Welcott, George Norion-Fellow in Entomology M.S. (Cornell Univ.) 1914

Woilenhaupt. Walter Franz-Education B.Ph. (Ohic IVesleyan) 1903

Wright, Agnes-History A.B., 1916

Wright, Charles Henry-Education B.S. (Wesleyan Univ.) 1907

Yapp. William Wodin-Genetics B.S., M.S., 1911, 1914

Yntema, Leonard Francis-Inorganic Chemistry A.B. (Hope Coll.) 1915

- Young, Dale S-Scholar in Mathematics B.S. (Hedding Coll.) 1916

Young, Esther-Plant Pathology A.B. (Miami Unir.) 1914 A.M., 1915

Yuasa, Hachiro-Scholar in Entomology B.S. (Kansas State Agr. Coll.) 1915

Tuncker, Mrs. Ethel Cloflin-Household Science B.S. (Michigan Agr. Coll.) 1915

Yuncker, Truman George-Botany B.S. (Michigan Agr. Coll.) 1914 A.M. (Univ. of Nebraska) 1915

Zissenheim, Joseph Rossiter-Animal Husbandry B.S. (Pennsylvania State Coll.) 1915

Zitmmermann, Robert Paul-German A.B., 1913

* † Vienna, Austria

Champaign

* $\uparrow$ Helena, Monlana
* $\dagger$ Urbana
* $\dagger$ Urbana
* † Newton, Massachusetts
* $\dagger$ Urbana
* $\dagger$ Marion, Indiana
* † Zeeland, Michigan
* † Laramie, Wyoming
* † Bealrice, Nebraska

SS
Princeton

* $\dagger$ Minneapolis, Minnesola
* † Urbana
* $\dagger$ Marshall

SS Bismarck

* $\dagger$ Wilmington, Ohio

St. Louis, Missouri

SS

* † Champaign
* $\dagger$ Appleton, Minnescta

SS
Sondersburg, Pennsylvania

* $\dagger$ Ulica, New York

Villa Grove
$\dagger$ Charles City, Iowa
McLean

* † Uróana
* $\dagger$ Holland, Michigan
* $\dagger$ Abingdon

SS * † Indianapclis, Indiana

* $\dagger$ Tokyo, Japan
* † Champaign
* $\dagger$ Lansing, Michigan

Avonia, Penzsylvania

* † Champaign


# UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA, 1916-17 

## (Including the Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, Agriculture, and Law, the One-year Medical College, the Library School, and the School of Music)



[^115]| Alcsen, Lew is Albert | L.1S (SS) | $60 \frac{1}{2}$ | * † Chicago Ilcights |
| :---: | :---: | :---: | :---: |
| Alesbire, Miargaret | ISLAS | 17. | * Chicago |
| Alexander, Louis Jessup | Arch | 35 | * † Los Angeles, California |
| Alison, Newton Vincent | Com |  | * † Champaign |
| Allaben, John Everett | - lgr ( $S S$ ) | 27 | * Rockjord |
| Allen, Artemus Floyd | MinE |  | * $\dagger$ Horning Sun, Iowed |
| Allen, Cecil Violet | ISLS 15 | 32 | * $\dagger$ Broadlands |
| Allen, Edmund Turney | Agr |  | * † Morgan Purk |
| Allen, Prank Oscar | Agr (SS) | 15.12 | * $\dagger$ Clinton |
| Allen, Franklin Hendry | CE |  | * ¢ Oak Purk |
| Allen, Harriet Ethel | SS | $5 \frac{1}{2}$ | Weverly |
| Allen, Harriet Hortor1 | HSS.1gr | $6 .+$ | * $\dagger$ Deluala |
| Allen, Harry Kenneth | Ccm |  | * + Broadlands |
| Allen, Hester Ada | S. 5 | 102 | Deliavan |
| Allen, Lawrence Holt | Com |  | * $\dagger$ Indianapolis, Indiana |
| Allen, Lucy Elizabeth | 11.5.1gr | 107 | * $\dagger$ Delavar |
| Allen, Lura Edna | SS | $5 \frac{1}{2}$ | Waverly |
| Allen, Raymond Earl | ME: |  | * + Chicago |
| Allen, Theodore Raynond | Agr |  | * + Delavan |
| Allen, William Robert | AE |  | * Peoria |
| Allhands, Cashius Lyle | Arr | 1123 | * Watseka |
| Allison, Everett Harnien | L.AS |  | * $\dagger$ East St. Louis |
| Allison, John Clifton | Agrsp |  | * Charleston |
| Allison, Leslie Reed | L. 15 |  | * + East St, Lcuis |
| Allman, Delmar Isaac | . 1 gr |  | \% † Urbara |
| Allman, John Claude | CE | 36 | * + Crown Point, Indianu |
| Allyn, Hester Anne | IISL.4. | 95 | * Y Urbana |
| Allyn, Norman Barnes | Com (SS) | 2.4 | * ¢ Springfield |
| Almond, Harry Havens | Comt |  | * † Anderson, Indiana |
| Alsop, Thomas Vincent | SS | $8 \frac{1}{1}$ | Sorento |
| Alt, Frank Henry, Jr. | Ifr |  | * Chicago |
| Althaus, Florence Gertrude | L.4.S | 231 | * + Belvidere |
| Alverson, Ruth Amelia | LAS | 64 | * + Urbana |
| Alwood, Ciyde Gobel | ligr | 98 | * + Clinton |
| Alwood, Fred Ward | L.L.S |  | * Clinton |
| Amana, Alfred | LA.S | 32 | * + Ionolulu, IIavaii |
| Ambruster, John Rea | Agr | 99 | * + Chicago |
| Ames, Albert Carder | LAS | 9.7 | * $\dagger$ Riverside |
| Ames, Carlton Chester | EE |  | * + Grayslake |
| Ames, Waldo Boynton | Com | 92 | * $\dagger$ Oak Pare |
| Amsterdam, Harry, A.M., 1916 <br> A.B. (Lake Forest Coll) 1915 | Lib |  | * $\dagger$ Urbana |
| Anastassiades, Ernest | CE | \%o | * $\uparrow$ Athens, Greece |
| Anderson, Barney Ernest | SS |  | Rockjor |
| Anderson, Carl Leonard | Com | 71 | * † Hudson, Hisconsin |
| Anderson, Charles Wesley | LAS | $102 \frac{1}{2}$ | * $\dagger$ Dixon |
| Anderson, Clarence | EE | 72 | * Taylorville |
| Anderson, Dwight | AE |  | * + Taylorville |
| Andersen, Earl William | L.l.S | 60 | * + Charleslon |
| Anderson, Elda Victoria | IIS. 1 gr | a 0 | * DeKall |
| Anderson, Mrs. Elsic Osborne | L.S (SS) | 67 | * + Urbana |
| Anderson, Ernest Edward | EE | 30 | * + Chicago |
| Anderson, Esther Dorothy | 5 S |  | Afarinette, Wisconsin |
| Anderson, George Arthur | $A E$ |  | : $\dagger$ Long Beach, California |
| Anderson, George Harold | MinE |  | * + Lake Forest |
| Anderson, Harold | Com | 5 | * $\uparrow$ Puxton |
| Anderson, Harold Irwin | L.4.S |  | * + York, Nebraska |
| Anderson, Jennie | $M d P(S S)$ | 70 | * $\dagger$ Oklahoma Cily, Oklahoma |
| Anderson, Joshua Clayton | - 1 rr (SS) | 101 | * + Williamsport, Indiant |
| Anderson, LeRoy McKinley | EE |  | * $\dagger$ Chicago |
| Anderson, Lester Adrian | Arr |  | * + Leland |
| Anderson, Lucile Miriam | HSLAS | 25 | $\dagger$ Martinsville, Indiana |
| Anderson, Olive Matilda | H.S.Agr | $96 . \frac{2}{1}$ | \% Chicago |
| Anderson, Paul Alexander | L. 4 S | 3.1 | * + Chicago |
| Anderson, Perry John | Com | 19 | * + Urbana |
| Anderson, Roy B | Arr | 75 | * $\dagger$ Winnebago |
| Anderson, Roy Taylor | LE |  | $\cdots$ † Evansville, Indiana |
| Anderson, Stanley Davis | Arch | 109 | * $\dagger$ Lake Forest |
| Anderson, Walter Henry | Com |  | * $\dagger$ Rockford |
| Anderson, William Wilson | A igr | 122 | * Ohio |
| Andreas, Lewis Peter | Com | 36 | $\dagger$ Sterling |
| Andren, Erland Frederick | LAS |  | * + Gary, Indiana |
| Andrews, Elizabeth | HSLAS | 33 | * + Urbana |
| Andrews, Frank Monroe | EE |  | * $\dagger$ Dundee |
| Andrews, Howard Milo | LAS |  | * Chicago |
| Andrews, Joha Harley | Com | 33 | * $\dagger$ Champaign |
| Andrews, Leonard Elmer | Com | 22 | * Oak Park |
| Andrews, Mae Blanche | SS |  | Rockford |
| Andrews, Mary Alberta | HSLAS | 60 | * + Pana |
| Andrews, Robert Eugene | Agr | 63 | * $\dagger$ Chicago |
| Andrews, Ruth Helen | LAS (SS) | 59 | * $\dagger$ Urbana |
| Andrews, Thomas Carr | Com | 30 | + Woodslock |
| Andrist, Victor Rudolph | SS | $10 \frac{1}{2}$ | * West Conccrad, Minnesola |
| Antenen, Harry George | Arch | 71 | * $\dagger$ IIamilton, Ohio |
| Antoszewski, Robert Horatius | Agr | 85 | * $\dagger$ Glencoe |

Appal, Robort Evereit
Appelgran, Clarence Oliver
Apple, Rassell Evans
Apple, Wilhur Martin
Archbold, Harsld Herbert
Arends, Annis Lilian
Areads, Arthur
Argo, David
Armington, Clara Grace
Armitage, Mrs. J. H.
A.B. (Albion Ccllege) 1913

Armitage, James Howard
Armstrong, Alice Nona
Armstrong, Arlo James W
Armstrong, Donald Alfonso
Armstrong, Elizabeth Emily
Ammstrong, Hazcl Ircne
Armstrong, Horace
Armstrong, James William
Armstrong, Johrı Harold
Armstrong, Oliver Milton
Amstrong, Paul Leo
Arizstrong, Thomas Henter
Armstrong, Wibe: Price
Arndt, Paul, Jr.
Arnctt, Anna Ruth
Arney, Paul Waync
Arnold, Charles Vincent
Arnold, Howard Shaver
Arnold, Orville Dayton
Arntzen, Inga Irene
Arrick, Herbert MoClain
. Ssai, Sciji
Asin, Ian Henty
Ash. James Landecth
Achiby, Erncst Van Allen
Astell, Louis Alexander
Atherton, Harold
Atkins, Millicent
Atkins, Milo Pitncy
Atisinson, Mrerearct IIazel
Aticbery, Hazcl
-t twell, Donald Burgess
AuBuchon, Joseph Montgemery
Augustus, Laiah Marie
Auld, Ernest Koland
Ausbrooks, Jacob Henry
Avery, Guy Thomas
Avery, Rowland Alnizo
Axline, Edward Springer
Azarraga, Francisco
Babcock, Dan
Bach, Alfred Erwin
Bachiman, Mildred Elizabeth
Bachman, Myron Cole
liacon, Carl Alfons
Bacon, Guy
Bacon, Oliver Grcene
Badger, Carroll John
Badger, Eunice Louise
Badollet, Marion Smith
Baechler, Matilda May
13aer, Sandford Joseph
Baethke, Lilian Henrietta
Bahe, Dorothy Virginia
Bailey, Alice Lillian
Bailey, Earl Willis
Bailey, Hamilton Renward
13ailey, La Force, B.S., M.S., 1915, 1916
Baird, Chester Anthony
Baker, Clarence Everett
Baker, Earl Boggess
Baker, Eldred Benjamin
Baker, Ernest Monroe
Baker, Flora Elizabeth
Baker, Fred Phelps
Baker, Gcrald Clifford
Balcer, Guy
Baker, Harold Griffith
Baker, Jolin Babcock
Baker, Lloyd Garrison
Baker, Walter Riley
Balbach, Nyle Jacob
Balch, Nellie Allison
Balderson, T'ed Albert

| LAS |  |
| :--- | :--- |
| $A g r$ | 99 |
| $A g r$ | 69 |
| $S S$ | 7 |
| LiE | 33 |
| IISLAS (SS) | 98 |
| $A g r$ | 95 |
| EE | 37 |
| Mus | 67 |

$\% \dagger$
Springficld
Chicago

+ Robinscn
Miamisburg. Ó::
+ Brookfield
Champaign
* $\dagger$ Melviar
$\dagger$ Urbana
Dixont

| SS |  |
| :---: | :---: |
|  |  |
| LAS | 93 |
| LAS | 36 |
| LAS | 63 |
| SS | 62 |
| Mus (SS) | 38 |
| Com | 56 |
| L.AS |  |
| I.AS (SS) | 107 |
| ME | 35 |
| LAS | 63 |
| LAS' | 31 |
| LAS |  |
| Agr | 9-4 |
| LAS | 21 |
| Com |  |
| Agr |  |
| Agr | 68 |
| LAS | $22 \frac{1}{2}$ |
| L.4.S | $83!$ |
| RME |  |
| Com (SS) | 93 |
| Agr | 24 |
| LAS | 63 |
| Arch |  |
| AE | 20 |
| HSAgr | 31 |
| Arch |  |
| LAS |  |
| LAS | 62 |
| LAS | 21 |
| EE | 71 |
| HSLAS (SS) 10.5 |  |
| Agr sp |  |
|  |  |
| ME | $107 \frac{1}{2}$ |
| Agr | 83 |
| Ccm | $100^{1}$ |
| SS | 22 |
| AE | 109 |

Arch:
Mis
ME
71
Agr
Agr
Agr (SS)
$815 \frac{3}{3}$
74
LAS (SS)
24
HISAgr (SS) sp 83
LAS
LASLAS
HSLAS
LAS
LAS
LS
Agr
CerE $\quad 31$
CerE $\square$
Com
.$S S$
LAS
ChE
72
LAS
100
EE
36
LAS
Agr $s p$
Agr sp
Com
HSAgr
AE

## \section*{65} <br> 32

107

Sheldon
Sheldors

* $\dagger$ Tolono
$\dagger$ Rochester, Neia Iork
$\dagger$ Metropolis
Clzanzbaign
$\dagger$ Champaigr
River Forcst
Centralia
Champaign
Rochester, New I'crk
River Forest
Mound City
Springficld
St. Charles, Missouri
Sl. Lauis, Misscuri


## Casey

$\dagger$ LaGyange
Ollawa
Browning
Sycamcre
Logansport, Indiana
Kyoto, Japan
Oneida
Philadelphia, Pennsyliania
Berwyr
Homer
Anderson, Indiane
Evansille, Indiana
Freeport
Delphi, Indiana
$\dagger$ Hillsboro
$\dagger$ Chicago
$\dagger$ Oak Park
Champaign
Martinsville
Dcngola
$\dagger$ Three Rivers, Michigan
Santa Fe, New Mexico
Wenona
Calivo, Capiz, P.I.
$\dagger$ Anderscn, Indiana
Fairbury
Tiskilura
Minot, North Dakola
Chicago
McHenry
Harlan, Iowa
Maury City, Tennessee
Riverside
Vincennes, Indiana

## Grant Park

Murphysboro
Glen Ellyn
Chicago
Geneya
Bocdy
Peoria
St. Charlies
$\dagger$ Park Ridge
Champaign
Fairmount
Riverside
Rome, New York
$\dagger$ Decatur
Denter, Colorado
Bement
Orlando, Oklahoma
Eas! St. Louis
Pon:iac
La Moille
$\dagger$ LaFayetie, Indiana
Chenoa
Lerna
Willer, Nebraska

| Baxumin Arthur Ernest | Cons | 4 | † Danville |
| :---: | :---: | :---: | :---: |
| Scolswin, Margare Heion | HSLAS | 95 | * $\gamma$ Ollewa |
| Saudmin, Milton Ford | LAS | 19 | * New Haven, Connecticut |
| $3 \mathrm{3a}$, Frederic Dunharn | LAS | 65 | $\dagger$ Clinton |
| 3ali, Lee Cleveland | SS | 8 | Worihington, Indiana |
| -zal!, Mary Elsic | HSLAS (SS) 1 | 100 | * $\dagger$ Rossville, ladiana |
| Sall, Mary Myrtle | LAS |  | $\dagger$ IVebb City, Missouri |
| Ballinger, Ione Fredericks | HSLAS | 37 | $\dagger$ Chenoa |
| Sansesberger, Velda Christena | LAS' (SS) | 83 | Champaign |
| Bamford, Thomas | ${ }_{1}{ }^{\text {gr }}$ | 70 | * $\dagger$ Barrow-in-Furncss, England |
| $3 \mathrm{ancroft} ,\mathrm{Anua} \mathrm{Dewes*}$ | LAS | 33 | * T Maywood |
| Bundy, Lorenson | ME | $3+$ | \% Lake City |
| Saverjee, Monindra | LAS |  | Calcuilia, Incia |
| Bangert, Clarence John | Agr | 33 | * $\dagger$ Chicago |
| Banister, Percival Bolling | Eng |  | $\dagger$ Omaha, Nebraska |
| Yannen, Robert Willian | Chem |  | * $\dagger$ Rockford |
| Bamister, John Howas | Agr | 62 | * Kewinee |
| Bagnister, Laura Smith | Agr |  | * $\dagger$ iseruane |
| Sarackman, Hazel B | HSAgr | 28 | * $\dagger$ Streator |
| 3inaglia, Victor Anthony | ME | 31 | * + Chicago |
| Barber, Hillis Elnyn | Agr | 67 | * $\dagger$ LaFor |
| Yarber, Wilbur Batrett | EE | 75 | * $\dagger$ Joliel |
| Barcume, Lyle Nelson | Arch |  | * $\dagger$ Los Angeles, California |
| Baraivell, Conrad Morton | LAS | 36 | * + Aurora |
| Sazker, Annie Eliza | LAS |  | * $\dagger$ Bondville |
| 3 3iker, Edwin Franklin | ME | 177 | \% $\dagger$ Rock Island |
| Jarklage, Oliver Frederick | EE | 33 | * $\dagger$ Sl. Charles, Missouri |
| 3arkow, Emory Merrill | Agr | 4313 | * † Chicago |
| 3azkstrom, Edwasd Carl | ME | $130^{\circ}$ | * Chicago |
| Barisstrom, Walter Rudolph | $C E$ | 54 | * $\dagger$ Chicago |
| Barlow, Ralph Fredericis | Com |  | * $\dagger$ Galva |
| Ba-naby, Jessie Miriam | LAS |  | * $\dagger$ Greensburg, Indiana |
| Barnard, Earl Morton | Com |  | * Muscatine, lowa |
| Sumes, Anne Atala | LAS |  | * $\uparrow$ Urbana |
| Qamnes, Claza Mae | LAS |  | * Albia, Iowa |
| Sames, Clifton Eugene | ChE | 35 | * $\dagger$ Albion |
| Barnes, Earl Convis | REE | 106 | * $\dagger$ Decatur |
| Baznes, Harold John | Arch | 108 | * $\dagger$ Joliet |
| Banes, Helen Miriam | LAS (SS) | 100 | * Washburn |
| Barncs, Helen Virginia | SS | 7 | LaFayelle, Indiana |
| Bamcs, Howell Hart | Arch | 31 | * $\dagger$ Chicago |
| Sames, John Ellis Ransom | SS |  | Cedar Falls, Iozua |
| Barnes, Mary Grace | Lib | 36 | * $\dagger$ LaFayette, Indiana |
| Sarmes, Winifred | HSLAS | 67 | * † Kansas City, Missouri |
| Hannett, Herman Kohlsaat | LAS (SS) | 43 | * Chicago |
| ふろanum, Edwin Croskey | Agr |  | * $\dagger$ LeRoy |
| Sarnum, Richard Fyfe | ME | 131 | \% LaGrange |
| 3atr, Forest Astley | $E E$ | 37 | * † Oak Park |
| Barrett, Forrest Prow | Com sp |  | * Muncie, Indiana |
| Barrett, Frank Newton | Agr (SS) | 88 $\frac{1}{2}$ | * $\dagger$ Chicago |
| Yarry, Forrest Martin | Com |  | * Rantoul |
| Barsy, Jennis Eulalia | LAS (SS) | 79 | * † Champaign |
| Hartels, Leo Franz | Com |  | * $\dagger$ Hamillon, Ohio |
| Sartels, Minnie | LAS (SS) | $96 \frac{1}{2}$ | * † Chicago |
| Bartholomew, Charles William | Com sp |  | * Bowen |
| 3 3 artholomew, Herbert | Com | 32 | * $\dagger$ Indianapolis, Indicna |
| Bartholornew, Ruih Porter | LAS | 453 | * $\dagger$ Table Grove |
| Batlett, Harry Owen | Arch | 105 | * $\dagger$ Eau Claire, Wisconsin |
| Bartlett, Lowell Wilson | Com | 23 | * $\dagger$ Rockford |
| Bartlett. William Henry | 4 gr |  | * $\dagger$ Fairbury |
| Bartley, Charles Austin | $A g r$ | 37 | * Chicaso |
| Sartling, Arthur William | EE | 36 | * $\dagger$ Litchfield |
| Barto, Margaret Murray | HSLAS | 102 | * $\dagger$ Urbana |
| Bartos, Bohuslav | CE | 47 | * + Chicago |
| Bach, David Anderson | Chem | 26 | * Hannibal, Missouri |
| Bass, Fred. | Agr |  | * $\dagger$ Armstrong |
| Bass, Perkins Burnham, Jr. | ME |  | * $\dagger$ Evanston |
| Bassett, Homer Benton | Com |  | * † Muskogee, Oklahoma |
| Bast, Theodore Hieronymus | SS |  | Rockfield |
| Bastable, Frank George | Com |  | * Sycamore |
| Pates, Charles Emmett | CerE (SS) | 101 | * $\dagger$ Galesburs |
| Batson, Jobn Thaddeus | ChE | 55 | * $\dagger$ Mershall |
| Battailc, Sallie Catherine | LAS | 96 | * † Champaigr |
| Battey, Bradford Reed | Com | 103 | * $\dagger$ Urbana |
| Battey, Leslie James | ME ${ }^{\text {MS }}$ (SS) |  | * † Tiskilwa |
| Battey, Zilpha Curtis | HSLAS (SS) | 97 | * $\dagger$ Urbana |
| Bauder, Lewris Augustus | Agr | 98 | * $\dagger$ Berwyn |
| Bauer, Ezra Edward | $C E$ | $35 \frac{1}{2}$ | * Toledo, Ohio |
| Bauer, Irving Newell | ${ }^{\text {Agr }}$ | 34 | * $\dagger$ Compton |
| Baum, Margaret Sutton | LAS | 34 | \% $\dagger$ Shelbyville |
| Bauman, John Jay | Arch |  | * $\dagger$ Davenport, Iowa |
| Bayley, Emily Elizabeth | LAS |  | * $\dagger$ Urbana |
| Baysinger, Bertha May | LAS | 31 | * $\dagger$ Aurora |
| Baysinger, Waiter George | Agr | 32 | * $\dagger$ Aurora |

Beach, Clara May
Beach, Julian Burdette
Beadles, Jessie Rached
Beals, Clarence Hubert
Beals, Roscoe Garfield
Beanan, Earl Edwin
Bean, John Mason
Bean, Lillian Bertha
Bear, Chester Randall
Beard, Odian Swain
Beardsley, Henty Scovell
Beattie, Dewcy Thompson
Beatty, Grace Elizabeth
Beatty, Owen Chauncey
Beaudry, Louis Hayne
Beavers, Harrison Bruce
Bcck, Gerald Eugene
Beck, Margaret Elizabeth Lister
Beck, Ruth Marie
Beckemeyer, Harry John
Beckemeyer, Mary Brown
Becken, Albert Charles, Jr.
Becker, Frederick Willian:
Becker, John Haerms
Becker, Paul
Becker, Walter Henry
Bee, Winifred Marian
Beebe, Horace Newell
Beeby, Ruth Alice
Beeman, Marion Roy
Beers, Barnette William
Bects, Otis Edward
Beesley, Charles
Behel, Wesley Arthur
Behrens, Martin Albert
Beidler, Herbert Bishol
Beien, Frank Michael
Belford, Hugh Othel
Bell, Cecile Mary
i3cll, Clarence James
Bell, Edith May
Bell, Harold Philip
Bell, John Haslett
Bell, Lowell Enıma
Bell, Norma Elizabeth
Bell, Olive Edna
Bell, Robert Daniel
Bellamy, John William
Belleff, Vladimir T
Belle-Isle, Bertha
Beloian, Haig
Bench, Stella Louise
Benedict, Ralph Preston
Benhan, Norman Beach
Benjamin, Sadie Mary
Bennehoff, John Stanley
Bennett, Basil
Bennett, Emil Cline
Bennett, Marie
Bennett, Parker William
Bennett, Wayne Rosleyn
Bennett, William Leee, A.B., 1902
Benson, David Sol
Benson, Elmer Bernhard
Benson, Eugene LeRoy
Benson, Lois Pope
Benthien, Hans J
13 entley, Beulah Beatrice
Bentley, Bruce
Bentley, Howard Hutson
Benton, Curtis
Berg, Arvid Henry
Berg, Fred Leonard
Bergen, Esther Lou, A.B.
(James Millikin University) 1913
Berger, Cora
Bergeson, I Melvin
Betgman, Robert
Beringer, Uriel Barto
Berlin, Marold Robert
Bernard, Clifford Shaffer
Bemer, Louis Rolland
Bernhardt, Wilbert
Bernhisel, Luther Melancthon
Bernstein, Charles
Bernstein, Martin

| SS | 3 | Chicago |
| :---: | :---: | :---: |
| Agr |  | * + Ollaw |
| S. | 1 | - Virginia |
| Agr | 16 | * + Galva |
| Sis | 1 | West/keld, Indiana |
| CHE |  | * $\dagger$ Champaisn |
| ${ }^{-18 r}$ |  | * + Decatur |
| L.A.S | 99 | * + Blue Mound |
| L. 15 | $2+$ | * Shabboura |
| 4 lgr (SS) | 82 | * + Kunsas City, Missour: |
| Agr |  | * Sparta |
| L.AS (SS) | 5 | : + Urbana |
| A gr | 69 | * $\dagger$ Urbana |
| ChE |  | * $\dagger$ Chicago |
| Com | 32 | * + Washington, D. C. |
| Arch | 31 | * $\dagger$ Long Beach, Californic |
| LAS |  | * Chicago |
| M.SLAS | 63 | * $\dagger$ Champaign |
| SS | $108 \frac{3}{2}$ | Beckemeyer |
| SS | $9 \frac{1}{2}$ | Beckemeyer |
| LAS |  | * + Park Ridge |
| ME |  | * + Chicago |
| A ${ }^{\text {r }}$ r |  | * $\dagger$ Bloomington |
| 11E | 111 | * $\dagger$ Berzuy |
| Com (SS) | $94 \frac{1}{2}$ | * $\dagger$ Chicago |
| LAS | $67 \frac{1}{1}$ | * $\dagger$ Chicago |
| CE | $18 \frac{1}{2}$ | * $\dagger$ Chicago |
| S.S | 16 | Urbana |
| Law |  | * $\dagger$ Robinson |
| MdP |  | * $\dagger$ Wheaton |
| ME: | 125 | * $\dagger$ Elkhart, Indiana |
| L.AS sb |  | * $\dagger$ Allendale |
| Arch | 108 | * $\dagger$ Lake Bluff |
| Com | 3. | * $\dagger$ Crete |
| Arch | 35 | * A Auburn, İdiana |
| Com |  | * $\dagger$ Sterling |
| SS | $7 \frac{1}{2}$ | Marion |
| LAS | $36^{\circ}$ | * $\dagger$ West York |
| Com |  | \% $\dagger$ Hariey |
| LAS |  | * $\dagger$ Milton, Iowa |
| Com |  | * $\dagger$ Chicago |
| Agr | 71 | * $\dagger$ Rushsille |
| LAS |  | \% West York |
| LAS (SS) | 107 $\frac{1}{2}$ | * $\dagger$ West York |
| Mus |  | * $\dagger$ Elgin |
| Agr |  | * $\dagger$ Jotiel |
| AE | $3+$ | * $\dagger$ Sandozal |
| Agr | 57 | † Stroumitza, Bulsaria |
| Mus |  | $\dagger$ Champaign |
| Agr |  | $\dagger$ Sivas, Turkcy |
| SS | 89 | Galena |
| Com | 10\% | $\dagger$ Omaha, Ncbruska |
| LAS | 47 | * + Crothersville, Indianu |
| LAS | 120 | * $\dagger$ Bloomington |
| CE |  | * + Freeport |
| Agr | 65 | * Dudlcy |
| Agr | 32 | * + Dudley |
| IISLAS (SS) | 30 | * $\dagger$ Champaign |
| Com | 32 | * $\dagger$ Melcalfe |
| Com |  | * † Washinglon |
| Agr |  | * † Urbara |
| MinE |  | Indianapolis, Indiana |
| SS | 8 | Rock Islund |
| CE | 36 | * $\dagger$ Batavia |
| SS | 81 | $\dagger$ Herrin |
| Agrsp |  | * Tacoma, Wrashington |
| ${ }_{\text {S }}^{\text {L }}$ S $(S S)$ | 53 | * † Clinton |
| SS |  | * $\dagger$ IIampton, Virginia |
| LAS |  | * + Bushinell |
| MdP |  | * $\dagger$ N. Crystal Lake |
| Com | 5.4 | * † Moline |
| Lib |  | * $\dagger$ Springfield |
| L.AS | 65 | * † Davenport, Iowa |
| AE | $50^{1}$ | * Earluille |
| EE | 41 | * Chicago |
| Com |  | * † Hamplon, Iorra |
| Arch |  | * $\dagger$ Chicago |
| Arch | 95\% | * Willman, Iore |
| ChE | 67 | * † Indianapolis, Indiana |
| C1: |  | * † South Bend, Indiana |
| CE |  | * + Evanston |
| E | 21 | * Chicago |
| CerE | 75 | * Chicago |


| Berryman, Orus Kenncth | L. $1 . S$ Sp |  | $\dagger$ Scoltrille |
| :---: | :---: | :---: | :---: |
| Berryman, Panl Ruytter | Com | 66 | * $\dagger$ Dourners Grove |
| Bess, Stanley John | 1J゙ | 1023 | * $\dagger$ Rosemond |
| Best, Chester Lawson | S.S | 15 | Boszell, Indiana |
| Best, Leon Henson | Com | 60 | * † Galva |
| Betz, Roscoe Richard | Com |  | * † Oswego |
| Beust, Carl | A gr | 50 | * + La Crosse |
| Bibo, Anna Mary | SS | 6 | Peoria |
| Bickel, John Joseph, Jr. | Arch | 36 | * $\dagger$ Chicago |
| Biedermann, Edward Adolph | figr |  | * † Oak l’ark |
| Bierbaum, Elmer Alired | 4 gr | 72 | * Allon |
| Biesecker, Hiram Lewis | L.LS |  | * + White ILeath |
| Bigel, William, Jr. | Agr. | 120 | * $\dagger$ Chicago |
| Bigelow, Lorene Edith May | Mus sp |  | * $\dagger$ IV'estfield |
| Bigelow, Roy St. Lawrence | REE | 99 | * $\dagger$ Chicago |
| Bilderback, Gordon Butler | Com |  | * $\dagger$ Champaign |
| Bilik, Samuel | Mellsp | $39 \frac{1}{2}$ | * Franklin Purk, New Jerse. |
| Billman, Dale | 11dP |  | * East St. Loutis |
| Binder, George Frederick | $1 \mathrm{Ar} \mathrm{\prime}$ (SS) | 93 | * $\dagger$ A urora |
| Bing, Bertha Helen | L. 4 S (SSS) | 80 | * $\dagger$ Urbana |
| Bingham, William Frederick | SS | $13 \frac{1}{2}$ | 1Jichita, Kansas |
| Birchard, John Wesley | ChE | 89 | * $\dagger$ Urbana |
| Birchard, Leola Mary | ILSAgr | 62 | * ¢ Urbana |
| Birdzell, William Isaac | 1 gr (SS) | 38 | * + Neoga |
| Birks, John Milton | Agr | 61 | * $\dagger$ Cornland |
| Bisbee, Eleanor | 5.5 | $\sigma$ | * Arlington Ileishts, Mass. |
| Bishop, Blanche | Mus |  | * + Danville |
| Bishop, Walter Giles | . 1 rch | $3+$ | \% $\dagger$ Auburn, Indiana |
| Bitter, Hulsert Cecil | Com |  | * + Chicago |
| Bivens, Jefferson Davis | SS | $6 \frac{1}{3}$ | Tulia, Texas |
| Black, Absolom Bradley | 5 S | 9 | Eldired |
| Black, Albert Gain | Agr | 20 | * $\dagger$ Maplelon |
| Black, Beryl A | L.AS (SS) | 20 | * $\dagger$ Paris |
| Black, Robert Sommerville | ME | $10+$ | * $\dagger$ Mendola |
| Blackburn, Frederick Jackson, B.S., 1914 | SS |  | Hillsboro |
| Blackstone, Abraham | CE (SS) | 76 | * $\dagger$ Chicago |
| Blackstone, Henry | Chem |  | * + Chicago |
| Blackwell, Maud Gwendolyn | SS |  | Atwood |
| Blaeuer, Herbert Spencer | MSE |  | * Carlinville |
| Blair, Daniel Augustus | L. 4 S | 33 | * ¢ Murphysboro |
| Blair, Ralph Pratt | Agrsp |  | * Hervance |
| Blatchford, Charles Lord | LAS |  | * $\dagger$ Chicaso |
| Bleamaster, Wilfred C | SS |  |  |
| Bliss, Stanley Waters | Arch | 33 | * $\dagger$ Litlle Rock, Arkansas |
| Blix, Einar Thomas | AE | $91 \frac{1}{3}$ | * $\dagger$ Fargo, North Dakola |
| Block, Frieda Emma | Mus | 87 | * † Champaign |
| Blohm, George Charles | LAS (SS) | 116\% | * Chicago |
| Bloodgood, Owen | Com |  | * $\dagger$ Aurora |
| Bloodgood, Wylie | Arch | 35 | * + Aurora |
| Bloom, Peter Earl | Agr sp | 49 | \% + Caddo, Oklahoma |
| Bloom, Ralph Merrill | EE |  | * + Chicago |
| Bloomfield, Alice Sayers | L.AS (SS) |  | * $\dagger$ Urbana |
| Bloomfield, Leonard | SS |  | Elkhart, W-isconsin |
| Blue, Glenn Noble | L.4S |  | * Urbana |
| Bluestein, Irwin Jerome | Agr | 32 | * $\dagger$ Chicago |
| Bluhm, Harold John | ChE | 111 | * $\dagger$ Chicago |
| Blum, Harry John | Com | 36 | * $\dagger$ Chicago |
| Boardman, Curtis Love | Arch | 71 | * + Hoopeston |
| Bock, Lawrence Palmer | ChE |  | * $\dagger$ Fairbury |
| Bodenschatz, Arthur H | ME | 40 | * $\dagger$ Chicago |
| Boehmer, Louise | IISLAS | 58 | * $\dagger$ Sprinsfield, Missouri |
| Boellner, Virginia Mildred | Com |  | * $\dagger$ Sl. Louis, Missouri |
| Boerner, Eugene S | Agr (SS) | 103 | * $\dagger$ Cedarburg, 11 isconsin |
| Boeschenstein, Charles Krome | L.4. |  | * † Edzuardssille |
| Breschenstein, Harold | Com | 69 | * $\dagger$ Edwardsville |
| Boghigian, Khorene | MdP |  | * Ersiuam, Khi, Armenia |
| Bogue, Arthur Reuben | Med | 65 | * $\dagger$ Dubuque, Iowa |
| Bohannan, Francis Charles | SS | 3 | Norton, Virginia |
| Bohn, Elizabeth Hallam | SS | 331 | Centralia |
| Bohn, Gerhardt Herman | ME | 2 | * $\dagger$ Lockport |
| Bohrer, William Leroy | Com | 29 | * Falls City, Nebraska |
| Boice, Milford Coats | EE |  | * † Champaign |
| Bolen, Mabel Helen | LAS | 66 | * $\dagger$ Kansas City, Missouri |
| Boles, Stanley Atwood | SS | $7 \frac{7}{3}$ | Williamstown, Kentucky |
| Bolger, Clarence James | EE |  | * $\dagger$ Woodstock |
| Bollman, Jesse Louis | Med | 84 | * $\dagger$ Springfield |
| Bollman, Marie Christine | SS | 12 | Champaisn |
| Bolton, Ralph Waldo | EE (SS) | $87 \frac{1}{3}$ | * † Champaign |
| Bolton, Wyman Jesse | ME | 72 | * $\dagger$ Nuzvoo |
| Bon Durant, Walter Houton | Com | 74 | * $\dagger$ Mishawaka, Indiana |
| Bone, George Dewey | Agr |  | * $\dagger$ Homer |
| Bonnen, Clarence Aifred | Agr | 31 | * $\dagger$ Gibson Cil ${ }^{\prime}$ |
| Bonner, Arthur Lee | SS | 51 | Champaign |
| Booth, Earl Francis | SS | 24 | Gardner |
| Booth, Lyman | Agr | 101\% | * $\dagger$ Marshall |

Borah, Loco Wilson
Bordcrs, Horatio Abbey
Borg, Elmer Ambrose
Borgemeier, Caspar Oscar
Borman, Mabel Mae
Born, Charles Edgar
Born, Ferdinand
Bot n , Katherine Lois
Born, Ray
Borton, Cecil Walden
Borucki, Louis F
Bosart, Hugh Allen
Boston, Paul McConley
Bosworth, Howard Ralph
Bosworth, Walter Henry
Boudinot, Raymond
Bowditch, Fred Tryon
Bowditch, Harvey Russell
Bower, Harriet Jean
Bower, Paul Eugene
Bower, Raymond Gladstone
Bowersock, William Michael
Bowler, Jeannette Johnson
Bowles, Frank Edward
Bowles, Walter Sheriff
Bowman, Emily Maurine
Bowman, John Evans
Bowman, Mabel
Bowman, Newell
Boyd, Frnest Roy
Boyd, Lulu Stella
Boyd, Marian Cummings
Boyd, Richard Ray
Boyd, Thomas Alcxander
Boyd, William Ralph
Boyer, Clarence Valentine, Ph.D.
Boyle, Esther Hortense
Boyle, John Russell
Boyle, Ruth Frances
Boyle, Violet Beatrice
Boynton, Reuben Riley
Brabrook, Arthur Nelson
Bracken, Dwight Funk
Bradbury, Marie Margaret
Bradley, James Wallace
Bradley, LeRoy
Bradley, Loyd
Bradley, Lucile
Brady, George Keyports
Brady, John Charles
Brady, May Frances
Brain, Oliver Galbraith
Brainard, Margaret
Brame, Millard Everett
Bramlet. Hubert Butler
Brams, Julius
Branch, William Ralph
Brand, Marjorie Lilah
Brandon, Eugenia Josephine
Brandt, Richard Clarence
Branham, Marcus Huber
Bratten, Arno
Brauer, Henry Ernest
Brauer, Magdalene Anna
Braun, George, Jr.
Braun, Richard George
Brauns, Helen Marie
Braunsdorff, Reginald Kenneth
Bray, Eugene Carter
Bray, Leonard Theodore
Brazeau, Eugene Francis
Brazeau, Guy Stanton
Brazelton, Calanthe Miriam
Brazelton, Florence Carter
Breathwit, Rachel Augusta
Brede, Erwin Charles
Brede, Lothar Homer
Breece, Howard David
Bregman, Walter Isadore
Bremer, Abraham Meyer
Brennan, James Thomas, Jr.
Brennan, Wintress
Brennerman, Charles Gage
Brewbaker, Harvey Edgar
Brewer, Clara Lucile

| Com | 68 | Urbana |
| :---: | :---: | :---: |
| Com |  | * $\dagger$ Chicago |
| $\mathrm{Agr}^{\text {r }}$ | 60 | * Stanton, Iowa |
| Com |  | * $\dagger$ Edwardsport, Indiana |
| LAS (SS) | 96 | * $\dagger$ Morrison |
| Agr | 67 | * † Cerro Gordo |
| Com |  | * † Indianapolis, Indiana |
| HSAgr | 105 $\frac{1}{2}$ | * † Champaign |
| Com | $67 \frac{1}{2}$ | Champaign |
| Com | 99 | * † Urbana |
| ME | 68 | * + Chicago |
| Com |  | * Olney |
| Com | 93 | * Yorkville |
| EE |  | * + Marseilles |
| Com | 64 | * $\dagger$ Elgin |
| Com |  | * $\dagger$ Davenporl, Iowa |
| EE | 36 | * $\dagger$ Urbana |
| LAS |  | * † UPbana |
| HSLAS |  | * + Urbana |
| Agr | 102 | * $\dagger$ Urbana |
| ME |  | * $\dagger$ Urbana |
| EE | 43 | * Maroa |
| LAS |  | * + Freetort |
| LAS |  | $\dagger$ East St. Louis |
| MSE | 36 | * Springfield |
| $L A S$ (SS) | $97 \frac{1}{3}$ | * $\dagger$ Piercelon, Indiana |
| CerE |  | * † East St. Louis |
| LAS | 95 | * $\dagger$ Danville |
| ChemE |  | * $\dagger$ Carrollton |
| ${ }^{A} E$ | 3250 | * Pingree, Norlh Dakota |
| LAS | 99 | * $\dagger$ Sheffield |
| Arch |  | * † Pingree, North Dakola |
| Com |  | * $\dagger$ Lewistown |
| Agr |  | * † Gays |
| Mus sp |  | $\dagger$ Urbana |
| HSAgr | 67 | * + Hennepin |
| ME |  | $\dagger$ Chicago |
| LAS |  | * + Slonington |
| HSAgr | 31 | $\cdots \dagger$ Hennepin |
| Agr sp |  | * Pleasant Plains |
| Com |  | * $\dagger$ Oak Park |
| Agr |  | * $\dagger$ Bloomington |
| HSLAS |  | * † Urbana |
| Com | 25 | * $\dagger$ Centralia |
| Arch | 108 | * + Ft. Wayne, Indiana |
| Law | 103 | * + Carbondale |
| Law | 105 | * $\dagger$ Carbondale |
| SS |  | Brooklyn, New Yoik |
| Agr |  | * $\dagger$ Amboy |
| LAS | 31 | * + Champaign |
| EE | 68 | * $\dagger$ Chicago |
| SS | 8 | Metropolis |
| $A g r$ |  | * $\dagger$ LeRoy |
| LAS | 103 | * $\dagger$ Eldorado |
| MdP | 38 | * $\dagger$ Chicago |
| Agr | 100 | * + Champaign |
| LAS | 85 | * + Normal |
| LAS | 97 | * Farmer Cily |
| ME | 66 | * Evanston |
| ME |  | Urbana |
| SS | 28\% | Creal Springs |
| ChemE |  | * $\dagger$ Red Bud |
| SS | 7 | Red Bud |
| Arch | $35 \frac{1}{2}$ | * † Chicago |
| $A E$ | 94 | * $\dagger$ Hamillon, Ohio |
| HSLAS | 32 | * $\dagger$ West Chicago |
| EE (SS) | 71 | * $\dagger$ Malloon |
| Che |  | * † Elizabeth |
| Arch | 20 | * Ironwood, Michigan |
| Com | 93. | * † New Ycrk, New York |
| LAS | 19 | * Nekoosa, Wisconsin |
| LAS (SS) | 66 | * $\dagger$ Greensburg, Indiana |
| SS | 4 | Greensburg, Indiana |
| LAS |  | $\dagger$ Little Rock, Arkansas |
| Arch |  | * $\dagger$ Collinsville |
| Chem | 68 | * $\dagger$ Collinsville |
| LAS | 59 | * $\dagger$ Mi. Vernon, Indiana |
| Com |  | * $\dagger$ Chicago |
| Com | 30 | * $\dagger$ DePue |
| CE |  | * $\dagger$ St. Louis, Missouri |
| Lib | 33 | * † Ogden |
| SS | 132 ${ }^{\frac{1}{3}}$ | Cairo |
| $\stackrel{\text { Agr }}{\text { S }}$ | 46 3 | $* \uparrow \begin{gathered} \text { Bardolyh } \\ \text { Urbana } \end{gathered}$ |


| Brewster, Haroid Spencer | $A g r$ (SS) | $70 \frac{1}{2}$ | Clayton |
| :---: | :---: | :---: | :---: |
| Brewster, William Goddard | Com |  | $\dagger$ Chicago |
| Breyfogle, Ruth Edith | LAS | $3+$ | * $\dagger$ Crown Point. Indiana |
| Brian, Lucia Beatrice | LAS |  | * + St. Francisvillc |
| Brickhouse, Linwood Leonard | LAS |  | * $\dagger$ Little Rock, Arkansas |
| Bridson, Myrtle Lillian | HSSAgr |  | Brimfield |
| Briggs, Ben Herbert | Com | $46 \frac{1}{2}$ | * $\dagger$ Minier |
| Briggs, Flora Bernice | İSAgr (SS) | 103 | * + Champaign |
| Briggs, Thomas Howard | S'S | 5 | Fayelte, Missouri |
| Brigham, Erwin Risley | Com | 72 | * $\dagger$ Chicago |
| Brinkerhoff, George Norman | LAS (SS) | 531 | * $\dagger$ Springficld |
| Brinkman, Richard Joseph | . 1 gr |  | * + Terre Haute, Indiana |
| Bristol, Robert Stafford | Cont |  | * + Chicago |
| Bristow, George Washington | SS | 131 | Metropolis |
| Britt, Charles Allent | Agr | 105 | * $\dagger$ Ogderz |
| Britt, Marie Anne | HSLAS |  | * + I'reeport |
| Britt, Raymond Lewis | LAS | 77 | * + Frcejorl |
| Brittin, William Allan, Jr. | Agr | 99 | * + Virden |
| Britton, Joseph Walter | Chem |  | * $\dagger$ Rockville, Indiana |
| Britton, Orville Stuart |  | $7 \frac{1}{2}$ | Viola |
| Broadhurst, Maury Elizabeth | IISLAS (SS) |  | * + Champaign |
| Broadwell, Agnes Marie | IISLAS | 6. | * + Fairbury |
| Brock, Elmer Lorin | SS | $2 \cdot f \frac{1}{2}$ | Jeffersonville |
| Brock, Thomas Hugh | Agr | 35 | * $\dagger$ Waynesbarg, Pennsylvania |
| Brockmeier, Angelina Louise | HSLAS | 102 | * $\dagger$ Frceport |
| Brockmeier, Martha Matilda | IISLAS | 27 | * + Freeport |
| Brodbeck, Mary B.S. (Northwestern Unicersity), 1916 | IISLAS |  | * $\dagger$ Los Angeles, California |
| B.S. (Northwesicrn Unicersily), 1916 | HSLAS |  |  |
| Brodfuehrer, Fred Michael | ${ }_{\text {A }}^{\text {Agr }}$ IISLAS | 3.7 59 | * $\dagger$ Chicago |
| Bromm, Alvin Carl | . Agr | 73 | * $\dagger$ Evansville, Indiana |
| Bronson, Paul Jones | MdP | 33 | * Terrc Haute, Indiana |
| Brook, Clarence Louis | EE |  | * Urbana |
| Brooks, Charles Campbell | Agr | $71 \frac{1}{2}$ | * $\dagger$ Kansas City, Missouri |
| Brooks, Charles Wayland | Com |  | * $\dagger$ Wheaton |
| Brooks, Eula Margaret | IISLAS (SS) | 62 | * $\dagger$ Urbana |
| Brooks, Frederick Augustus | EE (SS) | 112 | * † Urbana |
| Brooks, Hattie Estella | HSLAS |  | * + Colorado Sprinss, Colorado |
| Brooks, Joseph Chaney | Agr | 29 | * F Forreston |
| Brooks, Viola | LAS | 94 | * + Urbana |
| Broshar, Helen | L.AS |  | * + Champaign |
| Brown, Allen Brookins | L.AS | 102 | * † Phoenix, Arizona |
| Brown, Albert Willard | SS | 134\% | Tifin, Ohio |
| Brown, Bruce Keith | ChE | 41 | * $\dagger$ Wilmette |
| Brown, Carter Pennell | $A \mathrm{gr}$ | 90 | * Normal |
| Brown, Chester Galen | Agr sp |  | * $\dagger$ Elvood |
| Brown, Clarence Raymond | Com | $2+\frac{1}{2}$ | * Glericoe |
| Brown, Dayton Reginald Eugene | Arch | 50 | * $\dagger$ Chicago |
| Brown, Dorothy Sargent | HSLAS | 98 | * + Geneseo |
| Brown, Edward Tilden | ME | 28 | * + Batavia |
| Brown, Elmer Clay | ME |  | * † Champaisn |
| Brown, Elmer Ellsworth | Agr | 73 | * $\dagger$ Noblesville, Indiana |
| Brown, Era David | Com |  | * $\dagger$ Urbana |
| Brown, Grace Voris | LAS | 31 | * ¢ Findlay |
| Brown, Harlow Wood | Agr | 100 | * $\dagger$ Modesto |
| Brown, Helen Dorsey | Agr | 11.3 | * $\dagger$ Chicago |
| Brown, Irwin Tucker | Agrsp | 59 | $\dagger$ Evanston |
| Brown, James Lafferty | Coin |  | $\dagger$ Peoria |
| Brown, John Lawrence | Com | 103 | * + Tiskilwa |
| Brown, John Lyman | ChE | 95 | * $\dagger$ Anderson, Indiana |
| Brown, John Phineas | Com |  | * $\dagger$ Wapello, Iowa |
| Brown, Julius | RCE | 91 | * $\uparrow$ Chicago |
| Brown, Lawrence Leo | EE |  | * $\dagger$ Stonington |
| Brown, Lelah C | SS | $58 \frac{2}{3}$ | Hillsboro |
| Brown, Lewis Hallet | Agr | 16 | * $\dagger$ Delavan |
| Brown, Lloyd Waifield | Agr | 1 | * Decatur |
| Brown, Lorene | LAS |  | * + Genou |
| Brown, Lydia Louise | LAS |  | * $\dagger$ Ridgefarm |
| Brown, Marjorie | SS | $6 \frac{1}{2}$ | Kewanee |
| Brown, Paul Maurice | Com | 21 | * $\dagger$ Nokomis |
| Brown, Ralph Hadden | Agr |  | * + Cutler |
| Brown, Ralph Newton | Agr |  | $\dagger$ Greensburg, Indiana |
| Brown, Ralph Powers | CE | 128 | * $\dagger$ Chicago |
| Brown, Tom | $A E$ (SS) | 105 | * Wirnetka |
| Brown, Vergil Neal | LAS | $64 \frac{1}{2}$ | * + Jolie |
| Brown, Verla Lillian | HSLAS |  | * + Wheaton |
| Brown, Victor Israel | SS | 8 | - Oblont |
| Brown, Wal:er William | Arr | 31 | * † Quincy |
| Brown, William Homer | CE |  | * Sycamore |
| Browne, Kathryn Eleanor | Mus (SS) | 138 | * $\dagger$ Chicago |
| Browne, Richard Jerome | EE |  | * + Waukegan |
| Browne, William Harcourt | LAS | 65 | * + Chicago |
| Brownfield, Georgia | HSAgr (SS) | 97 | * $\dagger$ Urbana |
| Browning, John Roy | Law |  | * + Golconda |
| Browning, Thomas Samuel | CerE | 102 | * + Benton |

Brownstcin, Harry Joe
Bruner, Georgia Faye
Bruner, Nellic
Brunker, Edith Winiired
Brunkow, Norman Ferdinand, A.B., 1914
Brunnemeyer, Flenry Raquet
Bruns, Clansy Leslie
Brunskill, Eylar William
Brutus, Carl Russell
Brya, Edward Gunning
Brya, Edward Lersis
Brya, Francis Erle
Brya, Leo Edward
Bryan, Sarah Elizabeth, A.B., 1908; B.L.S., 1910

Bryant, Mrs. Lela Cronch
Bryant, Louis Ralph
Bryant, Lyle
Bryant, Kobert Alfred
Buchanan, George Victor, Jr.
Buchanan, Richard Bell
Buchen, Helen Louise
Buck, Harold Philbrick
Buekler, Helen Trene
Buckler, Joseph Bruce
Buckner, Dorothea Aurora
Bucky, Philip Barnett
Buehler, Albert Carl
Buell, Charles Clinton
Bufium, Mary Susie, B. Ph.,
(State Uuiversily of lowa), 1905
Buhrman, Elame Louise
Buhrman, William
Bull, Willard Edwin
Bullard, Charles Elworthy
Bullis, Mefflin Charles
Bullock, Geroldine Salisbury
Bullock, Otis LeRoy
Bumann. Albert Theodore
Bumgarner, Ruth Subina
Bunting, Loyd Daniel, A.B., 1916
Burgan, Laverne
Burgee, Joseph Zeno
Burger, Albert Harold
Burgess, Osear William
Burgess, Robert Earle
Burgett, Charles Culbertson
Burgston, Clyde IIaroid
Burke, Edmund
Burke, John Arthur
Burke, Mary Kathleen
Burke, William Foyarty
Burlcigh, Inez Lillian
Burleson, Howard Chauncey
Burley, Panl Brown
Burns, Owen MeIntnsh, A.B., 1916
Burns, Ralph Francis
Burns, Valerie Irene
Burnside, Karl Ackerman
Burrell, Beulah
Burres, Ona!
Burrus, Dorothy Dorsett
Burton, Clifford Ketchum
Burton, Maicolm Vreeland
Burton, Richard Cuic
Burwash, Graee Sarah
Burwash, Lois Irene
Burwash, Louis Stephen
Burwash, Lucie Pauline
Burwash, Ruth Margaret
Busey, Josephine Kathyn
Busey, Margatet leanette
Bush, Alexander T
Bushing, Edna Louise
Bushman, William Henry Harrison
Busse, Edward Clarence
Butler, Allen Gilman
Butler, Jennie Rebecca
Butler, Mary
Butler, Matide Marie
Butler, Walter Carter
Butler, William Glenn
Butterfield, Francis Eugene
Butterficld, Janct Marie
Butzer, Goldia Grayce

| ChE |  | Chicago |
| :---: | :---: | :---: |
| LAS | 31 | Eldorado |
| LAS |  | $\dagger$ Danville |
| Agrsp |  | * + Riley, Indiana |
| AE |  | * $\dagger$ Dıbuque, Iowa |
| -1 sr |  | * $\dagger$ Aurora |
| EE | 36 | * + Hartsburg |
| Agr | 99 | * $\dagger$ Pontiac |
| ME sp | 29 | * + Champaign |
| Agr | $73 \frac{1}{3}$ | * + Tolono |
| Mus sp |  | * $\dagger$ Tolono |
| Com | 18 | * $\dagger$ Tolono |
| Agr sp |  | * † Champaigra |
| Mus |  | Champaign |
| Mus |  | * Shelbyville |
| A gr | $46 \frac{1}{2}$ | * $\dagger$ Princeton |
| Chem | 16 | Clinton |
| Com | 71 | * $\dagger$ LaGranse |
| LAS (SS) | 29 | * Oklahoma City, Oklaioma |
| 4 gr (SS) | 116 | * $\dagger$ Oklahoma City, Oklahoma |
| LAS | 71 | * $\dagger$ Montello, Wisconsin |
| - 4 rch | 46 | * $\dagger$ Chicago |
| L.AS | 2 | \# + Champaign |
| LAS (SS) | 67 | * $\dagger$ Metcalf |
| L.4.S |  | * † Newark, New York |
| Mine |  | * $\dagger$ Chicago |
| Agr | 31 | * Chicago |
| LAS | 82 | * † Highland Park |
| Lib |  | * $\dagger$ LeRoy, Iova |
| LAS (SS) | 103 | * $\dagger$ Nashiville |
| MdP |  | * $\dagger$ Nashville |
| EE | 70 | * $\dagger$ Elgin |
| Com |  | * + Maywood |
| ${ }_{\text {A }}{ }^{\text {gr }}$ |  | * + Rollo |
| HSLAS | 56 | * + Tonica |
| Agr | 23.3 | * Elkhart, Indiana |
| Chem | 70 | * $\dagger$ Litchfield |
| LAS | 99 | * + McNabb |
| Law |  | * $\dagger$ Ellery |
| IISL.AS | 79 | * + Champaign |
| LAS |  | $\dagger$ Chicago |
| - 4 gr (SS) | 105 | * + Elgin |
| L.AS | 67 | * $\dagger$ Fairfield |
| LAS |  | * Benlonz |
| Com | 67 | * $\dagger$ Newman |
| Agr | 982 | * + Moline |
| Com | 61 | * + Milwankee, Wisconsin |
| ME |  | * † Champaign |
| 4 gr (SS) | $65 \frac{1}{2}$ | * $\dagger$ Lincoln |
| LAS | 67 | * + Crystal Lake |
| Com |  | * + Champaign |
| EE |  | * + LaGrange |
| Lazw |  | * + Danville |
| Com |  | * $\dagger$ Sl. Louis, Missouri |
| ISLAS | 32 | * $\dagger$ St. Louls, Missouri |
| AE | 69 | * $\dagger$ Orleans, Iowa |
| LAS (SS) | 102 | * $\dagger$ Efingham |
| SS |  | Urbana |
| LAS |  | * $\dagger$ Roswell, New Mexico |
| LAS | $97 \frac{1}{2}$ | * † Oak Park |
| ChE | 20 | * Aurora |
| A gr | $2.4 \frac{1}{2}$ | * + Richmont |
| ${ }_{\text {LS }}^{\text {S }}$ S | 49 | * † Champaign |
| SS | 101 | * Champaign |
| HSLAS | 3.4 | * + Champaign |
| ITSLAS | 37 | * + Champaigr |
| LAS | 110 | * + Urbana |
| LAS |  | * + Urbana |
| Chem (SS) | $68 \frac{1}{2}$ | * $\dagger$ Glencoe |
| L.AS (SS) | 55 | * + Chicago ${ }^{\text {St. Louis, Missour; }}$ |
| CE |  | * + Chicago |
| EE | 71 | * Peoria |
| IISLAS | 23 | * $\dagger$ Lebanon, Indiant |
| SS |  | Cairo |
| HSLAS |  | * $\dagger$ Chatham |
| Agr (SS) | 6.3 | * $\dagger$ Chicago |
| SS | 10.8 | * + Cairo Belvidere |
| MSLAS | 32 | * + Belvidere |
| LAS | 46 | * $\dagger$ IIillsdale |

ChAS
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Agr
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Mus
Agr
Com
16
71
29
116
71
LAS
AS
$A S(S S)$

+ Metcalf
Chicago
$\dagger$ Highland Park
* $\dagger$ LeRoy, Iova

I Nashwhlle
$\dagger$ Elgin.
$\dagger$ Maywood

+ Rollo
Elkhart, Indiana
$\dagger$ Litchfield
$+\mathrm{McNabb}$
$\dagger$ Champaign
$\dagger$ Chicago
Elgin
Benlont
Newman
Milwankee, Wisconsin
Champaign
$\dagger$ Lincoln
$\dagger$ Crystal Lake
Champaign
LaGrange
St. Louis, Missouri
St. Loutis, Missouri
thans, low
Urbana
$\dagger$ Roswell, New Mexico
Oak Park
$\dagger$ Richmond
Champaigr
Champaign
Champaign
Champaiga
Urbana.
Glencoe
St. Louis, Missour;
Chicago
Lebanon, Indianu
Cairo
* $\dagger$ Chatham

Chicago
Belvidere
IIillsdale

| Buzzard, Guy Ashton | SS |  | Bloomington |
| :---: | :---: | :---: | :---: |
| Byers, Bessie | St |  | Charleston |
| Byers, Donald Morrison | Chem |  | $\dagger$ Crarvell, Indiana |
| Byers, Edwin Willian | ALi | 52 | * $\dagger$ Harvey |
| Byers, Louis Leslic | CerE | 97 | * † Philadelphia, Pa. |
| Byrne, Susannc Marie | LAS |  | * + Chicago |
| Cab!e, M1erwy Harden | Com (SS) | $30 \frac{1}{2}$ | * + Mcallen, Texas |
| Cade, Harriet Clark | LAS | 60 | * $\dagger$ Vedersburg, Indiana |
| Cadisch, Gordon Francis | Agr | 106 | * + Cleveland, Onio |
| Cagann, Oscar William | $1 / \mathrm{E}$ |  | * $\dagger$ Ciampaigu |
| Cahill, Charics Adams, Jr. | AE |  | * $\dagger$ Milwaukee, Wisconsin |
| Cahill, Neliic Wals! | SS | 6 | IVaterlon |
| Caldcewood, Sarah Ruth | HSL. 1 S | 27 | * $\uparrow$ Grinncll, Lozua |
| Caldwell, Addie Leyrea | LAS |  | * Columbia, Missouri |
| Caldwell, Gcorge Harold | Agr | 26\% | \% $\dagger$ Chicago |
| Caldwell, Ilenry Bancroft | Agr sp |  | * $\dagger$ Tocoma, Washingtora |
| Caldwell, Mary Lathrop | LAS | 61 | * $\dagger$ Champaigr |
| Caldwell, Neal Willard | Com (SS) | 2 | * $\dagger$ Champargn |
| Cakdwell, Ruth Marie | LAS (SS) | 100 | * + Milford |
| Caldwell, Walter R | L.4S | $66 \frac{1}{2}$ | * $\dagger$ Fairfield |
| Calendar, Lilian Madeline | SS |  | Urbana |
| Calhoun, Preston Browne | Agr | $95 \frac{1}{2}$ | $\dagger$ Glencos |
| Calkin. Charlie James | ME | 70 | * $\dagger$ Crescent Cily |
| Calkins, Robert Grant | AE |  | * Joliet |
| Calvin, Benjamin Williss | LAS | 37 | * $\dagger$ Washington, D. C. |
| Cameron, George Martin | Agr | 72 | * $\dagger$ Carpentersville |
| Cameron, William Ray | ME | , | * $\dagger$ Galesburs |
| Camp, Chester Bennett | CE |  | * $\dagger$ Decalur |
| Camp, Warren Fordyce | Agr |  | * Ancona |
| Campbell, Carios Elmer | A gr |  | * $\dagger$ While Hall |
| Campbeli, Carlos Wilbur | Com | 30 | * $\dagger$ Virginia |
| Campbell, Charles Warren | MinE | 111 | * $\dagger$ Coal City |
| Campbell, David Joseph, B.S., 1916 | SS | 67 | Urbana |
| Campbe!1, Dewey Muscott | LAS |  | * $\dagger$ San Bernardino, California |
| Campbell, Douglas Scidunore | Com | 15 | * Cleveland, Ohio |
| Campbell, Duncan McEvoy | CE | 1272 | * $\dagger$ Chicago |
| Campbell, Ella Scaver | Lib | 35 | * + Urbana |
| Campbell, Ethelred Erasmus | Chem | $68 \frac{1}{2}$ | * † Jamaica, E. W. I. |
| Campbell, Florence Maud | LAS | 115 | $\dagger$ Tolorio |
| Camp'ell, George Albert | Law | 28 | * + Lead, South Dakola |
| Camplell, Glenı | LAS |  | * † Tulsa, Okla homa |
| Campbell, Grace Minnie | Mus sp |  | $\dagger$ Tolono |
| Campbell, Joln Parsons | ChE |  | * San Dimas, California |
| Campbell, Marshall | Com | 64 | * $\dagger$ Cinicago |
| Campbell, Marvenc | Mussp |  | * Belhany |
| Campiell, Mason lferbert | Agr (SS) | 105 | * $\dagger$ Valparaiso, Indiana |
| Campbeli, Nelson Wellesley | Com |  | * $\dagger$ Coal City |
| Campbell, Nigel Dovell | LAS |  | * $\dagger$ Albion |
| Campbell, William Franklin | Agr | 99 | * Urbana |
| Canaday, Alice Creighton | LAS | 75 | * $\dagger$ Chicago |
| Canaday, Sophia Matilda | LAS | 63 | * $\dagger$ Chicago |
| Canine, Ione | $\leq 5$ | 15 | * Sheldor |
| Cannon, Lester Clayd | Asr | 31 | * $\dagger$ Tower Hill |
| Cannon, Opal | LAS |  | * Jamaica |
| Cannon, Tyronne Murnhy | ME | $107 \frac{1}{3}$ | * $\dagger$ Rapatce |
| Canon, Charles Coulson | Agr | $106^{\circ}$ | * $\dagger$ Son Angela, Texas |
| Canter, Edna Maloy | LAS | 12 | * Clampaign |
| Carbaugh, Philip Ward | Law | 68 | * $\uparrow$ Rockjord |
| Carey, Charles Edwin | Com |  | * $\dagger$ Cryslal Lake |
| Carley, Paul Sterling | MdP (SS) | $91 \frac{1}{2}$ | * † Buckley |
| Carlsen, Ralph Armond | Com | 35 | * $\dagger$ Chicago |
| Carlson, Alice Mae | LAS | 27 | \% † San Diego, Californiu |
| Carlson, Ansgar Litius | Agr | 101 | * $\dagger$ Batavia |
| Carlson, Arthur George | Agr |  | * - Rockiford |
| Carlson, Carl Bernard | CE | 70 | * + St. Charles |
| Carlson, Harry Leonard | Agr | 107 | * LaSalle |
| Carlson, Helen Marie | LAS | $322^{\text {\% }}$ | * Chicago |
| Carlson, Richard John | Arch | 35 | * $\dagger$ Chicago |
| Carlson, Winifred Jcan | LAS |  | * + Chicago |
| Carlstrom, Glenn Prentiss | $M d P$ |  | * $\dagger$ Nezu Builon |
| Cariton, Gcorge Alexander | ME | 4 | * $\dagger$ Chicago |
| Carman, Charles MacArthur | ME | 36 | * L La Salle |
| Carman, Elinor Louise | IISLAS |  | * $\dagger$ LaSalle |
| Carman, Florence | HSLAS | 66 | * $\dagger$ Coodurine |
| Carney, Sidney Sylvester | Agr | 45 | * $\dagger$ Sleward |
| Cart, Harris | Com |  | * Tipton, Indianc |
| Carr, Kenneth Wrigit | AE | $68 \frac{1}{2}$ | * † Oak Park |
| Carr, Vernon Wesley | Com | 95 | * - Denison, Lowa |
| Carrier, Earle Wesley | CE | 76 | * + Chicago |
| Carrithers, Henry Havens | Agr | 64 | * $\dagger$ Hudson |
| Carroll, Alfred Bailcy | Arch | $38{ }^{\frac{1}{2}}$ | * Oak Park |
| Carroll, Charles Jr. Carroll, Gladys Ethelyn | Com | $31 \frac{1}{4}$ | * $\uparrow$ Shawneetown |
| Carroil, James Bernard | Arch | 117 | * $\dagger$ Bradford |
| Carroll, Jean Paul | Agrsp |  | * $\dagger$ Meadota |


| Carson, Charles Eilert | LAS |  | * $\dagger$ Mt. Carmel |
| :---: | :---: | :---: | :---: |
| Carson, Mary Edith | LAS |  | * Sabina, Okio |
| Carson, Natalia Margaretta | LAS | 93 | \% $\dagger$ Chicago |
| Carter, Alice, A.B., 1915 | LAS |  | * Evanston |
| Carter, Benjamin Franklin | CerE | 67 | $\dagger$ Peoria |
| Carter, Charles Shelby | Agr |  | * + Owensboro, Kentucky |
| Carter, Floyd | Agr (SS) | 59 | * Clintor |
| Carter, Frank Stanley | EE |  | Lilchfield |
| Carter, Wilbur Maxwell | Arch | 35 | * + Indianapolis, In:iana |
| Carthaus, William James | Chem |  | St. Louis, Missouri |
| Cartland, Silas | EE |  | Pentwater, Michigan |
| Carvalho, Romen de Souza | Agr |  | * Rio de Janciro, Mrgentina |
| Carver, Frederick Elmer | . 4 gr |  | Berwyn |
| Cary, Malcolm Combs | ME (SS) | 54 | * ¢ Oak Park |
| Caskey, Arthur David | EE | 36 | * + Chicago He:ghts |
| Cassclla, William Nathan | ME | 35 | \% $\dagger$ Allon |
| Cassidy, Grathan George | Arch | 293 | * † Champaign |
| Castendyck, Charles Ifamil | Com | 27 | * LaSalle |
| Castle, Drew William | ME | 105 | * $\dagger$ Gridley |
| Castle, Ervin H | Agr sp |  | * $\dagger$ Ridgefarm |
| Castle, Ora Blanche | Mus sp | 28 | * $\uparrow$ Uroana |
| Castle, Richard Lloyd | Com | 50 | * Urbana |
| Cather, LeRoy Heywood | AE | 33 | Cantora |
| Catlett, Kemp Roudebush | Com |  | * $\dagger$ Fairmount |
| Catlin, Virgil Glenn | SS | $7 \frac{1}{2}$ | Monmoutly |
| Cattermolc, Edwin Lowel1 | LAS |  | Chicago |
| Catton, Miles Dewey | CE |  | Toulora |
| Cauble, Helen Frances | S.S | 22 | Chantpuign |
| Cavanaugh, Marie Elizabeth | LAS | 30 | * $\dagger$ Urbaiza |
| Cavette, Francis Erle | Com | 1023 | * + Lacon |
| Cecil, Lawrence Keith | Chem (SS) | $61 \frac{1}{3}$ | * + Champaign |
| Center, Donald Dewey | 1.gr |  | * + Qaincy |
| Cermak, Joseph Jurius | ME | 21 | * Chicago |
| Cessna, Evelyn Mildred | MdP |  | $\because \dagger$ Oak Park |
| Cessna, Robert | $A_{3 r}$ | $60 \frac{1}{2}$ | * $\dagger$ Danville |
| Chabot, Bernice | HS. ${ }^{\text {gr }}$ | 581 | * $\dagger$ Kankakee |
| Chabot, Kathleen Martin | HSLAS | 98 | * $\dagger$ Kanlakee |
| Chacaroff, Kotzousha | Agr sp |  | * Macedonia |
| Chadderdon, Alvin Wayne | Agr | 33 | * $\dagger$ Adcir |
| Chadderdon, Neva Mae | LAS |  | * $\dagger$ Adair |
| Chadwick, Marcus | LA.S | 87 | * Shelbyville, Intiana |
| Chakravartz, Akhil Chandra | ME | 35 | * $\dagger$ Bengal, lndia |
| Chaleraft, Delos Maurice | Ag7 | 70 | $\cdots$ Alioion |
| Chalcraft, Lloyd Walton | Agr | 117 | \% Albioz |
| Chalstran, Arthur Blaine | Agr |  | $\dagger$ Galesburg |
| Chamberlain, Riehard Harris | Com | 68 | * $\dagger$ Peru, Indiana |
| Chambers, Roy Ellsworth | Arch | 17 | * + Clenoa |
| Chan, Yc Young | LAS | 59 | * † Kowillong, Chiiz |
| Chandler, Edward Charles | LAS | +61 | * Flora |
| Chandler, Leslie George | Chem | 24 | * $\dagger$ Ilinsdale |
| Chang, Ju Shen | Com (SS) | 9.5 | * Bridgeport, Comnecticue |
| Chang, Tze Li | CE | 114 | * + Wushingtoa, D. C. |
| Chang, Wei Ju | Chems (SS) | 5 | * $\dagger$ Pekiarg, China |
| Changnon, Kobert Donald | REE |  | * $\dagger$ Kankakee |
| Chant, Douglas Gcorge | Agr |  | * † Elmharst |
| Chapman, Donald Vanderburg | Agr | 69 | * + Esanstoz |
| Chapman, Ethel Lucinda | LAS | 60 | * Springfield |
| Chapman, Harry Albert | Agr | 37 | * R Riymond |
| Chapman, Harry Henderson | MEE | 38 | * $\dagger$ Ilinsciale |
| Chapman, Pleasant Thomas, Jr. | Comı |  | * $\dagger$ Vicint |
| Chapman, Samuel | Com |  | * Sterling |
| Chapman, Thomas White | SS | 130 | Bolvidcre |
| Chappelcar, Claude Simpson | Agr | 90늘 | * $\dagger$ Greeivitle |
| Charles, Andrew Hoyle | Cere |  | * $\dagger$ Chicago |
| Charleston, Verne DeVere | ChE | 66 | * P Pearia |
| Charlet, Louis Walter | ME |  | * $\dagger$ Kewunee |
| Charpier, Leonard Louis | MdP | 30 | * $\dagger$ Chicago |
| Chase, Fay Harold | EE |  | * t River Porest |
| Chase, Joseph Harold | Asr | 3,3 | * + Toulon |
| Chase, Katherine Trusdell, A.B., 1914 | SS | 1.78 | - Urbana |
| Chen, Jung Ting | Agr | 70 | * $\dagger$ Washingloa, D. C. |
| Chen, Quch King | SS |  | Sonsal City, Ifunan, Chin! |
| Chen, Shao Shun | Apr (SS) sp | 3.8 | * $\dagger$ Washinton, D. C. |
| Cheng, Fo Hung | SS | 32 | - Shangindi, Caina |
| Chenoweth, Leland Frank | MdP | 29 | * Mason City |
| Cherry, Oscar Allen | Chens | $58 \frac{1}{2}$ | * I Paphee |
| Chesley, Anne Dietsen | LAS |  | $\dagger$ Urbasa |
| Chessman, Samuel Craig | CE |  | + Salem, Ohio |
| Chester, Jamic Maryaret | ${ }_{S S}^{\text {ISLS }} 15$ | 33 | $\dagger$ Champaign |
| Chester, Margarct Belle | SS |  | Champaign |
| Chiang, Yu Ying | LAS |  | $\dagger$ Tsang L.oors Hong, Soockan |
| Chilcott, Edith Grace | SS ${ }_{\text {S }}$ (SS) |  | Morristale, ieansybania |
| Childs, Jarnes Bcnnett | ${ }_{\text {Mres }}^{\text {LAS }}$ (SS) | $\begin{aligned} & 77 \\ & 25 \end{aligned}$ | $\% \dagger$ Shobonier $*+\text { Ciampaign }$ |
| Chiles, Howard Marion | Chr: (SS) | 122 $\frac{1}{2}$ | * $\dagger$ Champaigr |


| Chioco, Juan Ortiz | Agr | 85 | Philippines |
| :---: | :---: | :---: | :---: |
| Chipps, Mabel Blanche | HSLAS |  | Sullivan |
| Chisum, Oscar Clifton | LAS | 20 | * † Little Rock, Arkansas |
| Chittenden, Robert Mearle | Cer $E$ | 106 | * $\dagger$ Brookfield, Missouri |
| Chittum, Stella Mae | SS | 8 | Sorento |
| Chmelik, Frank, Jr. | Agr | $18 \frac{1}{2}$ | * † Chicago |
| Choisser, William Carl | Law | $84 \frac{1}{2}$ | * $\dagger$ Benton |
| Choy, Bung Chew | CE (SS) | 60 | * $\dagger$ Honolulu |
| Christ, George Phillip | ChE | 70 | * $\dagger$ Quincy |
| Christ, Robert Johnson | CE |  | * $\dagger$ Chicago |
| Christen, Lester Howard | AE | 68 | * $\dagger$ Elgia |
| Christensen, Hildegard Amy | LAS sp |  | * $\dagger$ Chicago |
| Christensen, Paul Galen | Arch | 34 | * $\dagger$ Menominee, Michigan |
| Christian, William Earl | EE |  | * Trenton, New Jersey |
| Christie, James | $S S$ | 46 | Rantoul |
| Christopher, Arthur Bailey | Cer $E$ | 93 | Canton |
| Christophersen, Stanley Marinu | EE | 87 | * $\dagger$ Rockford |
| Christy, Glen, B. Mus., 1915, A.B., 1916 | SS | $175{ }^{\frac{1}{3}}$ | Harrisburg |
| Christy, Grace Jean | HSLAS | 68 | * $\dagger$ Urbana |
| Chritton, Ernest Fairfax | ME |  | * Oak Park |
| Chu, Ling | ME (SS) | 33 | * $\dagger$ Peking, China |
| Chumley, Edith Bland | SS | 233 ${ }^{\frac{1}{2}}$ | Springfield |
| Church, Leroy | EE (SS) | 110 | * $\dagger$ West Chicago |
| Churchill, Fred Weaver | Agr | 49 | * $\dagger$ Fairbury |
| Churchill, Nellie Elizabeth | SS |  | Peru |
| Churchill, Woodford McDowell | Agr | 31 | * $\dagger$ Fairbury |
| Churton, Florence Helen | HSAgr | 103 | * $\dagger$ Plainfield, New Jerscy |
| Cierpik, Casimir Stanley | ME | 7. | * $\dagger$ Chicago |
| Ciha, Louis Albert | EE |  | * $\dagger$ Chicago |
| Cilley, Lillie | Lib | 33 | * $\dagger$ Independence, Iowa |
| Cinnamon, Floyd Franklin | EE | 45 | * $\dagger$ Crcie |
| Clanahan, Walter Hamilton | Com |  | * $\dagger$ East St. Loutis |
| Clancy, Frank Bailey | $M d P$ |  | * $\dagger$ Chicago |
| Clarahan, Charles Heory | RCE | 78 | * † Oak Park |
| Clarahan, Lewis Arthur | Com |  | * † Oak Park |
| Clarida, Troy Wayne | Agr | 104 | * $\dagger$ Marion |
| Clark, Albert LeRoy | Agr | 69 | * $\dagger$ Chicago |
| Clark, Bayard Hand | Agr | 1563 | * DeKalb |
| Clark, Bruce Byrne | Agr |  | $\dagger$ Peoria |
| Clark, Charles M | RME | 111 | * $\dagger$ West Chicazo |
| Clark, Chester Nicholas | EE |  | * † Champaign |
| Clark, Frank Roundy | ChE | 35 | * $\dagger$ Wheaton |
| Clark, Harold Dean | LAS |  | * $\dagger$ Hinckley |
| Clark, Harold Lyman | Arch | 80 | * $\dagger$ Minneapolis, Minnesota |
| Clark, Harry Cecil | ${ }^{\text {A gr }}$ | 21 | * † Champaign |
| Clark, Hester | SS |  | Westville |
| Clark, James Glen | Com | 69 | * $\dagger$ Moweaqza |
| Clark, Kenneth Walker | $A g r$ |  | * $\dagger$ Tindenwood |
| Clark, Lloyd Talbert | $A g r$ |  | * $\dagger$ Kinderhook |
| Clark, Margaret | $A g r$ | 62 | * $\dagger$ Peoria |
| Clark, Marion Almeda | Com |  | * $\dagger$ Elgin |
| Clark, Marshall Grant | Agr | 65 | * $\dagger$ Carthage |
| Clark, Mary Chase | MdP |  | * $\dagger$ Peoria |
| Clark, Reid William | Agr | $77 \frac{2}{3}$ | * $\dagger$ Altica, Indiana |
| Clark, Roy Leslie | Agrsp |  | * $\dagger$ Moweaqua |
| Clark, Stuart McCullough | Agr |  | * $\dagger$ Carthage |
| Clark, Thomas Edward | ME | 33 | * $\dagger$ Indianapolis, Indiana |
| Clark, Welford Dickson | ChE |  | * $\dagger$ Chicago |
| Clarke, Helen Beulah | Mus | 1651 | * + Champaign |
| Classon, Lyle Jay | ME |  | * $\dagger$ Ottawa |
| Clears, Harry Loomis | Com | 32 | * $\dagger$ Kewanee |
| Cleary, Bonnie | Agr |  | * $\dagger$ El Paso |
| Clegg, Carl | ME | 72 | * † Chandlerville |
| Clem, Orlie Martin | LAS | 68 | * $\dagger$ Benton |
| Clements, Esther | Com | 97 25 | * $\dagger$ Champaigrt |
| Clements, Philip Louis | Ar ${ }_{\text {A }}$ |  | * $\dagger$ Decalur |
| Cleveland, Arthur Mortland | Com | 26 | * $\dagger$ Plymouth, Indiana |
| Cleveland, Chester Wilson | LAS |  | * + Plymoulh, Indiana |
| Cleveland, Warien Edds | ME | 73 | * $\dagger$ Rockford |
| Clevenger, Clinton B | LAS |  | $\dagger$ Fletcher, Ohio |
| Cleworth, Clarence William | CerE | 37 | * $\dagger$ Harlford, Michigan |
| Clifford, Woodridge Kenneth | Agr | 34 | * $\dagger$ Arionr |
| Cline, Albert Ross | ${ }^{\text {Agr }}$ | 26 | * $\dagger$ Rock Island |
| Cline, Marguerite Arabelle | HSLAS | 32 | * $\dagger$ Urbana |
| Cline, Robert Nurse | ME |  | * † Rock Island |
| Clingenpeel, Clarence Albertus | SS |  | Delphos, Kansas |
| Clorfine, Irwin Bernard | LAS | 31 | * $\dagger$ Chicago |
| Close, Arthur Buckley | Agr | 67 | * $\dagger$ Chicago |
| Clover, Everett LeRoy | Agr |  | * $\dagger$ Gardner |
| Coan, Ivan Walker | ${ }_{S S}{ }^{\text {gr }}$ |  | * † Chatsworth |
| Cobb, Thomas H | SS |  | * New Burnside |
| Cobb, William Henry | Cont | 34 | * $\dagger$ Tiplon, Iowa |
| Cochran, Russell William | LAS | 84 | * $\dagger$ Champaigir |

Cochran. William John
Coe, Viola Margaret
Coffman, Ruth Eugenc
Coggan, Kenneth Mills
Cohagan, Chester Willard
Cohen, Arthur Edward
Cohen, Esther Dorris
Cohen, Isadore Perry
Cohen, Julius
Cohn, Benjamin Emanuel
Cohn, Max Jay
Coile, Sam Henry
Cole, Elwood Bourland
Coleman, Oren
Coley, Glen
Colgrove, Vivian Geraldine, A.B.,
(Universily of Minnesota), 1908
Collier, Ethel Alice
Collings, Elnor Dell
Collins, Claude Delorum
Collins, Fred Adair
Ccllins, Grace
Collins, Ina May
Collins, Irvin Bliss
Collins, Julien Hampton
Collins, Lathan Hunter
Collins, Maurice Todd
Colmey, Duane Campbell
Colp, Logan N
Colp, Ryburn Robert
Colson, Robert John
Colstock, Harry Edward
Colton, Edwin Thome
Colton, Henry Richardson
Colwell, Edmund Burroughs
Colwell, Lyle Miller
Colwell, William Tracey
Comm, Albert Benjamin
Comstock, Chauncey Darling
Comstock, Keyon Phinister
Conant, Lewis Jasper
Condon, Edith Frances
Cone, Russel Glenn
Conefry, Hal Wynan.
Conger, Almon Mortimor
Congleton, Frank Harold
Conkey, Nellie
Conklin, Asa Bristol
Conklin, Dorsey Tyler
Conklin, Paul Stanley
Conley, Mae
Conn, Agnes Ruth
Connell, David Evans
Connett, Wesley Leonard
Connor, John Hal
Conover, Harry Keith
Conrad, Alma Bertha
Conrad, Charles Smedley
Conrad, Charles William
Conrad, Clyde Kenneth
Conrad, Orien Ray
Conser, Perry Edward
Consoer, George Otto
Cook, Dorothy Elizabeth
Cook, Eugene
Cook, Howard Haydon
Cook, John Manchester
Cook, Morris Henry
Cook, Seymour Houghton
Cook, Stephen Wallace
Cooke, Herbert Lee
Cooke, Robert Howell
Cooke, Russell Stewart
Cookson, Linn Palmer
Cocley, Floyd Seyller
Cooley, Roy Claiborne
Coolidge, Joseph Lexington
Coolidge, William Francis
Cooling, Kenneth George
Cooper, Edwin Jonas
Cooper, Henry Noble
Cooper, James Richard
Cooper, Leon Morton
Cooper, Louis
Cope, Hasold Fleming

| Com |  | $\dagger$ Sterling |
| :---: | :---: | :---: |
| LAS | 65 | * $\dagger$ Ridgefarm |
| HSLAS | 30 | * + Pana |
| MdP |  | * $\dagger$ Clay City |
| Com | 253 | * $\dagger$ Sapalpa, Oklahoma |
| $\mathrm{AgF}^{\text {gr }}$ |  | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Bridgeport |
| CerE | 26 | * $\dagger$ Chicago |
| LAS | 101 | * † St. Louis, Missouri |
| ChE | 72 | * † Chicago |
| Arch | $107 \frac{1}{3}$ | * $\dagger$ Cookeville, Tennessee |
| ME | $33^{*}$ | * $\dagger$ Peoria |
| SS | 41 | Carterville |
| LAS | 129 | $\dagger$ Beardstown |
| Lib | 17 | * $\dagger$ S. E. Minneapolis, Minnesota |
| LAS | 99 | * $\dagger$ Union Grove, Wisconsin |
| LAS | 60 | * $\dagger$ Spring Valley |
| LAS |  | * $\dagger$ LaMoille |
| Agr | 18 | * + Evanston |
| LAS | 96 | * † Bloomington |
| LAS (SS) | 35 | * $\dagger$ Hillsboro |
| LAS (SS) | $93 \frac{1}{3}$ | * $\dagger$ Potomac |
| Com | 29 | * $\dagger$ Chicago |
| $C E$ | 3512 | * $\dagger$ LaMoille |
| Agr | 5 | * † Urbana |
| LAS | 73 | * $\dagger$ Chicago |
| MdP |  | * $\dagger$ Carterville |
| MdP |  | * $\dagger$ Carterville |
| Law | 67 | * + Sl. Charles |
| Agr |  | * $\dagger$ Bradley |
| MSE | 107 $\frac{1}{3}$ | * Kansas City, Missonri |
| ChE | 34 | * $\dagger$ Hinsdale |
| Com |  | * $\dagger$ Monmoulh |
| EE |  | * Y Oltawa |
| $C E$ |  | * $\dagger$ Ollawa |
| $A E$ | 64 | * + Chicago |
| Com | 31 | * + Chicago |
| Agr | 29 | * + Chicago |
| LAS | $59 \frac{1}{2}$ | * $\uparrow$ Denver, Colorado |
| HSLAS | 30 | * $\dagger$ Sheffield |
| CE |  | * † Beardslown |
| LAS | 100 | * LeRoy |
| ME | 70 | * $\dagger$ Elgin |
| Agr | 63 | * † Urbana |
| Mus sp |  | * $\dagger$ Homer |
| Agr | 69 | * $\dagger$ Earlville |
| Agr | 49 | * $\dagger$ Rockton |
| ME | 113 | * $\dagger$ Roscoe |
| HSLAS HSLAS |  | * $\dagger$ Sheldon |
| HSLAS | 60 50 | * Woodstock |
| Com | 50 | * † Chicago |
| LAS | 68 | * $\dagger$ Newton |
| Comsp |  | * Tuscola |
| SS | 951 | Altamont |
| ME | 33 | * † Sycamore |
| SS | 6 | Charleston |
| ${ }_{S S}{ }_{\text {S }}$ |  | * † Urbana |
| SS | ${ }_{6}^{38}$ | Chester <br> Alliance, Ohio |
| CE | $112^{2}$ | * Oak Park |
| Lib | 33 | * $\dagger$ Denver, Colorado |
| CE | 119 | * $\dagger$ Odin |
| Com |  | * $\dagger$ Shaclbyville |
| Com | 68 | * $\dagger$ Chicago |
| EE | 36 | * $\dagger$ Greesup |
| ChE |  | * † New York, New York |
| Com | 31 | * $\dagger$ Evansville |
| ${ }_{C E}$ S | $28^{4 \frac{1}{3}}$ | * + Blaominstormen New Jersey |
| CE | 36 | * + Chicago |
| $C E$ | 91 | * $\dagger$ Carlinville |
| EE |  | * † W. McHenry |
| Agr | 103 | * $\dagger$ Clinton |
| Com | 38 | * $\dagger$ East Cleveland, Ohio |
| Agr | 65 | * $\dagger$ Bloomington |
| ${ }_{L}^{A E}$ | 63 29 | * $\dagger$ Rockford ${ }^{\text {a }}$ - Cable, Wisconsin |
| LAS | 73 | * + Chicago |
| Agr |  | * $\dagger$ Aurora |
| ChE | 108 | * $\dagger$ Chicago |
| EE |  | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Champaign |

Cope, Louis Vaughan
Copenhaver, Robert George
Copes, Ira Otho
Corbett, Esther
Corbin, Ashford Frank
Corcoran, Anna Elizabeth
Corcoran, Katharine
Cord, Joy Sylvia
Cordell, Della Grace
Cordell, Gertrude Robinson
Cordell, Ralph Vail
Cordell, Robert Roland
Cork, Willis Hugh
Corke, Harold Winfred
Corl, Marshall Price
Cormack, Joseph Clarence
Cornelisen, Ralph White
Cornell, Donald Sidney
Corper, Philip
Corrie, Lester Linn
Corrie, Samuel Ear1
Corson, Irene Marugerite
Cory, Gertrude Finley
Corzine, Dale Clair
Cossart, Estella Anna
Cost, James Nicks
Cotta, Maurice Leroy
Cottingham, Lloyd
Cottrell, Pearl Winifred
Coultas, David Eugene
Countryman, Irving Byron
Courtney, George Frederick
Courtney, Helen Irene
Cousins, Wanda Maurine
Coutchie, Kenneth Gilbert
Cover, Hazel Winifred
Covey, Edwin Linn
Cowles, Rollin James, Jr.
Cox, Clare Francis
Cox, Clinton Exum
Cox, Gerald Judy
Cox, Henry Ray
Cox, Jessie Ethel
Crabtree, John Bradley
Crackel, Thelma Ruth
Craft, John Countryman
Ciaig, Edward Eugene
Craig, Florence Margaret
Craig, Helen Elizabeth
Craig, John Andrews
Craigmile, Mary Agnes
Craigmile, Mary Delight
Crain, Hersey Nicholas
Cramer, John Stanley
Crandall, Bert Harrison
Crandell, Earl Melville
Crane, Baron Dana
Crane, Charles Sutherland
Crane, Elva Verna
Crane, Finley Miller
Crate, Ethel Frances
Craven, Verral Janice, B.S.,
(Kansas Slate Agricullure College) 1915
Cravens, Homer Halbert
Crawford, Charles Henry
Crawford, Harry John
Crawford, James Louis
Crawford, Jeannette Irene
Crawford, Louis Noere
Crawford, Ruth Marguerite
Crawford, Woodruff Lynden
Creason, William Henry
Crebs, John Montgomery, Jr.
Creedan, Joseph Francis
Creighton, David Edward
Creighton, Mary Elizabeth
Cremeans, Lola Merle
Cremeans, Nida Edith
Cress, Eldred Everett
Criger, William Nelson
Criley, Harlan Russell
Crim, Charles Harold
Crissey, Sherman Bartholmeou
Critchett, Elmer Bruce
Croak, John Elmer

| Agr | 100 |
| :---: | :---: |
| Agr | 105 |
| $A g r$ |  |
| $A g r$ |  |
| $A E$ |  |
| SS |  |
| SS | 16 |
| HSLAS |  |
| Mus (SS) | 99 |
| SS |  |
| SS | 30 |
| Com |  |
| Com | 60 |
| Com | 102 |
| ME | 34 |
| Com | 33 |
| RCE | 37 |
| $M E$ | 106 |
| Com | 78 |
| Agr | 61 |
| Agr |  |
| HSLAS | 21 |
| LAS |  |
| Agr | 84 |
| LAS |  |
| $M E$ | 57 |
| MSE |  |
| Agr |  |
| LAS |  |
| $A g r$ | 34 |
| Com | 95 |
| LAS | $57 \frac{1}{3}$ |
| LAS | 30 |
| LAS | 29 |

Tonte
Polo
Green Valley
Edwardsville
Aurora
Morrison
Galena
$\dagger$ Sidney
Macomb
Pitlsfield
Rushville
Macomb
Wheaton
Evanston
Joplin, Missouri
Glencoe
Pittsburg, Kansas
Western Springs
Chicago
St. Francisville
St. Francisville
Genoa
Hoopeston
Assumption
Chicago Heights
Rever Forest
Rockford
Abingdon
Des Moines, Iowa
Virden
Dixon
Urbana
Urbana
LaFayette, Indiana
Muskegon, Michigan
Paw Paw
Peoria
Burlington, Iowa
Vandalia Urbana
$\dagger$ Bridgeport
Sl. Louis, Missouri
East -5 t. Louis
$\dagger$ St. Paul, Minnesola
Champaign
Rochelle
Medford, Massachusetts
$\dagger$ Minneapolis, Minnesota
Hindsboro
Hindsboro
Rantoul
Knox, Indiana
Waverly
Maroa
IIuntsville
$\dagger$ Oak Park
Mi. Pleasant, Iowa

Chicago
Hoopeston
Hoopeston
Bellf:ower
Chicago
Plymouth
Oakland
Oakland
$\dagger$ Macomb Barry

+ W. Lafayette, Indiana
Urbana Pontiac
$\dagger$ Mayficld, Kentucky
Carmi
Omaha, Nebraska
Phoenix, Arizona Phoenix, Arizona
$\dagger$ Urbana
Urbana
Carlinville Elmwood
$\dagger$ Champaign
Estherville, Iowa
Marenzo
Grinell, Iowa
Decatur

| Crofts, Carson | Com (SS) | 101 | * $\dagger$ LaGrange |
| :---: | :---: | :---: | :---: |
| Cronin, Marie Louise | LAS | 32 | * $\dagger$ Chicago |
| Crookston, R Burns | SS | 7 | North Logan, Utah |
| Crosiar, Arthur Ogan | Agr | 74 | * $\dagger$ Utica |
| Cross, Harold | Agr |  | * Polo |
| Cross, Hugh Ware | LAS | 31 | * $\dagger$ Jerseyville |
| Cross, Mary Ann | LAS | 64 | * $\dagger$ Roachdale, Indiana |
| Crothers, Eli Kirk, Jr. | Arch | 33 | * Bloomington |
| Crouse, Florence Hawley | Lib | 33 | * $\dagger$ Citronville, Alabama |
| Crow, Robert Neil | ChE | 32 | * $\dagger$ Carrollton |
| Crowder, Dan Moore | Com | 31 | * $\dagger$ Sullivan, Indiana |
| Crowder, Dulcie Marie | Mus |  | * $\dagger$ Hamilton |
| Crowell, Orpha Faye | SS | 8 | Waverly |
| Crowell, Truman MacKenzie | Com |  | $\dagger$ Orange, California |
| Crutcher, Walter Louis | EE | 105 $\frac{1}{2}$ | * $\dagger$ Springfield, Missouri |
| Cryder, John Henry | Agr | 102 | * $\dagger$ Plainfield |
| Cryder, Mary Edna | HSLAS | 96 | * Plainfield |
| Cryder, Ray Eugene | Agr |  | * $\dagger$ Morris |
| Cuerden, Catherine Fay | Mus |  | * + Hamilton |
| Culbertson, Raymond James | Com |  | * $\dagger$ Stryker, Ohio |
| Cullen, Leo Berdell | Agr |  | * $\dagger$ Pontiac |
| Cullin, Victor | Com |  | * $\dagger$ Taylorville |
| Cullinane, George Madill | EE | 106 | * $\dagger$ St. Louis, Missouri |
| Culter, Ralph Emerson | Com |  | * $\dagger$ Gibson City |
| Cumfer, Donald Alonzo | ME | 47 | * $\dagger$ Chicago |
| Cummins, Edward John | LAS |  | * $\dagger$ Murphysboro |
| da Cunha, Humberto Monteiro | $C E$ |  | * Sao Paulo, Brazil |
| Cunnea, Joseph Patrick | CE |  | * $\dagger$ Chicago |
| Cunningham, Irene Mary | LAS | 27 | * $\dagger$ Rossville |
| Cunningham, Opal Claree | LAS (SS) | 99 | * $\dagger$ Urbana |
| Cunningham, Sterling Ross | Lave | 95 | * $\dagger$ Bismarck |
| Cunningham, Walter James | ME | 35 | * + Mattoon |
| Currie, Althea Elizabeth | Com (SS) | 41 | * $\dagger$ Loda |
| Curier, Lawrence Jenks | Com | 39 | * $\dagger$ Aurora |
| Curry, Henry Burrage | SS | $7 \frac{1}{2}$ | Beason |
| Curtis, Burton Tuttle | SS |  | Decatur |
| Curtis, Charles Carey | Law |  | * $\dagger$ Amesville, Ohio |
| Curtis, Jane Tuttle | HSLAS | 22 | * Decatur. |
| Curtis, Miriam Austin | HSLAS | 55 | * St. Louis, Missouri |
| Curtis, William Wheaton | Agr | 34 | * $\dagger$ Chicago |
| Curtiss, Edward Augustus | Agr |  | * + Stockton |
| Curtiss, Ralph Edwin | $A g r$ | $102 \frac{1}{2}$ | * $\dagger$ Marengo |
| Cushman, Horace Oscar | $A E$ | 37 | * $\dagger$ Danville |
| Cushman, Kenneth Bruce | $A g r$ | 33 | * $\dagger$ Yonkers, New York |
| Cuskaden, Major | $A g r$ | 8412 | * $\dagger$ Arcola |
| Custer, John Howard | Com |  | * $\dagger$ Chicago |
| Cuthbertson, William Stuart | Com | 97 | * $\dagger$ Pueblo, Colorado |
| Cutler, Lloyd Elwell | Agr | 32 | * $\dagger$ Rosemond |
| Cutter, Robert Marshall | Com | 45 | * $\dagger$ St. Louis, Missouri |
| Czainski, Edward | LAS |  | * Chicago |
| Dadant, Harriette Gabriel | HSLAS | 99 | * $\dagger$ Hamilton |
| Daggett, Edward James | MdP |  | * $\dagger$ Joliet |
| Dahlberg, Truman Lawrence | ChE | 56 | * $\dagger$ Chicago |
| Dahlen, Paul Andrew | LAS | 27 | * $\dagger$ Rock Island |
| Dahlin, Edna | HSAgr | 63 | * + Geneva |
| Dailey, Arthur Aloysius | LAS | 41 | * + New York, New York |
| Dale, Charles Sherman | SS | 9 | Fisher |
| Dale, John Herman | ${ }_{\text {Agr }}$ | $96 \frac{1}{2}$ | * $\dagger$ Mi. Vernon |
| Dallenbach, Karl M., A.B., 1910 | SS | 157 | Champaign |
| Dallenbach, Maybelle May | L.AS (SS) | 95 | * $\dagger$ Champaign |
| Daly, Ewing Porter | ME | 102 | * $\dagger$ Ottawa |
| Daly, Geraldine | LAS | 72 | * $\dagger$ Joliet |
| Daly, Helen | SS | 121 | Monmouth |
| Daly, Lewis | Mus |  | * $\dagger$ Monmouth |
| Dame, Ralph Uhler | Com | 30 | * $\dagger$ Oxford, Indiana |
| Damron, John Harold | ${ }^{\text {A gr }}$ | 60 | * $\dagger$ Macomb |
| Dana, B | Chem | $128 \frac{1}{2}$ | * $\dagger$ Chicago |
| Daniel, Ruth | Mus | 35 | * $\dagger$ Kewanna, Indiana |
| Danly, Philo Howard | ME | 4 | * $\dagger$ Chicago |
| Dappert, Anselmo | CE | 78 | * $\dagger$ Taylorville |
| Darby, Harry, Jr. | ME | 109 ${ }^{\frac{1}{2}}$ | * $\dagger$ Kansas Ciiy, Kansas |
| Darham, Anna | SS | 4 | Carthage |
| Darnall, Warren Verne | $L A S$ |  | * $\dagger$ Oak Park |
| Darrell, George Charles | $A E$ | 108 | * $\dagger$ Chicago |
| Dart, Helen Alwilda | Mus |  | * $\dagger$ Princeville |
| Daugherty, George Henry | LAS | 33 | * † LaGrange |
| Davenport, Alice Victoria | SS | 130 | * Wheaton |
| Davenport, Dorothy Darliane | $M d P$ (SS) | 66 | * $\dagger$ Wheaton |
| Davidson, Bernard Eugene | CE |  | * $\dagger$ Keokuk, Iowa |
| Davidson, Gaylord Stillman | Com | 69 | * $\dagger$ Springfield |
| Davidson, Mary A | SS |  | * Marshall |
| Davidson, Mina Saloma | HSLAS |  | * Crawfordsville, Indiana |
| Davis, Charles Brewer | LAS | 32 | * + Champaign |
| Davis, Charles Jesse | ME |  | * $\dagger$ Chicago |


| Davis, Eleanor, A.B., <br> (University of Minnesota), 1914 | Lib |  | * $\dagger$ Winona, Minnesota |
| :---: | :---: | :---: | :---: |
| Davis, Elizabeth | HSLAS |  | * $\dagger$ Rantoul |
| Davis, Elmer Leon | Com | 24 | * † Kankakee |
| Davis, Frances Margaret | LAS | 32 | * $\dagger$ Urbana |
| Davis, Frank William | SS |  | Omaha |
| Davis, Frederick A | Agr | 88 | $\dagger$ Rockford |
| Davis, Mrs. Goldia Elizabeth | $A g r s p$ |  | $\dagger$ Urbana |
| Davis, Helen | LAS | 77 | * $\dagger$ Los Angeles, California |
| Davis, Helen Powers | HSLAS | 115 | * † Hollon, Kansas |
| Davis, Herbert Spencer | MdP |  | * $\dagger$ Louisville |
| Davis, Jessie Viola | SS | 135\% | Greenville |
| Davis, John Eugene | Com | $83 \frac{1}{3}$ | * $\dagger$ Chicago |
| Davis, Kenneth Isaac | Com | 36 | * $\dagger$ Tampico |
| Davis, Leonard Hoadley | Agr | $91 \frac{1}{4}$ | * $\dagger$ Chicago |
| Davis, Leonard Louis | CE | 113 | * $\dagger$ Freeport |
| Davis, Lyman Kent | LAS | 41 | * $\dagger$ Donnellson |
| Davis, Milton Russell | Agr | 97 | * $\dagger$ Chicago |
| Davis, Nelson Louis | $A E$ | 46 | * $\dagger$ Chicago |
| Davis, Paul Albert | MdP | 59 | * Hume |
| Davis, Philip Frank | Agr | 100 | * $\dagger$ Windsor Mills, Quebec |
| Davis, Ralph W | Com |  | $\dagger$ Monticello, Indiana |
| Davis, Raymond Ellis | CerE | 100 | * $\dagger$ Danville |
| Davis, Waldo Emerson | EE | 25 | * $\dagger$ Rajatee |
| Davis, Walter Thomson | Com |  | * Elkhart, Indiana |
| Davis, Ward Owen | Agr | $60 \frac{1}{2}$ | * $\dagger$ Ramsey, Indiana |
| Davison, Joe Miller | Agr | 30 | * $\dagger$ Marshall |
| Davison, Victor Harvey | LAS | 31 | * $\dagger$ Minonk |
| Dawley, Earle Reed | $C E$ | 36 | * † Passaic, New Jarsey |
| Dawley, Robert Worthington | ChE | 33 | * † Passaic, New Jersey |
| Dawson, Louis Edward | ChE | 81 | * $\dagger$ Springfield |
| Dawson, Owen Lafayette | Agr | $50 \frac{1}{2}$ | * $\dagger$ Orland |
| Dawson, Robert Harvey | EE sp |  | * $\dagger$ Monticello |
| Dawson, Roger Mills | $C E$ |  | * + Decatur |
| Day, Curtiss LaQ | Com | 101 | * † Gibson City |
| Day, Frank Ernest | Com |  | * $\dagger$ Sioux City, Iowa |
| Day, Harry Warren | Agr | 99 | * $\dagger$ Shelbyville |
| Day, Vincent Stephen | $M E$ | 112 | * $\dagger$ Springfield |
| Dayton, Wayland Wilbur | Agr | 31 | * $\dagger$ West Chicago |
| Deah1, Neulon | Chem | 68 | * $\dagger$ Champaign |
| Dean, Olive Gertrude | LAS | 76 | * $\dagger$ Harrisburg |
| Dean, Orval Jennings | Agr |  | * $\dagger$ Harrisburg |
| Dean, Vaughn Waldow | Com | 67 | * $\dagger$ Decatur |
| Decker, Albert | SS | 7 | Hoopeston |
| Decker, Arthur Eli | SS | 17 |  |
| Decker, David B, Jr. | LAS |  | * $\dagger$ Chicago |
| Decker, Edna Mae | ${ }_{\text {Agr }}$ | 99 | * $\dagger$ Chicago |
| DeCosta, Harold Fonseca | SS |  | Chicago |
| Deering, Earl William | CE |  | * $\dagger$ Chicago |
| Deering, Richard Francis | LAS |  | * Chicago Heights |
| Deffenbaugh, Floyd Russel | LAS |  | * Mahomet |
| DeGroot, Horace Edward | ME (SS) | 33 | * $\dagger$ Chicago |
| DeGroot, Walter Charles | Agr (SS) | 32 | * Chicago |
| DeHart, Myra Lois | HSLAS | 30 | * $\dagger$ Waukegan |
| Delabar, Clifford Ernest | Agr sp |  | * $\dagger$ Oquazka |
| Dell, Dorothy | HSLAS |  | * + St. Louis, Missouri |
| DeLong, Clarence Henry | Com |  | * $\dagger$ Fithian |
| DeLong, Vernon Meade | ${ }_{\text {A }} \mathrm{gr}$ |  | * $\dagger$ Nova Scotia |
| DeLong, Willard Earl | Com | 107 | * Foosland |
| DeLue, Jim Simon | LAS | 10 | * $\dagger$ Chicago |
| Demeter, Theodore Frederick | ME |  | * + Freeport |
| Denby, Marshall Alfred | Com |  | * $\dagger$ Peotone |
| Deneen, Arthur Louis | Com |  | * $\dagger$ Marengo |
| Deneweth, Amelia Elizabeth | Mus |  | * $\dagger$ Mt. Clemens, Michigan |
| Denick, Milo Frank | ME | 75 | * $\dagger$ Lockjort |
| Denison, Irving Alson | Agr | 67 | * † Washington, D. C. |
| Denison, Sidney Alexander | SS | 32 | Bridgeport |
| Dennis, Howard Olney | MdP | 55 | * $\dagger$ Clovis, New Mexico |
| Dennis, Rose Carolyn | LAS | 80 | * $\dagger$ Glencoe |
| Denniston, Starr Coit | Arch |  | * Hudson, Wisconsin |
| Denson, Charles Hackett | Agr |  | * $\dagger$ Harperville, Mississippi |
| Denson, Mrs. Charles Hackett | Mus sp |  | * Martin, Tennessee |
| DePue, Robert Eadie | Agr | 76 | * $\dagger$ El Paso, Texas |
| Derby, Harold Leslie | $C E$ | 1182 | * $\dagger$ Kirksville, Missouri |
| Dern, Karl Ludwig | ChE | 79 | * $\dagger$ Stanton, Nebraska |
| Detweiler, Ruth Naomi | LAS |  | * $\dagger$ Aledo |
| Deuchler, Gustave Herman | ${ }^{\text {AE }}$ | 67 | * $\dagger$ Aurora |
| Devere, Martha Catherine | HSLAS | 31 | * $\dagger$ Chebanse |
| Devlin, John Lester | Com | $96 \frac{1}{2}$ | * $\dagger$ Chicago |
| Devlin, Julien Walter | Com | 31 | * $\dagger$ Chicago |
| DeVoe, Ray Threadgold | ME | 36 | * $\dagger$ Freeport |
| Devol, Everett Rolland | EE | 36 | * $\dagger$ Miami, Florida |
| Dewey, Elmer Clarence 1911 | $\mathrm{Com}^{\text {che }}$ | 98 | * $\dagger$ Rockford |
| Dexter, Grace Ella, A.B., 1911 DeZee, Mathias Ellsworth | LAS | 141 | * $\dagger$ Urbana |


| Diaz, Washington Teodore | Agrsp |  | Urbana |
| :---: | :---: | :---: | :---: |
| Dibelka, Myron George | Arch sp |  | * + Chicago |
| Dick, Frank Josef | LAS |  | * $\dagger$ Quincy |
| Dickson, Gerald Edgar | LAS | 73 | * $\dagger$ Hampshire |
| Dickson, Lawrence Evans | LAS | 34 | * $\dagger$ Chicago |
| Dickson, Mary Myrtle | LAS |  | * $\dagger$ Chicago |
| Diesel, Wilfred August | ME |  | * + Chicago |
| Dieserud, Helge Christopher | ME | 73 | * $\dagger$ Washington, D. C. |
| Dietmeier, Homer Ray | Med (SS) | 64 | * Winslow |
| Dietrich, Erma Lorena | Com | 28 | * $\dagger$ Bremen, Indiana |
| Dietrich, Harry Ben | Com | 31 | * Mason City |
| Dietrich, Sterling Miller | Com |  | * $\dagger$ Bremen, Indiana |
| Dietz, John Wasmer | Com | 67 | * $\dagger$ Belleville |
| Dikis, Ira Alfred | Agr | 62 | * $\dagger$ Waverly |
| Dildine, William Edwin | Com |  | * $\dagger$ Freeport |
| Dillavou, Essel Ray | Law | 174 | * $\dagger$ Champaign |
| Dilling, Lela Lucile | Mus |  | * $\dagger$ Urbana |
| Dillinger, Carl John | CE |  | $\dagger$ Portland, Oregon |
| Dillon, Teresita | LAS | $6 \frac{1}{2}$ | * $\dagger$ Danville |
| Dippell, Carl Bush | $A E$ | 73 | * $\dagger$ Freeport |
| Dippell, Ralph Ellsworth | AE | 111 | * $\dagger$ Freeport |
| Dirk, Ernest Leroy | SS | 5 | Homerville, Ohio |
| Ditewig, George Bocock | Com | 23 | * Peoria |
| Ditmer, Merlin Ammon | SS | $6 \frac{1}{2}$ | Potsdam, Ohio |
| Dix, Charles Carroll, Jr. | ${ }_{S S}{ }_{S}$ | $7{ }^{7}$ | Pocomoke City, Maryland |
| Dix, Ruth Mabel | SS | 97 | St. Louis, Missouri |
| Dixon, Edgar Ogle | ChE |  | * $\dagger$ Chicago |
| Dixon, Ralph Scott | ChE | 28 | * $\dagger$ Vincennes, Indiana |
| Dixon, Thomas Carl | Com |  | * $\dagger$ Vincennes, Indiana |
| Dixson, Elizabeth | HSLAS | 52 | * Monmouth |
| Dobyns, Joseph Roscoe | ME |  | * $\dagger$ Champaign |
| Dodds, Donald Chambers | Com | 51 | * $\dagger$ Champaign |
| Dodds, Josephine | LAS | 91 | * † Champaign |
| Dodds, Lois Ellen | LAS | 130 | * Champaign |
| Dodge, Astrid von Moth | LAS | 31 | * + Champaign |
| Dodge, Solon Stanley | LAS |  | * $\dagger$ Chicago |
| Dodge, Mrs. Stella Evelyn | Mus sp |  | * $\dagger$ Oberlin, Ohio |
| Doe, Weastell Taylor | LAS | 101 | * † Kent, Ohio |
| Doeden, Nellie Render | SS | 133 ${ }^{\frac{1}{2}}$ | Cape Girardeau, Missouri |
| Doepel, Robert Francis | $M E$ | 37 | * $\dagger$ Mattoon |
| Doerr, Clarence Leo | $\mathrm{Agr} \mathrm{(SS)}$ | $46 \frac{1}{2}$ | * $\dagger$ Chicago |
| Doerscher, Willis Harry | Com | 56 | * $\dagger$ Chicago |
| Doherty, Chester Cochran | MdP | 302 | * Clay City |
| Doherty, Margaret Isabella, B.Mus., (University of Illinois), 1915 | LAS (SS) | 163 | * † Urbana |
| Dolan, James Leo | Agr | 101 | * $\dagger$ Chamtaign |
| Dole, Laura Emily | Mus | 104 | * † Champaign |
| Dole, Lillian Dora, A.B., A.M., 1915, 1916 | SS |  | Champaign |
| Dole, Sarah Willey | HSAgr |  | * $\dagger$ Mattoon |
| Donaldson, Elizabeth Frances, A.B., 1914 | SS | 13913 | Urbana |
| Donaldson, Harold James | SS | 130 ${ }^{\frac{1}{2}}$ | Polo |
| Donaldson, William Clark | ME |  | * $\dagger$ Aurora |
| Donaly, Marie Ruby. | MdP | 26 | * $\dagger$ Carterville |
| Donovan, Leo Francis | $M d P$ (SS) | 42졸 | * Jacksonville |
| Donovan, Mary Margaret | Com | 29 | * † Champaign |
| Donovan, Nelle C | SS |  | Champaign |
| Doocy, Helen Laura | LAS | 69 | * $\dagger$ Pittsfield |
| Doolen, Clem Daniel | EE | 71 | * $\dagger$ Centralia |
| Doolen, Glen Wesley | Med | 61 | * $\dagger$ Centralia |
| Dooley, Helen Elizabeth | LAS |  | * $\dagger$ Little Rock, Arkansas |
| Dora, Cute | SS |  |  |
| Doran, Arthur Phillips | Com |  | * $\dagger$ River Forest |
| Doran, Ralph Leonard |  |  | * $\dagger$ River Forest |
| Dorman, Wallace Steger |  | 5 | Ensley, Alabama |
| Dorow, Elizabeth Sylvia | HSLAS |  | * † Golden |
| Dorsett, Eleanor Hidgcock | HSLAS | $28 \frac{1}{2}$ | * Augusta |
| Dorsett, Martha Matilda | IISLAS | 33 | * $\dagger$ Aurgusta |
| Dorsett, Walter Harper | ${ }^{\text {Agr }}$ |  | * $\dagger$ Augusta |
| Dorullis, Bertha Marie | LAS |  | * $\dagger$ Centralia |
| Dory, Victor Paul | Com | 30 | * $\dagger$ Warsaw |
| Dosher, Guy Hudson | LAS | 75 | * Harrisburg |
| Doss, Paul Christian. | Agr | 33 | * $\dagger$ Philo |
| Doty, Dorothy Lanning | HSLAS | 75 | * $\dagger$ Wilmetie |
| Doty, Helene Eleanore | LAS | 77 | * $\dagger$ Wilmette |
| Doty, Henry Fairchild | Com |  | * $\dagger$ Highland Park |
| Dougherty, Robert Hughes | ChE (SS) | 63 | ${ }_{*}+$ Peoria |
| Douglas, Jonathan Park | ${ }^{\text {Agr }}$ | 161 | * † Bloominston |
| Douglas, Robert James | ${ }_{M d P}$ |  | * + Chicago |
| Dowell, Carl Philip | EE | 861 $\frac{1}{2}$ | $\dagger$ Port Richmond, New York |
| Downend, Florence Eleanor | Mus | 38 | * $\dagger$ Toulon |
| Downey, Durlin Ralph | Agr | 113 | * $\dagger$ Sheffield |
| Downing, Emily Mott | LAS | 49 | * $\dagger$ Elburn |
| Downs, Myron Day | Agr | 33 | * † Rivar Forest |
| Downs, Orrie Hagar | SS | 142 | Urbana |


| Downs, Walter Elections | Com | 19 | Pana |
| :---: | :---: | :---: | :---: |
| Doxsey, Mary Ethel | SS |  | Rockford |
| Doyle, Frank Butler | ME | 37 | $\dagger$ Raymond |
| Doyle, Irene May | LAS | 33 | * + Clinton |
| Doyle, William James | Com | 45 | * + Champaign |
| Drake, Charles Arthur | LAS | 114 | $\dagger$ First Fork, Pensylvannia |
| Dralle, Ruth | LAS |  | $\dagger$ Champaigr |
| Draper, Arthur William | Law | 99 | * $\dagger$ Chicago |
| Draper, Florence Gladys | LAS |  | * Divernon |
| Draper, Ralph Waldo | LAS |  | * + Sidell |
| Drew, Myrtle Ursula | LAS |  | * $\dagger$ Downers Grove |
| Dreyfus, Milton | LAS |  | * $\dagger$ Fisher |
| Dreyfus, Morris Edward | Chem |  | * $\dagger$ Kansas City. Missouri |
| Dreyfus, Stanley | Com |  | * Fisher |
| Driver, Damon Wilbur | ${ }_{\text {Agr }}$ | 30 | * $\dagger$ Carrollton |
| Drobisch, Alice Wessels | SS | 3 | Decatur |
| Drobisch, Mollie Moore | LAS | 85 | * $\dagger$ Decatur |
| Droste, Louis Anthony | Com | 121 | $\dagger$ Grand Rapids, Michigan |
| Drucker, Albert | $E E$ |  | $\dagger$ Chicago |
| Drummet, Arthur William | ${ }_{\text {A }}{ }_{\text {Ar }}$ | 32 | * $\dagger$ Long Point |
| Drury, Charles Johnson | ${ }_{\text {Agr }}^{\text {Ag }}$ sp |  | * $\dagger$ Jacksonville |
| Drury, Hiram Jones | ${ }_{\text {Agr sp }}$ |  | * $\dagger$ Jacksonville |
| Drysdale, Robert Alexander | LAS |  | * $\dagger$ Chicago |
| DuBois, Addie Majella | LAS (SS) | 35 | * Eldorado |
| DuBois, Marie Mildred | HSLAS (SS) | 64 | + Eldorado |
| Dubridge, Walter Stephen | EE | $13 \frac{1}{3}$ | * $\dagger$ Momence |
| Dueringer, Walter Edward | ME |  | * $\dagger$ Elgin |
| Duffie, Paul Michael | CerE |  | * $\dagger$ Sterling |
| Duffin, Leon Gavin | ME | 3 | * $\dagger$ Chicago |
| Duffy, John Clarence | Agr | 114 | * † Ottawa |
| Dugger, Donald Ollie | $A E$ | 37 | * $\dagger$ Princeton, Kenlucky |
| Duke, Clarence Ormond | ME |  | $\dagger$ Henry |
| Dukes, Ruby Gertrude | Mus |  | * + St. Joseph |
| Dumas, Velma Burdette | Mus |  | * $\dagger$ Cicero |
| Dumke, Mildred | Com (SS) | $67 \frac{1}{2}$ | * $\dagger$ Elmhurst |
| Dunbar, Glenn | Agr |  | * T Taylorville |
| Duncan, George Jordan | Com |  | * † Villa Grove |
| Duncan, Pauline | Mus |  | $\dagger$ Marion |
| Dungan, George Harlan | Agr (SS) | 106 | * $\dagger$ Richwood, Ohio |
| Dungan, John Urban | Com (SS) sp | 8 | * $\dagger$ Richwood, Ohio |
| Dunlap, Leonard Eugene | Arch (SS) | 97 | * $\dagger$ Urbana |
| Dunn, Bankler Louis | EE |  | * $\dagger$ Hillsboro |
| Dunn, Dorothy | LAS | 29 | * $\dagger$ Waukegan |
| Dunn, Georgiena Evelyn | HSLAS (SS) | $67 \frac{1}{3}$ | * $\dagger$ Hinsdale |
| Dunn, Homer Alban | Com | 31 | * $\dagger$ Columbus, Indiana |
| Dunseth, Ruth Irene | HSLAS |  | * $\dagger$ Waverly |
| Dupaquier, Albert Louis | Com |  | * Nerv Albany, Indiana |
| DuPlan, Henry Brackman | Agr |  | * $\dagger$ Chicago |
| Dupre, Valentine Harry | EE (SS) | 1013 | * $\dagger$ Chicago |
| Durfey, Donald | Com | 99 | * Tolono |
| Durham, Harold Winfred | Com |  | * + Genoa |
| Durin, Fred Ethan | Agr |  | * $\dagger$ Scarboro |
| Dusenberry, Paul Brouneller | LAS |  | * $\dagger$ Nashville |
| Dushek, Vincent John | EE | 109 | * $\dagger$ Chicago |
| Duster, Benjamin Cecil | LAS | $58 \frac{1}{2}$ | * Indianapolis, Indiana |
| Dusthimer, William Vernon | MdP | 14 | - Chrisman |
| Dustin, Charles Sanderson | ${ }_{M g r}$ | 30 | * $\dagger$ Urbana |
| Dutton, Herbert Buell | ME | 107 | * O Oak Park |
| Duvall, Fae | HSAgr ${ }_{\text {HSI }}$ | 40 | * $\dagger$ Arsenta |
| DuVall, Nellie Olive | HSLAS (SS) | 145 | * $\dagger$ Urbana |
| Dux, Herbert Elmer | AE | 115 | * $\dagger$ Indianajolis, Indiana |
| Dvorak, Joseph, Jr. | Arch | 73 | * $\dagger$ Chicago |
| Dyer, Ethel Golden | SS | 25 | White Hall |
| Dyer, Harold Ruskin | $A E$ | 50 | * † Bloomington |
| Eade, Ben Cooper | Agr | 105 | * $\dagger$ Elizabeth |
| Earhart, Marianne Eloise | LAS |  | * $\dagger$ Wyoming |
| Eaton, Charles Miller | Agr | 33 | * † Quincy |
| Eaton, Chester Manning | Com |  | * $\dagger$ Macomb |
| Eaton, Donald Mark | Chem | 32 | * $\dagger$ Stockton |
| Eaton, Rea Lincoln | Agr | 62 | * $\dagger$ Eaton, Colorado |
| Eaton, William John | $S S$ | 243 | Normal |
| Ebi, Kenneth Ade | ME |  | * $\dagger$ Moline |
| Eckhardt, Roland Oscar | LAS | 29 | * $\dagger$ Sheboygan, Wisconsin |
| Edds, Vera Orjene | LAS | 93 | * $\dagger$ Normal |
| Eddy, Maree Lourena | Agr sp |  | * La Moille |
| Edel, Leslie Archibald Drummond | Chem |  | * $\dagger$ Duquoir |
| Edgerley, Kenneth Hopkins | Agr | 30 | * $\dagger$ Granville |
| Edgeworth, Myron | ME |  | * † Kankakee |
| Edie, Burl Albert | LAS | 27 | * Monticello |
| Edison, Ben Hamilton | CE |  | * $\dagger$ Chicago |
| Edmundson, Clarence S | SS ${ }^{\text {S }}$ (SS) | ? | Moscow, Idaho |
| Edmundson, Nila Winifred | HSLAS (SS) | $42 \frac{2}{3}$ | * $\dagger$ Balbec, Indiana |
| Edwards, Clarence Leon | LAS | 73 | * Carrollton |

Edwards，Gail Philip
Edwards，Harlan Hammond
Edwards，Howard Milton
Edwards，James Beresford，Jr．
Edwards，Liston Myron
Edwards，Terry Warren
Effting，Gertrude Frances
Egan，Lillian Elizabeth
Egbert，Donald Scearce
Eglin，Elmer John
Ehlers，Earl Edward
Ehrhardt，Oliver Earl
Eichberg，Adrian J
Eichhorn，William Hirschel
Eikenberry，Amos R
Einbecker，William Francis
Eisner，Katherine
Eiszner，William Henry
Eldridge，Earle Whitney
Eldridge，Leah Estene
Eldridge，Lillian Mary
Elerding，Beatrice
Eleson，Eugene Robert
Ell，Ferdinand Arthur
Ellenberger，Guy Ward
Eller，Walter Harrison
Ellington，Alvin Mathews
Elliott，Earlis Edgar
Elliott，Eva Lillian
Elliott，Isabel Gertrude
Elliott，Robert Tollington
Ellis，Olive E
Elwell，Dan William
Emch，Walter
Emery，Harold Robert
Emery，Leroy Densmore
Emery，Robert Simpson
Eminger，Mabcl
Emmons，Owen Andrew
Emrich，Dwight Martin
Ems，Clarence
Engel，Robert Henry
Engelhard，Willard Paul
Engelhardt，Lora May
Engelland，Mynetta Mary Margaret
England，Glenn Lewis
Engle，Esther Annette
Engle，Jeannette Morrison，A．M．， （University of Tllinois）， 1916
Engle，Lawrence Washington
Engle，Ralph Nelson
Engle，Mrs．Ralph Nelson
English，Connell Abdill
English，Frank James
Eninger，Helen Marie
Eppinger，Esther Augusta
Eppinger，Marie Anna
Epstein，Arthuı Louis
Epstein，Karl
Erdmann，Roy Alfred
Erickson，Adrian Edson
Erickson，Arthur
Erickson，Edward Bringle
Erickson，Willard Carl
Erikson，Edison Clyde
Ernest，Helen Orpha
Espy，Curtis Leach
Espy，Murry Greenleaf
Esslinger，Esther Jillian
Ettinger，Charles McKinley
Euston，Jacob Howard
Evans，Bessie Louise
Evans，Donald Grover
Evans，Floyd Evan
Evans，Fred
Evans，Lois Kathryn
Evans，Maurice Willard
Evans，Melbourne Covell
Evans，Robert Barclay
Evans，William Harold
Evcland，Harmon Edwin
Everham，William Edward
Everhart，Gladys
IEwald，Paul George
Ewald，Sophia Catherine

| Chem | 67 | ＊$\dagger$ Chicago |
| :---: | :---: | :---: |
| CE | 147 | ＊$\dagger$ Chicago |
| MdP | 18 | ＊$\dagger$ Lee |
| Com |  | ＊$\dagger$ Morgan Park，Chicago |
| ME |  | ＊$\dagger$ Chicago |
| EE |  | $\dagger$ Jerseyville |
| SS | 8 | ＊$\dagger$ Morris |
| HSAgr | 57 | ＊$\dagger$ Quincy |
| Agr sp |  | ＊＋Sycamore |
| EE |  | ＊† Richmond，Iowa |
| AE | 18 | ＊$\dagger$ Mason City，Iowa |
| MdP |  | ＊$\dagger$ Beardstown |
| LAS | 71 | ＊$\dagger$ Chicago |
| Agr | 68 | ＊$\dagger$ Mound City |
| SS | 8 | LaPlace |
| Chem | 34 | ＊$\dagger$ Chicago |
| Mus |  | ＊† Champaign |
| ME | 62 | ＊＋Chicago |
| Agr | 30 | ＊$\dagger$ Greenview |
| HSLAS |  | ＊$\dagger$ Wilmette |
| LAS | 95 | ＊$\dagger$ Kansas City，Kansas |
| LAS | 25 | $\dagger$ Chicago |
| MdP | 73 | ＊$\dagger$ Elkhart，Indiana |
| EE | 72 | ＊$\dagger$ Chicago |
| CerE |  | ＊$\dagger$ Normal |
| SS | 8 | Peoria |
| LAS | 35 | ＊$\dagger$ Buffalo |
| Agr（SS） | 32 | ＊$\dagger$ Bono，Arkansas |
| LAS | 98 | ＊$\dagger$ Beresford，South Dakota |
| LAS | 110 | ＊Beresford，South Dakota |
| $R C E$（SS） | 111否 | ＊† Wilmington |
| SS | ． 96 | LaPlata，Missouri |
| Com | 68 | $\dagger$ Champaign |
| CE | 76⿺⿸⿻𠃋丿乚⿱亠乂⿱一𧰨丶丶 | ＊$\dagger$ Urbana |
| LAS | 34 | ＊Belleville |
| LAS sp |  | ＊$\dagger$ Kirksville，Missouri |
| Com |  | ＊$\dagger$ Chicago |
| LAS | $65 \frac{1}{2}$ | ＊† Gibson City |
| SS | 5 | Albion，Michigan |
| CE |  | $\dagger$ Winslow |
| Agr |  | ＊† St．Joseph |
| Agr | 128 | $\dagger$ Freeporl |
| Com |  | ＊† Hollywood |
| HSLAS | 28 | ＊$\dagger$ Howard |
| HSLAS |  | ＊$\dagger$ Grant Park |
| EE | 34 | ＊$\dagger$ Havana |
| LAS | 116 | ＊$\dagger$ Blcomington |
| Lib |  | ＊Urbana |
| Agr | 24 | ＊$\dagger$ Urbana |
| Agr sp | 125 | ＊† Urbana |
| Agr | 2 | ＊$\dagger$ Urbana |
| $\boldsymbol{A} \boldsymbol{g r}$ |  | ＊$\dagger$ Aberdeen，South Dakota |
| $M E$（SS） | $71 \frac{1}{2}$ | ＊$\dagger$ Springfield |
| SS | 160 | Arthur |
| Com | 33 | ＊$\dagger$ Quincy |
| SS | 543 | Quincy |
| LAS（SS） | 141 | ＊Chicago |
| Agr | 101 | ＊$\dagger$ Bloomington |
| Com | 66 | ＊Geneseo |
| Com | 33 | ＊† Onawa，Iowa |
| Agr（SS） | 34 | ＊Chicago |
| MSE | 110 | ＊$\dagger$ Chicago |
| ChE |  | ＊$\dagger$ Bradley |
| Agr |  | ＊$\dagger$ Princeville |
| Mus（SS） | 41 | ＊† Urbana |
| LAS |  | $\dagger$ Logansport，Indiana |
| SS | 94\％ | Logansport，Indiana |
| LAS |  | ＊$\dagger$ Rushville |
| CE | 108 | ＊$\dagger$ Bourbon，Indiana |
| EE | 70 | ＊† Norfolk，Virginia |
| SS | 5 | Chempaign |
| EE | 107 | ＊$\dagger$ Champaign |
| ME | 107 | ＊$\dagger$ Hinckley |
| $A E$ | 67 | ＊$\dagger$ Chicago |
| LAS | 31 | ＊$\dagger$ Monticello |
| Com | 36 | ＊$\dagger$ Mattoon |
| SS | $6 \frac{1}{2}$ | Chanute，K゙ansas |
| Com |  | ＊$\dagger$ Aurora |
| LAS |  | ＊† South Bend，Indiana |
| EE | 16 | ＊$\dagger$ Hobson，Montana |
| ME | 116 | ＊$\dagger$ Chicago |
| HSLAS | 33 | ＊$\dagger$ Champaign |
| ${ }^{\text {A }}{ }^{\text {gr }}$ S | 108 ${ }^{\frac{1}{2}}$ | ＊$\dagger$ Mit．Carmel |
| LAS sp |  | ＊Mit．Carmel |

Ewan, Caroline Virginia
Ewer, Warren Badger
Ewing, Anne McNullen
Excell, Stuart William
Exiner, Samuel
Eyman, Margaret
Eyrich, Winnifred Marie
Fackler, Orpheus A
Fager, George Edward Kirchner
Fahrnkopf, Charles Frank
Fairbairn, William Bryan
Fairbanks, Berthier Wesley
Fairbanks, Laurence Bowie
Faircloth, Samuel Edwards
Fairfield, Agnes Evelyn
Fairfield, Faith Jeannette
Fairman, Charles
Faletti, Michael Joseph
Falkenberg, George Vigo
Fallon, Vallie Edna
Farmer, Elma Leola
Farmer, Ruth Marie
Farnum, Bertha Lucile
Farrand, Elbridge Kitchel
Farrell, Walter Greatsinger
Fash, Robert Arthur
Fasig, Otho Samuel
Faulk, Harry Lee
Faulk, Merrill Clifford
Faust, Rudolph Alfred
Fautsch, Emile
Favinger, William Lloyd
Fay, Donald Allen
Federmann, Charles Russell
Fee, Laurence George
Fee, Mary Jeannette
Fehrenkamp, Winifred, B.L.S., 1915
Feldenthal, Edna Leontine
Feldhake, Otto John
Feldman, Nathan
Felmley, John Benjamin
Felton, Harold Norton
Ferguson, Alice Maude
Ferguson, George Alonzo
Ferguson, Wilbert Homer
Ferree, George Bennett
Ferree, Letitia Lehman
Feuer, Bertram
Fickett, Edward Manard
Field, Basil Gordon Rutan
Field, Corinne
Field, David Edwards
Field, Erastus Immanuel
Field, Geoffrey Myron
Field, Howard, Jr.
Filbey, Edward Joseph, Ph.D.
University of Wisconsin), 1908
File, Viola Louise
Filler, Charles
Finger, Raymond Hermon
Finley, Joseph Orton
Finley, Louise
Finley, Margaret Alice
Finley, Marion Reece
Finn, Edmund Matthew
Finney, Dorothy
Finney, James Thomas
Finnigan, Catherine Elizabeth
Finnigan, Martha Mary
Firebaugh, Raymond Sims
Firoved, Glenn William
First, Harry Vernon
Firth, Jacob Gerald
Fischbacha, Antonio
Fischer, Austin Harold Reed
Fischer, Mary Catharine Eliza
Fish, Mary Vivian
Fisher, Clarence John
Fisher, Forrest Addison, B.S., 1911
Fisher, Frances Agnes
Fisher, Harold Howe
Fisher, Harry Eastman
Fisher, Ivan Louis
Fisher, Lawrence Glen
Fisher, Paul

| LAS | 44\% | * $\dagger$ Cuba |
| :---: | :---: | :---: |
| AE | 115 | * + Chicago |
| HSLAS | 26 | * $\dagger$ Vincennes, Indiana |
| $C E$ | 106 | * $\dagger$ Chicago |
| $A g r$ |  | * Chicago |
| LAS | 65 | * Oak Park |
| LAS |  | * $\dagger$ Milford |
| SS | 41 | Alvardlon, Ohio |
| Agr | 67 | * † Murphysboro |
| SS | 132 | Decatur |
| $C E$ | 34 | * + Joliel |
| Agr (SS) | 107 | * $\dagger$ Chicago |
| Com |  | * $\dagger$ Varna |
| $M E$ | 36 | * $\dagger$ Aurora |
| HSAgr | 31 | * $\dagger$ Chicago |
| LAS | 64 | * $\dagger$ Rutland, Vermont |
| LAS | 65 | * $\dagger$ Allon |
| Law | 99 | * $\dagger$ Slandard |
| Agr | 29 | * $\dagger$ Chicago |
| LAS | 31 | * + Urbana |
| Agr | 127 | * Belleville |
| Mus |  | * $\dagger$ Bolivar, Missouri |
| LAS | 81六 | $\dagger$ Pawnee |
| ME |  | * † Griggsville |
| $C E$ |  | * $\dagger$ Chicago |
| Arch |  | * $\dagger$ Springfield |
| LAS | 14 | * $\dagger$ Martinsville |
| LAS (SS) | 8 | * $\dagger$ Brownsville, Texas |
| LAS (SS) | 106 | * † Urbana |
| Chem |  | * $\dagger$ Washington, D. C. |
| Chem |  | * $\dagger$ New York, New York |
| Agr |  | $\dagger$ Albion, Indiana |
| Comt | 99 | * $\dagger$ Urbana |
| Arch | 152 | * Brookville, Indiana |
| $E E(S S)$ | $2 \frac{1}{2}$ | * $\dagger$ Champaign |
| Agr | 26 | * † Champaign |
| Arch |  | $\dagger$ Urbana |
| Mus sp |  | $\dagger$ Boston, Massachusells |
| Com |  | * $\dagger$ Effngham |
| $M E$ | 52 | * $\dagger$ Chicago |
| $A E$ | 79 | * $\dagger$ Normal |
| EE | 108 | * $\dagger$ Mendola |
| HSLAS | 51 | * $\dagger$ Oriont |
| Arch | 108 | * + Washington, D. C. |
| Com | 31 | * † Kansas Cily, Missouri |
| Eng | 14 | $\dagger$ Urbana |
| HSAgr (SS) | $69 \frac{1}{2}$ | * $\dagger$ Terre Haule, Indiana |
| ChE (SS) | $79 \frac{1}{2}$ | * $\dagger$ Chicago |
| Agr | 71 | * $\dagger$ Chicago |
| $A g r$ |  | * Fitchburg, Massachusells |
| LAS |  | * + Chicago |
| $A E$ | 65 | * + Slaler, Missouri |
| Com |  | $\dagger$ Norlhfield, Minnesola |
| Ccm |  | * $\dagger$ Peoria |
| ME | 58 | * $\dagger$ Wilmelle |
| Com | 3 | * $\dagger$ Urbana |
| Agr (SS) | 96 |  |
| Com |  | $\dagger$ Chicago |
| SS |  |  |
| $A g r$ | 119 | Oneida |
| SS |  | Indianapolis, Indiana |
| LAS | 66 | * † Hoopesion |
| $A g r$ | 103 | * † Hoopeston |
| $A E$ | 109 | * † Laurence, Massachusetts |
| $L A S$ |  | * $\dagger$ Weslfield |
| LAS |  | * + Champaign |
| LAS |  | * $\dagger$ Champaign |
| LAS | 52 | * + Champaign |
| $A g r$ | 16 | $\dagger$ Robinson |
| $A g r$ | 87 | * $\dagger$ Monmouth |
| $A E$ |  | * $\dagger$ Moline |
| ME (SS) | 22 | * $\dagger$ Green Valley |
| LAS | 32 | * $\dagger$ Centralia |
| Arch | 24 | * + Chicago |
| Mus |  | * † Elmhiursl |
| SS | 23 | Benton |
| Law | 66 | * $\dagger$ Chicago |
| Agr |  | * † Hudson, Kansas |
| LAS | 25 | * $\dagger$ Kinmundy |
| $A g r$ | 25 | * $\dagger$ Bement |
| MSE (SS) | 114 ${ }^{\text {¢ }}$ | * † Chicago |
| Com | 31 | * † Logansporl, Indiana |
| LAS | $40 \frac{1}{2}$ | * $\dagger$ Freeporl |
| Agr | 36 | * † Sl. Louis, Missouri |

Fisher, Paul Anthony
Fishman, Sol Leon
Fishman, Wilbur Harlow
Fisk, Fritz Harris
Fitch, Howard J
Fitch, Hugh
Fites, Harold Bratt
Fitzer, Marian Lucille
Fitzgerrell, Sylvester Stanton
Fitz-Hugh, Greene Smith
Fitzpatrick, James Claude
Fitzpatrick, Margaret Marion
Flagg, Ho ward William
Flanders, Annette Hoyt
Flannery, Charles Abusdal
Flatt, Nelle Irene
Flaugher, Richard Greer
Fleischner, Julius
Fleishman, George Samuel
Fleming, Adelaide
Fleming, Ellen Milton
Fleming, Harry Hall
Fleming, Oscar Jonathan, Jr.
Fleming, Stephen James
Flemming, John Herman
Fletcher, Edwin Lott
Flexer, Edna Helen
Flock, Marguerite Pauline
Flock, Ward John
Flood, Martin
Flowerree, Trennace, M.S., 1916
Fluke, Autha Maybelle
Fogerson, Josephine Mason
Fogler, Mayor Farthing
Foley, Philip Oglesby
Foley, William Lawrence
Folkers, Herbert Peter
Fonseca, Manuel
Fontaine, Everett Orren, A.B., 1915
Foote, Lorenzo Stephen
Foran, Cassie Agnes
Forbes, John Gordon
Forbes, Merlin Arthur
Forister, Leora Muriel
Forsythe, Albert Ernest
Forty, Dominic
Foss, Leroy Merrill
Foster, Francis Marion
Foster, Frank Ward
Foster, George Henry
Foster, Gerwin George
Foster, John Wellington
Foster, Lucy Ray
Foster, Robert Alvin
Foulke, Ronald Edward
Fouts, Kenneth Clay
Fox, Austin
Fox, Bertha Isabella
Fox, Harold Lee
Fox, Herschell
Fox, James Leslie
Fox, Jessie Lucilla
Fox, Philip Hadley
Frakes, Reba Lenore
Fraley, Roy Allan
Frame, Byron Emmet
Frame, Edith Maye
Frame, Grace Bryan
Frame, Mary Shafer
Franche, Darius Charles
Francis, Arthur Lewis
Francisco, Cecil Emery
Frank, Dudley Liguori
Frank, Joseph Liguori
Franken, Gretchen
Franks, Arthur John
Fraser, Hazel Mable
Fraser, Thomas
Frazey, Alice Belle, A.B., 1898
Frazier, Dorothy Caroline
Frazier, John Z
Freark, Ray Henry
Frede, Glenn William
Frederick, David Arthur
Frederick, Eugene Mark

| Agrsp |  | en Valley |
| :---: | :---: | :---: |
| ChE | 72 | * $\dagger$ Chicago |
| Agr | 63 | * Bosky Dell |
| Law | 69 | $\dagger$ DeKalb |
| Agr | 102 | * $\dagger$ Rockford |
| $M E$ | 32 | * $\dagger$ Greenup |
| Agr | 108 | * South Bend, Indiana |
| LAS | 31 | $\dagger$ Belvidere |
| Lavo | 105 | Benton |
| EE |  | * $\dagger$ Henderson |
| $\operatorname{MinE}$ | 76 | * + Gillespie |
| LAS | 482 | $\dagger$ Chicago |
| LAS |  | $\dagger$ Libertyville |
| Agr sp |  | Milwaukee, Wisconsin |
| ME (SS) | 114 | $\dagger$ Chicago |
| LAS (SS) | 35 | * † Champaign |
| Agr $M d P$ | 1871 ${ }^{\frac{1}{2}}$ | * Cayuga, Indiana |
| $C E$ | 35 | * $\dagger$ St. Louis, Missouri |
| SS |  | Boswell, Indiana |
| HSLAS |  | Olney |
| Agr | 39 | $\dagger$ Chicago |
| ME |  | * $\dagger$ Berwyn |
| Agr | 24 | $\dagger$ Chicago |
| Arch | 121 | * + Davenport, Iowa |
| Agr | 25 | * $\dagger$ Morris |
| HSLAS | 87 | * $\dagger$ Joliet |
| LAS (SS) | 753 | * $\dagger$ Urbana |
| Agr (SS) | 101 | * Urbana |
| EE (SS) | 51 | * $\dagger$ Cortland |
| Agr (SSS) |  | * † Easton |
| LAS | 58 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Champaign |
| Chem (SS) | 73 | * $\dagger$ Champaign |
| Com | 30 | * $\dagger$ Paris |
| SS | 7 | Gloucester, Massachusetts |
| LAS | 28 | * $\dagger$ Frankfort |
| $C E$ |  | * Lima, Peru |
| Lib | 159 | * $\dagger$ Momence |
| Agr | 67 | * $\dagger$ Stronghurst |
| LAS | 17 | * $\dagger$ Joliet |
| Com | 381 | * $\dagger$ East Orange, New Jersey |
| Chem |  | * Horicon, Wisconsin |
| ChE | 42즐 | * $\dagger$ Port Antonio, Jamaica |
| ME | 75 | * $\dagger$ Chicago |
| Agr |  | * $\dagger$ Cedarville |
| SS |  | Rockford |
| EE | 98 | * $\dagger$ Alexis |
| ChE | 105 | * † Lenox Dale, Massachusetts |
| Arch |  | * $\dagger$ Menominee, Michigan |
| ${ }_{S}^{\text {Agr }}$ | 29 | * † Spring Grove |
| $\mathrm{Sar}_{\text {Ar }}$ |  | * Sparta |
| EE | 72 | * $\dagger$ Aurora |
| SS |  | Diller, Nebraska |
| Com |  | * Oak Park |
| LAS |  | * $\dagger$ Bushnell |
| Agr sp |  | * Chapin |
| ${ }^{\text {Agr }}$ |  | $\dagger$ Chicago |
| $C E$ | 118 | * $\dagger$ Englewood, New Jersey |
| Agr (SS) | 103 | * + Urbana |
| EE |  | * $\dagger$ Wheaton |
| $S$ S | $6 \frac{1}{2}$ | Champaign |
| SS | 8 | Crawfordsville, Indiana |
| SS | 10즐 | Senecaville, Ohio |
| LAS | 27 | * $\dagger$ Champaign |
| LAS | 961 | * † Champaign |
| SS |  | Eldorado |
| LAS |  | * $\dagger$ Chicago |
| Com | 54 | * $\dagger$ Chicago |
| Agr sp |  | * Findlay |
| Com |  | * $\dagger$ Chicago |
| ${ }^{\text {Agr }}$ |  | * $\dagger$ Chicago |
| LAS |  | $\dagger$ Chandlerville |
| ChE | 29 | * $\dagger$ Springfield |
| HSAgr |  | * $\dagger$ Elsin |
| Mine | 111 | * $\dagger$ White Hall |
| LAS |  | * $\dagger$ Urbana |
| IISAgr |  | * + Yorkville |
| Agr (SS) | 42 | * $\dagger$ Paris |
| Med (SS) | $57 \frac{1}{2}$ | * $\dagger$ Champaign |
| Com | 34 | * $\dagger$ Stewardson |
| Com | 5 | * $\dagger$ Clarence |
| Agr | 99 | * $\dagger$ Clarence |

Frederick, Victoria
Frederickson, Harry Grindlcy
Freeburg, Walter Sven
Freeman, Helen Buscy
Freitag, Vina
French, Randall White Burns
French, Wendell Maynard
Frey, Hollis Oldfield
Frey, Joseph Richard
Frick, Arthur Henry
Fried, Harry Nathan
Friedlund, John Arthur
Friedman, Harold
Friesenecker, Charles Joseph
Frison, Theodore Henry
Froehly, Arthur Gustav
Frohards, Elmer Philip
Fromann, Ann Mildred
Frost, Alta May
Frost, Kenneth Thomas Williams
Fruit, Emund William
Fry, Charles Porter
Frykholm, Ellen Viola
Frymire, Alden Bowers
Fullaway, Wilbur Morse
Fuller, Florence Stormfeltz
Fuller, Nanny Curtis
Fuller, Willard Smith
Fulrath, William Merle
Fulton, Robert Elliott, Jr.
Fulton, William Jewett, Jr.
Fultz, Dorothy Stien
Fulwider, James Henson
Funk, Marguerite Marie
Funk, Mary Adell
Funk, Ruth Scovell
Furey, Warren William
Furrer, Emery Cloyd
Gaarder, Rolf Harolc. Josef
Gabriel, Carson King
Gaddis, Jessie Maria
Gaddis, Robert Ellis
Gadsby, James Herbert
Gage, Helen Louise
Gage, Mildred
Gaines, Mabel Albertine
Gaines, Mary Glendora
Galbraith, Florence Pauline
Galbraith, Margaret Westannah
Gale, Ralph
Gallagher, Fred Barron
Gallaher, Harold
Gallivan, Lyle Hugo
Gallivan, Ruth Evelyn
Galster, Alma Lydia
Galster, Augusta Emilie
Galvin, Leo Lyle
Gannaway, Lelia Maude
Gannon, Laurence Paul
Gantert, Cylno Foote
Gantz, Grace Dorothy
Gantz, Howard Stanley
Garber, Alfred Emanuel
Gardiner, Robert Parker
Gardiner, William Dudley
Gardner, McKinley
Garlough, Melvin Nave
Garman, Horace Bryan
Garman, John Walter
Garman, Ray L
Garnett, Ida Drake
Garrison, Edith Grace
Garth, Casper Tyrrell
Gartner, Andrew Wolfgang
Garvey, Edward James
Garvin, Mary Beatrice
Garvin, Noah
Gary, Jesse Lehman
Garza, Roman de la
Gassman, Zean G
Gast, Walter Ferdinand
Gates, Marian Ethel
Gates, Silas Harvey
Gauger, Raymond Wallace

| LAS |  | * + Trenton, New Jersey |
| :---: | :---: | :---: |
| Agr | 32 | * † Champaign |
| EE | 793 | * † Lindsburg, Kansas |
| LAS |  | * + Urbana |
| HSAgr | 60 | * † Mackinaw |
| ${ }^{\text {Agr }}$ | 80 | * Grand Rapids, Michigan |
| MEP | 92 | * Karsas City, Kansas |
| Com | 30 | * $\dagger$ Bloornington |
| Agr | 67 | * $\dagger$ Champaign |
|  | 104 | * + Chicago |
| LAS |  | * + Chicago |
| Com |  | * Chicago |
| EE |  | * $\dagger$ Galena |
| LAS | 62 | * $\dagger$ Champaign |
| EE | 27 | * $\dagger$ St. Louis, Missouri |
| Agr | 81 | * $\dagger$ Granite City |
| LAS | 42 | * + Chicago |
| SS | 8 | * Jozesboro |
| Com |  | * † Kankakee |
| Com |  | * Kenney |
| SS |  | Konts, Indiana |
| SS | 13 | Chicago |
| Agr |  | * Cameron |
| MSE |  | * $\dagger$ Omaha, Nebraska |
| HSLAS |  | * † Princeton, Missouri |
| SS | 8 | Ludlow |
| MdP |  | * † Farmer City |
| CE | 30 | * Mi. Carroll |
| Com | 35 | * $\dagger$ Dixcn |
| Chem | 32 | * $\dagger$ Keokuk, Iowa |
| HSLAS |  | * $\dagger$ Bushnell |
| LAS |  | * $\dagger$ Freeport |
| LAS | 65 | * † Danville |
| Agr |  | * Urbana |
| Agr (SS) | 1001 ${ }^{\frac{1}{2}}$ | * † Urbana |
| LAS | 30 | * + Chicago |
| Com (SS) | 100즐 | * + Kristiania, Norway |
| SS | 84 | Payson |
| Mus | 155 | * $\dagger$ Champaign |
| EE |  | * $\dagger$ Alton |
| Agr | $26 \frac{1}{2}$ | * + North Adams, Massachusetis |
| HSLAS | 32 | * $\dagger$ Chicago |
| LAS |  | * † Oak Park |
| HSLAS |  | * + Broadlands |
| HSLAS | 68 | * $\dagger$ Broadlands |
| SS | 7 | Oak Park |
| Agr |  | * † Fairbury, Nebraska |
| Agr (SS) | 8 | * $\dagger$ Lincoln |
| MSE | 48 | * + Rockford |
| EE | 116 | * + Tiskilwa |
| AE | 63 | * $\dagger$ Champaigr |
| LAS |  | * + Urbana |
| SS |  | Tower Hill |
| LAS (SS) | $59 \frac{3}{3}$ | * Tower Hill |
| LAS |  | * Stuitgari, Arkansas |
| LAS (SS) | $61 \frac{1}{2}$ | * $\dagger$ Maltoon |
| $C E$ | 54 35 | * $\dagger$ Chicago |
| ChE | 35 | * + Quincy ${ }^{\text {chaig }}$ |
| Agr | 98 | * + Champaign |
| SS | 123 | Gibson City |
| LAS |  | * $\dagger$ Chicago |
| Com |  | * Kane |
| Com |  | * Chicago |
| LAS | 73 | * $\dagger$ Auburn |
| AE |  | * $\dagger$ Normal |
| LAS | 33 | * † Urbana |
| Agr | 7 | * Decatur |
| ${ }_{S S} \mathrm{Agr}^{\text {r }}$ | 31 | * $\dagger$ Bethany |
| ${ }_{\text {Mus }}$ | 8 | Macon, Missouri |
| Mus | 65 | * Urbana |
| Com | 97 | * $\dagger$ Beaumont, Texas |
| Com | 34 | * $\dagger$ St. Charles |
| $A E$ (SS) | 63 | * $\dagger$ Faribault, Mirnesota |
| $L A S$ (SS) | 80 | * † Champaign |
| LAS | 77 | * + Champaign |
| $C E$ (SS) | 72 | * $\dagger$ Mexico |
| Com | 48 | * $\dagger$ Olney |
| MES |  | * † St. Louis, Missouri |
| LAS | $34 \frac{1}{2}$ | * Galesbrirg |
| $\stackrel{\text { Agr }}{\text { LAS }}$ | 32 | * $\dagger$ Walseka |
| LAS | 114 | * † Champaign |


| Gault, Louis | $C E$ |  |
| :---: | :---: | :---: |
| Gaunt, Gail Eleanor | LAS | 72 |
| Gaut, Rosa-Lee, B.Mus., 1912 | Mus |  |
| Gavitt, Richard Aurelius | CE |  |
| Gayle, Gilmore Jacob | Agr | $33 \frac{1}{2}$ |
| Gayle, Maurice Rowe, Jr. | CE | 27 |
| Gaylord, Francis Moses | Com | 31 |
| Geardink, Charles | Chem |  |
| Gehant, George Modeste | SS | 115 |
| Gehlbach, Wilbur August | LAS |  |
| Gehrig, Arthur Gustave | $C E$ | 85 |
| Geiger, Lester Charles | Com | 71 |
| Geiger, Walter Jacob | EE | 36 |
| Geiler, Frank Herman | LAS | 82 |
| Geip, Hazel Marie | SS |  |
| Geip, Lula Maud | SS | $9 \frac{1}{2}$ |
| Geisendorfer, Karl Edward | SS | 77률 |
| Geiss, Marie Gertrude | HSLAS |  |
| Geldhoff, George Stuart | LAS | 31 |
| Gellert, Donald Nichol | ME | 36 |
| Gemmill, Josephine Alberta | SS | 52 |
| Genson, Marjorie Deane Hawkins | SS | 132 |
| Gentry, Lilian | HSLAS |  |
| Genung, Arthur Lawrence | Arch |  |
| George, Harold Edgar | Agr | 163 |
| George, Leslie Godfrey, A.B., 1915 | Law | 169 ${ }^{\frac{1}{2}}$ |
| Gerke, Roscoe Harlan | ChE (SS) | $86 \frac{1}{2}$ |
| Gerlach, Alma | HSLAS | 65 |
| Gerling, Richard William | CE | 71 |
| Gerloff, Charles Philip | LAS |  |
| Gerten, Nicholas | CE | 126 |
| Geselbracht, Howard Cyril | Agr | 101 |
| Gethmann, Milton | CerE | 71 |
| Gettinger, Dan Oscar | SS |  |
| Gettle, Francis Samuel | LAS |  |
| Gewalt, Carl Heinrich | Arch | 71 |
| Gher, Ralph Giles | CE |  |
| Gher, Reginald Owen | $A g r$ |  |
| Ghergancff, Penco | ME | 68 |
| Ghislin, Lloyd Havens | Com | 59 |
| Ghose, Makhan Lal | Agr sp |  |
| Gibbons, Maude Alberta | LAS | 94 |
| Gibbs, Horace Clarence | SS | 99 |
| Gibson, Harry Wilson | Com | 75 |
| Gibson, James Raymond | Com | $22 \frac{1}{2}$ |
| Gibson, Raleigh Augustus | Com (SS) | 94 |
| Gibson, Susie Irene | Agr sp |  |
| Gibson, Sylvia Rose | LAS | 102 |
| Gibson, Thomas Robert | Com | 60 |
| Giddings, Mate Lewis | HSLAS (SS) | 103 |
| Gideon, Charles Russell | LAS | 93 |
| Giertz, Arthur Edward | CE | 105 |
| Gifford, Ralph Egley | Com | 97 |
| Gift, Lyle Henry | Agr | 97 |
| Gift, Myrven Frank | $A g r$ |  |
| Gildersleeve, Charles Turner | $A g r$ | 33 |
| Gildner, Ellsworth Lowell | $A E$ | 59 |
| Giles, Lewis Wentworth | $A E$ | 44 |
| Giles, Walter Arthur | SS |  |
| Gill, Ivan C | Agr | 70 |
| Gillam, Winona Mayble | Agr sp | 33 |
| Gillen, John Howard | ME | 66 |
| Gillison, James Herbert | LAS | 34 |
| Gillogly, Max | Eng |  |
| Gilmore, William Edward | Law | $64 \frac{1}{2}$ |
| Gilpatrick Gladys | HSAgr | 102 |
| Gilson, Samuel Reid | LAS |  |
| Gimre, Gerald Snyder | Agr |  |
| Gindorff, Matthew William, Jr. | ChE | 2 |
| Ginnings, Paul Meade | ChE | 34 |
| Gipson, David William | Agr |  |
| Girhard, Harold Raymond | LAS | 76 |
| Gish, Owen Ellyson | RME | 37 |
| Gladish, Willis Lindsay | SS | 88 |
| Glanzner, Alma Zella | HSAgr (SS) |  |
| Glass, Ian | Agr | 30 |
| Glass, Jessie June, A.B., <br> (Universily of Nebraska), 1909 | Lib |  |
| Glass, Will | EE | 26 |
| Glassco, Ruth Marie | $H S A g r$ (SS) | 101 |
| Glasser, Julius Maurice | Med |  |
| Gleason, Raymond Micheal | EE | 68 |
| Glenn, Edgar Wilson | SS | 65 |
| Glenn, Sidney Erwin | LAS sp |  |
| Glidden, Charles Clifton | ME |  |



Glidden, Nausen
Gliffe, Ethel Florence
Gluek, Arthur Louis
Glynn, Mary
Gnaedinger, Robert Joseph
Goble, Charles Herbert
Goddard, James Douglas
Goddard, Myron Chester
Godirey, Frank
Goebel, Anna Vreeland
Goebel, Walter Frederick
Goelitz, Walter Adolph
Goertz, Cornelia Elma
Goff, Charles Weer
Gogerty, Henry L
Going, Judson Freeman
Goldberg, Charlotte Deana
Goldberg, Joseph
Golden, Dios Edward
Golden, Marie
Golden, Stanley Curtis
Goldman, Frank Lyle
Goldschmidt, Erna Claire
Goldstein, Herman Alfred
Goldstein, Samuel Jules
Golinkin, Abraham Lincoln
Gomez, Alfonso Arzapalo
Gomez, Ramiro
Gooch, DeWitt Robert
Gooch, Mabel Madellon
Goodell, Horace Holbrook
Goodfellow, Thomas
Gooding, Laura Lavonia
Goodman, Albert Nelson
Goodman, George Phineas
Goodmann, Beatrice Ida
Goodpasture, Gladys Marie
Goodspeed, Willetta Myrtle
Goodwillie, Douglas Monroe
Goodwin, Helen Huntington
Gordon, Frank Allyn
Gordon, Jesse Franklin
Gordon, Kenneth Hickok
Gordon, Marie Antoinette
Gordon, Russell Lowell
Gordon, William Jennings
Gore, Harmon Carroll
Gore, Roy Cletis
Gorey, George Francis
Gorham, John William
Gormley, Vincent Lewis
Goss, Henry Hamilton
Gotte, Hugo Palmer
Gotti, Harry Dominic
Gottschalk, Arthur Hubert
Gould, Anthony Ready
Gould, Clifford Burt
Gould, Frank Elmer
Gould, Helen
Gould, Maurice Augustus
Gould, Philip Newhall
Goveia, Lawrence Theodore
Gowd, Rayadurg Nagan
Grabbe, Lowell Francis
Graesser, Roy French
Graham, Elizabeth, A.B., 1915
Graham, Florence
Graham, Harland Brown
Graham, Mark Edward
Graham, Pearson Fred
Graham, Vera Estella
Grainger. William Wallace
Grant, William Wulfing
Grantz, Raymond Lorimer
Graven, Anker Suerre
Graves, Anna
Graves, Frank Wilkinson
Gray, Harold Youmans
Gray, James Madison
Gray, Kline
Gray, Leslie Ray
Gray, Otto Benton
Gray, Russell Callam

| ${ }_{J A}^{A g r}$ |  |
| :---: | :---: |
| CE | 32 |
| Com | 70 |
| SS | 60 |
| ChE | 93 |
| Com |  |
| MdP | 54 |
| Com |  |
| Com | 59 |
| LAS |  |
| LAS |  |
| Agr | 72 |
| LAS |  |
| SS | 93 |
| MdP | 20 |
| AE | 157 |
| LAS |  |
| LAS | 102 |
| MdP | 26 |
| CerE |  |
| LAS | 30 |
| Com |  |
| Arch | 107 |
| HSLAS | 81 |
| ChE | 37 |
| MinE |  |
| MSE (SS) | $82 \frac{1}{2}$ |
| Com |  |
| Agr (SS) | 42 |
| LAS | 95 |
| CE | 34 |
| Com |  |
| HSAgr | 26 |
| $A E$ | 38 |
| Agr |  |
| HSLAS | 35 |
| LAS | 29 |
| Agr | 11 |
| Com | $29 \frac{1}{2}$ |
| SS | 82 |
| LAS | 30 |
| Com |  |
| $\underset{S}{E E}$ | 71 58 |

ME
Com
LAS (SS)
MSE
SS
$\mathrm{Ag}_{\mathrm{Agr}}$
Agr
$\stackrel{\mathrm{Agr}}{\mathrm{Com}}$
Com
26
LAS

| Agr | 103 |
| :--- | ---: |
| $C E$ | 36 |

Com
103
36
63
LAS
LAS
$A E$

| Agr | $32 \frac{1}{2}$ |
| :--- | :--- |
|  | 71 |

Com
$\underset{S S}{L A S}$

85

LAS 13
Agr
EE
113
Lawsp
LAS sp
EE
Law 86

LAS
Agr (SS) 100
Com

| Com | 68 |
| :--- | :--- |
| EE | 36 |

EE 108
$\begin{array}{ll}\mathrm{Agr} & 61\end{array}$

|  | $\dagger$ DeKalb |
| :---: | :---: |
| * | $\dagger$ Chicago |
| * | $\dagger$ Mattoon |
| * | $\dagger$ Minneapolis, Minncsota Nauvoo |
| * | $\dagger$ Chicago |
| * | $\dagger$ Casey |
| * | $\dagger$ Marion |
| * | Monmouth |
| * | $\dagger$ Staunton |
| * | $\dagger$ Urbana |
| * | $\dagger$ Urbana |
| * | $\dagger$ Ravinia |
| * | $\dagger$ Mt. Lake, Minnesola Chicago |
| * | $\dagger$ Davenport, Iowa |
|  | $\dagger$ Zearing, Iowa |
| * | $\dagger$ Oak Park |
| * | $\dagger$ Chicago |
| * | $\dagger$ Chicago |
| * | + Champaign |
| * | $\dagger$ Greenview |
| * | $\dagger$ Urbana |
| * | $\dagger$ St. Louis, Missouri |
| * | $\dagger$ Davenport, Iowa |
| * | $\dagger$ Chiccgo |
| * | + Chicago |
| * | $\dagger$ Chicago |
|  | $\dagger$ Mexico City, Mexico |
| * | Mexico City, Mexico |
| $*$ | Bellflower |
| * | $\dagger$ Aurora, South Dajoia |
| * | $\dagger$ - |
|  | $\dagger$ Peoria |
|  | + Belleville |
| * | $\dagger$ LaSalle |
|  | $\dagger$ Mason City, Iowa |
|  | $\dagger$ Champaign |
|  | $\dagger$ Urbana |
|  | $\dagger$ Urbana |
|  | $\dagger$ Chicago |
|  | Belvidere |
|  | $\dagger$ Urbana |
|  | $\dagger$ Bremen, Indiana |
|  | $\dagger$ Oquawka |
|  | Urbana |
|  | $\dagger$ Urbana |
|  | $\dagger$ Bremen, Indiana |
| * | $\dagger$ Morris |
|  | $\dagger$ Elmwood |
|  | † Joliet |
|  | Mt. Union, Iowa |
|  | Chicago |
|  | $\dagger$ Peoria |
|  | + Libertyville |
|  | Libertyville |
|  | $\dagger$ Springfield |
|  | $\dagger$ Urbana |
|  | $\dagger$ Aurora |
|  | + Sterling |
|  | + LeRoy |
|  | $\dagger$ New Sharon, Iovo |
|  | $\dagger$ Evanston |
|  | † Jacksonville |
|  | + Hoopet, India |
|  | † Urbana |
|  | $\dagger$ Burlingion, Iowa |
|  | $\dagger$ Chicago |
|  | $\dagger$ Los Angeles, California |
|  | + Chicago |
|  | $\dagger$ Aledo |
|  | $\dagger$ Kirkwood |
|  | + Chicago |
|  | $\dagger$ Southbridge, Massaciuseits |
|  | † Rockford |
|  | + Menominee, Wisconsin |
|  | $\dagger$ Aurora |
|  | Silver Creek, New York |
|  | $\dagger$ Ogden |
|  | $\dagger$ Decatur |
|  | $\dagger$ Oakwood |
|  | + Bloomington |
|  | † Maroa |
|  | $\dagger$ Chickasha, Oklchoma |



| Agr |  | * $\dagger$ Princeton |
| :---: | :---: | :---: |
| LAS | 541 | * Lovington |
| SS | $7{ }^{\frac{1}{2}}$ | Decatur |
| HSLAS | 67 | * $\dagger$ Urbana |
| HSLAS | 99 | * + Oakwood |
| Com |  | * $\dagger$ West York |
| LAS | 34 | * St. Louis, Missouri |
| Agr |  | * Chicago |
| LAS |  | * Urbana |
| LAS | $98 \frac{1}{2}$ | * † Tallula |
| Agr | 65 | * † Urbana |
| LAS | $30 \frac{1}{2}$ | * Wilmette |
| LAS |  | Streator |
| LAS |  | * $\dagger$ Hillsboro |
| ME | 106 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Waukegan |
| LAS |  | * † Pond Creek, Oklahoma |
| Chem (SS) | 105 | * $\dagger$ Harvey |
| LAS | 32 | * $\dagger$ Anderson, Indiana |
| SS | $5^{5 \frac{1}{2}}$ | Harlford, Kentucky |
| HSLAS |  | * $\dagger$ Chicago |
| LAS | 18 | * $\dagger$ Aurora |
| Com | 67 | * $\dagger$ Kansas City, Missouri |
| Com | 36 | * $\dagger$ Olney |
| ${ }^{\text {A S }}$ | 103 $\frac{1}{2}$ | * † Lawrence, Michigan |
| SS |  | * Star Cily, Indiana |
| ${ }_{L A S}^{\text {Agr }}$ | 125 $\frac{1}{2}$ | $\begin{aligned} & \text { * Evanston } \\ & \text { + Peoria } \end{aligned}$ |
| CE |  | * $\dagger$ A mboy |
| Ag7 | 109 | * $\dagger$ Biggsville |
| AE | 12 | * $\dagger$ Chicago |
| Com (SS) | 32 | * Quincy |
| LAS (SS) | 92 | * $\dagger$ Traverse City, Michigan |
| Com | 48 | * $\dagger$ Champaign |
| Agr | 47 | * T McNabb |
| HASAgr | 31 | $\text { * } \dagger \text { McNabb }$ |
| Agr | 68 | * $\dagger$ Ashton |
| Agr | 68 | * † Clinton |
| Agr |  | * † Watseka |
| SS | 111 ${ }^{\frac{1}{2}}$ | Roodhouse |
| $\operatorname{MinE}$ | 43 | * $\dagger$ Joplin, Missouri |
| Com | 30 | * † Metamora |
| SS | 132 | Peoria |
| SS | 2412 | Petersburg, Indiana |
| Com | 27 | * Canton |
| Agr (SS) | $48 \frac{1}{2}$ | * † Russellville, Indiana |
| HSLAS |  | * $\dagger$ Danville |
| LAS |  | * $\dagger$ St. Louis, Missouri |
| LAS |  | * + St. Louis, Missouri |
| Com | 71 | * $\dagger$ Moline |
| LAS | 60 | * $\dagger$ Bremen, Indiana |
| Com |  | * † Camp Poinl |
| Com | 31 $\frac{1}{2}$ | * Plymouth |
| Agr |  | * $\dagger$ Leroy |
| HSLAS | 65 | * $\dagger$ Plainfield |
| Agr Sp |  | * $\dagger$ Mattoon |
| CE | 36 | * $\dagger$ Chicago |
| Agr | 26 | * $\dagger$ Matteson |
| Agr (SS) | 100 | * $\dagger$ Chicago |
| HSLAS | 16 | * $\dagger$ Carlyle |
| Law | 85줄 | * + Chicago |
| Com | 75 | * $\dagger$ Peoria |
| HSLAS | 63 | ${ }_{*}^{*}+$ Pekin ${ }^{\text {Santonio, Texas }}$ |
| ${ }_{\text {Lib }}$ | 47 | * + San Antonio, Texas |
| Com (SS) | 29 | * + Champaign |
| $A E$ (SS) | 132 | * $\dagger$ Milwaukee, Wisconsin |
| Com | 27 | - Chicago |
| SS | 143 | Speer |
| LAS | 40 | * † Chicago |
| Agr | 52 | * † Camp Point |
| LAS | 27 | * $\dagger$ Chicago |
| Chem | 63 | * $\dagger$ Vincennes, Indiana |
| LAS |  | * + India |
| LAS |  | * $\dagger$ Chittagarg, India |
| ${ }_{\text {Agr }}$ | 113 | * $\dagger$ Provana |
| Agr | 45 ${ }^{\frac{1}{2}}$ | * Evanston. |
| EE |  | * + Champaign |
| SS | 4 | Champaign |
| CE | 38 | $\dagger$ Roy, New Mexico |
| HSAgr |  | * $\dagger$ Marseilles |
| HSLAS | 32 | * $\dagger$ Wilmington |
| REE | 86 | * † Quincy |




Hedenberg, John Wesley
Hedgcock, Martha Elizabeth
Hedges, Edwin Alvin
Hedrick, Marie Adaline, A.B.
(University of Kansas), 1915
Heeschen, Richard George
Hegener, Archie Leo
Hegsted, Martin Anton
Heidler, Antionette Marie
Heidler, Joe Bunn
Heikes. Samuel Irving
Hein, Mary Rachel
Hein, Mason August
Heindel, Spencer Rehbock
Heineke, Hilton Edward
Heineke, Paul Henry
Heinemeier, Roy Frank
Heinicke, Herbert Martin Edward
Heinz, Katherine Lorella
Heise, Walter Otto
Heitsmith, Grace
Heizer, Edith
Held, Irene Lucille
Helm, Harry Gray
Helm, Herbert Clarence
Helm, Laeta Elizabeth
Hemb, Harold Borden
Hemb, Thorvald Edward
Hemingway, Arthur Leland
Henderson, Alice Pryor
Henderson, Anna Hazel
Henderson, Bruce Walter
Henderson, Ewell B
Henderson, Irene.
Henderson, Melvin
Henderson, William, Jr.
Henderson, William Frankiin
Henley, Thomas Edward
Henn, Elmer John
Henn, Hildagard Anna Sarah
Henn, Russell Jennings
Henneberry, Theresa Mary
Henning, Caspar Ferdinand
Henry, Elizabeth
Henry, Victor Max
Hensold, Harold Hortman
Henson, Charles Newell
Henson, Margaret Emily Virginia
Henson, Mark Stephen
Herdman, Frank Victor
Hermanson, Frank Alfred
Herr, Charles Asmer
Herrcke, Ralph Julius
Herrick, Winfred Crouse
Herriott, Opal Vida
Herrmann, Clarence Charles
Herwig, Lee Conrad
Herzer, Margaretha Beata
Hesemann, Henry Bailie
Hesley, Karl
Hess, Oral Vera
Hess, Paul David
Hesser, George Balchelder
Heuer, Joseph Henry
Hewes, Ella Isabelle
Heyduck, Lawrence Eusene
Hexter, Avromi Nathan
Hickey, Daniel Webster, Jr.
Hickey, John Raymond
Hicks, George
Hicks, John Emer
Hicks, Mrs. Mary Hannah Broadbelt
Hicks, Thomas Henry
Hicks, Victor La Naier
Hicks, Vivian Elizabeth
Higgins, Arthur Eugene
Higgins, Margaret Elizabeth
Higgins, Mary Marguerite
Highfield, Allen Ross
Highsmith, Evangeline Anne
Hilburn, Carl Thomas
Hildebolt, Harry Clifford
Hill, Arthur Collins
Hill, George Oliver
Hill, Gertrude Ozeta

| Agr |  | Chicago |
| :---: | :---: | :---: |
| HSLAS | 64 | * Plymouts |
| Mus Sp |  | * Savoy |
| Lib |  | * † Kansas City, Missouri |
| Chem | 70 | * $\dagger$ Davenport, Iova |
| LAS | 112 | * Bluff Springs |
| $A E$ | 67 | * $\dagger$ Chicago |
| HSLAS |  | * † Oak Park |
| LAS | 65 | * $\dagger$ Springfield |
| Com |  | * $\dagger$ Dakotc Cily, Nebraska |
| HSAgr | 1141 $\frac{1}{2}$ | * - Champaign |
| Agr | 101 | * + Clampaign |
| CE | 107 | * † Stockton |
| LAS |  | * Streator |
| Law | 95 | * $\dagger$ Streator |
| Chem |  | * - Hinckley |
| ChE | 37 | * + Sl. Louis, Missouri |
| SS | 4 | Champaign |
| Agr | 371 | * † Neponset |
| HSLAS |  | * + South Bend, Indiana |
| LAS |  | * + Maywood |
| IISLAS |  | * + Clay Center, Kansas |
| LAS | 67 | * + Grayville |
| Agr | 131 | * + Metropolis |
| HSLAS |  | * $\dagger$ Springfield |
| ME | 351 | * $\dagger$ Dundee |
| Com |  | * $\dagger$ Dundee |
| Agr |  | * Arcola |
| SS |  | Decalur |
| LAS (SS) | 54 | * † Champaign |
| $M d P$ |  | * $\dagger$ Holcomb |
| SS | $5 \frac{1}{3}$ | Cameron, Missouri |
| LAS |  | * Bloomington |
| Ag7 | 29 | * † Leland |
| Agr (SS) | 42 | * $\dagger$ Millers Ferry, Alabama |
| S.S | $\sigma$ | Decatur |
| Agr | 34 | * $\dagger$ Mattoon |
| Agr |  | * $\dagger$ Champaigı |
| HSAgr (SS) | $87 \frac{1}{2}$ | * $\dagger$ Toluca |
| LAS |  | * + Paris |
| LAS sp |  | $\dagger$ Elkhart |
| MSE | 37 | * $\dagger$ Mendola |
| Lib | 31 | * Quincy |
| Agr | 33 | * $\dagger$ Champaign |
| $A g r$ | 94 | * + Tonica |
| Com |  | * + Villa Grove |
| A gr (SS) | 6.4 | * + Urbana |
| Agr sp |  | $\dagger$ Urbana |
| ME | 39 | * + Winnetka |
| Com (SS) | 1025/6 | $\dagger$ Milford |
| Agr sp | 31 | * + Quincy |
| Com |  | * † LaSalle |
| Agr | 3 | * Rockford |
| HSAgr |  | * + Champaign |
| Com |  | * $\dagger$ Kenosha, Wisconsin |
| $C E$ |  | * $\dagger$ Ashton |
| SS | $23 \frac{2}{3}$ | Springfield |
| EE |  | * $\dagger$ Altamont |
| SS |  | Pittsfield |
| SS | 141 | Sidney |
| MinE | 29 | * $\dagger$ Pitisbutrg, Kensas |
| $A_{g r}$ | 31 | * $\dagger$ Urbana |
| CE |  | * $\dagger$ Liberlyville |
| SS |  | Crete |
| $M E$ | 37 | * $\dagger$ Centralia |
| SS | 27 | Memphis, Tennessec |
| $E E$ | 71 | * $\dagger$ Aurora. |
| $C E$ | 28 | $\dagger$ St. Louis, Missouri |
| Agr | 28 | * Chadwick |
| $A g r$ |  | * $\dagger$ Onarga |
| LAS | 60 | * Champaign |
| LAS |  | * + Warren |
| Agrsp | 22 | * $\dagger$ Columbic, Missouri |
| LAS |  | * $\dagger$ Columbia, Missouri |
| Com sp |  | * + La Grange |
| SS | 66 | Bee Ridge, Florida |
| SS | 107 | Joliet |
| LAS |  | $\dagger$ Belleville |
| LAS |  | * $\dagger$ Lawrenceville |
| CE | 125 | * $\dagger$ Bicknell, Indiana |
| Agr | 116 ${ }^{\frac{1}{2}}$ | * $\dagger$ Eaton, Ohio |
| $E E$ | 2 | * Earlville |
| Com |  | * † Highland Park |
| SS | 16 | Sullivan |

Hill, Harold Wayne
Hill, Helen Wilder
Hill, Lawrence Elias
Hill, Mary Muriel
Hill, Raymond Max
Hill, Robert Earl
Hill, Virl Zinn
Hill, William Harry
Hilliard, Erin Martha
Hilliard, Lyndal
Hills, David Avery
Hilpert, Martha
Hiltabrand, Wendell Phillips
Hilton, Ivan Jay
Himes, Shelby Dexter
Himmelreicher, Walter August
Hindman, Loel Heyward
Hinds, Almon Wilkinson
Hines, Lyle Wilbur
Hinrichs, Herbert Stassen
Hipple, Roy Everett
Hirstein, John A
Hirth, Mildred
Hite, Edward Spalding
Hitt, Katherine, A.B., 1915
Hixon, Hope Ada
Ho, Chu Kin
Hobart, Floyḍ Beatty
Hobart, Harriet Laura
Hockstuhl, Eugene Harold
Hodge, John Reed
Hoehnke, Herbert William
Hoff, Einar Benjamin
Hoffman, Aaron Andrew
Hoffman, Harold
Hoffman, Harry Burton
Hoffman, Louis Arthur
Hoffman, Mary Margaret
Hoffman, Max Robert
Hofreiter, Jessie Belle
Hogan, Carl Monta
Hogarty, Alexander Joseph
Hohm, Harley Daniel
Holaday, Kenneth Marion
Holecek, Albert Bernard
Hollandsworth, Helen Margaret Ann
Hollingsworth, Chauncey Raymond
Holmes, Laura Clark
Holmes, Oliver Wendell
Holstein, Inez
Holstein, Irma
Holt, Herbert Edward
Holton, William Burroughs
Holtzman, Harold Hoover
Homrich, Leslie
Honaker, Lombe Scott
Honaker, Stuart French
Honey, Myrtle Eveline
Honnold, Loie James
Hood, Vance Robert
Hoots, Paul Frost
Hoover, Arthur Daniel
Hoover, Walter Senn
Hope, Annabel
Hopkins, Eugene Canfield
Hopkins, Guy Beatty
Hopkins, Samuel Curtis
Horen, Louis.
Horimura, Hirosh
Horney, Reid Bunn
Horney, Warren Rees
Hornkohl, Siegfried Irving William
Hornsby, White Calhoun
Horowitz, Saul
Horrall, Kenneth Chauncey
Horter, Robert Edwin
Horton, Erle Francis
Horton, Ethel
Horwich, David
Hosack, Carl Irving
Hoskins, Leonard Cunningham
Hoskins, Robert Keith
Hoskinson, Bruce Quin, A.B., 1916
Hoskinson, Ottis, A.M., 1116
A.B. (Union Cliristian College)

| MdP |  | Winchester |
| :---: | :---: | :---: |
| Agr sp |  | * $\dagger$ Decatur |
| $A E$ | 68 | * Chicago |
| LAS | 16 | * $\dagger$ Kansas Cily, Missouri |
| LAS |  | * + Vincennes, Indiana |
| Law | 115 | * + Flora |
| MdP |  | * + Streator |
| SS | 3 $\frac{1}{2}$ | Medford, Oklahoma |
| Agr sp |  | Huntingdon, Tennessee |
|  | 43 | Fairfield |
| EE | 1061 | * $\dagger$ Evarstor |
| HSAgr | $91 \frac{1}{2}$ | * $\dagger$ St. Louis, Missouri |
| Agr | $60 \frac{2}{3}$ | * $\dagger$ Peoria |
| MSE | $20^{\circ}$ | * $\dagger$ Springfield |
| Com |  | * † Galva |
| CE | 108 | * + Chicago |
| Agr |  | * + Anna |
| ME | 66 | * $\dagger$ Decatur |
| Com (SS) | 92 | * + Fairmont, Minnesola |
| Agr | 86 | * $\dagger$ Joliet |
| Agr | 101 | * $\dagger$ Waterman |
| A ${ }^{\text {gr }}$ | 104 $\frac{1}{2}$ | * $\dagger$ Summerfield |
| HSLAS |  | $\dagger$ Quincy |
| AE |  | * $\dagger$ Terre Haute, Indiana |
| Lib |  | * $\dagger$ Chicago |
| LAS | 32 | * † Urbana |
| MinE |  | * $\dagger$ Canton, China |
| ChE |  | * + West Lebanon, Indiana |
| SS | 8 | Roscoe |
| EE |  | * Clifton Terrace |
| AE | 73 | * + Carbondale |
| $A E$ | 73 | * $\dagger$ Sheboygan, Wisconsin |
| Agr |  | * † Ock Park |
| Com | 107 | * $\dagger$ Dright |
| Com | 35 | * $\dagger$ Dwight |
| Agr |  | * † Tandalia |
| LAS (SS) | 1011 ${ }^{\frac{1}{2}}$ | * $\dagger$ Harvey |
| LAS | 35 | * † Champaign |
| ME | 65 | * $\dagger$ DePue |
| LAS | 17 | * Green Valley |
| LAS |  | * † Ellendale, North Dakota |
| SS | $50^{\frac{1}{3}}$ | Lexington, Kentucky |
| A gr | 50 | * $\dagger$ Sycamore |
| ChE | 68 | * $\dagger$ Mattoon |
| Law | 99 | * $\dagger$ Chicago |
| LAS | 100 | * $\dagger$ Canton |
| EE | 36 | * + Stronghurst |
| HSAgr | 101 | * $\dagger$ West Chicago |
| ${ }_{S}{ }_{S} \mathrm{~S}$ | 89 | * $\dagger$ Greenfield |
|  | $3 \frac{1}{2}$ | Urbana |
| LAS sp |  | * † Urbana |
| Agr | 34 | * + Wheator |
| LAS |  | $\dagger$ Chicago |
| Agr | 35 | * † Chicago |
| SS | 76 | Galena |
| SS | $8 \frac{1}{2}$ | Wytheville, Virginia |
| SS | $6 \frac{1}{3}$ | Wytherille, Virginia |
| $A g r$ (SS) | 72 | * $\dagger$ Dixon |
| ${ }_{\text {Agr }}$ | 69 | * $\dagger$ Kansas |
| Com |  | * $\dagger$ Mansficld |
| Chem | 35 | * $\dagger$ Mattoon |
| LAS |  | * † Oak Park |
| SS | 5/8 | Lovington |
| HSLAS |  | * † Sl. Louis, Missouri |
| Agr | 97 | * $\dagger$ Yorkville |
| EE | 110 | * $\dagger$ Delavan |
| Com | 103 | * $\dagger$ Urbana |
| LAS (SS) | 66 | * $\dagger$ Madison |
| EE | 106 | * † Ohita Ken, Japan |
| LAS | 95 | * $\dagger$ Colfax |
| ${ }_{\text {Agr }}$ | 104 | * † Colfax |
| ${ }_{S S}^{A E}$ | 114 | * $\dagger$ St. Joseph, Missouri |
| ME | $22 \frac{1}{2}$ | * Russia |
| Com |  | * $\dagger$ Olney |
| $C E$ |  | * $\dagger$ Chicago |
| ME |  | * $\dagger$ Wilmington |
| LAS | 60 | * $\dagger$ Pond Creek, Oklahoma |
| AE | 73 | * $\dagger$ Chicago |
| SS | 5 | Little Rock, Arkansas. |
| ME | 82 | * Las Vegas, New Mexico |
| Com | 54 | * $\dagger$ Terre Haute, Indiana |
| Agr |  | * West York |
| SS | $8 \frac{1}{6}$ | West York |



Hunt, Milton Tilmore
Hunter, Adella Aileen
Hunter, Lloyd Hiram
Hunter, Margaret
Huntington, Lloyd Lucius
Huntley, Edgar Allen
Hurley, Frank John
Hurley, Luther Thomas
Hurt, Milton John
Hurst, Cornelia
Husson, Harry Lee
Husted, Merle Raymond
Huston, Charles Jerome
Hutchins, Anna Elizabeth
Hutchins, Marjorie, B.Mus., 1915
Hutchison, Josephine Ladner
Hutchison, Lawton Hargrove
Hutton, Clifford
Hyde, Harvey Woolsey
Hyde, Russell Choate Miller
Hylen, Harry Andrew
Ide, Hiram Russell
Ide, Robert Armington
Igo, Harold Peoples
Ikemire, Colonel Earl
Imes, Ralph
Imlay, Raymond Edward
Ingram, Ralph Lindsay
Ingwers, Alfred Henry
Ingwersen, Burton Ahrens
Ingwersen, Henry Newton
Ingwersen, John Arthur
Ireland, Matilda Isabel
Irick, Carl Cuthbert
Isaacson, Oliver Theodor
Isobe, Seiche
Iwig, Dorothy Josephine
Jackson, Anna Elizabeth
Jackson, Arthur Mells
Jackson, Caleb Flavious
Jackson, Ernest Theodore
Jackson, Hobart Harry
Jackson, Luella Elizabeth
Jackson, Manley Seymour
Jackson, Martha Elizabeth
Jackson, Thomas Henry
Jacobi, Herbert Jacob
Jacobsen, Eda Augusta
Jacobsen, Leonora
Jacobson, Carl Clifford
Jacobson, Henry George
Jacquin, Wentworth Cary
Jahr, Myra Bertha
Jakubowski, Stanley Anton
James, Donald Dulaney
James, Harriet Lillian
James, Helen Ida
James, Lenton Willis, B.S., 1916
James, Russell Broadway
James, Walter Pony
James, Walter Robert
Jamison, Harold Edward
Jamison, Ross Phillps
Janata, Anton James
Janssen, Elmer Theodore
Jaques, Charles Alva
Jasper, Lucinda Emmeline
Jean, Wing
Jenkins, Lydia Geneva
Jenkins, Nelson Durfee
Jenks, Philip Dorsey
Jenner, Lawrence Tenney
Jennett, Harold Patrick
Jennings, Alma Irene
Jensen, Jorgen Edward
Jensen, Myrtle Ruth
Jervis, Katherine Belle, A.B., A.M., 1907. 1911
Jessen, Clifford Tvilstedgaard
Jessen, Virgil Tvilstedgaard
Jewett, Eleanor Rountin
Jockisch, Zelma Anna Elizabeth
Johansen, Fred Emil
Johns, Donald C
Johns, Edward Brauer

| Com | 35 | Warsaw |
| :---: | :---: | :---: |
| LAS | 34 | * $\dagger$ Champaign |
| Com | 33 | * $\dagger$ Henry |
| HSLAS | 64 | * $\dagger$ Chillicothe |
| $A E$ |  | $\dagger$ Pontiac |
| ChE |  | * + Lead, South Dakota |
| Com | 33 | $\dagger$ Chicago |
| Com | 4 $\frac{1}{2}$ | * † Liberty Mills, Indiana |
| ${ }^{\text {A }}$ gr |  | * Chicago |
| HSLAS |  | $\dagger$ St. Charlcs, Missouri |
| EE | 101 | * $\dagger$ Auburn |
| ${ }_{\text {Agr }}$ | 68 | * $\dagger$ Roodhouse |
| ${ }_{\text {EE }}^{\text {HSLAS }}$ |  | * $\dagger$ Chicago |
| LAS |  | + Urbana |
| LAS | 93 | * + Mineral Point, Wisconsin |
| EE | 71 | * Little Rock, Arkansas |
| Arch | 32 | * $\dagger$ Waterloo, Iowa |
| Chte | 36 | * $\dagger$ Chicago |
| $L_{A E}^{L A S}$ | 37 | * $\dagger$ Rantoul |
| ${ }_{\text {Agr }}$ | 53 | * Washington, D. C. |
| Com | 32 | * $\dagger$ Washington, D. C. |
| SS | 6 | New Wilnington, Pennsyluania |
| LAS |  | * $\dagger$ Louisville |
| LAS | 97 | * $\dagger$ Macomb |
| Agr sp |  | * $\dagger$ Zanesville, Ohio |
| $A g r$ | 75 | * Chicago |
| Arch | 72 | * $\dagger$ Moline |
| ME |  | * $\dagger$ Fulton |
| ${ }^{\text {A }}{ }^{\text {r }}$ | 101 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Chicago |
| LAS | 51 | * $\dagger$ Washburn |
| MdP | 62 | * $\dagger$ Pittsfield |
| ME | 45 | * $\dagger$ Sanborn, Minnesota |
| ME |  | * † Osaka, Japan |
| HSLAS | 60 | * $\dagger$ Peoria |
| LAS | 45 | * Champaign |
| $\stackrel{\text { S }}{ }$ S | 27 | * $\dagger$ Anderson, Indian |
| SS | 451 $\frac{1}{2}$ | Odine |
| ME |  | * $\dagger$ Kenney |
| LAS | 45 | * + Ouray, Colorado |
| AE | 129 | * - Pine River, Minnesota |
| HSAgr | 25 | * $\dagger$ Urbana |
| Agr | 62 | * $\dagger$ Champaign |
| Arch sp | 48 | * $\dagger$ Milwaukee, Wisconsin |
| HSLAS (SS) | 1351 | * $\dagger$ Urbana |
| ME |  | * + Chicago |
| $A g r$ | 68 | * + Chicago |
| Com | 63 | * $\dagger$ Peoria |
| HSLAS | 62 | * $\dagger$ Neillsville, Wisconsin |
| ME | 36 | * $\dagger$ Chicago |
| LAS |  | * Danville |
| HISLAS | 105 | * $\dagger$ A mboy |
| LAS (SS) | 40 | * $\dagger$ Whitewater, Wisconsin |
| SS | 142 | Canton |
| LAS | 35 | * † East St. Louis |
| Agr | 153? | * $\dagger$ Bloomington, Indiana |
| Com |  | * † Oak Park |
| AE |  | * $\dagger$ Pontiac |
| ${ }^{\text {A }} \mathrm{gr}$ r |  | * $\dagger$ Pontiac |
| LAS | 23 | * $\dagger$ DeKalb |
| ${ }_{\text {Compr }}$ | 72 | * $\dagger$ Sterling |
| AgrLAS | 26 | * + Cornwall, Enrglana |
| Com (SS) | 37 | * $\dagger$ Canton |
| LAS | 65 | * Clark's Hill, Indiana |
| EE |  | * $\dagger$ Oak Park |
| $C h E$ | 52 | * Indianapolis, Indiana |
| Com | 71 | * $\dagger$ Evansville, Indiana |
| EE | 32 | * $\dagger$ Streator |
| $\underset{E E}{H S L A S}$ (SS) | 97 | * Champaign |
| ${ }_{\text {E }}^{\text {E }}$ LS | 72 | $\begin{aligned} & *+\text { Chicago } \\ & *+\text { Chicago } \end{aligned}$ |
| SS |  | Champaign |
| Agr | 312 | * $\dagger$ Alto Pass |
| $A g r$ |  | * $\dagger$ Alto Pass |
| ${ }_{\text {A }} \mathrm{grgr}^{\text {r }}$ | 41 | * Chicago |
| AE | 42 | * + Chicago |
| $\operatorname{MinE}$ | 137 | $\dagger$ Danville |
| Com | 5 | * $\dagger$ Metropolis |


| Johns, Evelyn Gordon | HSLAS | 89 | Danville |
| :---: | :---: | :---: | :---: |
| Johns, Marian Elizabeth | LAS | 61 | * $\dagger$ Rockford |
| Johnson, Archie | CE |  | * Mattoon |
| Johnson, Armer Clark | ME | 5 | $\dagger$ Rockford |
| Johnson, Carl Wilhelm. | Com | 33 | Batavia |
| Johnson, Claude Francis | ME | 14찬 | * + South Haven, Michigan |
| Jolnnson, Earl | SS | $61 / 8$ | Peru, Nebraska |
| Johnson, Edwin Reynolds | Com | 34 | * $\dagger$ Springfield |
| Johnson, Elfrith George | Agr | 98 | * $\dagger$ Medna |
| Johnson, Elmer Thomas | $C E$ |  | * $\dagger$ Rockford |
| Johnson, Everett Louie | Agr | 49 | * St. Charles |
| Johnson, Fay Warren. | MinE |  | $\dagger$ Sidney |
| Johnson, Floyd Henning | Com | 65 | * $\dagger$ St. Charles |
| Johnson, Harry Edward | ME |  | * † Omaha, Nebraska |
| Johnson, Helen Amanda | LAS | 63 | * $\dagger$ Belvidere |
| Johnson, John Robert | LAS | 29 | * + Decatur |
| Johnson, Joseph Benjamin | Agr | 54 | * $\dagger$ Harrisburg |
| Johnson, Julius Nicholai | Com | 103 | * $\dagger$ Elgin |
| Johnson, Leo Porter | Agr | 23 | * Stockton |
| Johnson, Mary Fern, A.B., 1916 | Mus |  | * $\dagger$ Urbana |
| Johnson, Nellie Mae | SS | $7 \frac{1}{2}$ | Sterling |
| Johnson, Otis Floyd | Arch | 37 | * $\dagger$ West Poinl, Indiana |
| Johnson, Radford Murray | Agr (SS) | 93 | * $\dagger$ Crossville |
| Johnson, Ralph Benjamin | ME | 41 | * $\dagger$ Joliet |
| Johnson, Ralph N | ${ }_{\text {A }} \mathrm{gr}$ | 36 | * $\dagger$ Knoxville |
| Johnson, Richard Henderson | Com | 29 | * $\dagger$ Danville |
| Johnson, Robert Eugene | EE | 120 | * $\dagger$ Lawrenceburg, Kentucky |
| Johnson, Ruby Emma | LAS (SS) | $97 \frac{1}{3}$ | * $\dagger$ Rockford |
| Johnson, Sharon Perry | SS | 8 $\frac{1}{2}$ | Cornell |
| Johnson, Theodore William | $A E$ |  | $\dagger$ Chicago |
| Johnson, Thorsten Ludwig | ChE |  | * † Keokuk, Iowa |
| Johnson, Warren MacIntyre | $A g r$ |  | $\dagger$ St. Louis, Missouri |
| Johnston, Douglas Gentry | Agr | $32 \frac{1}{2}$ | * $\dagger$ Alton |
| Johnston, Harold Boomer | LAS | 281 | * $\dagger$ Champaign |
| Johnston, Hazen Henry | Com |  | * Ft. Wayne, Indiana |
| Johnston, James Martin | LAS | 95 | * † Chapel Hill, North Ccroli |
| Johnston, Lillian Ruth | HSLAS | 66 | * $\dagger$ Champaign |
| Johnston, Paul Evans | Agr | 100 | * $\dagger$ Milton |
| Johnston, Pauline | LAS sp | 29 | * $\dagger$ Alton |
| Johnston, Wayne Andrew | Com | 18 | * Champaign |
| Jones, Alwin August | Com | 28 | $\dagger$ Dewey |
| Jones, Bernicelyn Fishback | LAS |  | * + Urbana |
| Jones, Bertha Marie, A.B., 1911 | SS | 138 | Champaign |
| Jones, Dudley Emerson | Arch | 104 | * † Little Rock, Arkansas |
| Jones, Earl Jesse | Com | 59 | * $\dagger$ Gilbert, Iowa |
| Jones, Elizabeth Sophia | HSAgr sp | 34 | * $\dagger$ Raymond |
| Jones, Florence Dorothea | HSLAS | 31 | * $\dagger$ Raymond |
| Jones, Frances Beulah | HSAgr (SS) | 103 | * † Champaign |
| Jones, Frank William | Agr | 104 | * $\dagger$ Bloonnington |
| Jones, George Wilson | $M d P$ | 61 | * $\dagger$ Evanston |
| Jones, John Paul | Com |  | * Kokomo, Indiana |
| Jones, Leland Burns. | LAS |  | * $\dagger$ Douglas, Arizona |
| Jones, Mack Marquis | EE | 78 | * † Tonkawa, Oklahoma |
| Jones, Marian Lucile | HSAgr | 88 | * $\dagger$ Fort Smith, Arkansas |
| Jones, Margorie Ann | HSLAS |  | * $\dagger$ Kirkwood, Missouri |
| Jones, Marvel Armorel | LAS | 39 | * + Urbana |
| Jones, Paul Clifford | EE | 111 | * $\dagger$ Henry |
| Jones, Ralph Coaghenoun | Agr |  | * $\dagger$ Fairfield |
| Jones, Sarah Lulu. | HSAgr (SS) | 5 | * $\dagger$ Urbana |
| Jones, Trevor Leslie | Agr | 33 | * + Chenoa |
| Jones, Vera Gretchen | LAS |  | * + Urbana |
| Jones, Vivian Myfanny | LAS |  | * A urora |
| Jones, Walter Earl | Com |  | * $\dagger$ Ridgefarm |
| Jones, Walter Ortis | Com (SS) | 1111 ${ }^{1}$ | * $\dagger$ Champaign |
| Jones, Warren Paul | ${ }^{\text {A gr }}$ | 76 | * $\dagger$ Chicago |
| Jones, William Joseph | Com | 30 | * $\dagger$ Elgin |
| Jones, William Robert | SS | 69 | Kirkland |
| Jooston, Ehme John | ${ }_{\text {A }} \mathrm{gr}$ | 64 | * $\dagger$ Flanagan |
| Jordan, Clarence Levi | Com |  | * $\dagger$ Mi. Carmel |
| Jordan, Roy Vail | SS | 231/8 | Rinard |
| Jorgensen, Rufus Inglebert | AE |  | * $\dagger$ Green Bay, Wisconsin |
| Joseph, Stanlcy Earl | SS |  | Grand Rapids, Michigan |
| Joslyn, Gladys Irene | HSLAS | 24 | * $\dagger$ Marengo |
| Judd, Elizabeth Gladys | LAS | 61 | * $\dagger$ Urbana |
| Judd, Garnet Wilson | LAS |  | * Urbana |
| Judson, Frank Monteath | Com | 104 $\frac{1}{2}$ | * $\dagger$ Chicago |
| Julian, Scott Millholland | Agr | 69 | * † Little Rock, Arkansas |
| Juline, Carl | Arch |  | * $\dagger$ Des Moines, Iowa |
| Junken, Esther Sarah | HSAgr sp |  | * Rushville, Indiana |
| Kaaz, Arthur Otto George | Arch |  | * $\dagger$ Atchison, Kansas |
| Kadyk, David James | LAS | 34 | * 1 Fulton |
| Kaehler, Oscar Henry | EE |  | * $\dagger$ Chicago |
| Kahl, Charles Nathanial | ME |  | * $\dagger$ Jacksonville |
| Kahler, Laura | LAS |  | * $\dagger$ Belvidere |
| Kalivoda, Joseph John | ME | 72 | * $\dagger$ Chicago |

Kalthoff, Frcderick Caspar
Kamm, Harry Lee
Kamp, Henry Wilbur
Kane, William Harold
Kaplan, Samuel
Kapps, Susan Elisa
Karch, John
Karkow, Conrad Hansen
Karn, Albert Harry
Kasserman, George William
Kasserman, Homer Frank
Kaufman, David Louis
Kaufmann, Adolph Henry
Kawin, Louis
Kayser, Alfred Charles
Kayser, Clarence Samuel
Keagy, Abraham Reuel
Keatts, Rolla Merl
Kech, Alphonse Leibundguth
Keck, Charles Everett
Keck, George Fred
Keck, Marjorie Aileen
Keefer, Caroline
Keehner, Clarence Barnhard
Keen, George Frederick
Keepers, Floyd Willard
Keepers, Lloyd William
Kegley, Robert Britton
Keiffer, Lawrence Raymond
Keith, Emma Genevieve
Keith, Margaret
Kell, Sherman Little
Kelley, Edith Maurine
Kelley, Francis Hugh, B.S., 1916
Kelley, Iva
Kellogg, Wilbur Fisher
Kells, Lyman Morse
Kelly, Henry Eli
Kelly, John Thomas
Kelly, Paul Brown
Kelly, Philip John
Kemler, Robert Lynch
Kemp, Arnold Raman
Kemp, Charles Delbert
Kendall, Forrest Everett
Kendall, Mary Jilly
Kennedy, Emily Jane
Kennedy, James Walsh
Kennedy, Kaywin
Kennedy, Marguerite
Kennedy, Thomas
Kennelley, Griffith Sidney
Kenney, Mrs. Pearl Craven
Kenney, Wendell Lyon
Kenny, Edith Luella
Kenny, Marion Katheryne
Kent, Clifford P
Kent, Everett Frank
Kent, Horace Ellsworth
Kent, Paul Fraser
Kenworthy, Anna Jane
Kerber, Ruth Leah
Kern, Florence Ellen
Kern, Vernon Harlow, B.S., 1916
Kerner, Julius Caesar
Kerns, Edward Lincoln
Kerr, Edwin Virgil
Kerr, Emmett Ear
Kerr, Ralph
Kerrick, Donald Meriđith
Kershaw, Glenwood Haigh
Kershner, Karl Kenneth
Kessinger, Samuel Wcsley, Jr.
Kessler, Paul
Ketch, James Moss
Ketelhut, William Hermann
Keusink, Helen Bertha
Keyes, Hubert Ashingdon
Keyes, Otis Walton
Kidd, George Wilson
Kidd, Harold Frank
Kidd, Lilace Mazoe
Kidston, Roy Palmer
Kiester, Alta Mae
Kilbride, Edward Robert

| $A E$ (SS) | 69 | * $\dagger$ Chicago |
| :---: | :---: | :---: |
| SS | $7 \frac{1}{2}$ | Guard |
| LAS | 101 | * $\dagger$ Watseka |
| CerE (SS) | 71 | * † Wellsville, New York |
| $\operatorname{MinEsp}$ |  | * St. Louis, Missouri |
| HSLAS |  | * † Oak Park |
| SS |  | Mt. Vernon |
| Law | 61 | * † Chicago |
| SS | 1 | Grahamsville, Ohio |
| LAS | 18 | $\dagger$ Newton |
| LAS | 58 | $\dagger$ Newion |
| Com | 28 | * $\dagger$ Bellefontaine, ${ }^{2}$ Ohio |
| ChE | 105 | * $\dagger$ Chicago |
| LAS | 34 | * $\dagger$ White Hall |
| $C E$ | 27 | * $\dagger$ DesPlaincs |
| $A E$ (SS) | 69 | * $\dagger$ Decatur |
| $M E$ | 99 | * $\dagger$ Hot Springs, Arkansas |
| ME | 35 | * $\dagger$ Tuscola |
| $C E$ | 24 | * Chicago |
| Law | $55 \frac{1}{2}$ | * † Champaign |
| $A E$ | 41 | * $\dagger$ Watertowin, Wisconsin |
| Mus (SS) | 4 | * + Champaign |
| LAS | 22 | * † Amboy |
| Com |  | * $\dagger$ Jerseyville |
| Com |  | * $\dagger$ Kendallville, Indiana |
| $A g r$ | 32 | * $\dagger$ Mazon |
| $A g r$ | 32 | * + Mazon |
| Com |  | * $\dagger$ Urbana |
| EE | 71 | * Robinson |
| LAS | 65 | * $\dagger$ Hinckley |
| LAS | 26 | * † Lockport |
| SS | 130 | Kell |
| LAS | 33 | * $\dagger$ Camp Point |
| SS | 138 | - Urbana |
| LAS | 62 | * $\dagger$ Urbana |
| $M E$ |  | * † Marshall |
| Mus sp |  | * † Sank Center, Minnesota |
| $C E$ | 73 | * $\dagger$ Charleston |
| $M E$ | 73 | * † Oak Park |
| Com |  | * 1 Mattoon |
| Com | 34 | * Chicago |
| EE |  | * $\dagger$ Elgin |
| $A g r$ (SS) | 1055\% | * $\dagger$ Waynelown, Indiana |
| $A g r$ | 28 | * $\dagger$ Weynetown, Indiana |
| Agr |  | * $\dagger$ Victoria |
| SS | 64 | Farmer City |
| LAS |  | * $\dagger$ Morrison |
| Com | 30 | * Urbana |
| Law | 101 | * $\dagger$ Minonk |
| LAS | 34 | * $\dagger$ Morrison |
| Com |  | * Aurora |
| CerE | 43 | * $\dagger$ Joliet |
| SS | 5 $\frac{1}{2}$ | - Cobden |
| ME |  | * † Champaign |
| LAS |  | * $\dagger$ Mulberry, Indiana |
| $H S A g r$ | 33 | * $\dagger$ Champaign |
| Com |  | * $\dagger$ Olney |
| Agr | 113 | * Gridley |
| SS | 54 | Urbana |
| Arch | 62 $\frac{1}{2}$ | * $\dagger$ Gridley |
| LAS |  | * $\dagger$ Neoga |
| LAS |  | * Elgin |
| HSAgr | 98 | * $\dagger$ Champaign |
| Agr |  | * Gays |
| ME | 111 | * † Cicero |
| Com | 5 | * $\dagger$ Moline |
| $A \mathrm{gr}$ | 37 | * $\dagger$ Metropolis |
| $A E$ |  | * $\dagger$ Fort Worth, Texas |
| $A g r$ | 17 | * † Urbana |
| Agr |  | * † Chrisman |
| $M E$ |  | * † Kankakee |
| SS |  | Raymond |
| LAS |  | * † Litchfield |
| $A E$ |  | * Bloomficld, Indiana |
| $E E$ | 73 | * $\dagger$ Decatur |
| EE | 32 | * $\dagger$ South Haven, Michigan |
| HSLAS (SS) | 98 | * $\dagger$ Champaign |
| MdP | 25 | * + Chicago |
| SS | 11 | Rantoul |
| $C E$ | 135 | * Chicago |
| SS | 3 | Chicago |
| LAS | 97量 | * $\dagger$ Astoria |
| Agr | 32 | * Chicago |
| LAS | 60 | * Garden Prairie |
| Agr (SS) | 32 | * † Springfield |

Kile, Billye
Kile, Laura LaRhue
Killefer, Raymond Colonius
Kilpatrick, Ralph Sidney
Kimball, Frank Sherman
Kimman, John William
Kimmel, Clarence Eugene
Kimmelshue, William Maurice
Kincaid, Ruth Moore
Kiner, Howard Dickens
Kiner, Verne Bardwell
King, Burton Eldred
King, Edward Herschel
King, Esther
King, James Carroll
King, James Xenophon
King, Leo Francis
King, Merrill Burnett
King, Vincent Paul
King, William
Kingery, John David
Kingsley, Donald Henry
Kingsley, Lester Harris
Kingsley, Wendell Lathrop
Kinnane, Charles Hermon Thomas
Kinnear, Meyer Aurelius
Kinsey, Alfred Richardson
Kinsey, Jack
Kipp, John George Estill
Kirby, Harry Anton
Kirchhofer, Emma Esther
Kirk, Bertha May
Kirk, Ewing Leavitte
Kirkland, Elmore Archibald
Kirkland, Robert Dudley
Kirkland, Therese Elizabeth
Kirkpatrick, Florence Mabel
Kirkpatrick, Frank Allen, B.S., M.S., 1914, 1916
Kirkpatrick, Harry Louis
Kirkpatrick, Helen Marie
Kirkpatrick, Mildred Irene Wyrick
Kirkpatrick, Thomas Everett
Kirner, Walter Raymond
Kirtland, Dwight Bannister
Kirwan, Nora Godsell
Kiser, Helen Mynette
Kissinger, Donald Kenneth
Kittelsen, John Stewart
Kixmiller, Karl William
Klank, Frances Grace, A.B., 1916
Klapprodt, Adolf Hantz
Klapprodt, Charles Russel
Kleckner, George Malburn
Klein, George Minnie
Klein, Gordon
Klein, John Leo
Klein, Monica A
Klein, Nancie
Kleinbeck, Augustus Gustave
Klemmedson, Arthur Erick
Klemmedson, Gunnar Siegsmund
Klenk, Frederick
Klindwirth, Mildred Louise
IKline, Alice Harper
Kline, Arthur LaVerne
Kling, Carl Lawrence
Klink, William Lee
Kloppenburg, George Joseph
Klorfine, Meyer
Klotz, Vera
Klotzsche, Baynard Taylor
Klotzsche, Bessie May
Klotzsche, Eunice Esther
Knapheide, Mildred Carey
Knapp, John Robinson
Knappenberger, John Meredith
Kneeshaw, Mary Jane
Knetsch, James Dewey
Knight, Ewart Broughton
Knight, Galen Victor
Knight, Hubert Willard
Knoche, John Christian
Knop, Robert Oscar

| Com | 21 | * $\dagger$ Rockford |
| :---: | :---: | :---: |
| SS | $28 \frac{1}{2}$ | Rockford |
| LAS |  | * $\dagger$ Mattoon |
| Coin | 36 | * $\dagger$ Elmwood |
| Chenr | 49 | * $\dagger$ Rockford |
| Agr | 30 | * $\dagger$ Chicago |
| Laz | 123 | * Duquoin |
|  |  | * $\dagger$ Manteno |
| HSLAS | 98 | * $\dagger$ Farmer City |
| Lavo | 87 | $\dagger$ Geneseo |
| Com |  | * $\dagger$ Marseilles |
| Agr | 44 | * Plymouth |
| Com (SS) | 981 | * $\dagger$ Athens |
| LAS | 32 | * $\dagger$ Lake Forest |
| AE | 22 | * $\dagger$ Rockford |
| $A g r$ | $57 \frac{1}{2}$ | * $\dagger$ Richmond, Indiana |
| Com |  | * $\dagger$ Indianapolis, Indiana |
| Com (SS) | 8 | * $\dagger$ Bridgeport |
| $\stackrel{\text { Agr }}{\text { LAS }}$ (SS) | ${ }^{70}$ | * $\dagger$ Indianapolis, Indiana |
| LAS (SS) | $7 \frac{1}{2}$ | * $\dagger$ - ${ }^{\text {Cudley }}$ (hadwick |
| Agr | 34 | * $\dagger$ Alden |
| Agr |  | * $\dagger$ Chicago |
| Agr | 93 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Centralia |
| Agr |  | * $\dagger$ Rushville |
| $A{ }_{g r}$ | 97 | * $\dagger$ Centralia |
| Agr | 971 ${ }^{1}$ | * $\dagger$ Mackinaw |
| LAS (SS) | 1113 | * † St. Louis, Missouri |
| EE | 69 | * Indianapolis, Indiana |
| Coms | 26 | * $\dagger$ Kansas City, Missouri |
| LAS | 101 | * $\dagger$ Decatur |
| Com |  | * $\dagger$ Mansfield |
| Com |  | * + Decorah, Lowa |
| HSLAS |  | * + Cambridge |
| HSAgr |  | * $\dagger$ Urbana |
| SS |  | Unionville, Michigan |
| Com (SS) | $27 \frac{1}{2}$ | * $\dagger$ Des Moines, Iowa |
| HSLAS | 101 | * $\dagger$ Urbana |
| Mus | 13 | * † Pana |
| $\stackrel{\text { A }}{\text { Chr }}$ | 63 | * Clayton |
| ${ }_{\text {Chgr }}$ | $73 \frac{1}{2}$ | * $\dagger$ Chicago |
| ${ }_{\text {Agr }}$ |  | * Oblong |
| Mus |  | * $\dagger$ Champaign |
| HSLAS | 99 | * $\dagger$ Champaign |
| Com |  | * $\dagger$ Bradford |
| $\stackrel{A g r}{L A S}$ | $34 \frac{1}{2}$ | * $\dagger$ Rock Island ${ }^{\text {Freelandville, Indiana }}$ |
| Lib | $37 \frac{1}{2}$ | * † Champaign |
| MinE |  | * $\dagger$ A mboy |
| Agr sp |  | * Dixon |
| Com |  | * † Freeport |
| SS |  | Urbana |
| $A E$ | 71 | * $\dagger$ Urbana |
| Com | 71 | * † Omaha, Nebraska |
| LAS |  | * $\dagger$ Urbana |
| LAS (SS) | $95 \frac{1}{2}$ | * $\dagger$ Urbana |
| LAS | 54 | $\dagger$ Litchfield |
| Agr | $68 \frac{3}{4}$ | * $\dagger$ Colorado Springs, Colorado |
| $A g r$ | $68 \frac{1}{2}$ | * + Colorado Springs, Colorado |
| CE | 36 | * $\dagger$ Philadelphia, Pennsylvania |
| LAS (SS) | 114 | * $\dagger$ Philo |
| LAS | 28 | * $\dagger$ Huntington |
| Agr | 66 | * $\dagger$ Chicago |
| Cer E | 66 | * $\dagger$ Dixon |
| Com | 73 | * $\dagger$ Cerro Gordo |
| LAS | 51 | * Springfield |
| LAS |  | * Chicago |
| LAS | $65 \frac{1}{2}$ | $\dagger$ Hood River, Oregon |
| Com |  | * Irvington |
| ${ }_{S S}^{L A S}(S S)$ | 71 | * † Irvington |
| SS | 7 | * Irvington |
| LAS |  | * $\dagger$ Quincy |
| Com sp |  | * $\dagger$ LaGrange |
| Com | $97 \frac{1}{3}$ | * $\dagger$ Kansas City, Missouri |
| HSAgr | 61 | * $\dagger$ Niles, Michigan |
| Agr |  | * $\dagger$ Paw Paw |
| Agr | 70 | * $\dagger$ Chicago |
| Com | 35 | * $\dagger$ Urbana |
| EE |  | * $\dagger$ Somonauk |
| Agr | 105 | * $\dagger$ Onarga |
| ChE (SS) | 30 | * $\dagger$ Chicago |


| Knowles, Jennie McKelvy | SS |  |  |
| :---: | :---: | :---: | :---: |
| Knowles, Robert Reily | SS | 3 | Denver, Colorado |
| Knowlton, Henry Irving | ME |  | Sheffield |
| Knox, Harry Gaylord | LAS (SS) | 107 | * $\dagger$ LaFayette, Indiana |
| Knudsen, Mrs. Charles William | S'S | $6 \frac{1}{2}$ | Eureka |
| Knudsen, Niels Alfred | $A E$ | 111 | * † Halfa, Iowa |
| Knudson, Harold Epler | Agr | 15 | * Farmingdale |
| Kobayashi, Toshiynki | Com |  | Tokyo, Japan |
| Kober, Edgar Irving | Arch | 71 | * $\dagger$ Waterloo, Iowa |
| Koch, Eloise | LAS | 104 | * $\dagger$ St. Louis, Missouri |
| Koch, George Washington | Cont |  | * + Davenport, Iowa |
| Koehler, Glenn | EE | 78 | * + Van Wert, Ohio |
| Koepke, Frank Henry Paul | EE | 25 | * $\dagger$ Chicago |
| Koepke, Herman Frank | $C E$ (SS) | 76 | * $\dagger$ Chicago |
| Kohl, Justin Ferdinand | Com | 88 | * $\dagger$ Centralia |
| Koh1, Rowena Agnes | LAS | 60 | * Centralia |
| Kohler, Raymond Lloyd | LAS | 25 | * + Chatsworth |
| Kohn, John Louis | Com | 98 | * $\dagger$ Elgin |
| Kohncr, Edwin M | Com |  | * $\dagger$ Chicago |
| Kolar, George Franklin | MSE | 71 | * $\dagger$ Chicago |
| Kolb, Merle Arthur | ME | 70 | * + Oak Park |
| Kolmer, Albert Conrad | Agr | 30 | * $\dagger$ Waterloo |
| Kolmer, Otto Peter | Agr (SS) | $96 \frac{1}{2}$ | * $\dagger$ Waterloo |
| Kompass, Frederick Bunker | Cont | $30^{\circ}$ | * Niles, Michigan |
| Komrosky, Morris Louis | Arch |  | * $\dagger$ Gary, Indianu |
| Koo, Shun | RCE (SS) | 50 | * † Kwang-Fung, China |
| Koos, Harold George | Com |  | * $\dagger$ Grand Mound, Iowa |
| Kopf, Frank Alexander, A.B., 1916 | SS | 130 | Peoria |
| Kopleman, Leo Theodore | Com | 67 | * † Maquoketa, Iowa |
| Kopp, William Kenneth | Com |  | $\dagger$ Chicago |
| Koptik, Bohumil James | Agr (SS) | 102 $\frac{1}{2}$ | * + Cicero |
| Koptik, Ernest Andrew | LAS |  | * + Cicero |
| Koupal, Walter George | ChE | 34 | * $\dagger$ Crown Point, Indiana |
| Kraeckmann, Walter Ernest Louis | Agr | 32 | * $\dagger$ Chicago |
| Kraft, Adolph | LAS | 30 | * $\dagger$ Gilman |
| Kraft, August | EE (SS) | 22 | * $\dagger$ Gilman |
| Kraft, Reynold Rudolph | Mine (SS) | 81 | * † Oak Park |
| Kral, Albert Alva, Jr. | EE | 17 | * $\dagger$ Chicago |
| Kramer, Charles Henry | $A E$ |  | * $\dagger$ Alton |
| Kramer, Erwin Albert | AE |  | $\dagger$ Chicago |
| Krametbauer, Irma Theresa | LAS | 33 | * + Chicago |
| Krannert, Victor Louis | Com | $36 \frac{1}{2}$ | * + Chicago |
| Krase, Herbert John | ChE | 108 | * + Chicago |
| Krase, Norman William | ChE | 72 | * + Chicago |
| Kratzenberg, Edwin John | EE | 62 | * $\dagger$ Chicago |
| Krauel, Philip Leone | ME | 82 | * $\dagger$ Champaign |
| Kraus, Harry | LAS | 35 | * † Chicago |
| Krauss, Thomas Fredrick | SS | $7 \frac{1}{2}$ | Jonesboro |
| Kreider, Paul Gates | LAS | 67 | $\dagger$ Springfield |
| Kreidler, Chester Jamison | Com | 72 | * $\dagger$ Oak Park |
| Kreiling, Robert Graham | ChE | 103 | * + Chicago |
| Krelstein, Bernard | Com |  | $\dagger$ Chicago |
| Krieg, Amelia Adeline | LAS (SS) | 99 | * $\dagger$ Chicago |
| Krieg1, Otto | EE (SS) | $66 \frac{1}{3}$ | * + Innobrunck, Austria |
| Kriewitz, John Gustav | Agr | 101 | * $\dagger$ Chicago |
| Kroeschell, Roy Sittig | ME (SS) | 83 | * $\dagger$ Winnetka |
| Kroner, Frederick Louis | LAS | 32 | * Mahomet |
| Krueger, Gerald August | Agr |  | * $\dagger$ Chicago |
| Krueger, Kurt Carl | Chem | 54 | * $\dagger$ LaSalle |
| Krug, Louis Gustave | ChE | 127 | * Chicago |
| Kruger, Theodore | MEsp |  | * $\dagger$ Peoria |
| Krumm, Gretchen Emma | LAS | 38 | * + Chicago |
| Krupar, Charles | Arch | 67 | * $\dagger$ Morton Park |
| Kuch, Mildred Carolyn | LAS |  | * $\dagger$ Farmer City |
| Kucheman, Norman Albert | ME |  | * $\dagger$ Moline |
| Kuechlor, Ernest Charles | Agr | 28 | * Alvin |
| Kuehl, Elsie Elvira | LAS |  | * $\dagger$ Edwardsville |
| Kuehn, George Walter | ME | 106 | * $\dagger$ Chicago |
| Kugler, Martha | LAS |  | * $\dagger$ Plano |
| Kugler, Martin Billmire | Agr | 115 | * $\dagger$ Plano |
| Kuhl, Franklin | Com |  | * $\dagger$ Springfield |
| Kuhn, George Lewis | Com |  | * Muscatine, Iowa |
| Kull, Karl Robert | Agr | $29 \frac{1}{3}$ | * $\dagger$ Shelbyville |
| Kurt, Mary Annetta | HSLAS (SS) | ) 31 | * $\dagger$ Champaign |
| Kurtzrock, Edward Valentine | Law | 60 | * $\dagger$ Dixon |
| Kyger, Roy Jay | LAS (SS) | 18 | * Danville |
| Kyler, Bessie Belle | LAS |  | * $\dagger$ Winslow |
| Laatz, Ernest Charles | Agr |  | * $\dagger$ Marseilles |
| Lacey, John James | Agr | 100 | * $\dagger$ Elwood |
| Lacey, Marguerite Helen | LAS |  | * $\dagger$ Elwood |
| Lackey, James Potter | $M C P$ |  | * Hopkinsville, Kentucky |
| Ladd, Winslaw Curtis | ME |  | * $\dagger$ Taylorville |
| Ladeheff, Arthur Detlef | $A E$ | 74 | * $\dagger$ Clinton, Iowa |
| Lafferty, George Gustavus | SS | 453 | Galesburg |
| Lafferty, Mrs. Lee Anna Hague | SS |  | Galesburg |


| Lafierty, William Delmar | Agr |  | * $\dagger$ Clintort |
| :---: | :---: | :---: | :---: |
| LaFollette, Robert Roy | Agr sp |  | * $\dagger$ Thorntown, Indiana |
| Lager, Eric Willard |  |  | * $\dagger$ Chicago |
| Lagergren, Gustaf Petrus | Arch | 178 | * St. Paul, Minnesota |
| Laible, Russell James | Agr | 33 | * † Freeport |
| Laing, Walter A | Agr | 96 | * + River Forest |
| Lalor, Foster Mitchell | LAS | 23 | * † Franklin Park |
| Lamb, Hallie Eunice | LAS | 1013 | * $\dagger$ Champaign |
| Lamb, Howard Earl | LAS (SS) | 99 | * $\dagger$ Hillsdale, Michigan |
| Lamb, John, Jr. | Agr | $67 \frac{1}{2}$ | * $\dagger$ Worden |
| Lamb, Robert Madison | SS | $7 \frac{1}{2}$ | Sturgis, Kentucky |
| Lambert, Dana Carlin | $A g r$ | $33^{\circ}$ | * $\dagger$ Coatsburg |
| Lambert, Robert Wayne | ${ }_{\text {A }}^{\text {gr }}$ |  | * $\dagger$ Rushville |
| Lambroff, Gregory Vassiliff | EE | 80 | * $\dagger$ Madison |
| Lamkins, Lloyd E., B.S., 1916 | SS | 1443 | Urbana |
| Lampert, Florian, Jr. | $A E$ | $73^{2}$ | * $\dagger$ Oshkosh, Wisconsin |
| Lamport, Leonard Rollings | EE |  | Chicago |
| Lanan, Guy | $A g r$ | 117 | Kingston |
| Lancaster, Allen H | $A g r(S S)$ | 873 | * $\dagger$ Ridgefarm |
| Lancaster, Frederick Paul | Com |  | * $\dagger$ Maywood |
| Lander, Ruth Esther | LAS |  | * + Alfred, Maine |
| Landon, George | LAS | 64 | * + Chicago |
| Landstrom, Adolph Walter | ChE | 1073 | * $\dagger$ Chicago |
| Landstrom, Roy William | Agr | 33 | * $\dagger$ Chicago |
| Lang, Alvin Leonard | Agr (SS) | 37 | * $\dagger$ Urbana |
| Langdon, Paul Eugene | $C E$ |  | * + Chicago |
| Langellier, Floyd Edwin | $A E$ |  | * + St. Anne |
| Langenstein, Charles Bee | Agr |  | * $\dagger$ Dakota |
| Langwith, Warren LeRoy | ChE | 20 | * Davenport, Iowa |
| Lansden, Effie Allan | SS |  | Cairo |
| Lanum, Ralph Lewis | Com |  | * $\dagger$ Decatur |
| Larimer, Floyd Conway | Com |  | * $\dagger$ Oskaloosa, Iowa |
| Larkin, Thomas Cecil | EE |  | * Onarga |
| Larkin, Willard Ford | Com | 11 | * Rock Island |
| Larson, Carl Clarence | Chem | 68 | * $\dagger$ Mazon |
| Larson, Edward | ChE |  | * + Galva |
| Larson, Elsie Frances | SS | $6 \frac{1}{2}$ | - Chicago |
| Larson, Walter Nels | MSE | 28 | * Paxton |
| Lascelles, Robert John | Com | 96 | * $\dagger$ Capron |
| Lash, Clarence Roy | Agr |  | * $\dagger$ Big Rock |
| LaTeer, Angie | HSLAS | 42 | * + Paxton |
| Lathrop, John Sherman | Agr | 33 | * $\dagger$ Chicago |
| Lathrop, William Grant | LAS | $97 \frac{1}{3}$ | * $\dagger$ Sumner |
| Lattner, Ulysses Simpson | ME | 36 | * $\dagger$ Rock Island |
| Lauder, Frederick Houlton | LAS | 46 | * Monmouth |
| Lauphit, Tse | Agr | 70즐 | * † Shanghai, China |
| Laurenson, Ed J. | SS |  | * Downey, Idaho |
| Lauritzen, Marion Marie | LAS | 65 | * $\dagger$ Chicago Heights |
| Lauterbach, Walter Wesley | LAS |  | * $\dagger$ Bushnell |
| Laval, Marcelle Vere | LAS | 21 | * $\dagger$ Wilmette |
| Lavelle, Charles Nathan | Com |  | * $\dagger$ Freeport |
| Lavery, Ruth Aileen | Mussp | $\sigma$ | * + Decatur |
| Lawler, Bernice Catherine | HSLAS |  | * $\dagger$ Rushville |
| Lawrence, Charles Henry | Agr | 69 | * $\dagger$ Woodstock |
| Lawrence, Leland Lamont | LAS | 30 | * $\dagger$ Champcign |
| Lawrence, Ralph E | Arch | 115 | * $\dagger$ Ripon, Wisconsin |
| Lawrence, Roland Hall | ME | 107 | * $\dagger$ Chicago |
| Lawrence, Sherman Gaines | Com |  | * + Chicago |
| Lawson, John Harold | Com |  | * $\dagger$ Kewanee |
| Lawson, Roy Emerson | SS | $6 \frac{1}{3}$ | LeRoy |
| Lawton, Chauncey Wenzlaff | LAS | $28 \frac{1}{2}$ | * $\dagger$ Yankton, South Dakota |
| Lay, Dwight Matthews | Agrsp |  | * $\dagger$ Kewanee |
| Layfield, Ivan McLean | LAS |  | * + Urbana |
| Leach, Paul Jackson, B.S., 1916 | SS | 143 $\frac{1}{2}$ | Macomb |
| Leach, Robert Lincoln | Agr | 30 | * † Rockford |
| Leake, Ethel Louise | SS |  | Dixon |
| Leander, Elmer Isidor | CE | 106 | * $\dagger$ Chester, Indiana |
| Leary, William Andrew | Com |  | * † El Paso |
| Lease, Alice Clare | SS | 1413 | Quincy |
| Leathers, Doyle Revere | SS |  | Renovo, Pennsylvania |
| Lee, Alfred Chang | CE | 122 | * + China |
| Lee, Arthur | Arch | 72 | * $\dagger$ Hudson, Wisconsin |
| Lee, Carrie Alice | Mus | 85 | * + Champaign |
| Lee, Fannie | HSLAS | 32 | * $\dagger$ Reynolds |
| Lee, John Norman | Law |  | * $\dagger$ Carbondale |
| Lee, Ping Fun | ME | 95 | * Hong Kong, China |
| Lee, Tao Nan | Com (SS) | 77 | * $\dagger$ Nanking, China |
| Lee, Tsz Sien | RCE | 28 | * Ho-yun, China |
| Lee, Wilkie Albert | Agr | 3 | * $\dagger$ Earlville. |
| Leedle, Jessie Mariam | LAS | 33 | * $\dagger$ West Chicago |
| Leeds, Marcia Marney | LAS |  | * $\dagger$ Mi. Carmel |
| Leeds, Winston Bryan | LAS |  | * $\dagger$ Mi. Carmel |
| Leeming, Tom | LAS | 51 | * $\dagger$ Chicago |
| Leete, Marion Elanie | L.4S | 34 | * † Chicago |
| Lee Toma, EnFon | SS | 28 | Honolulu, Hawaii |


| Lee Toma, Esther EnMoi | LAS (SS) | 53 | Honolulu, Hawaii |
| :---: | :---: | :---: | :---: |
| Leggett, Charles Martin | Com |  | * $\dagger$ Chicago Heights |
| Leggitt, Frank | Agr (SS) | 122 | * Urbana |
| Leggitt, Fred William | Agr (SS) | 94 | * † Urbana |
| Legner, Roger Hopkins | Com | 132 | * Chicago |
| Lehman, Lewis Harry | CE | 111 | * $\dagger$ Matloon |
| Lehman, Ruth Townsend | HSLAS | 69 | * $\dagger$ Millington |
| Leichsenring, Jane Marie | HSLAS | 33 | * + Winnetka |
| Leinard, Kenneth Earl | CE |  | * $\dagger$ Bryan, Ohio |
| Leist, Claude | LAS (SS) | 62 | * $\dagger$ Paris |
| Leitzbach, Elizabeth | LAS (SS) | 41 | * † Fairmount |
| Lemen, Eldridge | Agr |  | * $\dagger$ Alton |
| Lemond, Isabel Josephine | LAS |  | * Huntingburg, Indiana |
| Lemp, John Frederick | ChE | 114 | * $\dagger$ Alton |
| Lendman, Alfred Nohe | EE | 108 | * $\dagger$ Sterling |
| Lentz, Leo Francis | ${ }_{S}{ }_{\text {A }}$ |  | * † Anna |
| Lenz, Andrew Henry | SS | 140 | Quincy |
| Lenzen, Aloysius Francis | MdP | 102 | * $\dagger$ Peru |
| Leppla, George Charles | LAS |  | * $\dagger$ Chicago |
| Lerch, Edward | $A E$ | $106 \frac{1}{2}$ | * $\dagger$ Rock Island |
| LeSaulnier, Marie | LAS |  | * $\dagger$ Red Bud |
| Leslie, Madge Campbell | LAS | 99 | * $\dagger$ Pittsfield |
| Lett, Hamlet Harrison | Agr | 66 | * † Washington, Indiana |
| Levinson, Anna Ella | SS | 7 | Paxton |
| Levinson, Martin Charles | $A E$ | 103 | * $\dagger$ Chicago |
| Levy, Beatrice Esther | LAS | 33 | * $\dagger$ Streator |
| Lewis, Alden George | Chem |  | * $\dagger$ Green Bay, Wisconsin |
| Lewis, Ardenia Moree | HSAgr sp |  | * $\dagger$ Camp Point |
| Lewis, Arthur Warnield | Agr | 66 | * $\dagger$ Harrisburg |
| Lewis, Henry Fletcher | Law sp |  | * $\dagger$ Murphysboro |
| Lewis, Henry Foster, Jr. | LAS |  | * + Chicago |
| Lewis, John Taylor | AE | 110 | * $\dagger$ Rockford |
| Lewis, John Timothy | Agr |  | * Chatham |
| Lewis, Kenneth S | MdP |  | * † Wheaton |
| Lewis, Mabel | SS | $6 \frac{1}{2}$ | Stone Fort |
| Lewis, Marie Ellene | LAS |  | * † Rockford |
| Lewis, William Baker | LAS |  | * $\dagger$ Harrisburg |
| Lewis, William Henry | Com (SS) | 60 | * $\dagger$ Granite City |
| Lewitan, Leo | $M E$ | 22 | * $\dagger$ Chicago |
| Leydorf, Sister Mary Innocents | SS | 6 | Nauvoo |
| Li, Szu Kuang | Com | $98 \frac{1}{2}$ | * $\dagger$ China |
| Liang, Ping | Com |  | $\dagger$ Canton, China |
| Libman, Anna | LAS | 68 | * + Chicago |
| Libonate, Roland Victor | $M d P$ |  | * $\dagger$ Chicago |
| Lichtenberger, Cleo <br> B.S. (James Milliken Univ.) 1911 | Lib |  | * $\dagger$ Decatur |
| Lichtmann, Samuel Arthur | Arch |  | * $\dagger$ Chicago |
| Lieber, Ruth Evaline | LAS | 60 | * $\dagger$ Winnetka |
| Lieberman, Emmanuel Harold | EE |  | $\dagger$ Cleveland, Ohio |
| Liedel, Russell Brooke | Law | 99 | * $\dagger$ Springfield |
| Lies, Arthur Nicholas | ME |  | * + Chicago |
| Liggett, Ruth Elizabeth | LAS | 28 | * + Camp Point |
| Liggitt, Charles Chesterfield | Agrsp |  | $\dagger$ Normal |
| Lilley, Robert W | ME |  | * $\dagger$ Aurora |
| Lin, Thian Kitt | Com (SS) | 109 | * $\dagger$ Canton, China |
| Lindah1, Florence Elnora | LAS (SS) | 38 | * + Wayne |
| Lindberg, Albin Ednar | ME | 23 | * $\dagger$ Princeton, Michigan |
| Lindeberg, George Leonard | Arch | 85 | * $\dagger$ Chicago |
| Linder, Isham Doyle | MdP | 30 | * $\dagger$ Carrollton |
| Linder, Mary Sefton | LAS | $90 \frac{1}{3}$ | * $\dagger$ Charleston |
| Linder, Roscoe George | SS | 6 | - Chandlerville |
| Linderoth, Samuel Joseph | Arch (SS) | 882 ${ }^{\frac{1}{2}}$ | * $\dagger$ Chicago |
| Lindholm Karin Josephine | LAS (SS) | 24 | * $\dagger$ Elgin |
| Lindley, Frances Ethlyn | SS | 7 | Neoga |
| Lindsay, Edward Frantz | Agr sp |  | * $\dagger$ Chicago |
| Lindsay, Lawrence | Agr |  | * $\dagger$ Chicago |
| Lindsey, Adrian Herve | $A g r$ | 33 | * $\dagger$ Bryan, Ohio |
| Lindsey, John Roger | Agr | 104 | * $\dagger$ Urbana |
| Lindsey, Leon Mason | ME | 107 | * $\dagger$ Onarga |
| Lindsey, Ralph Elder | $A E$ | $95 \frac{2}{3}$ | * + Bryan, Ohio |
| Linebarger, Lois | HSLAS |  | * $\dagger$ Elwood |
| Linendoll, Harry Alexander | ChE | 102 | * $\dagger$ Chicago |
| Link, Rue Showalter | Com | 13 | * $\dagger$ Paris |
| Linnard, Elmer Walfred | Agr | 115 | * + Peotone |
| Linneen, Henry Wilson | ME | 63 | * $\dagger$ Lake Bluff |
| Linton, Hazel Marie | Mus | 7 * | * $\dagger$ LeRoy |
| Linton, Ralph | SS |  | Philadelphia, Pennsylyania |
| Linton, Mrs. Rolfe | SS |  | Trenton, New Jersey |
| Little, Aaron James | SS | 8 | * Milwaukee, Wiscorsin |
| Little, Adelbert Dudley | AE | 103 | * $\dagger$ Genoa |
| Little, Elmer Phelps | LAS |  | * + Champaign |
| Little, Ethel Esther | L,AS | 113 | * † Champaign |
| Little, George Edkine, Jr. | SS | $6 \frac{1}{2}$ | Washington, D. C. |
| Littler, Nelle Maude | LAS | 60 | * $\dagger$ Sterling, Colorado |
| Littrell, Donald Bennett | Arch |  | * $\dagger$ Colfax, New Mexico |
| Liu, Nai Yu | Com (SS) | $70 \frac{1}{2}$ | * $\dagger$ Washington, D. C. |



Lyon, Eunice Taylor Lyon, William Ranft
Lyons, Lillian Helen
Lyons, Oscar Ivan
McAdam, Charles Thomas
McAfoos, Roy Earl
McBride, Charles Bernard
McBride, Howard Inman
McCabe, John James
McCaffrey, Leslie Bernard
McCallister, Roy Ivan
McCammon, Martha
McCandless, Bryce L
McCandlish, Fred Raymond
McCarroll, James Shipp
McCaskill, Hadyn Anson
McCaskill, Lyman Clauson
McCaskill, Valden Maurice
McCaughtry, Ruth Corinne, A.B.
(Drury College) 1912
McCay, Clive Maine
McCleary, Gladys Selinda
McClellan, Kenneth Butler
McClellen, Russell Clyde
McClelland, Charles Benjamin
McCloud, James Forsyth
McCluer, Donald
McClure, Adelle Elizabeth
McClure, Helen Orra
McClure, Hugh Cameron
McCollister, Isaac Frost
McComis, Samuel Jay
McConnell, Marian
McConnell, Helen Evelyn
McConnell, Marvin Greer
McCord, Ralph Nichols, A.B., 1910
McCormack, Thomas Hume
McCormick, Charles Parnell
McCormick, Peter James
McCoy, Homer Walter
McCracken, Allen Reed
McCray, Marian Verla
McCreary, William Curtis
McCreery, John Alexander
McCreery, Vashti
McCrory, Florence Hazel
McCullough, Helen E
McCullough, Mary Elizabeth
McCurdy, Lawrence Tatum
McDaniel, Homer Wesley
McDaniel, Lillie
McDavid, Carroll Meredith
McDermott, Raymond Adam
McDonald, Edmund Urban
McDonald, Georgia Helen
McDonald, Harlan Fred
McDonald, Joseph Nelson
McDonough, Thomas Joseph
McDougal, Bertha Galie
MacDougal, Helen Alice
McDowell, John Keeney
McDowell, Merritt Dewey
MacDowell, Sidney Monroe
McDowell, Thomas Scott
McEldowney, Roy
McEldowney, William Earle
McElfresh, Arthur Edward
McElheney, Fred Wayne
McElhiney, Helen Catherine
McElhiney, Ruth
McElroy, Mildred Cherington
McEvers, Ernest
McEvoy, Thomas Treston
McFadden, Ivan Marion
McFarlane, Hugh
McGehee, Wilbur
McGill, David Webster
MacGillivray, Malcolm Edwards
McGinley, Susie Olive
McGinnis, Charles Allen
McGinnis, Donald Castle
McGinnis, Helen Anastasia
McGinnis, Lester William
McGrath, Lawrence Philip
McGrath, Wilson Thomas

$\dagger$ Dubuque, Iowa
$\dagger$ Riverside
$\dagger$ Urbana
$\dagger$ Hoopeston
$\dagger$ Pana
$\dagger$ Ewing
$\dagger$ Perryville, Missouri
$\dagger$ Chicago
$\dagger$ Rantoul
$\dagger$ Highlland Park
$\dagger$ Carmi
Urbana
Newton, Kansas
Toledo
$\dagger$ Owensoro, Kentucky
$\dagger$ Taylorville
$\dagger$ Taylorville
$\dagger$ Tayllorville
$\dagger$ Carthage, Missouri

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| $M E$ | 44 |
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Sterling
Mt. Sterling
Urbana
Fithian
Chicago
Benton
Benton
Okmulgee, Oklahoma
Urbana
Urbana
Glencoe
Mechanicsburg
Champaign
Hillsboro
Batavia
Decatur
Lerna
Mattoon
Chicago
Urbana
Petersburg
Cairo
Kankakee
Centralia
Addison, New York
Fairbury
Chicago Heights
Chicago Heights
Urbana
Vandalia
Kenney
Kenney
Delaware, Ohio
Montezuma
$\dagger$ Chicago
Mi. Vernon, Indiana
$\dagger$ River Forest
Urbana
Watseka
Urbana
Hylton, Texas
Reevesville
Aurora
$\dagger$ Chicago
Kankakee
Woosing
Chicago

McGraw, Thomas Francis McGregor, John Lancaster
McGrew, Wallace Milton
McGuire, Vereta
McIlwain, Glen Burrows
McIntire, Elliott Charles
McIntire, Leo Glenn
McIntire, Mary Minerva
McIntyre, Joseph Homer
McKay, Alexander
McKay, Ernest Gladstone
McKean, Leonard Albert
McKee, Mary Annette
McKeever, Robert Emmett
McKelvey, Mary Elizabeth
McKeon, Agnes Veronica
McKim, Lawrence John
McKinley, Robert Prince
McKinnell, Isabelle Georgia
McKinney, Lela Fern
McKinney, Norman
McKittrick, Dorothy Joyce
McKittrick, James Esten
McKnight, Clark Wilson
McKnight, Elda Marie
McKnight, John Ira
McKown, Russell Leamer
McLaren, Jessie
McLaughlin, Ernest
McLaughlin, George Southrell
McLaughlin, James Robert
McLaughlin, Walter Wylie
McLean, Alice Edna
MacLean, Angus Donald
McLee, Edward Brown
McMahan, Elsie Margaret
McMahon, Edward Laurence
McMillan, Hermon George
MacMillan, Lawrence Claude
McMurray, Fannie Marie
McNair, Bernice Bowers
McNally, Teresa
McKnaughton, Clayton Archibald
McNeill, Angeline
A.B., (Lake Forest Coll.) 1916

McNish, David Thornley
McNulta, Scott
McNutt, Wilma Lea
McQuinn, Ralph Tolivar
McSherry, Elizabeth Ann
McWilliams, Marie Lindsey
Macauley, John Blair, Jr.
Mach, George Robert
Machovec, Edward Paul
Mackie, Elton Thomas
Mackin, Paul James
Macomber, Frank Bartlett
Madden, Grace Erminie
Madden, Katherine Josephine
Madison, Arthur Elmer
Madison, Mary Adele
Magers, Elizabeth Julia
Magill, Lester K
Maguire, Mary Josephine
Maguire, William Chester, LL.B., 1910
Mah, Wing Ngin
Mahannah, A Ernest
Maher, Chauncey Carter
Mahn, George Willis
Main, George Chrysup
Main, Howard H
Main, Russell Wallace
Maitra, Krishna Mohan
Makutchan, Clyde
Malapert, Ernest Louis
Malcolmson, David Krause
Mallary, Ernest Noel
Mallers, John Bernard III
Mallett, Norman James
Mallory, Fiancis Bolton
Maliory, Richard Henderson
Mallstrom, Roe Eugene
Malsbary, Grace Estella
Malsbury, Marshall Raymond
Mandel, Samuel

| Com | 5 |
| :---: | :---: |
| ME | 73 |
| $A E$ | 25 |
| SS |  |
| $C E$ | 18 |
| Com | 153 |
| Com |  |
| SS |  |
| Agr | 223 |
| ME |  |
| Agr | 33 |
| SS | 69 |
| LAS | 59 |
| EE | 72 |
| LAS |  |
| SS |  |
| LAS | $32 \frac{3}{3}$ |
| Com |  |
| SS | 130 |
| SS | 7 |
| $A g r$ | 102 |
| $A g r$ |  |
| Agr |  |
| Com | 29 |
| LAS |  |
| Com | 27 |
| Agr | 106 |
| SS |  |
| Conn | 22 |
| $E E$ | 3012 |
| $E E$ | 72 |
| $A g r$ | $77 \frac{1}{2}$ |
| SS |  |
| LAS |  |
| $A E$ | 66 |
| Com (SS) | 44 |
| $E E$ |  |
| Com |  |
| $E E$ | 120 |
| LAS | 32 |
| L.AS | 90 |
| SS | 8 |
| Com | 29 $\frac{1}{2}$ |

Lib
Agr
Com
LAS
LAS
SS
Mics
Com $\quad 47$

LAS
SA
Mus (SS)
ME (SS)
$\stackrel{A g r}{R M E}$
Agr
CE
Com
LAS
SS
HSAgr (SS)
HSLAS
SS
${ }_{\text {LS }}$ LS
LAS
SS
MdP
$\begin{array}{lr}\text { AE } & 68 \\ & 108\end{array}$
CE
RME
CE
Cont (SS)
MinE
SS
ME
CerE
LAS
$A g r$
Com
HSLAS (SS) $60 \frac{1}{6}$
$A g r$
$A \mathrm{gr}^{\prime}$

Champaign
Chicago
$\dagger$ Long Beach, California
Champaign
Galveston, Indiana
$\dagger$ Aurora
Urbana
Newman
Almira, Washingion
Evanston
Woodson

* $\dagger$ Kankakee
$\dagger$ Jackson, Nebraska
Nashoille
St. Louis, Missotri
* $\uparrow$ Mi. Carmel

Beardstown Newton, Indiana

* $\dagger$ Chicago Tower Hill
$\dagger$ Tower Hill
Mason City
Chicago. Kansas
$\dagger$ Davenport, Iowa Astoria
Shelocta, Pennsylvania
Pocctello, Idalıo
Aledo
Cartter
Jewell City, Kansas
New Aibany, Indiana
Rockford
Jerseyoille
Lacon
Mi. Hermon, Massachusetis

Bridgeport
Divernon
Tolono
Paeblo, Colorado
$\dagger$ Urbana

* $\dagger$ Galena

North Crystal Lake
Decatur
Lacon
Carlinville
Urbana
Chicago
Brookfield
Kansas City, Missourri
New Orleans
Omaha, Nebraska
Oak Park
$\dagger$ Jacksonville
Jacksonville
St. Louis, Missouri
Chicaso
Marquette, Michigan
Palestine
Alton
Berkeley, California
Sedgwick, Kansas
Paysonz
Urbana
Barry
Rockford
Upper Sandusky, Ohio
Benares, U.P. India
Urbana
Osage City, Kansas
Kansas City, Missoufi
New Orleans, Loutisiana

+ Chicago
$\dagger$ Altoona, Pennsylvania
Batavia
Batavia
Harvey
Champaign
* † Virden

Chicago

Mandeville, Merten Joseph
Mandeville, William Howar
Mandeville, William Howard
Mangan, Ralph Kennith
Manguson, Maude Beatrice
Manley, John Charles
Manley, Marion
Manley, Myra Frances
Manley, Otis Rowe
Manley, Verna Adeline
Mann, Edna Frances
Mann, Marjorie Dorothea
Mann, Shirley
Mann, William Alfred, Jr.
Manny, Ida Lillian
Manny, Theodore Bergen
Manspeaker, Caroline Elizabeth
Mapel, Frances Pauline
Marble, Mildred Ethel
Marbold, Pauline
Marcott, Margaret Anna
Markee, Charles Seguine
Marks, Anna Edith
Marks, Maude Irene
Markson, Harry
Markwardt, Henry William
Markwell, Olen Crow
Marlowe, Wilma McCabe
Maroe, Luella May
Marquiss, Ralph Edwin
Marrock, Milton
Marsh, Bessie Ellen
Marsh, Carrie Ethel
Marshall, Eismere John
Marshall, Glenn Wylie
Marshall, Joseph Eilsworth
Marshall, Thomas Holland
Marshall, William Vincent, Jr.
Marsteller, Dudley Leonard
Martell, Edmund Anthony
Marterns, Margaret Louise
Martin, Ada North
Martin, Albert Thaddeus
Martin, Charles Blake
Martin, Charles Clifford
Martin, Daisy Moore
Martin, Emmet Giles
Martin, Frank Albert
Martin, Leroy Hoener
Martin, Milford Maurice
Martin, William Hugh
Marvel, Edith Mae
Marx, Arthur William Kuhs
Marx, George Bernard
Mason, Jean Fraser
Mason, Lee
Massey, Henry Laurens
Massock, Richard Gilbert
Masson, Lewis William
Matheny, Arthur Rolla
Mather, Asa Frisbie
Mathers, Fletcher Ward
Mathews, William Elmer
Mathews, William Rankin
Mathis, Oscar Jacob
Matoba, George Hajime
Matson, Harry Emil
Mattheus, Albert Otto
Matusezewiez, Veronica Catherine
Maung, Tharrawaddy Mauny
Maurer, Charles Brand
Maurer, Frederick Gottlieb
Maury, Daniel Evans
Mautner, Erwin William
Mautz, William Plaford
Mavity, Maurine
Maxfield, Elizabeth Allmond
Maxwell, Clyde Everett, Jr.
Maxwell, Leslie Blaine
Maxwell, Loyal C
Maxwell, McKinley Vern
Maxwell, Raymond Jones
May, Clifford Blaine
Maynard, Elsdon Lyman
Maynard, Wesley Kenneth
Mayo, Thomas Bolton

| Agr | 45 |
| :---: | :---: |
| Agr | 62 |
| ME | 105 |
| Mus | 33 |
| EE | 30 |
| Arch | 122 |
| LAS | 60 |
| Com | 102 |
| Mus sp | 10 |
|  | 73乭 |
| HSLAS | 97 |
| HSLAS |  |
| LAS |  |
| LAS |  |
| ${ }^{\text {Agr }}$ | 36 |
| LAS |  |
| ${ }_{S} g^{\prime}$ | 97 |
|  | 8 |
| LAS | 104 |
| LAS | 35 |
| Com |  |
| $L A S$ | 32 |
| LAS | 67 |
| ME | 108 |
| RCE | 99 |
| Agr | 64 |
| LAS | 8 |
| SS | 132 |
| Agr | 34 |
| ChE | $66 \frac{1}{2}$ |
| HSAgr |  |
| LAS | $43 \frac{1}{2}$ |
| ChE | 22 |
| Com | 46 |
| Com |  |
| LAS | 64 |
| Com | $30 \frac{1}{2}$ |
| Com | 36 |
| ${ }_{\text {EE }}^{\text {HSLAS }}$ | 71 |
| Mus sp |  |
| Agr | 83 |
| Com | 33 |
| Com |  |
| LAS | 29 |
| Arch | 79 |
| ChE (SS) | 653 |
| ${ }_{\text {A }}^{\text {L }}$ AS | 19 |
| Law | 66 |
| LAS |  |
| MSE | 79 |
| Com | 109 |
| LAS | 47 |
| Agr | 35 |
| Com | 31 |
| LAS | 17 |
| ${ }_{S}{ }^{\text {gr }}$ | 66 |
| SS | $8 \frac{1}{2}$ |
| Lave | 66 |
| Agr sp |  |
| Com | 54 |
| Com | 113 $\frac{1}{2}$ |
| Arch |  |
| $\operatorname{MinE}$ | 80 |
| ME | 93 |
| LAS | $70 \frac{1}{2}$ |
| ${ }_{\text {LAE }}$ | 60 |
| LAS |  |
| Com |  |
| Com | 69 |
| ChE | 75 |
| Agr | 28 |
| SS | 102 |
| SS |  |
| Agr | 3 |
| Com | 107 |
| LAS | 102 |
| Agr | 32 |
| Com | 66 |
| Agr | 119 |
| Com |  |
| LAS | 32 |
| LAS | 57 |

$\dagger$ Terre Haute, Indian
Winnebago
Chicago
Osco
Chicago
Junction City, Kansas
Champaign
Harvard
$\dagger$ Champaign
Oak Park
Elgin
Kankakee
Wilmette
Portland, Oregon
Chicago
Champaign
Fairbury
Woodstock
Greenview
Decatur
Neponsel
Dixon
Plymouth, Indiana
Chicago
Elgin
Stonington
Pontiac
Rushville
Monticello
Chicago
Urbana
St. Joseph
Washington, D. C.
Rutland
Gibson City
Fairfield
Roanoke, Virginia
Murpinysboro
Anchor
Madison, Wisconsin
Newton
Mi. Carmel

Auburn
Champaign
Los Angeles, California
$\dagger$ Chicago
$\dagger$ Chicago
$\dagger$ Murphysboro
Beech Ridge
Normal
$\dagger$ St. Louis, Missouri
Aurora
LaSalle
New Richmond, Indiana
Little Rock, Arkansas
Illiopolis
Buffalo, New York
Elizabethtown
Plainfield
Chapin
Potsdam, New York
$\dagger$ Berkeley, California
Morton
Japan
Chicago
Washington, D. C.
Minonk
Rangoon, Burma
Champaign
Chicago
Rossville
Chicago
St. Elmo
Eureka

## Palmyra

 + Buffalo, New YorkParis
Flat Rock
Flat Rock
Paris
Kirkland
$\dagger$ Chicago
Chicago
Altont

| Mead, Leo Shallenberger | Com | 97 | Grand Island, Nebraska |
| :---: | :---: | :---: | :---: |
| Meade, Ehrma Pauline | LAS | $7 \frac{1}{2}$ | * + Champaign |
| Meads, Aileen Mary | SS |  | Bentora |
| Meals, Robert Woodruff | Agr | 76 | * $\dagger$ Peoria |
| Means, Walker Wilson | CE | 41 | * $\dagger$ Urbana |
| Medendorp, Titus Arend | SS | 61 | Chicago |
| Meder, John O'Connor | Com |  | * $\dagger$ Chicago |
| Mee, Jutian Edward | Agr | 151 ${ }^{\frac{1}{2}}$ | * + Chicago |
| Meek, Frederick James | EE | 28 | * $\dagger$ Marissa |
| Meek, Harold Tecumseh | LAS | $75 \frac{1}{2}$ | * † Peoria |
| Meeks, Faye | Lib |  | Galesburg |
| Meers, Edith Gertrude | SS |  | Evanston |
| Mehaffey, Helen Irene | HSLAS | 32 | * $\dagger$ Chicago |
| Meier, Harold Irving | LAS | 35 | * † Marissa |
| Meisenhelder, W Benjamin | SS | 93 | Palestine |
| Melangton, Philip Rolland | Com |  | $\dagger$ Chicago |
| Melin, Charles Raymond | Agr | 65 | * $\dagger$ Urbana |
| Melin, Ralph Morton | LAS | 29 | * Chicago |
| Mendel, Ferdinand Albert | ME | 31 | Chicago |
| Mendenhall, Eugene Lincoln | SS |  | Toulon |
| Mendenhall, Ruth | SS | 8 | Ridgefarm |
| Mendsen, Harry Charles | CE |  | * $\dagger$ Oak Park |
| Menefee, Percy Lee | LAS | 5 | * $\dagger$ Portland, Oregon |
| Meneley, Ollive Myrtle, B.Mus., 1916 | Mus |  | $\dagger$ Peoria |
| Menzel, Carl Alfred | ME | 107 | * + Chicago |
| Merageas, George Peter | EE |  | $\dagger$ Greece |
| Mercer, Charles Franklin | $C E$ | 79 | * $\dagger$ Kansas City, Missouri |
| Mercer, Ralph Dilworth | Agr | 69 | * $\dagger$ Vermont |
| Merchant, Althea Amaleyllis | LAS |  | * † St. Louis, Missouri |
| Merner, Carl John | SS |  | Lakeside, Washington |
| Merrills, Marshall C, A.B., 1914 | LAS |  | $\dagger$ Belleville |
| Merrills, Virginia | LAS | 44 | * $\dagger$ Belleville |
| Merryman, Mary Elinor | SS | 15 | Elizabethlown |
| Merrymon, Mrs. William Walter | Agr sp |  | * $\dagger$ Ponder, Texas |
| Merz, Robert Wham | $C E$ |  | * $\dagger$ Salem |
| Metcalf, Deane Shively | LAS |  | * $\dagger$ Illiopolis |
| Metheny, Coligny Brainerd | SS | 5 | Beaver Falls, Pennsylvenia |
| Metzler, John Newman | SS | $17 \frac{1}{2}$ | White Hall |
| Metzler, Ralph Oliver | Com (SS) | 34 | * † Champaign |
| Mewhirter, Jannett Lou | HSAgr | 65 | * + Yorkville |
| Meyer, Alfred Werner | Chem (SS) | 1063 | * + Chicago |
| Meyer, Alvin Fredericis | Agr (SS) | $93 \frac{1}{2}$ | * $\dagger$ Deerfield |
| Meyer, Emma | SS | 2512 | Waterloo |
| Meyer, Ferdinand Antoine Ernst Henry | Com | 19 | * $\dagger$ West Indies |
| Meyer, Frederick William, Jr. | LAS |  | * $\dagger$ Kansas City, Missouri |
| Meyer, Harold Engles. | Com |  | * $\dagger$ Havana |
| Meyer, Howard Maurice | RCE | 36 | * $\dagger$ Berlin, Ontario, Canada |
| Meyer, Husted McCullough | Com | 251 $\frac{1}{2}$ | * $\dagger$ Glencoe |
| Meyer, Irma Louise | LAS |  | * + Kewanee |
| Meyer, Walter Rae | LAS |  | $\dagger$ Springfield |
| Meyer, Wilbur Henry | ${ }_{\text {A }}^{\text {gr }}$ | 32 | * Beardstown |
| Meyers, Fred William | Com |  | $\dagger$ Wheaton |
| Meyers, Marguerite | HSLAS | 33 | * $\dagger$ Belvidere |
| Meyers, Mildred Irene | LAS | 64 | * $\dagger$ Pekin |
| Micenheimer, Russell | A gr |  | * $\dagger$ Taylorville |
| Michael, Beatrice Anne | LAS |  | * Champaign |
| Michael, Richard William | Agr | 18 | * Champaign |
| Michael, William Manford | LAS |  | * + Champaign |
| Michaels, Maurice Alpiner | Com |  | * $\dagger$ Champaign |
| Michels, Eva Mabel | SS | 15 | Albion |
| Mickelson, Jens Christian | EE | 83 | * $\dagger$ Chicago |
| Mickey, Florence | LAS |  | * Macomb |
| Middleton, Edith Anna | HSLAS | 108 | * $\dagger$ Chicago |
| Middleton, George Eugene | Agr |  | * $\dagger$ Chicago Heights |
| Middileton, Julian Gilbert | Arch | 73 | * $\dagger$ Pomona, California |
| Midkiff, John Howard | ${ }^{\text {Agr }}$ | 108 | * $\dagger$ Stonington |
| Miles, Evelyn | LAS sp |  | * † LaGrange |
| Miles, Margaret Leslie | LAS |  | * $\dagger$ LaGrange |
| Miles, May | HSAgr | 100 | * $\dagger$ Tologo, Colorado |
| Miles, Milton Godfrey | Com |  | * $\dagger$ Des Moines, Iowa |
| Miles, Thomas Boyd | Agr | 68 | * $\dagger$ Lewistown |
| Millar, Melvin Oscar | ${ }^{\text {Agr }}$ | 30 | * $\dagger$ Mattoon |
| Miller, Alta Marie | SS | $8{ }^{\frac{1}{2}}$ | * Nokomis. |
| Miller, Anna May | LAS | 32 | * † Champaign |
| Miller, Archie Roscoe | EE | 71 | * $\dagger$ Mahomet |
| Miller, Bertie Ethel | SS | 1512 | Westfield |
| Miller, Carl Roscoe | LAS |  | * $\dagger$ Mulberry Grove |
| Miller, Claire Evelyn | LAS | 40 | * $\dagger$ Negaunec, Michigan |
| Miller, Dean Albert | CE | 76 | * $\dagger$ Canton |
| Miller, Elmer Marshall | ME |  | * † Chicago |
| Miller, Eva Grace | Mus sp |  | * † Boulder, Colorado |
| Miller, Floyd Russell | Com | 89 | * + Decatur |
| Miller, Hazel Cloah | Mus (SS) | 4 | * + Champaign |
| Miller, Joseph Gilman | Ccm | $34 \frac{1}{2}$ | * $\dagger$ Glencoe |

Miller，Katherine Fay
Miller，Katherine Marie
Miller，Kenneth William
Miller，Levis Elbert
Miller，Lloyd Burgart
Miller，Margaret Josephine
Miller，Robert McClain
Miller，Sanford Curtis
Miller，Virginia Agnes
Miller，Walter Porter
Miller，Wilbur Glenn
Milliken，Douglas
Milliken，Victor Carl
Millon，Vance Spencer
Mills，Chester Whitaker
Mills，Martha Mendenhall
Mills，Robert Rourke
Mills，Thomas Emmet
Millsom，Walter Clair
Miner，Helen Nellora
Miner，William
Mink，Dwight L
Minkema，William Herman
Minks，Freda Heyer
Minnis，Lemuel Ernest，B．S．， 1916
Mischler，Clara Helen
Mischler，Lillian
Misener，Glenn Edgar
Mitchell，Donald Richards
Mitchell，Edna Pearl
Mitchell，Forster Isaac
Mitchell，Florence Ferne
Mitchell，George William
Mitchell，Herschel D
Mitchell，Zulieka Pearl
Mittleman，Benjamin Eugene
Mix，John Raymond
Moberley，Edwin Stuart
Mobley，Thomas Ray
Mock，Walter Paul
Moffatt，Alice Naomi
Moffett，Donald Romain
Moffett，Warren
Mohr，Alba Agnes
Moir，Edward Emil
Moller，Gertrude Mathilda
Molyneaux，Juniata Ounita
Moncrieff，James Weir
Money，Max James
Mongreig，Loutis Morgan
Monier，Mrs．Nellie May
Monninger，Werner Hugo
Monohon，Ila E
Monohon，Irma Naomi
Monroe，George Stuart
Monteiro da Cunha，Humbert
Montgomery，Emily Caroline
Montgomery，Verona Beatrice
Montgomery，Vincent Everett
Montgomery，Winifred
Moo，Jen Yin
Moody，James Nathaniel
Mooney，John Francis
Mooney，Paul Cullom
Moor，Hubert Watson
Moore，Albert Brophy
Moore，Allen Ray
Moore，Allie Adelaide
Moore，Charles Bachman
Moore，Edwin Cecil
Moore，Elva Marie
Moore，Eva Elenor
Moore，Florence
Moore，George Wilkinson
Moore，Gladys Vivianne
Moore，Hiram Wodrich
Moore，Irene Holbrook
Moore，June W
Moore，Mrs．Kate Eleanor
Moore，Lois Romelia
Moore，Mabel Elizabeth
Moore，Miriam Ashworth
Moore，Othmar Lawson

| LAS |  | $\dagger$ Centralia |
| :---: | :---: | :---: |
| SS | 5 | Hoopeston |
| EE | 37 | ＊$\dagger$ Decatur |
| ME |  | ＊$\dagger$ Compton |
| $A E$ |  | ＊$\dagger$ Chicago |
| SS | 5 | ＊Mozveaqua |
| CE | 107 | ＊$\dagger$ Cairo |
| LAS | 22 | ＊$\dagger$ Casey |
| LAS | 33 | ＊＋Galva |
| Agr | 63 | ＊$\dagger$ Hanna City |
| AE |  | ＊$\dagger$ Jerseyville |
| Agr |  | ＊$\dagger$ Walnut |
| Com |  | ＊Chicago |
| MdP |  | $\dagger$ New Orleans，Louisiana |
| $C E$ |  | ＊$\dagger$ Chicago |
| LAS | 15 | ＊$\dagger$ Marion，Indiana |
| $C$ CS |  | ＊$\dagger$ Washington，D．C． |
| ${ }_{S S}$ S |  | Beloit，Wisconsin |
| Cer ${ }^{\text {E }}$ | 130 | $\dagger$ Macomb |
| ${ }_{S S}$ M | 30 | ＊† Adair |
| SS | 753 ${ }^{\frac{1}{2}}$ | Pana |
| Com | 92 | ＊＋Galva |
| ME | 107 | ＊$\dagger$ Chicago |
| Mus |  | ＊$\dagger$ Dewey |
| SS | 142 | Chicago |
| SS | 132 | ＊Springfield |
| ${ }_{M E} S^{\text {S }}$ | 19⿺⿻丅⿵冂⿰⿱丶丶⿱丶丶⿸厂⿱二⿺卜丿 | ＊$\dagger$ Springfield |
| Agr | 66 | ＊＋Chicago |
| LAS |  | ＊$\dagger$ Hoopeslon |
| Com | 21 | ＊† Havana |
| SS | 38 | Urbana |
| $M d P$ | 101 | ＊$\dagger$ Marion |
| SS | 7 | Hurdland，Missouri |
| Mus sp |  | ＊$\dagger$ Mendon |
| LAS | 32 | ＊－Chicardsown |
| Law sp |  | ＊＋Lake Cily，Florida |
| Agr | $60 \frac{1}{2}$ | ＊$\dagger$ Tallulah，Louisiana |
| SS |  | Coushalte，Louisiana |
| Com |  | ＊$\dagger$ Kendallville |
| LAS | 30 | ＊$\dagger$ Chicago |
| Lav | 86 | ＊$\dagger$ Paxton |
| Agr |  | ＊† Urbana |
| SS | 130 | Beardstorvn |
| SS | 39 | －Chicago |
| ME |  | ＊$\dagger$ Chicago |
| SS |  | Mi．Vernon |
| LAS | 104 | ＊$\dagger$ Woodland |
| CerE | 74 | ＊$\dagger$ Otsego，Michigan |
| ${ }^{\text {A }}$ gr |  | ＊Nerwlon |
| Agr | 29 | $\begin{gathered} \text { * Cicero } \\ \text { Annawan } \end{gathered}$ |
| Com |  | ＊† Indianapolis，Indiana |
| HSLAS（SS） | 71 | ＊$\dagger$ Urbana |
| HSLAS |  | ＊† Urbana |
| Chem | 111 | ＊$\dagger$ Hillsboro |
| $C E$ |  | $\dagger$ Sao Paulo，Brazil |
| SSS | $8^{8 \frac{1}{2}}$ | Decatur |
| SS |  | Sioux City，Iowa |
| HSAgr |  | ＊$\dagger$ Marseilles |
| $A E$ | 32 | ＊$\dagger$ Honolulu |
| LAS sp |  | ＊Bolize，British Honduras，C．A． |
| Agr sp |  | ＊$\dagger$ Highland Park |
| Com |  | ＊$\dagger$ Philo |
| ChE | 105 | ＊+ Champaign |
| LAS | 17 | ＊$\dagger$ Aurora |
| LAS | $72 \frac{1}{2}$ | ＊$\dagger$ Urbana |
| $L A S$ | 21 | ＊$\dagger$ Urbana |
| ${ }_{L A E}$ | 35 | ＊$\dagger$ Knoxville，Tennessee |
| Mus | 27 | ＊$\dagger$ Urbana |
| HSLAS | 31 | ＊Mattoon |
| LAS | 35 | ＊＋Allerton |
| Agr | 34 | ＊$\dagger$ Macomb |
| LAS |  | ＊† Champaign |
| LAS | 101 | ＊$\dagger$ Nashville |
| SS |  | Decatur |
| SS |  | Tuscola |
| SS |  | Gridley |
| HSAgr | 96 | ＊$\dagger$ Nashville |
| Com |  | ＊$\dagger$ Danville |
| LAS | $23 \frac{1}{3}$ | ＊† Garrett，Indiana |


| Moore, Paul Robert | ME | 36 | $\dagger$ Carlinaille |
| :---: | :---: | :---: | :---: |
| Moore, Sara Elizabeth | LAS | 66 | * $\dagger$ Danville |
| Moore, Vivian June | HSLAS | 29 | * $\dagger$ Stockton |
| Moore, Walter Raymond | Agr |  | * $\dagger$ Wataga |
| Moore, Wayne Kenneth | ${ }_{\text {A }} \mathrm{gr}$ | 65 ${ }^{\frac{1}{2}}$ | * $\dagger$ Chicago |
| Moore, William Abner, A.B., 1916 | Law |  | * $\dagger$ Urbana |
| Morales, Maximo Eladio | CE |  | * $\dagger$ Lima, Per |
| Moran, Frances Bernetia | LAS |  | * $\dagger$ Belvidere |
| Moran, Katherine Mary | HSAgr (SS) | 102 | * $\dagger$ Bartlesville, Oklahoma |
| Moran, Sarah Ellen |  | 6 | Bartlesville, Oklahoma |
| Mordue, Ralph | MinE | 5 | * † Chicago |
| Morean, Clarence Wheeler | Agr | $43 \frac{1}{3}$ | * † Des Moines, Iowa |
| Morehead, R Gould | Com | $23 \frac{1}{2}$ | * $\dagger$ Montclair, New Jersey |
| Morey, Clara Adah | LAS (SS) | 102 | * $\dagger$ Macomb |
| Morey, Drew | Com | 30 | * † Manistee, Michigan |
| Morey, Philip Johnston | Agr | 70 | * † Oak Park |
| Morgan, Dean Francis | EE | $35 \frac{1}{2}$ | * $\dagger$ Kane |
| Morgan, May Merboth | LAS | 981 ${ }^{\frac{1}{2}}$ | * $\dagger$ Chicago |
| Morgan, Thomas Sherman | Law | 31 | * † East St. Louis |
| Morgan, William Ray | CerE |  | * $\dagger$ Macomb |
| Morita, Hanyemon | Com | $68 \frac{1}{2}$ | * † Kisorazu Mochi, Japan |
| Morrill, Berton Charles | SS | 3 | Old Orchard, Maine |
| Morris, Bertha May | SS | 20\% | Greenview |
| Morris, Harold Harrison | Agr | 66 | * $\dagger$ Clinlon |
| Morris, Helen Elizabeth | HSLAS | 45 | * $\dagger$ Webster Grorcs, Missour ${ }^{\text {a }}$ |
| Morris, Nelson Marvin | MinE | 110 | * $\dagger$ Harrisburg |
| Morrison, Carl Raymond | ME | 77 | * $\dagger$ Columbus, Indiana |
| Morrison, Ivan G | Agr | 102 | * $\dagger$ Fairbury |
| Morrison, Lethe Elearora | HSLAS | 48 | * $\dagger$ Waterloo |
| Morrison, Louraine Katherine | LAS |  | * $\dagger$ Joliel |
| Morrison, Russell Howard | Com |  | * $\dagger$ Rantoul |
| Morrison, William Raymond | LAS (SS) | 178 | * Waterloo |
| Morrissey, John O'Connell | Agr (SS) | 34\% | * $\dagger$ Bloomington |
| Morrow, Charles Edward | ME |  | * † Champaign |
| Morrow, Walter Shoop | Com |  | * $\dagger$ Waukegan |
| Morsch, Elmer John | A gr | 66 | * + Hinckley |
| Morse, Guy Edward | EE | 44 | * $\dagger$ Kansas Cily, Missouri |
| Morse, Richard Irving | Com | 20 | * + Olney |
| Morse, Robert Lay | ME | 37 | * $\dagger$ Kewance |
| Morton, Alfred Hammond | CE | 36 | * $\dagger$ Chicago |
| Morton, Isadore | ChE | 72 | * $\dagger$ Chicago |
| Moseley, Jason William | Arch | 13 | * † Calhoun, Kentucky |
| Moser, Margaret | LAS | 31 | * $\dagger$ Chicago |
| Mosgrove, Charles Adamson | Agr |  | * $\dagger$ Monticello |
| Mosier, Henry David | Com |  | * $\dagger$ Urbana |
| Moss, Alida Helen | LAS | 66 | * $\dagger$ Urbana |
| Moss, Florence Louise | LAS | 106 | * + Charles City, Iowa |
| Moss, John Redmon | Agr |  | * + Paris |
| Moss, Ruth Alice | $L_{S S}{ }^{\text {S }}$ (SS) | $91 \frac{1}{2}$ | * $\dagger$ Mit. Vernon |
| Mote, Raymond Spencer | SS | $6 \frac{1}{3}$ | Piqua, Ohio |
| Mott, Florence McElroy | HSAgr |  | * $\dagger$ St. Louis, Missourri |
| Motter, Archie Runkle | Com | 60 | * $\dagger$ Browns Valley, Minnesota |
| Motter, Henry Edward | Com | 34 | * † Lake Worth, Florida |
| Moulden, Clara Berenice | LAS | 31 | * + Tuscola |
| Moulton, George Franklin | ChE |  | $\dagger$ Ottawa |
| Moyen, Carl Peter | ChE | 119 | * $\dagger$ Chicago |
| Mroz, Rudolph John | MdP | 28 | * $\dagger$ Chicago |
| Mueller, Alfred Martin | EE |  | * + Wilmette |
| Mueller, Carl Oscar | $A E$ ( $S S$ ) | 111 $\frac{1}{2}$ | * $\dagger$ Chicago |
| Mueller, Gustave B | MdP sp |  | * Delmont, South Dakota |
| Mueller, Herbert Edward | $A E$ | 109 | * † Chicago |
| Mueller, John A | SS | 6 | Watertown, Wisconsin |
| Mueller, Richard Henry | $A g r$ | 33 | * $\dagger$ Chicago |
| Mueller, Walter Rudolph | $A E$ | 37 | * $\dagger$ Indianapolis, Indiana |
| Mueller, Walter Sack | LAS |  | * $\dagger$ South Bend, Indiana |
| Muessel, Richard Adam | ${ }_{\text {Agr }}$ | 106 | * + South Bend, Indiana |
| Mugge, Lucile | LAS |  | * Harrisburg |
| Mulford, Edgar Theodore | $C E$ (SS) | $96 \frac{1}{2}$ | * $\dagger$ Mason City |
| Mulliken, Horace Watson | ${ }^{A g r}$ (SS) | 30 | * $\dagger$ Humbolt |
| Mullins, Edward Richard Mullins, James Thomas | ${ }_{A E}^{A E}(S S)$ | $109 \frac{1}{2}$ | * † Champaign <br> * Champaign |
| Mullon, Vance Spencer | MdP |  | * New Orleans, Lonisiana |
| Mumm, Walter John | Agr | 32 | * $\dagger$ Sidney |
| Munce, Bernice Correll | LAS | 15 | * $\dagger$ Illiopolis |
| Muncie, Wendell Stanley | LAS |  | * $\dagger$ Danville |
| Munger, Winifred | LAS |  | $\dagger$ Chicago |
| Munns, Charles Willard | Com | 70 | * Peoria |
| Munsell, Amel Truman | Com |  | * $\dagger$ Henryelta, Oklahoma |
| Munson, John Leonard | Agr (SS) | 102 | * $\dagger$ Randolph |
| Munson, Morris George | Com sp | 34 | * + Champaign |
| Muramoto, David Kitaro | EE |  | * $\dagger$ Chicago |
| Murata, Motosaburo | EE | 106 $\frac{1}{2}$ | * $\dagger$ Japan |
| Murdock, Elizabeth Adams | LAS (SS) | 97 | * + Champaigr |
| Murison, Richard Vivian | ${ }_{A g r}{ }^{\text {a }}$ | 41 | * † Evanston |


| Murphy, George Thomas | MdP |  | Chicazo |
| :---: | :---: | :---: | :---: |
| Murphy, John Anson | EL |  | St. Louis, Missouri |
| Murphy, Louise Phares | LAS (SS) | 36 | * + IV estern Springs |
| Murphy, Robert Emmet | ME | $27 \frac{1}{2}$ | * $\dagger$ Anderson, Indiana |
| Murray, Annic Louise | Mus sp |  | * † Champaign |
| Murray, Gerald Edson | Com | 73 | † Rensselaer, Indiana |
| Murray, Grace Mildred | LAS | 99 | Chamıpaign |
| Murray, Lenore Claire | LAS |  | * Rantoul |
| Murray, Leonard Ely | ${ }_{S E}$ | 36 | * † Springfield, Massachusctls |
| Murray, Noris Fay | SS |  | Mazon |
| Murray, Sprague Elmo | Agr | 70 | * † Mazoir |
| Mustain, James Clifford | ME | 71 | * Sciota |
| Myers, Delle Matilda | Agr | 16 | * † Sperling, Manitoba |
| Myers, Emma Frances | LAS | 54 | * † West Virginia |
| Myers, Gilbert Barlow | EE |  | * $\dagger$ Aurora |
| Myers, Harold Noyes | Agr |  | * $\dagger$ Mendon |
| Myers, Merton Jasper | ME | $29 \frac{1}{3}$ | * Champaign |
| Myers, Morris Rosenthal | Com |  | $\dagger$ Springfield |
| Myers, Walter Franklin | Com |  | Indianapolis, Indiana |
| Myers, William Henry | MdP |  | $\dagger$ Cal Valley |
| Naden, Gladys LeOra | L. 4 S | 68 | $\dagger$ Newark |
| Nag, Surendra Chacedra | MSE | 9513 | * + Calcutta, India |
| Nagel, Charles August | EE | 40 | * † St. Louis, Missouri |
| Nakada, Kyoichi | EE | 120 | * † Okayama, Japan |
| Nakanishi, Shimaji | EE |  | * $\dagger$ Aichiecen, Japan |
| Nakayama, Moki | EE | 111 | $\dagger$ Kochi, Kochi-Ken, Japan |
| Nash, Vern Sharp | Agr sp |  | $\dagger$ Joplin, Missouri |
| Neece, Orville Jesse | Lazv |  | $\dagger$ Maconiz |
| Needham, Catherine | LAS | 67 | * $\dagger$ Urbana |
| Needham, Marguerita | LAS |  | * $\dagger$ Urbanc |
| Needler, Julien Hequcmbourg | ME | 115 | * + Chicago |
| Neely, Bertha | SS | 67 | Marion |
| Neely, John Childs | Arch | 62 | * + Topeke, Kansas |
| Neff, Harold Alpha | LAS (SS) | 31 | * † Rocrielle |
| N eiburg, Simon Jacob | EE | 63 | * † St. Albans, Vermont |
| Neifing, Hal Francis | SS |  | Ponliac |
| Neil, Mark Crawford | LAS | 31 | * Oek Park |
| Nelson, Arthur Elis | ME |  | $\dagger$ Evanston |
| Nelson, Clarence Theodore | SS |  | Bertrand, Ṅebraska |
| Nelson, Elmer Laurence | AE | 54 | * † Chicago |
| Nelson, Jesse Ward | Agr | 103 $\frac{1}{2}$ | * $\dagger$ Vcrmcnl |
| Nelson, John | $A E$ | 17 | * LaGrange |
| Nelson, Marguerite Richmond | LAS sp |  | * t Urbanc |
| Nelson, Milton Nels | SS |  | Chicago |
| Nelson, Paul Scofield | ME | 3.4 | * $\dagger$ Chicago |
| Nelson, Raymond Edward | LAS |  | $\cdots$ - Chicago |
| Nelson, Rudoiph Stokes | LAS |  | * $\dagger$ Rockford |
| Nelson, Scverina Elain | LAS | 70 | * † Oak Park |
| Nelson, Sidiney William | Com |  | * $\dagger$ Winnetkc |
| Nelson, Walter Stephen Nelson, William Oscar | LAS | $8{ }^{89}$ | * $\dagger$ Chicago |
| Nelson, William Oscar | ME | 110 | * $\dagger$ Peoria |
| Nesbit, Maude Elizabeth, A.B. (Buller College) 1915 | Lib |  | * † Indianapolis, Indiana |
| Nesbitt, Carl Wesley | Chem | 75 | * $\dagger$ Maccmb |
| Nesheff, Ceorge Netcott, Roland Earl | ME | 56 | * Bulgaria |
| Netcott, Roland Earl | AE | 85 | $\dagger$ Independence, lowa |
| Netz, Ralph Morlan | Com | 70 | * $\dagger$ Albion, Indiana |
| Neuber, Anna Louise | LAS | 16 | * $\dagger$ Litchfield |
| Neville, Olive Myrtle | HSLAS | 64 | * $\dagger$ Kıwanee |
| Newburn, Alice Rachel | HSAgr | 25술 | * + Hoopeston |
| Newburn, Gene Edgar | Agr | 33 | * + Hoo Deston |
| Newburn, Harold James | Com | 51 | * + Hoopeston |
| Newburn, Iva Florence | HSLAS | 68 | * T Urbana |
| Newcomb, Edwin Eldwood | Arch | 64 | * $\dagger$ Burlington, Kansas |
| Newcomb, Walter Haines | ${ }_{S C}$ Chen | 91 | * $\dagger$ Fisher |
| Newcomer, Charles Grahan | SS | 7 | Columbia, Missouri |
| Newell, Constance | LAS |  | $\dagger$ Urbana |
| Newell, Josephine | HSLAS | 36 | * † Urbana |
| Newland, George Milton | Arch |  | * T Cedar Rapids, Iowa |
| Newlin, Harold Vance | LAS | 103 | * $\dagger$ Robinson |
| Newlin, John Ewart | LAS |  | * † Robinson |
| Newlin, Ralph Thomas | Lave | 92 | * Robinson. |
| Newlin, Walter Allen | Agr | 73 | * $\dagger$ Annapolis |
| Newlin, Willard Bogue | LAS | 62 | * $\dagger$ Indianapolis, Indiana |
| Newsum, Noble | SS | $1 \frac{1}{3}$ | * Mll. Carmal |
| Newton, Doris Charlotte | HSAgr | 33 | * † Glen Ellyn |
| Newton, Frauk Wilson | Agr |  | * † Urbaric |
| Newton, Helen Charlotte | Mus | 36 | * $\dagger$ Fairfield |
| Newton, Kelvin | SS | 5 | Weir, Kansas |
| Newton, Robert Keith | EE | 69 $\frac{1}{2}$ | * $\dagger$ Jerscyville |
| Nichol, Edward Sterling | LAS | 106 | * + Columbus, Ohio |
| Nichol, George William | Com | 100 | * $\dagger$ Anderson, Indiana |
| Nichol, Ross | SS | 8 | Barry |
| Nichols, Charles Henry | Agr | 36 | * $\dagger$ Hebron |
| Nichols, Charles Willian | MIdP |  | * Fairfield |

Nichols, Clayton Schirm
Nichols, Genevieve Beeler
Nichols, Herbert Luthy
Nichols, Hilton C
Nichols, Josephine Marie
Nichols, Roscoe Christian
Nichols, Sidney Warren
Nickell, Harry Brock
Nickels, Arnold Carl
Nickolls, Cecil Richard
Niebergall, Philip Alfred
Niehaus, John Mark, Jr.
Nieman, Earl
Vightingale, Eugene Richard
Nixon, Eugene White
Nixson, Walter Henry
Noble, Merle Emmett
Noel, Elsie Mae
Nogle, Claude Emil
Nolan, John Timothy
Nolen, Harry Fern
Noone, Byron Mortime
Norlin, Fred Christian
Norling, Albert Emanuel
Norman, Louise Elizabeth
Norman, Milton Eugene
Norman, Willard Alfred
Norris, Dwight Reed
North, Alma Marie
North, Page Lane
North, Paul Gordon
Norton, Arty Everett
Norton, Eathon Arlo
Norviel, Herald Bernard
Nott, Edson Lowell
Novak, Joseph Frank
Nowlen, Gladys Louise
Noyes, William Albert, Jr.
Nugent, Julia Anne
Null, Miriam Ellen
Nusbaum, Emil Justice
Nutt, Bertram Vera
Nuttal, John Tilden
Nye, Anita
Oakes, Ella Bazter
Oakes, James Lowell
Obermueller, Aurelia
Oberne, George Stuble
Oblander, Helen Elizabeth
Ocheltree, Maurice Webster
Ochoa, Alfonso Vizcaino
Ochoa, Jorge Vizcaino
Ochs, Chester Adam
O'Connor, Helen Crawford
O'Connor, Martin Earl
Odell, Arthur Allen, A.B., 1915
Odell, Laura A
Odenkirk, Zellie Coy
Ogden, Lynden
Ogg, John Hurley
Ohrman, Ruth Ingeborg
Ohrum, Dwight Broadnaz
O'Keefe, Walter Joseph
Olander, Ernest Allen
Olazagsti, Tomas
Olds, George Samuel
Olesen, Alnea Carrie
Olesen, Harold Loeffel
Olin, Irwin Blaine
Oliveras, Ovidio
Olmstead, Roscoe Thomas
Olsen, Arthur Alexis
Olson, Arthur Luther
Olson, Milton Ola
Olson, Oscar Helmer
Olson, Robert George
Omansky, Samuel
Omeara, Allan Richard
O'Neall, Richard Read
O'Neil, William George
O'Neill, Lucy Leona
Onstad, Ralph Mangus
Oppfelt, Glenn Alfred
Orland, Fred William
Orr, Harold James

| Arch |  | ha, Nebraska |
| :---: | :---: | :---: |
| HSLAS |  | * $\dagger$ Danville |
| Chem | 21 | * Washington, D.C. |
| Agr | 28 | * $\dagger$ Momence |
| LAS | 100 | * $\dagger$ Dixon |
| LAS |  | * † Fairfield |
| Com |  | * $\dagger$ Des Moines, Iowa |
| Comsp | 34 | * $\dagger$ Fairfield <br> * $\dagger$ Watertown, Wisconsin |
| SS | $130 \frac{1}{2}$ | - Stark |
| Com | 33 | * $\dagger$ New Orleans, Louisiana |
| LAS |  | * + Peoria |
| EE |  | * + Winchester |
| EE | 50 | * † Champaign |
| SS |  | Marissa |
| $C E$ |  | * $\dagger$ Beardstown |
| LAS | 30 | * $\dagger$ Crawfordsville, Indiana |
| LAS | 36 | * $\dagger$ Saunemen |
| Agr sp | 17 | * $\dagger$ Champaign |
| CE | 78 | * † Gilbert, Minnesota |
| $M E$ |  | * D Danville |
| $M d P$ | 59 | * † Haworth, New Jersey |
| CE | 126 | * $\dagger$ Chicago |
| AE | 30 | * + Aurorc |
| HSLAS (SS) |  | * $\dagger$ Champaign |
| CE | 36 | * $\dagger$ Chicago |
| Agr | 18 | * $\dagger$ Chicago |
| CE | 107 | * $\dagger$ Neroman |
| Com |  | $\dagger$ Rockford |
| Agr | 55 | * † Chicago |
| Agr |  | * El Paso |
| $A g r$ | 29 | * Alto Pass |
| Agr | 33 | * $\dagger$ Bloomington |
| Med | 66 | * † Urbana |
| Agr | 60 | * $\dagger$ Byron |
| ${ }_{S S}^{C E}$ |  | * $\dagger$ Chicago |
| LAS | 66 | * $\dagger$ Urbana |
| SS | 8 | Buffalo |
| HSLAS | 32 | * $\dagger$ Colchester |
| EE | 36 | * $\dagger$ Streator |
| $M E$ |  | * $\dagger$ Moline |
| SS | 37 | Flat Rock |
| L.AS |  | * $\dagger$ Loda |
| HSAgr | 74 | $\dagger$ * Laura |
| LAS |  | * $\dagger$ Champaign |
| ${ }_{\text {SM }}$ RME | ${ }^{7} 1$ | * + Alton Chicago |
| HSLAS | 25 | * $\dagger$ Bushnell |
| LAS (SS) | 53 | * + Homer |
| Arch | $66 \frac{1}{2}$ | * † Guadalajara, Mexico |
| EE | 17 | * + Chicaso |
| Com | 95 | * $\dagger$ Chicago |
| SS | 6 | Belvidert |
| Law |  | * $\dagger$ Kervanee |
| LAS |  | * Lakeside, California |
| SS | 16 | Oakland |
| ES | 241 | * $\dagger$ Auburrn, Indiana |
| SS |  | Lexinglon |
| ME | 73 | * $\dagger$ Buffalo, New York |
| LAS (SS) | 30 | * $\dagger$ Harvey |
| RCE | 102 | * † Indranajolis, Indiana |
| LAS |  | * $\dagger$ Plymouth, Indiana |
| ${ }_{C E}$ | $139 \frac{1}{2}$ | * Topeka, Kansas |
| $C h E$ (SS) | 6 | * $\dagger$ Porto Rico |
| ${ }_{\text {A }}^{\text {Hr }}$ / | 31 | * Highland Park |
| EE | 71 | * † Highland Park |
| Com (SS) | 90 | * $\dagger$ Evanston |
| SS | 114 ${ }^{\frac{1}{3}}$ | Chicago |
| Com | 66 | * $\dagger$ Callin |
| Agr | $113 \frac{1}{3}$ | * $\dagger$ Newark |
| LAS | $61{ }^{\frac{1}{2}}$ | * $\dagger$ Chicago |
| SS | 16 | Monticello |
| ME |  | * $\dagger$ Rockford |
| ME |  | * $\dagger$ Sterling |
| Arch |  | * + Chicago |
| Com | 106 | * + Chicago |
| CE | 30 | * + Washington, Indiana |
| $A E$ | $36 \frac{1}{2}$ | * $\dagger$ Faribault, Minnesota |
| SS |  | * Kankakee Wisconsin |
| Cer E | 1 | * + Aurora |
| Agr | 33 | * + Murphysboro |
| L.AS |  | * $\dagger$ Texarkana, Texas |


| Orvis, Caroline <br> A.B. (Yankton Coll.) 1910 | Lib |  | * † Yankton, South Dakota |
| :---: | :---: | :---: | :---: |
| Osborn, Deane Harold | Com | 31 | * $\dagger$ Urbana |
| Osborne, Clinton Milan |  | $7 \frac{1}{3}$ | Rockford |
| Osburn, Mabel Thelma | HSAgr |  | $\dagger$ Robinson |
| Osgood, Sewall Mason | Com sp |  | * $\dagger$ Chicago |
| Ostrom, Hallas Willard | ChE | 29 | * $\dagger$ Chicago |
| Otani, Kura | LAS |  | * $\dagger$ Berkeley, California |
| Ott, John Ekern | ME | 1092 | * $\dagger$ Chicago |
| Ott, Percy Wright | MSE | 115 ${ }^{\frac{1}{2}}$ | * + Mi. Hermon, Louisiana |
| Otto, Gordon | Agr | $102 \frac{1}{3}$ | * $\dagger$ Chicago |
| Ousley, Glen Charles | Agr | 30 | * Paris |
| Outland, Robert Marcus | Agr |  | * + Indianapolis, Indiana |
| Overbee, William Bryan | EE | 36 | * $\dagger$ Fairfield |
| Overend, Harrison George | Arch | 1252 | * + Edelstein |
| Overstreet, Ethel | LAS |  | * $\dagger$ Orlando, Florida |
| Overton, Ralph Marion | ME | 109 | * $\dagger$ Winchester |
| Owen, Harold Patterson | $C E$ (SS) | 74 | * + Chicago |
| Owen, Hayward | Com |  | * $\dagger$ Villa Grove |
| Owen, Jane | LAS | 30 | * $\dagger$ McHenry |
| Owen, Stewart Douglas | LAS |  | * $\dagger$ Louisville, Kentucky |
| Oxman, John Murrell | Agr | 23 | * + Lake Bluff |
| Pack, Mary | HSLAS | 66 | * $\dagger$ River Forest |
| Paddock, Priscilla Barton | LAS |  | * † Kankakee |
| Paddock, Richard | MdP (SS) | 40 | * Terre Haute, Indiana |
| Page, Harold Meredith | LAS (SS) | 93 | * + Keota, Iowa |
| Page, Ralph Augustus | Agr sp |  | * $\dagger$ McLeansboro |
| Pagin, Bernard Lewis | ME |  | * + LaGrange |
| Pahl, Margaret Christina | HSLAS |  | * † Clinton, Iowa |
| Painter, George Bandy | LAS | 6 | * Carrollion |
| Painter, Merle Leo | Com |  | * $\dagger$ Carrollton |
| Paisley, Ada Mae, A.B., 1911 | SS | 133 | Champaign |
| Paisley, Sela Isabel | Mus | 122 | * † Urbana |
| Paisley, Stella Elizabeth | LAS |  | * $\dagger$ Urbana |
| Palfrey, John Robert | Agr | 12912 | * + Urbana |
| Palmer, Anna Shattuck, M.L., 1895 | Mus |  | $\dagger$ Urbana |
| Palmer, Arthur Bowen | $C E$ | 61 | * $\dagger$ Mt. Pleasant, Iow'a |
| Palmer, Charles Shattuck | Chem | 1043 | * + Urbana |
| Palmer, Robert Carrell | $A E$ | 33 | * + Des Moines, Iorva |
| Pancoast, Donald A | ME | 65 | * + Champaign |
| Pappmeier, Louis Stahl | CE | 37 | * $\dagger$ Litchfield |
| Park, Martha Ann | HSLAS (SS) | 26 | * + St. Louis, Missouri |
| Parker, Charles Grosvenor | Arch | $80^{1}$ | * + Chicago |
| Parker, Frances Miriam | LAS |  | * + Mattoon |
| Parker, Joel Weaver | CE | 74 | * + Mattoon |
| Parkes, Charles Holcombe | LAS (SS) | 28 | * + Chicago |
| Parkhurst, Marie Lanius | Mus sp |  | * $\dagger$ York, Pennsyleania |
| Parks, Catherine Elizabeth | LAS | 96 | * DuQutoin |
| Parks, Frank Austin | Com | 69 | * Urbana |
| Parks, Helen Gwendith | Mus |  | * † Farmington |
| Parks, Ralph Milton | LAS | 69 | * † Urbana |
| Parmely, Maurice Edmund | Agr | 33 | * $\dagger$ Urbana |
| Parr, Arthur Eldon | Agr | $73 \frac{1}{2}$ | * Nerwman |
| Parr, Barney Felix | SS | $6{ }^{2}$ | Union Star, Kentucky |
| Parr, Harold Lucian | CerE (SS) | 87 | * ¢ Urbana |
| Parry, John Jay, Ph.D. | LAS |  | $\dagger$ Urbana |
| Pastel, Alfred Robert | Arch | 81 | * $\dagger$ Chicago |
| Patchill, Glenn Tilford | Com | 98 | * † Coming, New York |
| Patterson, Joseph Julian | $A E$ | 127 | $\dagger$ Danville |
| Patterson, Katharine | SS | 6 | * + Allanta |
| Patterson, Nellie Rand | HSLAS | 116 | $\dagger$ Chicago |
| Patterson, Ralph Lewis | Agr |  | * † Eureka |
| Pattison, Benjamin Purdy | SS |  | Cari, Michigan |
| Pattiz, Simon | REE |  | * $\dagger$ East St. Louis |
| Patton, Frederick William | Agr | 92 | * † Montclair, New Jersey |
| Patton, John V | LAS | $95 \frac{1}{2}$ | * $\dagger$ Aberdeen, Mississippi |
| Patton, Lee Moyer | Agr | 32 | * $\dagger$ Bridgeport |
| Patton, Richard Chalmers | LAS | 67 | * $\dagger$ Allanta |
| Paul, Berenice Marie | LAS | 49 | * + Chicago |
| Paul, Frank Martyn | ME (SS) |  | * $\dagger$ Kewanee |
| Paul, Lauretta Grace | SS | 81. | Alton |
| Paul, Mary Josephine | LAS | 151/6 | * Jerseyville |
| Paulson, Enoch Oliver | Agr sp |  | $\dagger$ Princeton |
| Pavey, Charles Allen | Com | 40 | * $\dagger$ Colambus, Ohio |
| Pawson, John Thomas | Com | 31 | * $\dagger$ Danville |
| Payne, Hilderth Lacue | LAS |  | Lexington |
| Payton, Paul Leason | Com |  | * Taylorville |
| Peadro, Benjamin Franklin | Agrsp |  | * † Urbana |
| Peadro, Eva McDonald | Mus |  | $\dagger$ Urbana |
| Peale, Margaret | HSLAS | 63 | * $\dagger$ Belvidere |
| Pearce, Marvin James | ChE |  | * $\dagger$ Johnson City, |
| Pearce, Walter Harold | Com |  | * $\dagger$ Rushville, Indiana |
| Peare, Wiliam Francis H | ME | 72 | * + IIinsdale |
| Pearson, Homer Arnold | EE | 103 | * + Thorntown, Indiana |
| Pearson, Robert Miller | ChE | 21 | * $\dagger$ Thorntown, Indiana |


| Pease, David Ward | MR |  |  | Chicago |
| :---: | :---: | :---: | :---: | :---: |
| Pecchia, Victor Anthony | CE | 132 ${ }^{2}$ | * | Chicago |
| Pechman, Henry Charles | AE | 23 |  | Webster Groves, Missouri |
| Peck, Frederick Albert, Jr. | REE | 77 | * | Chicago |
| Peck, Irving Kellogg | MinE | 43 | * | Aurora |
| Peck, Roy Lee | CE | 130 | * | Oak Park |
| Peddicord, Clotine Sellards. | HSLAS | 17 |  | Champaign |
| Pedler, Russell Henry | ME | 115 |  | Chicago |
| Peel, Jesse Aldred | Agr |  |  | Taylorville |
| Peirson, Mary Lucile | HSLAS | 65 |  | Murphysboro |
| Pell, Hazel Marie | HSLAS (SS) | 69 | * | Urbana |
| Peltz, Ralph Cheney | LAS |  |  | Clinton |
| Pelzer, Harry Louis | LAS (SS) | 98 | * | Champaign |
| Pendarvis, Harry Reed | LAS | 153 |  | Chicago |
| Pendergast, Emly Marie | LAS |  |  | Champaign |
| Pendergast, Mary Honora | LAS | 60 | * | Champaign |
| Penderagst, Nellie Marie | Mus |  |  | Champaign |
| Penhallow, Lambert Benjamin | ME | 73 | * | Chicago |
| Penn, Josephine Emily | SS | 133 ${ }^{\frac{1}{2}}$ |  | Springfield |
| Penny, James Leonard | Agr | 34 |  | Evanston |
| Penny, Maud DeMaris | LAS |  |  | Champaign |
| Perbix, Harold Witte | Agr | 60 |  | Markham |
| Percival, Joseph W | Agr | 53 |  | Champaign |
| Percival, Lilley Ruth | HSAgr | 63 |  | Urbana |
| Percival, Stella Rebecca | Mus (SS) | 110늘 | * | Champaign |
| Percival, William Frank | Com | 25 |  | Champaign |
| Percy, Gcorge Stanford | ME | 33 | * | Chicago |
| Perkins, Frances Janet | LAS | $82 \frac{1}{2}$ | * | Laurel, Mississippi |
| Perkins, Wayne Emerson | LAS |  | * | Mendota |
| Perlman, Samuel Charles | LAS | 25 | * | Chicago |
| Perry, Raymond Andress | ME Sp |  |  | Delaware, New Jersey |
| Perry, Robert Ashman | ME | 77 | * | Urbana |
| Perry, Sherman | SS | $\delta$ |  | Mier, Indiana |
| Peterman, George Raymond | Com |  |  | Kankakee |
| Peters, Helen Augusta | LAS |  |  | Portland, Oregon |
| Petersen, Frank Lindell | Cont |  |  | Oak Park |
| Petersen, Marvic Hecht | Agr (SS) | 59즐 |  | Chicago |
| Peterson, Chester Almon | Agr | 107 |  | Galesburg |
| Peterson, Franklin Merle | Com | 31 |  | Brownstown |
| Peterson, Fred Milton | Com |  |  | North Crystal Lake |
| Peterson, Irving Leonard | Agr | 95 |  | DeKalb |
| Peterson, James Andrew | LAS | 33 |  | Chicago |
| Peterson, Joel Asbury | LAS | 61 |  | Urbana |
| Peterson, Lawrence Eugene | $A E$ | 35 |  | Grand Rapids, Micinigan |
| Peterson, Lester Carlisle | ChE |  |  | $\dagger$ Paxton |
| Peterson, Mabel Elizabeth | LAS | 30 |  | Maywood |
| Peterson, Norman Hill | Agr |  |  | Chicago |
| Peterson, Reuben Walter | Agr | 101 |  | $\dagger$ Chicago |
| Peterson, Richard Alvin | CE |  |  | $\dagger$ Chicago |
| Peterson, Sidney LeRoy | LAS |  |  | $\dagger$ Chicago |
| Peterson, Silas Carlisle | Agr | 42 |  | Herscher |
| Peterson, Timothy Edwin | ${ }^{\text {A }}{ }^{\text {r }}$ | 94 |  | Mesa, Arizona |
| Petesch, Edyth Marion | LAS | 32 |  | $\dagger$ McHenry |
| Petesch, Germer | LAS | 34 |  | $\dagger$ McHenry |
| Pethybridge, Frank Howard | Agr | 98 |  | $\dagger$ Chicago |
| Petter, Stanley Dubois | ME | 70 | * | $\dagger$ Paducah, Ǩentucky |
| Petty, Lawrence Otis | Agr | 32 | * | $\dagger$ Sumner |
| Petty, Manley Ross | Agr | 95 | * | Sumner |
| Petty, Raymond Bradshaw | Com sp |  | * | $\dagger$ Peru, Indiana |
| Petzirg, Edwin Rudolph | EE | 74 | * | Shumway |
| Peyton, Eugene Harvey | LAS |  |  | $\dagger$ Homer |
| Pfeffer, Louis Herman | Agr | 129 | * | $\dagger$ Lebanon. |
| Pfeffer, Mary Elizabeth | Mus |  |  | $\dagger$ Champaign |
| Pfeiffer, Conrad Louis | EE | 112 |  | $\dagger$ Chicago |
| Pfeiffer, Rudolf Salisbury | ME | 112 ${ }^{\frac{1}{2}}$ |  | $\dagger$ Peoria |
| Pfuderer, William Frederick | LAS |  |  | $\dagger$ Berwyn |
| Phalen, Robert William | Com | 65 |  | $\dagger$ Evanston |
| Phenicie, Hubert Ellsworth | ${ }^{\text {A gr }}$ |  | * | $\dagger$ Manchester, Iowa |
| Philbrick, Lois | LAS | 98 | * | $\dagger$ Champaign |
| Phillips, Alice Emma | HSLAS | 54 |  | Champaign |
| Phillips, Andrew Sheldon | Arch |  |  | Sullivan |
| Phillips, Bernice Irene. | HSLAS | 85 |  | $\dagger$ Bloomington |
| Phillips, Eugene Martin, A.B., 1904 | Agr |  |  | $\dagger$ Lena |
| Phillips, Lemuel | LAS (SS) | 30 |  | $\dagger$ Mi. Vernon, Indiana |
| Phillips, Minnie Alice | LAS | 98 |  | $\dagger$ Sullivan |
| Phillips, Ruth | HSLAS | 81 |  | $\dagger$ E. Cleveland, Ohio |
| Phillis, Louis Irving | ME | 73 |  | $\dagger$ Chicago |
| Pickard, Dorothy Everett | LAS | 60 | * | $\dagger$ Maywood |
| Pickard, Marion Frances | LAS | 33 |  | $\dagger$ Maywood |
| Pickard, Violet Hunt | LAS |  |  | $\dagger$ Maywood |
| Picker, Edna Odessa | HSLAS | 32 |  | $\dagger$ Assumption |
| Pickett, Arthur William | AE | 78 |  | $\dagger$ Chicago |
| Pieper, Arnold Christian | ${ }_{S E}$ E | 36 |  | $\dagger$ Chatham |
| Pieper, John P (erce, Benjamin Elmer | SS | 112 | * | ${ }_{+}^{\text {Granite City }}$ |

Pierce, Maurice
Pierce, Theodore
Pierson, Charles Howard
Pierson, Frank Harlan
Pierson, Raymond Henry
Pike, Albert M
Pike, Donald Esterly
Pilchard, Edwin Ivan
Pinheiro, Ruy
Pinkley, George Davison
Pinnell, Alma Jean
Pinto, Deoclecis de Oliveira
Pipher, Willard Albertus
Pires, Amy Mirth
Pittard, Le Ware
Place, Dorothy Crouse
Platt, Leslie Paine
Plessinger, Emerson
Plummer, Allison Oliver
Plymale, Betha
Podlesak, Harry George
Poehlmann, Earl Franklin
Poehlmann, Roland Morton
Poehlmann, Walter Gustave
Pohlmann, Edward Charles
Polk, Arthur Eugene
Polk, Wesley Wiiliam
Polkowski, Anna
Pollock, Leone Ruth
Pool, Ernest Howard
Poor, Leonard Sproule
Pope, Walter Scott
Poppove, Racho Petroff
Porter, Frederick Hale
Porter, Harry Hubert
Porter, Howard Hamilton
Porter, Margaret Lois
Porter, Nelson
Porter, Richard Leonard Andrew
Porterfield, Hazel Ethel
Postel, Urban Stuart
Postle, George Richardson
Postlewaite, Harriet Leotine
Poston, William Irvin
Potter, Beulah Adelia
Potter, Glenn Edward
Potter, Merwin William
Potter, Phil Harry
Potts, Albert Leroy
Poulsen, Frank Edward
Powell, Albert Lyle.
Powell, Esther Acelia
Powell, Henry Albert
Powell, John Henderson, Jr.
Powell, William Jenifer
Powers, J Orin
Powers, John Howard
Powers, Paul Haller
Powers, Ray Austin
Prante, Beulah Wise
Prather, Edward Merle
Prather, William Henry
Preble, Robert Curtis
Preece, Rae
Prehm, Edwin
Presson, Lola Iris
Pribble, Vernon Hole
Price, Arthur Lowell
Price, Marion Erenay
Price, Melville Halsey
Price, Miles Oscar
Price, Raymond Lester
Prince, Ben James
Pritchard, Elliott Alfred, Jr.
Probst, Edward Eugene
Probst, John Stanley
Proelss, Otto
Proetz, Charles Henry
Prosser, John Aubrey
Pruitt, Francis James
Przypyszuy, Casimir
Pugh, Ada Roberta, A.B., 1915
Pugh, Cloyd
Pulcipher, K DeWitt
Pulliam, Vernon Donald

| Com | 33 | $\dagger$ Gifford |
| :---: | :---: | :---: |
| Agr |  | $\dagger$ Watsekc |
| CE | $51 \frac{1}{2}$ | * + Zion City |
| MSE | 961 | * Fairfield, Iowa |
| ChE | 36 | * $\dagger$ Chatsworth |
| Com |  | * $\dagger$ Aurora |
| ChE |  | $\dagger$ Canton, Ohio |
| ${ }^{\text {Agr }}$ | 93 | * $\dagger$ Mansficld |
| REE |  | * $\dagger$ Brazil |
| LAS |  | \% $\dagger$ Gibson City |
| HSAgr |  | * + Kansas |
| CE |  | * $\dagger$ Brazil |
| LAS |  | * $\dagger$ Chicago |
| SS | 81 $\frac{1}{2}$ | Jacksonville |
| HSAgr |  | * † Winterville, Georsia |
| Com |  | * + Dubuque, Iowa |
| EE |  | * + Anderson, Indicara |
| SS | $8{ }^{\frac{1}{2}}$ | St. Joseph |
| SS | $95 \frac{3}{3}$ | Dunlcith, West Virginia |
| ME | 36 | * $\dagger$ Chicago |
| Ag7 | 37 | * $\dagger$ Morton Grove |
| Agr | 5 | * $\dagger$ Morton Grove |
| Agr | 34 | * $\dagger$ Morton Grove |
| ME | 65 | * $\dagger$ Chicago |
| CerE | 42 | * † Champaign |
| ME | 95줄 | * + Champaign |
| LAS (SS) | 39 | * † Champaign |
| SS | 69 | Polo |
| Law | 169 | * † Ottawa |
| LAS (SS) | 99 | * $\dagger$ Streator |
| SS | 17 | Berwyn |
| $E E$ | 87 | * $\dagger$ Selo Musina, Bulgaria |
| LAS |  | * $\dagger$ Burlington, Lowa |
| MinE | 102 | * $\dagger$ Gerlan |
| ${ }^{\text {Agr }}$ |  | * $\dagger$ Hume |
| LAS | 3 | * $\dagger$ Gladstone |
| Com |  | ** ITume Terre Haute Indiane |
| LAS |  | * $\dagger$ Terre Haute, Indiana |
| LAS. |  | * Urbana |
| Com | 100 | * $\dagger$ Mascoutah |
| Arch | 35 | * $\dagger$ Elgin |
| HSAgr (SS) | 86 $\frac{1}{2}$ | * † Urbana |
| Com <br> HSLAS |  | * $\dagger$ Crawfordsville, Indiana |
| EE | 108 | * $\dagger$ Springfield |
| ChE |  | * † La Fox |
| Agr | 88 | * + Chicago |
| LAS $s p$ |  | * $\dagger$ Honey Bend |
| LAS |  | $\dagger$ Chicago |
| ME | 69 | * $\dagger$ Chicago |
| LAS |  | * Freeport |
| Agr (SS) sp | 22슬 | * Birmingham, Alabama |
| LAS |  | * $\dagger$ Kansas City, Missouri |
| EE |  | * $\dagger$ Chicago |
| SS | 134 | - Chebanse |
| Com | 99 | * $\dagger$ Decaur |
| CE |  | * $\dagger$ Decatur |
| Agr | 99 | * $\dagger$ Joliet |
| LAS | 33 | * + Quincy |
| Agr |  | * $\dagger$ Rossville |
| ${ }_{\text {Agr }}$ |  | * + Rossville |
| ME | 38 | * † Oak Park |
| ${ }_{\text {LAE }}$ |  | * $\dagger$ Quincy |
| ${ }_{H S}^{A E}{ }_{\text {Hgr }}(S S)$ | $116 \frac{1}{1}$ | * + Chicago |
| Com |  | * $\dagger$ Ridgefarm |
| Agr | $63 \frac{1}{2}$ | * $\dagger$ Decalur |
| LAS |  | * † Oak Park |
| Chem (SS) | 99 | * $\dagger$ Chicago |
| Lib | 21 | * Plymouth, Indiana |
| EE | 55 | * Rockford |
| Agr | 67 | * $\dagger$ Lansing |
| Agr (SS) | 31 | * $\dagger$ A urora |
| Arch |  | * $\dagger$ Chicago |
| Agr |  | * $\dagger$ Elkhart, Indiana |
| ChE | 34 | * + Moundsville, West Virginia |
| EE | 16 | * + Evanston |
| LAS |  | * + Chicago |
| LAS | 13 | * $\dagger$ Chicago |
| Agr | $183 \frac{3}{3}$ | * + Champaign |
| LAS |  | * $\dagger$ Humrich |
| Com | 65 | * $\dagger$ Centralia |
| CE |  | * $\dagger$ Fithian |


| Pulsipher, Betty Marie | HSAgr | 60 | $\dagger$ Elmwood |
| :---: | :---: | :---: | :---: |
| Purcell, Bryant Franklin | Agr | $59 \frac{1}{3}$ | * Polo |
| Purcell, William Thomas | AE | 112 ${ }^{\frac{1}{2}}$ | * $\dagger$ Chicago |
| Purnell, Joseph Robert | Agr |  | * + Oak Park |
| Purnell, William Frank | $\mathrm{Agr}^{\prime}$ | 68 | * $\dagger$ Muncie |
| Pursell, James Roland | $E E$ | 74 | * $\dagger$ Chicago |
| Pursell, Waldo Emerson | Com |  | * $\dagger$ Champaign |
| Putnam, Mary Heiskell | HSLAS (SS) | 20 | * $\dagger$ Urbana |
| Pyron, John EIder | ChE | 126 | * $\dagger$ Chattanooga, Tennessee |
| Quaid, Lloyd James | ME |  | * $\dagger$ Downs |
| Quandt, Coramae | HSAggr (SS) | 94 | * † Urbana |
| Quick, Harry | $C E$ | 107 | * $\dagger$ Tiskilwa |
| Quinn, Florence Katherine | Mus | 68 | * $\dagger$ LaFayette |
| Raaberg, Ralph Skancke | AE | 102 | * $\dagger$ Chicago |
| Racheff, Ivan | LAS | $95 \frac{1}{2}$ | * Lorech, Eulgaria |
| Radeke, Carl Henry | CnE |  | * $\dagger$ Buckley |
| Rafferty, Raymond C | Agr | 56 | * Conton |
| Rafferty, Richard Alphonsus | Agr |  | * $\dagger$ Chicago |
| Rafinski, Clement Joseph | Com | $68 \frac{1}{2}$ | * $\dagger$ Thomaston, Connecticut |
| Rahn, Gertrude Augusta | HSAgr |  | * + Thornton |
| Rahn, Lester Addison | Agr | 653 | * + Lanark |
| Rahn, Rudolph | ME | 75 | * $\dagger$ Thornton |
| Raibourn, Paul Herbert | EE | 114 | * $\dagger$ Eldorado |
| Raines, Lester Courtney | LAS (SS) | 79 | * $\dagger$ Urbana |
| Rainwater, Russell | LAS |  | * $\dagger$ New Canion |
| Raithel, Kathryn Rose | LAS | 69 | * $\dagger$ Chicago |
| Ralston, Harriet Lucile <br> A.B. (Iowa Univ.) 1916 | Lib |  | * $\dagger$ Pocahontas, Iowa |
| Ralston, John Caldwell, Jr. | Agr |  | * $\dagger$ Caledonia |
| Ramey, Frank Willard | Arch | 63 | * † Champaign |
| Ramirez, William | ME | 29 | $\dagger$ Cabo Rojo, Porto Rico |
| Ramm, Walter Ferdinand | Chem |  | * $\dagger$ Chicago |
| Ramsay, Allan Patton | SS |  | Vincennes, Indiana |
| Ramsay, Crawford John | LAS (SS) | 92 | * $\dagger$ Olney |
| Ramser, John Hubert | ME | 107 | * Alma |
| Ramsey, Frank William | ${ }_{\text {Agr }}$ |  | * $\dagger$ Washburn |
| Rand, Frank LeRoy | SS |  | * $\dagger$ North Adams, Massachusetts |
| Randall, Claude Hale | ME |  | * $\dagger$ Bowen |
| Randall, Earl Everett | MdP | 25즐 | * $\dagger$ Chicago |
| Randall, Frank John | $A g r$ | 62 | * $\dagger$ Aurora |
| Randall, Grace Louise | LAS | 95 | * $\dagger$ Rogers Park, Chicago |
| Randolph, Cora Creager | LAS | $95 \frac{1}{2}$ | * $\dagger$ Kansas City, Missouri |
| Randolph, Glenn Lake F | EE | 59 | * $\dagger$ Trilla |
| Randolph, John Wiloughey | Agr |  | * † Onarga |
| Randolph, Mcrle Seigel | $A g r$ |  | * $\dagger$ Covington, Indiana |
| Rankin, Luro Jane | LAS | 62 | * $\dagger$ Payson |
| Rankin, Ralph Edward | ME |  | * Rio |
| Ranney, George Henry | Com | 62 | * Chicago |
| Ranney, Joel Alden | $A g r$ | 90 | * $\dagger$ Cazenovia |
| Ranney, Maude Esteline | SS | 155 | Little York |
| Ranney, Nathan Charles | Agr | 68 | * † Litlle York |
| Ranney, Williard Parminter | Agr | 99 | * $\dagger$ Cazenovia |
| Ransford, Maurice Reuben | Arch | 35 | * $\dagger$ Los Angeles, California |
| Rantz, Francis Roger | Agr | 64 | * $\dagger$ Waverly |
| Rao, Dharwan Vijayahao | Agr | 67 | * $\dagger$ Hospet, India |
| Raphaelson, Sampson Miles | LAS | 93 | * $\dagger$ Chicıgo |
| Rapp, John Holly | Law | 28 | * $\dagger$ Fairfield |
| Rasmussen, Harold Eijner | Com | 34 | * $\dagger$ Chicago |
| Rastede, Fred | Agr |  | * Morrisont |
| Rathbun, Harry Rowland | $A g r$ | 32 | * $\dagger$ Glen Ellyn |
| Rathbun, Hubert Honens | Agr | 95 | * $\dagger$ Spring Valley |
| Rathsack, Mary | LAS | 115 | $\dagger$ Greenview |
| Raup, Philip Ward | Ccm |  | * $\dagger$ Monroe Center |
| Rauschkolb, Erma Marie | LAS (SS) | $7 \frac{1}{2}$ | * $\dagger$ Belleville |
| Ray, Earl Stanley | ME |  | * $\dagger$ Cuba |
| Ray, William Floyd | Arch |  | * $\dagger$ Urbana |
| Rayburn, Lee Paul, Jr. | LAS |  | * + Champaign |
| Rea, Doren Eugene | Com |  | * + Avorr |
| Read, Everett Roland Eustice | ${ }^{\text {A }}$ gr |  | * + Galena |
| Read, William Gordon | Com | 71 | * $\dagger$ Bloomington |
| Reader, Emma Grace | LAS | 76 | $\dagger$ Centralia |
| Reagan, Maurice Edwin | EE | 1073 | * $\dagger$ Canton |
| Reagel, Fred Virgin | Chem | 89 | * $\dagger$ Waverly |
| Reardon, Victor Ambrose | ${ }^{\text {Agr }}$ |  | * $\dagger$ Joliet |
| Record, Ella Marion. | LAS | 50 | * $\dagger$ Cambridge |
| Records, Mary Melvina | HSLAS (SS) | 62 | * $\dagger$ Peoria |
| Reding, Ralph Spears | Agr LAS | 52 | * Petersburg |
| Reece, Cornehus Heermans | ME | 423 | * + Evananston |
| Reed, Chester Otis, B.S., 1911 | SS |  | $\dagger$ Pittsford, New York |
| Reed, Cordelia | LAS |  | * $\dagger$ Cavington, Indiana |
| Reed, Frederick James | Agr (SS) | 57 | * † Volant, Pernsylvania |
| Reed, Hazel Viola | HSLAS (SS) | 98 | * Urbana |
| Reed, Leo Bracy | Com | 50 | * $\dagger$ Eldorado |
| Reed, Lula Alice | SS | $\sigma$ | Benton |

Reed, Maurice Johnson
Reed, Robert Wallace
Reed, Roy Ogle
Reed, Sina M
Reeder, John Corwin
Rees, Charles Thomas
Rees, Myron Lester
Reese, Herbert Stockton
Reese, Leal Wiley, A.B., 1916
Reese, Lucille Nancy
Reese, Raymond Leslie
Reess, Stella Georgia
Reeves, Dorothy Ellen
Reeves, Hester Ruth
Rehm, George Edward, Jr.
Rehnquist, Alf Christian
Rehnquist, Arvid Lawrence
Rehnquist, Ernest Ferdinand
Reichelderfer, Harry
Reichle, Richard Wendell
Reichman, Elfricda
Reichman, Ella Esther
Reid, Emily Cleda
Reid, George Hostes
Reid, Harold Speer
Reid, James Thomas
Reid, Stewart Franklin
Reilly, Walter Sheridan
Reineck, Robert Walter
Reinel, Bert Edward
Reinhard, Otto Andrew George
Reinhart, Oliver John
Reinke, Karl Louis
Reinsch, Bernhard Paul
Reinwald, Frederick John
Reisner, Anna Catherine
Reisz, Albert
Remley, Waiter Brown
Renner, Enos Henry, Jr.
Renning, Albert Gordon
Reno, Guy Benjamin, A.B., 1915
Rentchler, Marion David
Replinger, John Edward
Retherford, Miriam Browning
ReVeal, Ivan Lindsey
Reynolds, Harry Allen
Rhoads, Marie Corzine
Rhodes, Golda May
Rhodes, Opal Terrissa
Rhue, Lena Cecelia
Rhue, Perry Marion
Rice, Katherine Grace
Rice, Nathan Lyman
Rice, Warner Grenelle
Richards, Gladys Ersel
Richards, John Ott
Richards, Lester Amos
Richards, Milton Clyde
Richards, Olive Arey
Richardson, Dana Thurston
Richardson, Francis Edward̉
Richardson, Harvey Russell
Richardson, Juanita, B.S., 1913
Richardson, Wilder Avery
Richart, Berta Estella
Richart, Blanche Belle
Richmond, Jean Elnora
Richmond, Noble Leslie
Richmond, Warren McLellan
Richter, Gertrude Katherine
Rick, George D
Ricker, Ethel, B.S., 1904
Ricks, Juanita May
Rideout, George Rawleigh
Rider, Dean Loller
Rider, G Wellington
Rider, George Clinton, Jr.
Riedle, William Reid
Riegel, Bertha Galatia
Riess, Carl John
Rigg, Joseph Harold
Riggs, Lee Roy
Rike. Ronald Van Atla
Rinaker, Clarissa, Ph.D., 1913
Rinaker, Janet

| MinE | 111 | * $\dagger$ Emerson |
| :---: | :---: | :---: |
| Agr | 28 | * $\dagger$ Warsaw |
| Agr |  | * $\dagger$ Washington, D.C. |
| LAS |  | * $\dagger$ Danville |
| LAS (SS) | 1083 | * $\dagger$ Arcola |
| Com |  | * $\dagger$ Bradford |
| Agr | 19 | * $\dagger$ Rachester, Indiana |
| SS | $6 \frac{1}{2}$ | \% † Randolph, Nebraska |
| Laz |  | * $\dagger$ Urbana |
| HSAgr (SS) | $67 \frac{1}{3}$ | * $\dagger$ Urbana |
| SS | 981 ${ }^{\frac{1}{2}}$ | Jonesboro, Arkansas |
| HSLAS (SS) | 46 | * St. Louis, Missourri |
| Mus |  | * + Champaign |
| HSAgr |  | * + Champaign |
| Agr | 441 $\frac{1}{2}$ | * $\dagger$ Chicago |
| $C E$ | 37 | * $\dagger$ Chicago |
| $C E$ |  | * $\dagger$ Chicago |
| CE | 107 | * $\dagger$ Chicago |
| EE (SS) | 72 | * $\dagger$ Peoria |
| Com sp |  | * $\dagger$ Beason |
| SS | $8 \frac{1}{4}$ | Chicago |
| SS | $8 \frac{1}{2}$ | Chicaga |
| LAS | 22 | * $\dagger$ Albion |
| Ast | 66 | * † Mt. Vernonr |
| Agr | 62 | * $\dagger$ St. Paul, Minnesola |
| Com |  | * $\dagger$ Sullivan, Indiana |
| Com | 31 | * + Springfield |
| Arch |  | $\dagger$ Danville |
| Chem | 2 | * † Chicago |
| LAS | 75 | * $\dagger$ Streator |
| $M d P$ |  | * $\dagger$ Cullom |
| Agrsp |  | * $\dagger$ Alhambra |
| $E E$ |  | * $\dagger$ Chicago |
| Arch |  | $\dagger$ Muscaline, Iowa |
| EE | 37 | * $\dagger$ Carmi |
| HSLAS |  | * + Sterling |
| $A E$ | 67 | * $\dagger$ Chicago |
| Agr | 35 | * $\dagger$ Waynetown, Indiana |
| Agr | 48 | * Urbana |
| Comm | 16 | * † Highland Park |
| Law | 167 | * $\dagger$ Browning |
| Agr | 9 | * $\dagger$ Mt, Vernon |
| $A E$ | 35 | * $\dagger$ Chicago |
| HSLAS | 53 | * $\dagger$ Rushoille, Indiana |
| ChE | 45 | * $\dagger$ Hoopeston |
| ME |  | * + Chicago |
| LAS (SS) | 64 | * $\dagger$ Champaign |
| HSLAS (SS) | 31 | * $\dagger$ Lovingion |
| IHSLAS | 32 | * $\dagger$ Lovington |
| Com | 39 | * + Champaign |
| Com (SS) | 71 | * + Champaign |
| LAS | 86 | * + Philo |
| Agr | 31 | * $\dagger$ Philo |
| Chem |  | * $\dagger$ Aurora |
| Mus | 22 | * + Champaign |
| Agr | $27 \frac{1}{2}$ | * $\dagger$ Silvis |
| LAS |  | * $\dagger$ Mt. Vernon |
| ME |  | * $\dagger$ Cleveland, Ohio |
| IHSAgr | 60 | * $\dagger$ St. Louis, Missouri |
| Com |  | * † Maywood |
| Agr | 56 | * †. Chicago Heighls |
| $E E$ | 108 | * † Morristown, New York |
| SS | 134 | Danville |
| Agr |  | * $\dagger$ Compton |
| HSLAS | 41 | * $\dagger$ Urbana |
| LAS | 81 | * $\dagger$ Champaign |
| HSLAS | $47 \frac{1}{2}$ | * $\dagger$ Wazerman |
| Com | 26 | * Champaign |
| Agr | 104 | * + Gcneseo |
| Com | 642 | * † Davenport, Iowa |
| Agr |  | * Morrisont |
| Arch |  | * $\dagger$ Urbana |
| Mus | 16 | * $\dagger$ Clinton |
| Com | 24 | * Freeport |
| $M d P$ |  | * $\dagger$ Bushnell |
| EE |  | * $\dagger$ Elgir |
| Agr |  | * $\dagger$ Pekin |
| LAS |  | * † Chicago |
| Agrsp | 39 | * $\dagger$ Galatia |
| $M d P$ |  | * $\dagger$ Pontiac |
| Agr |  | $\dagger$ Golden Gate |
| Com |  | * $\dagger$ Champaigit |
| Agr | 35 | * † Leroy |
| LAS |  | $\dagger$ Urbana |
| SS | 130 | Carlinville |


| Rinaker, John Irving | Agr (SS) | 68 | Springfield |
| :---: | :---: | :---: | :---: |
| Rindesbacher, Emma Beatrice |  | 8 | Stockton |
| Ringeisen, Hazcl Novella | LAS | 33 | * $\dagger$ Toleda, Ohio |
| Rippey, Ollie Brown | EE |  | * $\dagger$ Mi. Peasant, Temesse |
| Ripple, Ruth Anna | LAS | 56 | * † Chicago |
| Rising, John David | Com | 31 | * $\dagger$ Champaign |
| Risley, Ralph Edwin | $M E$ |  | Decatur |
| Risley, Walter John Jr. | LAS | 35 | * $\dagger$ Decatur |
| Risser, Constance Katherine | LAS | 33 | * † Kankakee |
| Risser, Walter Scott | EE | 86 | * $\dagger$ Paris |
| Rissinger, Arthur Joe | MdP | 33 | * † Mason City |
| Ritcher, George Clyde | SS | 7 | Troy |
| Ritcher, Henry Adelbert | SS | 32 | Troy |
| Ritt, Walter William Henry | CE | 47 | * $\dagger$ Crystal Lake |
| Rittenhouse, Donald Arter | EE | 5 | † Cairo |
| Ritter, John Gilman | AE | 117 | * + Chicago |
| Ritter, Walter Theobald | REE | 83 | * $\dagger$ Chicago |
| Roach, Doris Eleanor | SS | 90 | Decatur |
| Roach, Emmet John | ME |  | $\dagger$ Chatsworth |
| Roane, Theodore | Chem | 90 | * $\dagger$ Chicago |
| Robbins, Jessie Severns | Mus | 28 | * Mendon, Ohio |
| Roberson, William Dwight | MdP |  | $\dagger$ Mattoon |
| Roberson, Mary | SS |  | Villa Ridge |
| Roberts, Claude Morrill | Com | $68 \frac{1}{2}$ | * $\dagger$ Decatur |
| Roberts, Elmer Clifford | Arch | 36 | * $\dagger$ Oak Park |
| Roberts, Malcolm Douglas | Agr | 98 | $\dagger$ Flushing, New Ycrk |
| Roberts, Lois Madeline | SS | 1101\% | Decatur |
| Roberts, Mary Lovisa | LAS (SS) | 8 | * $\dagger$ Homer |
| Robertson, Arthur Beekman | Agr | 67 | * Petersburg |
| Robertson, Charles Venable | Agr | 95 | * $\dagger$ Carlinville |
| Robertson, Edna Maude | LAS |  | * † Champaign |
| Robertson, Miriam Selina | HSAgr | 95 | * † Champaign |
| Robinson, Ethelyn Clyde | HSLAS | 69 | * + LaSclle |
| Robinson, Florence Elinor, A.B., 1913 | LAS |  | * $\dagger$ Urbana |
| Robinson, Harold Lynn | LAS | 31 | * † Urbana |
| Robinson, Hobert Clay | Agr |  | * $\dagger$ Kansas |
| Robinson, Hugh Dean | LAS | 66 | * $\dagger$ Harvey |
| Robinson, Mary Katherine | LAS |  | * $\dagger$ Bloomington |
| Robinson, Myra | HSLAS | 24 | * $\dagger$ Kansas |
| Robinson, Robert Johnson | LAS (SS) | 353 | * † Gilman |
| Robinson, Ruth Love | SS | 132 | Edzuardsville |
| Robinson, Warren Isaac | Agr | 102 | * $\dagger$ LaSalle |
| Robison, Edna Lena | SS | 92 $\frac{1}{2}$ | Pittsfield |
| Rock, Lewis Burnham | Agr |  | * $\dagger$ Chicago |
| Rockey, Paul Thomas | $A E$ | 103 ${ }^{\frac{1}{2}}$ | * $\dagger$ Freeport |
| Rodgers, Clark Lemmen | Com |  | * $\dagger$ Alton |
| Rodrigues, Antonio | $C E$ | $92 \frac{1}{2}$ | * † Cuba |
| Roe, Edar Bertram | Agr Mus (SS) | 66 153 | * $\dagger$ Nerada, Missouri |
| Rogers, Elsie Marie | HSLAS | 97 | * † Havana |
| Rogers, George | SS |  | Pana |
| Rogers, Henry Sheldon | Agr | 102 | * $\dagger$ Marengo |
| Rogers, Roger Monroe | ${ }_{S} g^{\prime} \mathrm{sp}$ |  | * $\dagger$ Detroit, Michigan |
| Rogers, Verne E | SS |  |  |
| Rohe, Walter Henry | Com |  | * $\dagger$ Kansas City, Kansas |
| Rohrbough, Elsie Gwendolyne | LAS | 31 | * $\dagger$ Kinmundy |
| Rohrer, Frank Philip | LAS | 121 | * Gilman |
| Rollins, Ncta | LAS | 58 | * $\dagger$ Paxton |
| Romano, Michael Angelo | LAS |  | * † Chicago |
| Romansoff, John. | Agr sp |  | * Rozhdestveno, Russia |
| Rombauer, Sophie Marie | $A g r$ |  | * St. Louis, Missouri |
| Romciser, Alvin | Com | 52 | * $\dagger$ Belleville |
| Romero, Newman | LAS | 85 | * $\dagger$ Valparaiso, Chile |
| Romig, Jesse Arnold | EE | 56 | * † Champaigr |
| Romig, Lieuellen Dewight | EE |  | * + Champaign |
| Rompel, Ruth Edith | LAS | 64 | * $\dagger$ Champaign |
| Ronalds, Francis Spring | LAS | 5 | * $\dagger$ Carmi |
| Roos, Edwin George | Com | 102 | * † St. Louis, Missouri |
| Root, Hollis Reed | Com | 32 | * $\dagger$ Chicago |
| Root, Russell William | LAS |  | * + Morris |
| Rooth, Jamcs | CE | 48 | * Joy. |
| Rorig, Ruth Elizabeth | HSAgr |  | * $\dagger$ Elgin |
| Roscoe, George Howard | Agr | 111 | * † Blue Island |
| Rose, Ethel Maye | HSLAS | 60 | * $\dagger$ Bement |
| Rose, Mansfield Philip | EE | 64 | * $\dagger$ Chicago |
| Rose, William H., Jr. | SS |  | Chester, Massachusett |
| Rosecrans, Crandall Zachariah | ME | 35 | * † Champaign |
| Rosen, John | Agr |  | * + Chicago |
| Rosenberg, Emanuel | LAS |  | $\dagger$ Decatur |
| Rosenberg, Herbert Bernard | SS | 123 | * Granite City |
| Rosenberg, William Harry | $M d P$ |  | * † Chicago |
| Rosenberry, Ethe! | SS | $\sigma$ | Phoenix, Arizona |
| Rosenblum, Bernice | Mus |  | * $\dagger$ Waukegan |
| Rosenstone, Edwin Arthur | LAS |  | * † Cambridge |
| Ross, Harry Albert | $\mathrm{Agr}^{\text {r }}$ | 101 | * $\dagger$ Champaign |

Ross, Nelda Glendora
Ross, Walter Leland
Rost, Theodore August
Rotramel, Everett Roy
Rouch, Samuel Earl
Rourke, Margaret Elizabeth
Rowan, Henry Eward
Rowe, Charles Barr
Rowe, Jack LeRoy
Rowe, James
Rowland, Mrs. Floyd E
Roy, Frank Winston
Ruedi, Charles Henry
Ruedy, Robert John
Ruffner, Rachel
Ruhnka, Roy
Rumely, Mark Anthony
Rummel, Evelyn Agnes
Rumsey, Lois
Rundle, W B
Rundles, Charles Morton
Runäquist, Elmer Theo
Runneberg, Elton Cromwell
Runyan, Walter LeRoy, D.B.
(Univ. of Chicago) 1907
Ruppel, Paul Earl
Rush, Charles Wesley
Rush, Clara Lillian
Rush, Paul White
Russell, Charles Chauncey
Russell, Charles Clifton
Russell, Edwin Avery
Russell, Frances Harriett
Russell, Mary Dunlap
Russell, Virginia Elizabeth
Russett, Jasper P
Russinoff, Evan Paul
Russo, William Joseph
Rust, Louis Ernest
Rusy, Ben Franklin
Rutherford, Elizabeth Jane
Rutherford, Florence
Rutledge, James Hirst
Rutledge, Margaret Emma
Ryan, Benjamin Harold
Ryan, Charlotte, A.B.
(Univ. of Texas) 1910
Ryan, Howard Robert
Ryan, Walter Richard
Ryder, Bruce Ivan
Ryder, Earl
Ryder, Horace Alonzo Lewis
Sabin, Albert Robbins
Sabin, Mrs. Helen Mackey
Sackett, Fred Ward
Sacksteder, Frederick Herman
Sachsteder, Stephen Staley
Saelhof, Clarence Charles
Saffell, Gladys Deforest
Sagar, Anna Ellen
Sahud, William Harry
Sailer, Frank
St. Cardosi, Chris Victor
Salisbury, Meta Emogene
Salladin, George Edward, Jr.
Saltiel, Thomas Paine
Samelow, Louis
Samford, Dellos Frank
Sampaio, Leite Jose de
Samuels, Theresa Minna
Sandehn, Casper William
Sanders, Ella Jane Pickles
Sanders, Paul Thomas
Sanderson, Arthur Kingston
Sandler, Edward Adolf
Sands, Lewis Morgan
Sandvold, Conrad Elmer
Sanford, Juanita Lorraine
Sanford, Pearl Clayton
Santiago, Alfredo Viola
Sargent, Agnes Ruth, A.B.
(Univ. of California) 1906
Sargent, Charlene Marie
Sargent, Francelia Plumly
Sargent, Frank Akin

| HSAgr | 68 | $\dagger$ Easlon |
| :---: | :---: | :---: |
| LAS | 5 | * Fi. Worth, Texas |
| MdP | 30 | * † Petersburg |
| ${ }_{S} \mathrm{gr}$ | 29 | * $\dagger$ Benton |
| SSS (SS) | $27^{\frac{1}{2}}$ | * + Sprewanna, Indiana |
| LAS sp |  | † Champaign |
| Arch | 99 | * † Chicago |
| EE (SS) | 59 | * + Chicago |
| ME | 107 | * $\dagger$ Three Rivers, Michigan |
| SS |  | - Lock, Washington |
| EE | 192 | * Daville |
| Com (SS) | 95 | * $\dagger$ St. Louis, Missouri |
| REE |  | * $\dagger$ Mendota |
| HSAgr | 63 | * + Marshall |
| Arch | 25 | * $\dagger$ Pierce, Nebraska |
| ME |  | * $\dagger$ Sycamore |
| LAS |  | * $\dagger$ Emden |
| LAS | 76 | * $\dagger$ Muscaline, Iowa |
| Agr | 104 | * $\dagger$ Clinton |
| SS | 130 | Huntertown, Indiana |
| Agr | 69 | * $\dagger$ Harvey |
| Agr | 104 | * + Crosly, Texas |
| Lib |  | Chicago |
| ME | $10 \frac{1}{2}$ | Beardstown |
| SS | 51 | Greensboro, Alabama |
| Mus |  | $\dagger$ Piltsfield |
| MdP | 72 | * $\dagger$ Pittsfield |
| ChE | 5 | * $\dagger$ Joliet |
| Agr | 33 | * + Urbana |
| CE | 73 | * $\dagger$ Buffalo, Newv York |
| HSAgr (SS) | 29 | * † Soulh Pekin |
| HSLAS |  | * $\dagger$ St. Louis, Missonri |
| LAS |  | * $\dagger$ Champaign |
| Arch | 133 | $\dagger$ Cedar Rapids, Iowa |
| LAS | 36 | * Tirnvoo, Bulgaria |
| Agr | 27 | * † Chicago |
| Agr |  | * $\dagger$ Sibley |
| ${ }^{\text {A }} \mathrm{gr}^{\prime}(S S)$ | 115 ${ }^{\frac{1}{2}}$ | * Chicago |
| SS |  | Oakland |
| LAS (SS) | 99 | * $\dagger$ Newman |
| MdP |  | * $\dagger$ Champaign |
| HSLAS |  | * $\dagger$ Champaign |
| Com | 26 | * $\dagger$ East Moline |
| Lib |  | * † San Antonio, Texas |
| EE | 34 | * $\dagger$ Elgin |
| LAS | 68 | St. Louis, Missouri |
| MdP | 32 | * + Bradford |
| EE | 10 | * $\dagger$ Springfield |
| EE | 64 | * $\dagger$ Baker, Oregon |
| Agr | 15 | * $\dagger$ Chicago |
| HSAgr | $65 \frac{1}{6}$ | * $\dagger$ Fredonia, New York |
| LAS | 33 | * $\dagger$ Danville |
| ChE |  | * $\dagger$ Downers Grove |
| Agrsp |  | * $\dagger$ Downers Grove |
| MdP | 35 | * $\dagger$ Austin, Chicago |
| LAS | 118 | * $\dagger$ Urbana |
| LAS | 102 | * $\dagger$ Belvidere |
| LAS |  | * $\dagger$ Chicago |
| Agr | 68 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Canton |
| HSLAS (SS) | 83 | * $\dagger$ Urbana |
| Com | 70 | * $\dagger$ Milford, Nebraska |
| $\mathrm{Agr}^{\text {gr }}$ |  | * Chicago |
| Law |  | * $\dagger$ Chicago |
| SS | 2 | * Fairfield |
| RCE |  | * $\dagger$ Brazil |
| LAS | 63 | * $\dagger$ Chicago |
| LAS | 161 | * $\dagger$ Rockford |
| LAS (SS) |  | * $\dagger$ Anna |
| ${ }_{\text {Agr }}$ | 37 | * $\dagger$ Champaign |
| LAS | 30. | * Cairo |
| Com |  | * † Tolono |
| Com | 77 | * $\dagger$ Moorhead, Iowa |
| LAS | $100 \frac{2}{3}$ | * $\dagger$ Lebanon, Indiana |
| SS |  | - Shelby Michigan |
| AE | $100 \frac{1}{2}$ | * † Philippine Islands |
| Lib |  | * $\dagger$ Whittier, California |
| LAS |  | * $\dagger$ Indianapolis, Indiana |
| Com | 66 | * $\dagger$ Indianapolis, Indiana |
| Agr | 34 | * $\dagger$ Ferris |


| Sarven, James David | MdP |  | St. Pctersburg, Flori |
| :---: | :---: | :---: | :---: |
| Sato, Kennosuke | LAS |  | $\dagger$ Nagoza, Japan |
| Satterficld, Helen Charlotte | LAS | 58 | * † Chicaso |
| Saucr, Earl Joseph | $M d P$ |  | * $\dagger$ Collinsville |
| Savage, William Chauncey | Agr | 108 | * † Frankfort, Michigan |
| Savord, Katherine Ruth | LAS |  | * † Sandusky, Ohio |
| Sawyer, Gertrude | Agr | 69 | * $\dagger$ Nirbomc, Missouri |
| Sawyer, Isaac Cornelius | ChE | 35 | * $\dagger$ Springfield |
| Sawyer, Ralph Warren | Agr |  | * † Chicago |
| Saxton, Charles Van Keuren | AE | 97 | * $\dagger$ Pueblo, Colorado |
| Sayles, Frank Wells | Com |  | * Glencoe |
| Saylor, Harold Ellsworth | Com |  | * $\dagger$ Des Moines, Iowa |
| Scanlan, Chester Jerome | ME | 36 | * $\dagger$ Bloominglon |
| Schaede, Emma Adeline | Mus |  | * † Champaign |
| Schaefer, Abby Conway | HSLAS | 37 $\frac{1}{3}$ | * $\dagger$ Richmond, Indiana |
| Schaefer, Jesse Ovid | SS |  | Paris |
| Schaumberg, Edward George, Jr. | Arch | 118 | * † St. Louis, Missouri |
| Schance, Ellen Eliza | SS |  | Paris |
| Schecht, Max | LAS | 109 | * † Brooklyn, New York |
| Scheffer, Wilhelmina | LAS | 66 | * $\dagger$ Atwood |
| Scheib, Donald Drake | Com |  | * † Urbana |
| Schenck, Ralph Edwin | Arch | 76 | * Urbana |
| Schenck .Vernon Gates | Com | 36 | * $\dagger$ Jamcstown, New York |
| Schernekan, William John | LAS | $48 \frac{1}{2}$ | * West Salem |
| Schiffin, Arthur Kressler | ME | 66 | * $\dagger$ Chicago |
| Schissler, Paul John, Jr. | SS |  | Hastings, Nebraska |
| Schlacks, Henry Valentine | EE (SS) | 38 | * † Chicago |
| Schlader, Henry Mathias | ChE | $23 \frac{1}{2}$ | * Oak Park |
| Schlager, Marie Phillis | HSLAS |  | * $\dagger$ Elgin |
| Schleifer, Ferdinand John | Agr | 100 | * $\dagger$ Nashville |
| Schlesselman, Louise Ida | LAS |  | * † Lafayette, Indiana |
| Schloss, Harold Julian | Agr (SS) | $30 \frac{1}{2}$ | * † Terre Haute, Indiana |
| Schloss, Philip | SS | 66 | Terre Haute, Indiana |
| Schmalmaack, Charles Louis | EE |  | * St. Louis, Missouri |
| Schmeltzer, Chauncey Brockway | CE | 52 | * $\dagger$ Manteno |
| Schmidt, Francis Albert | SS | 1212 | Arkansas City, Kansas |
| Schmidt, Richard Wagner | CE | 35 | * $\dagger$ Chicago |
| Schmidt, Walter Eugene Starr | Agr |  | * $\dagger$ Chicago |
| Schmitt, Arthur Earl | EE |  | * $\dagger$ Mt. Vernon |
| Schmitz, Herbert John | AE |  | $\dagger$ Chicago |
| Schneider, Arthur Charles | $C E$ | 120 | * $\dagger$ Galena |
| Schneider, Delmont Joseph | ME | 38 | * $\dagger$ St. Louis, Missouri |
| Schneider, Hardy Richard | ChE |  | * $\dagger$ East St. Louis |
| Schneider, Nora Wilhelmine | LAS | 33 | * $\dagger$ Urbana |
| Schneider, William Henry | Chem (SS) | 64 | * $\dagger$ Springfield |
| Schnellbacher, Jacob Paul | Com | 34 | * $\dagger$ Peoria |
| Schoch, Arthur John | EE | 101 | * $\dagger$ Tower Hill |
| Schock, William Veirling | $A g r$ |  | * $\dagger$ Albion |
| Schocker. Elsie Julia | SS |  | Rock Island |
| Schoembs, Frank Alvin | Law | 90 | * $\dagger$ Cairo |
| Schoene, Herbert Frank | $A E$ | 96 | * $\dagger$ Chicago |
| Schoonmaker, Charles Coleman | Com |  | * Genoa |
| Schott, John Theodore | $E E$ |  | * $\dagger$ Quincy |
| Schrader, Carrie Mabel | LAS |  | * † Bridgeport |
| Schrader, Dayton Oscar | LAS |  | * $\dagger$ Bridgeport |
| Schrader, Frederick Ambrose | LAS (SS) |  | $\dagger$ Murphysboro |
| Schreiber, Louis Henry | Agr | 68 | * † Chicago |
| Schreiner, Warren William | $A_{\text {gr }}$ | 25 | * + River Forest |
| Schrenk, Walter Theodore | SS | 8 | Golconda |
| Schriner, Emma Ellen | SS | 33 | Peoria |
| Schroeder, Arnold Henry | Com | 29 $\frac{1}{2}$ | * $\dagger$ Freelanduille, Indiana |
| Schroeder, Ralph Minson | CE | 1 | * $\dagger$ Warrensburg |
| Schroeder, Robert Henry | MdP | 32 | * $\dagger$ Nashville |
| Schroeppel, Harold Henry | EE | 108 | * † Mit. Carroll |
| Schroyer, Malcolm Edward | LAS (SS) | 3712 | * $\dagger$ Pontiac |
| Schuck, Arthur Frederick | Com | $27 \frac{1}{3}$ | * + Washinglon, Indiana |
| Schuh, Charles Redden | Com |  | * $\dagger$ Cairo |
| Schuler, Dement | Com | 57 | * † Dixon |
| Schuler, Kate | SS | $22 \frac{1}{2}$ | Mound Cily |
| Schultz, Clarence John | Com |  | $\dagger$ Chicago |
| Schultz, Clarence William | EE | 36 | * $\dagger$ Harvard |
| Schultz, Louis William | LAS | 29 | * † Oak Park |
| Schulz, Frank J | Com | 68 | * † Elmwood |
| Schulz, John A | Chem ( ${ }_{\text {S }}$ S | 105글 | * Elmwood |
| Schumacher, Dixie Howard | HSLAS | 102 | * $\dagger$ Rockport, Indiana |
| Schumacher, Howard James | MdP | 30 | * Highland Park |
| Schutt, Marjorie Laura | ${ }^{\text {Agr }}$ |  | * $\dagger$ Chicago |
| Schwagmeyer, Ella | LAS (SS) | 77 | * $\dagger$ Quincy |
| Schwagmeyer, Emil Henry | Com | 33 | * † Quincy |
| Schwarz, John Earl | AE |  | * + Storm Lake, Iowa |
| Schweitzer, Benjamin Cecil | Com | 68 | * $\dagger$ Mt. Carmel |
| Schwing, Roy Rene | LAS | 33 | * + Peoria |
| Scohy, Will Joseph | ${ }_{\text {A }}^{\text {gr }}$ |  | * † Okmulgee, Oklahoma |
| Scott, Donald Headley | CE |  | * Pawnee |
| Scott, Ella Grace | SS | 8 | Newton |

Scott, Esther Selb
Scott, George Eugene
Scott, Gerald Russell
Scott, Gladys Russell
Scott, Lincoln Bain
Scott, Lois Marie
Scott, Mary Stanhope
Scott, Ralph A
Scott, Robert Ashmore
Scott, Roy Sunderland
Scott, Sidney Glenn
Scoville, John Allen
Scudamore, Robert
Searcy, Lynn Dooley
Searle, Truman Gorton
Searles, Donald Kenneth
Seavey, Harry Richmond
Sedgley, Arols
Seehausen Pau
Seeley, Bessie Louise
Segur, John Bartlett
Seibert, George Clement
Seibert, Harold Stein
Seidel, Dorothy Katherine
Seidel, Richard Theodore
Siglinger, Frank Vernon
Seiler, Erna
Sellmer, Helen Emma
Sellner, Edna
Selzer, Louis Jacob
Sense, Mattie Alice
Senseman, Harold Lconard
Seubold, Heinrich John
Severance, Lyle Elwood, B.S., 1916
Sewell, Augusta Fern
Sexauer, James Monroe
Seymour, Arthur Romeyn
Seyester, Lois Ferne
Shackelford, Claude Leroy
Shaddle, Lee Norton
Shaddock, Rolla Edward
Shade, Claude Cloide
Shade, Dorothy
Shade, Mary Marguerite
Shaffer, Susan Kurzenknabe
Shaffer, Whithelmine
Shaffner, Clara Irene
Shale, Martin Asa
Shapiro, Ben
Shapland, Fern Elizabeth Page
Shapley, Ralph
Sharer, Donald David
Sharp, Bertha Lee, A.B., 1914
Sharp, Ethel Ruth
Sharp, James C
Sharp, Mildred
Shaver, Elizabeth Fritzalen
Shaw, Delia
Shaw, Frederick Wood
Shaw, Hazel Elizabeth
Shaw, Horace Bateman
Shaw, Mary Louise
Shaw, Wilfred
Shay, Mary Lucille
Shea, Earl Clifford
Sheafe, Martha Lucile
Sheaff, Robert Phineas
Sheasby, Victor
Shedden, Forest Robert
Shedden, James William
Sheeham, Edna Hesperea
Sheets, Alexander Mardis
Sheets, Haven McKendree
Sheffer, William Heber
Sheldon, Beulah Mulford
Sheldon, Nelson Edward
Shellabarger, William Lincoln, Jr.
Shellhorn, Boyd Stanley
Shellman, Elmer William
Shclton, Pearl Fairy
Shelton, Wilma Loy
Shepard, Lola Adeline, A.B.
(Lake Forest College) 1902
Sheppard, Charles Howard
Sheppard, Leila Margaret

| LAS | 33 | Tenice |
| :---: | :---: | :---: |
| AE | 59 | * $\dagger$ Chicago |
| Agr | $101 \frac{1}{6}$ | * + Chicago |
| HSLAS | 32 | * + Xenia, Ohio |
| Agrsp |  | $\dagger$ Boston, Massachusetts |
| LAS | 34 | * $\dagger$ Mattoon |
| SS | 7 | Lampasas, Tcxas |
| Agr | 100 | $\dagger$ Rock Falls |
| LAS | 102 | * Paris |
| SS |  | Spearfish, South Dakola |
| Com | 27 | * $\dagger$ Champaign |
| CE | 64 | * $\dagger$ Peoria |
| LAS | 28 | * $\dagger$ Flora |
| LAS |  | * $\dagger$ Carlinville |
| LAS | 60 | * $\dagger$ Geneseo |
| LAS | 71 | * LaGrange |
| EE | 72 | * $\dagger$ Momence |
| Arch |  | * † Omaha, Nebraska |
| LAS (SS) | 52 | * † Chebanse |
| SS | $23 \frac{1}{2}$ | Joliet |
| Chem (SS) | 33 | Watseka |
| Arch |  | $\dagger$ Altamont |
| EE |  | * $\dagger$ Ml. Carmel |
| LAS |  | * † Kansas Cily, Missouri |
| Agr |  | * † Chicago |
| LAS |  | * $\dagger$ Sterling |
| LAS | 16 | * $\dagger$ Woodstock |
| LAS |  | * $\dagger$ Moline |
| LAS | 95 | * + Quincy |
| Arch | 73 | * $\dagger$ Evansville, Indiana |
| HSAgr | 103 | * $\dagger$ Watseka |
| $A E$ (SS) | 93 | * Monnouth |
| Agr | 56 | * † Hunlingburg, Indiana |
| $\stackrel{\text { SSus }}{ }$ | 137 | * $\dagger$ Lansing, Michigan |
| $A g r$ | 61 | * $\dagger$ Belvidere |
| Mus sp |  | * $\dagger$ Urbana |
| LAS | 35 | * $\dagger$ Champaigr |
| Com |  | * Carrollton |
| Agr |  | * $\dagger$ Area |
| Agr | 481 $\frac{1}{2}$ | * $\dagger$ Macon |
| ${ }^{\text {Agr }}$ | 30 | * $\dagger$ Montpelier, Indiana |
| LAS |  | * $\dagger$ Lexinglor |
| LAS |  | * $\dagger$ Montpelier, Indiana |
| LAS | 28 | * + Chicago |
| HSAgr | 32 | * $\dagger$ Chicago |
| LAS | 28 | * † St. Louis, Missouri |
| SS | 17 | Watertozon, Soulh Dakota |
| Arch |  | * $\dagger$ St. Louis, Missouri |
| HSLAS | 64 | * $\dagger$ Saunemin |
| Agr (SS) | 59 | * † Rockford |
| MSE | 923 | * $\dagger$ Decatur |
| Mus |  | * $\dagger$ Urbana |
| Cont | 121 | * Urbana |
| Agi' (SS) | 102 | * $\dagger$ Champaign |
| LAS |  | Mattoon |
| SS | 13 | Gibson City |
| HSL.AS | 32 | * $\dagger$ Rockporl |
| CE | 108 | * $\dagger$ Chicago |
| LAS | 53 | * $\dagger$ Rockford |
| Agr |  | * $\dagger$ Montgomery, Alabama |
| HSLAS | 26 | * Harrisburg |
| Agr | 29 | * $\dagger$ Marshall |
| LAS | 99 | * + Decatar |
| Com | 26 | * + Lead, South Dakota |
| HSLAS |  | * † Ottumzva, Iova |
| ${ }_{\text {Agr }}$ | 68 | * † Holcomb |
| EE | 29 | * $\dagger$ Elsin ${ }^{\text {a }}$ |
| CE | 65 | * + Chicago |
| HSLAS | 62 | * $\dagger$ St. Joseph, Michigan |
| Arch |  | * Princeton, Missonri |
| Agr | 98 | * $\dagger$ Georgetoz'n |
| Agr | 62 | * $\dagger$ Auburn, Indiana |
| LAS | 35 | * $\dagger$ Chicago |
| AE | 72 | * + Rockford |
| Com | 48 | * + Decatar |
| LAS | 30 | $\dagger$ Mt. Carmel |
| Agr |  | * $\dagger$ Gibson Cily |
| Agr |  | * $\dagger$ Terre Haute, Indiana |
| Lib | 44 | * $\dagger$ Terre Haute, Indiana |
| Lib |  | * $\dagger$ Wilmette |
| CE | 109 | * + Edzuardsville |
| Mus. |  | * $\dagger$ Edvardsville |

Sheridan, Mary Beall
Sherman, Caroline Elizabeth
Sherman, Leta Elmina
Sherrick, John Chauncey
Shewmon, Joe Allen
Shields, Richard Michael
Shimer, Earl Lester
Shing, Chi Ting
Shipley, Burton Howard
Shipley, Paul Donald
Shively, Jean
Shlandeman, Harry Ricker Shomaker, Richard Willian
Shonkwiler, Francis Lucian
Short, Paul Fletcher
Shott, Ruth Elma
Shrimplin, Pearl Marie
Shriver, Helen Elizabeth
Shroyer, David Mirven
Shrum, Edmund Jerome
Shryock, Lyle William
Shup, Laurence Edgar
Shuping, Dan
Shy, Frank Spain
Sideman, Benjamin
Siecke, Kurt Hugo
Siegmund, Humphreys Oliver
Siegrist, Damon Carl
Siemens, Anne Blanchard
Sigfridson, Ebba Beatrice
Signor, Nellie Marie
Sills, Archie Lee
Silver, Hazel Marguerite
Silver, Mary Verna
Silver, Milton Gans
Silverman, Isadore
Simmons, Elwyn Leroy
Simmons, Haskell George
Simms, Robert Chapman
Simons, Lewis Eugene
Simons, Rayna De Costa
Simpson, Earl Bruce
Simpson, Irene Elizabeth
Simpson, John Milton
Simpson, Lawrence Packer
Simpson, Luther Franklin
Simpson, Nelle Lucile
Simpson, Otis Earl
Simpson, Sebastian Solon
Simpson, Thomas Moore
Simpson, William George
Singer, Aaron Ernest
Singh, Charn Jit
Sipe, Raymond Erwin
Sistler, Rufus
Skaer, Edwin William
Skelly, Ernest James
Skelton, Maurice Bradford
Skelton, Winifred George
Skemp, Edith Elizabeth
Skinner, Bertram Eugene
Skinner, Melvin Benjamin
Skinner, Russell
Skogiund, Herbert LeRoy
Skoglund, Reuben Adolphus
Slack, William Silas
Slade, Elizabeth Muriel
Slade, Katherine Claire
Sladek, George Edward
Sladek, Robert Bohumil
Slaght, Evert Leroy
Slayton, Willis Francis
Slick, Glen Falknor
Sloan, Amelia Marie
Sloan, Charles Harvey
Sloan, Deena Agnes
Sloan, Madeline Rebina
Slocum, Russell Wade
Smale, William Apsley
Small, Bonny
Small, Dee
Small, Helen Dot
Small, Tryphosa Eliza
Smallwood, J P
Smart, Ada Elmira

| LAS | 98 | * $\dagger$ Sullivan, Indiana |
| :---: | :---: | :---: |
| LAS | 30 | * $\dagger$ Vienna, Virginia |
| LAS | 33 | * + Casey |
| Arch | 173 | * + Monmoulh |
| Agr | 64 $\frac{1}{2}$ | * $\dagger$ Oak Park |
| EL |  | * + Chicago |
| LAS | 36 | * + Palesline |
| $R C E$ | 932 | * + China |
| SS | $6 \frac{1}{2}$ | College Park, Maryland |
| Agr | 20 | * Petersburg |
| IISLAS (SS) | 47 | * + Champaign |
| $C E$ | 34 | * † Pasadena, California |
| $A \mathrm{gr}$ | 76 | * Murphysboro |
| ME | 72 | * $\dagger$ Monticello |
| MdP |  | * $\dagger$ While Hall |
| HSLAS | 103 | * $\dagger$ Urbana |
| LAS |  | * $\dagger$ Sheldon |
| HSAgr | 101 | * + Champaign |
| Agr | 59 | * + Urbana |
| Agr |  | * + Valley City, Norih Dakola |
| Agr | 24 | * $\dagger$ Canton |
| LAS | 66 | * $\dagger$ Newton |
| CE | 32 | * Hillsboro |
| Com | 71 | * + Olney |
| CE | 32 | * $\dagger$ Chicago |
| ME | $52 \frac{1}{2}$ | * Freeport |
| EE | 115 | * + Sl. Louis, Missouri |
| Agr | 59 | * † San Jose |
| LAS | 62 | * + Kansas City, Missouri |
| HSAgr | 26 | * $\dagger$ Genteva |
| Lib | 57 | * $\dagger$ Urbana |
| AE | 16 | * + Palisades, Colorado |
| HSAgr | 28 | * + Urbana |
| HSAgr |  | * + Urbana |
| L.AS | 101 | * $\dagger$ Champaign |
| Agr | 84 | * $\dagger$ Chicago |
| $A E$ | 37 | * $\dagger$ Oak Park |
| EE | 33 | * $\dagger$ Avon |
| Agr |  | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Chicago |
| LAS | $103 \frac{1}{3}$ | * Chicago |
| Lave | 95 | * $\dagger$ Eldorado |
| LAS (SS) | 43 | * + Urbana |
| $C E$ | 85 | * + Terre Haule, Indiana |
| LAS | 49 | * $\dagger$ Onawa, Iowa |
| ME | 108 | * $\dagger$ Moweaqua |
| $H S A g r$ | 113 | * Macomb |
| Agr SD |  | * † Wahoo, Nebrcska |
| SS |  | Pana |
| Agr | 95 | * $\dagger$ Alexis |
| LAS | 69 | * $\dagger$ Dundee |
| LAS | $37 \frac{1}{2}$ | * $\dagger$ Chicago |
| EL | 114 | * + India |
| Agr | 69 | * $\dagger$ Rochelle |
| Law sp | 14 | * + Galconda |
| SS |  | Belleville |
| Com | 2 | * † Davenport, Iowa |
| $M d P(S S)$ | 29 | * Urbana |
| LAS | 29 | * $\dagger$ Urbana |
| LAS |  | * $\dagger$ Maywood |
| Agr | 32 | * + Chicago |
| REE | 33 | * + Salem |
| SS | 7 | Lexington |
| $A g r$ |  | * $\dagger$ Red Wing, Minnesola |
| $A g r$ |  | * $\dagger$ Red Wing, Minnesota |
| $E E$ | 71 | \% $\dagger$ Salem |
| HSLAS | 19 | * $\dagger$ Rockford |
| LAS | 67 | * $\dagger$ Rockford |
| CerE | 106 | * + Chicago |
| Agr | 70 | * $\dagger$ Cicero |
| AE (SS) | 20 | * + Chicago Heights |
| Agr | 84 | * $\dagger$ Tulsa, Oklahoma |
| LAS |  | * South Bend, Indiana |
| HSAgr | 98 | * † Salt Lake City, Utah |
| EE |  | * Canton |
| LAS | 33 | * † Urbana |
| Agr | 32 | * † Urbana |
| $A g r$ | 32 | * Chicago |
| $A g r s p$ |  | * $\dagger$ San Diego, California |
| Agr sp |  | * $\dagger$ New York Cily, New York |
| Agr | 33 | * + Galatia |
| L.ASsp |  | * $\dagger$ Urbana |
| HSAgr |  | * + Urbana |
| Com (SS) | $99 \frac{1}{2}$ | * + Decatur |
| LAS | 23 | * Hinsdale |

Sullivan, Indiana
Casey
Monmouth
Oak Park Palesline

College Park, Maryland
Petersburg
Champaign
alifornia
Murphysboro
Monticello
Urbana
Sheldon
Champaign
Valley City, North Dakota
Canton
Newton
Olney
Chicago
Sl. Louis, Missouri
Kansas City, Missouri
Genteva
Palisades, Colorado
Urbana
Champaign
Chicago
Oak Park
Avon
Chicago
Chicago
Eldorado Terre Haulc, Indiana
Onawa, Iowa
Moweaqz
Wahoo, Nebraska
Pana
Alexis
Chicago
India
Rochelle
Galconda
Belleville
nport, Iowa
Urbana
Urbana
Chi
Salem
Red Wing, Minnesota
Red Wing, Minnesota
Salem
Rockford
Chicago
Cicero
Chicago Heights
South Bend, Indiana
Salt Lake City, Utah
Canton
Urbana
San Diego, California
New York City, New York
Galatia
Urbana
Hinsdale

Smart, Alfred
Smart, Chauncey Harrison
Smart, Ethelyn Marion
Smetana, Robert Joseph
Smidl, Edward
Smiley, Earl James
Smith, Annie May
Smith, Anson Nye
Smith, Bryan Arthur
Smith, B Howard, Jr.
Smith, Clara Mabel
Smith, Clarence Walter
Smith, Cloyde Moffat
Smith, Cloyde Moffat
Smith, Da Von
Smith, Edmund Joseph
Smith, Elizabeth Maude
Smith, Eunice Edwinia
Smith, Everett William
Smith, Fern Gladys
Smith, Forest Henry
Smith, Fred Ernest
Smith, George Dewey
Smith, George Edward
Smith, George Edwar
Smith, Gladys Louise
Smith, Glenn Charles
Smith, Glenn Collins
Smith, Hansel Young
Smith, Harold Wetmore
Smith, Hawley Lester
Smith, Ida May
Smith, Isaac Wesley Kelly
Smith, Jesse Carl
Smith, John Bradley
Smith, John Wesley
Smith, Joseph Edward
Smitn, Kenncth Hiamilton
Smith, Leonidas Logan
Smith, Lois Loella
Smith, Mabel
Smith, Margaret Helen
Smith, Marian Kathryn
Smith, Mary Parnell
Smith, Oliver Francis
Smith, Oliver Russell
Smith, Opal Leona
Smith, Orion Otis
Smith, Orliff Elmer
Smith, Orrin Richard
Smith, Paul Curran
Smith, Pearl Marie
Smith, Raymond Charles
Smith, Robert James
Smith, Theodore Hammond
Smith, Valda Eveline
Smith, William Howard
Smith, Wilson D
Smithers, Perry Lafeyette, Jr
Smohl, Barbara Belle
Smoot, William Everett
Snell, Clarence Eastlake
Snell, Harry Stirling
Snell, Lucille Helen
Snider, George Wilson
Snodgrass, Joc Fifer
Snow, Ruth Lucille
Snyder, Daniel Victor
Snyder, George David
Snyder, Harold Alvin
Snyder, Harold Vesey
Snyder, Willard Ayres
Sodaro, Joseph Clarence, Jr.
Soderberg, Harry
Soenksen, Paul William
Somdal, Dewey Anderson
Somers, Aloysius Joseph
Somers, Francis Patrick
Somers, Paul Peter
Somers, Russell Ivan
Sommers, Ralph Mitehell
Sonnemann, Alma Wilheimine
Sontag, Raymond John
Sortwell, Harold Haynes

| MSE (SS) | 77 | * $\dagger$ Chicago |
| :---: | :---: | :---: |
| Agr | 98 | * $\dagger$ Hinsdale |
| LAS | 29 | * $\dagger$ Hinsdale |
| $A E$ | 33 | * + Chicago |
| $A E$ | 110 | * $\dagger$ Chicago |
| Agr | 23 | * $\dagger$ Tab, Indiana |
| CE | 27 | * $\dagger$ Elgin |
| SS | 6 | Coats, Kansas |
| Agr |  | * $\dagger$ Fitchourg, Massachuselts |
| MdP | 42 | * Sullivan |
| LAS |  | * $\dagger$ Kansas City, Missouri |
| SS |  | Sl. Clair, Michigan |
| LAS (SS) | 92 | * + Chanpaign |
| MSE | 36 | * + Champaign |
| Agr | 31 | * $\dagger$ Urbana |
| EE |  | * $\dagger$ Urbana |
| LAS |  | * $\dagger$ Chicago |
| SS |  | Princelon, Indiana |
| LAS |  | * $\dagger$ Chicago |
| CerE | 29 | * $\dagger$ Geneera |
| LAS | 16 | * $\dagger$ Maywood |
| EE | 62 | * + Libertyville |
| LAS |  | * Urbana |
| EE |  | * † Rising Sun, Indiana |
| Agr | 28 | * T Warrentsburg |
| Agr | 98 | * $\dagger$ Geneseo |
| LAS | 119 | * $\dagger$ Rochelle |
| SS |  | - Grundy Center, Iowa |
| Agr | 100 | * Greenficld |
| EE |  | * Frankfort, Indiana |
| ${ }^{\text {Agr }}$ |  | * $\dagger$ Chicago |
| LAS | $71 \frac{1}{2}$ | $\dagger$ Clifton |
| SS | 4 | Freeport |
| Agr | 16 | * † Carmi |
| ChE |  | * Vandalia |
| $A g r$ |  | * Chicago |
| ME | 106 | * $\dagger$ Geneseo |
| ME |  | $\dagger$ Chicago |
| LAS (SS) | $58 \frac{1}{3}$ | * $\dagger$ Chicago |
| Arch | 63 | \% $\dagger$ Toledo |
| Mus (SS) | 33 | * $\dagger$ Urbana |
| Mus | 102 | * $\dagger$ Urbana |
| LAS | 22 | * $\dagger$ Elnuzood |
| Agr | 32 | * Monticello |
| HSAgr | 77 | $\dagger$ Cuba |
| LAS | 16 | * $\dagger$ Broadlands |
| ${ }^{\text {A }} \mathrm{g} r^{\prime}$ |  | * $\dagger$ Warren |
| LAS |  | * Metcalfe |
| Com | 6 | * † Oakwood |
| SS | 7 | Lane, Kansas |
| Com | $8 \frac{1}{2}$ | * Plainfield |
| ${ }_{S}{ }_{S} g^{\prime}$ |  | * † Peoria |
| ${ }_{\text {Agr }}$ | 67 | * $\dagger$ A Amboy |
| LAS |  | * + Hume |
| SS | 66 | Godfrey |
| HSLAS | 67 | * $\dagger$ Genesco |
| Agr |  | * $\dagger$ Yorkville |
| Com |  | * $\dagger$ Geneseo |
| Com | 2.4 | * $\dagger$ Wilmette |
| LAS | 105 | * $\dagger$ Vandalia |
| Agr | 98 | * $\dagger$ Grcenvierv |
| Com | 64 | * † Oak Park |
| Chem | 68 | * † Oak Park |
| SS | ${ }^{1 \frac{1}{2}}$ | - Vandalia |
| ${ }_{\text {A }} \mathrm{S}^{\prime}$ | 37 | * Oklahoma |
| SS |  | Jancsville |
| Mus | 23 | * $\dagger$ Elgin |
| $C E$ (SS) | 39 | * + Chicago |
| Com | 50 | * + Altoone, Pennsylvania * $\dagger$ Freeport |
| LAS |  | * $\dagger$ Rockford |
| AE |  | * $\dagger$ Mi. Pulaski |
| MdP | 31 | \% $\dagger$ Aurora |
| ${ }_{\text {A }} \mathrm{E}$ | 77 | * † Florence, Wisconsin |
| Com | 52 | * † Harvey |
| Arch |  | * $\dagger$ Springfield |
| Agr | 6.7 | * $\dagger$ Kankakee |
| Chem | 61줄 | * $\dagger$ Kankalice |
| Chem | 18 | * $\dagger$ Kankakee |
| LAS | $39 \frac{1}{3}$ | * $\dagger$ St. Joseph |
| Com | 26. | * $\dagger$ + Chicago ${ }^{\text {a }}$ Louis, Missouri |
| Com |  | * + Chicago |
| Cere | 74 | * † Indianapolis, Indiana |

Sotola, Jerry
Southcomb, Leslie Spencer
Soward, Zelda Elizabeth
Sowers, Gordon Alfred
de Sowza, Jose Cuba
Spaethe, Charles Alonzo
Spainhour, Alma Marie
Spangle:, Charles Foskey
Spangler, Rodney Eusene
Sparks, Keith Emanuel
Sparks, Myrtle Eva
Spates, Gladys Mary
Spatny, Zdenka
Spaulding, William Henry
Spear, Hiarry George
Spear, Helen Eudora
Speegle, Uless Alfred
Speer, Whitcomb Glenn
Speisman, Irvin Gabriel
Spelce, John Edward
Spence, Helen Baker
Spencer, Mrs. Blanche Beebe
Spencer, Cynthia Eugenia
Spencer, John Ralph
Spencer, Nora Virginia
Spencer, Robinson, A.B.
(Wesleyan Univ.) 1903
Spencer, Stanley Fred
Spengler, Harold Carl
Sperry, Mabel Frances
Sperry, Ralph Edward
Spicer, William Glenn
Spiegler, Louis
Spindler, Carl
Spindler, Walter Herbeät
Spink, Frank Henry
Spink, Phil Marion
Spitz, Milton Joseph
Spofford, Franklin Dawson
Spors, Albert Robert
Sprague, Cena Labina
Sprague, George Chester
Sprague, Norman Ellsworth
Sproull, Raymond Arthur
Squier, Edward Gray, B.S.
(Iowa State Collese) 1916
Squire, George Kasson
Stabler, Harold Robertson
Stables, Floyd F
Stabo, Nils Eivind
Stafiord, Edward Emerson
Stahl, Chester Dewey
Stall, Willis Preston
Stallings, Eugene Michener
Stallings, Samuel Joseph
Stambaugh, Vivian Guy
Stamm, George Frederick
Stamp, Fred Pfarr
Stangel, Adelaide Josephine
Stangel, Victor
Stanley, Deane Field
Stanley, Leon
Stanley, Walter
Stansfield, James Gillespie
Staples, John Forest
Stark, John Wayne
Stark, Max William
Stark, Robert Watts, B.S., 1805
Starkel, Charles Leslie
Starner, Verner
Starr, Ethel May
Starr, Sidney Keller
Starr, Stephen William
Starrett, Robert George
States, Mary Louise
Stayanoff, Nicholas Dimoff
Stead, Charles Baldwin
Stead, Rowland Wilson
Steers, William Beeson
Steidl, Irene Lucile, A.B.
(Univ. of Nebraska) 1915
Stein, Bertha Marie
Steinberg, Naomi Annette
Steinhauser, Williarn August
Steinhoff, Frederick Louis
Stejskal, Marie Antoinct̂te

| $A g r$ | 60 | Chicago |
| :---: | :---: | :---: |
| Com | 28 | * $\dagger$ Morris |
| LAS |  | * $\dagger$ Fithian |
| Agr | 84 | * $\dagger$ Kingman, Indiana |
| RCE | 33 | $\dagger$ Brazil |
| EE |  | * $\dagger$ Columbus Junction, Yow |
| LAS | 30 | $\dagger$ Clinton |
| Com | 89 | * $\dagger$ A mboy |
| Agr |  | * $\dagger$ Anrboy |
| LAS | 35 | * $\dagger$ Connersyille, Indiana |
| SS ${ }_{\text {HSLAS }}$ |  | * $\dagger$ Thampaign |
| HASLAS | 34 | * $\dagger$ Taylorville |
| SS | $6 \frac{1}{3}$ | Melrose, Wisconsin |
| SS | 33 | Rankin |
| LAS | 58 | * $\dagger$ Rockford |
| ME |  | Eldorado |
| SS | 3 | Holton, Kansas |
| MdP | 36 | * Chicago |
| $L_{S S}^{L A S}(S S) s p$ | $30^{\frac{1}{2}}$ | $\dagger$ Sycamore |
| LAS (SS) | 33 | $\dagger$ Vandalia |
| LAS (SS) | 951 | * + Champaigir |
| Agr | 36 | * $\dagger$ Genesco |
| Mus sp <br> Lib |  | * $\dagger$ Homer <br> * $\dagger$ Roswell, New Mexico |
| Com sp | 22 | * † Urbana |
| ME |  | * $\dagger$ Rockford |
| HSAgr | 30 | * + Urbana |
| Com | 70 | * $\dagger$ Urbana |
| EE |  | * $\dagger$ Marseilles |
| LAS | 16 | * $\dagger$ Chicago |
| ME |  | * $\dagger$ Peoria |
| CE |  | * $\dagger$ Peoria |
| Chem |  | * $\dagger$ Chicago |
| Com | $69 \frac{1}{3}$ | * $\dagger$ Chicago |
| Chem | $46 \frac{1}{3}$ | * $\dagger$ Chicago |
| Com |  | * + Ozincy |
| Lib | 29 | * $\dagger$ Grafton, Norih Dakotia |
| Agr | 39 | * $\dagger$ Lockporl |
| CE | 79 | * $\dagger$ Eranston |
| LAS | 96 | * + Mazon |
| Com |  | * Grinnell, Iowa |
| ME | 123 | * $\dagger$ Rockford |
| Com |  | * † Camp Point |
| SS | 13 | Lexington |
| Com |  | $\dagger$ Decorah, Iowa |
| LAS | 34 | * $\dagger$ Alton |
| EE |  | * + Tonkawa, Oklahoma |
| ${ }_{\text {A }}^{\text {Ar }}$ ( ${ }_{\text {ch }}$ | 100 | * † Champaigra |
| ChE (SS) | 36 | * $\dagger$ Danville ${ }^{\text {a }}$ |
| Comı Agr | 29 | * $\dagger$ Amarillo, Texas |
| ${ }_{\text {A }}^{\text {Agr }}$ | 145 | * $\dagger$ Spokanz, Washington |
| LAS | 28 | * Wheeling, West Virgini. |
| LAS | 23 | * $\dagger$ Champaign |
| Cont | 41 | * $\dagger$ Champaign |
| MdP | 36 | * $\dagger$ Urbana |
| Agr | 101 | * $\dagger$ Downers Grove |
| Com | 67 | $\dagger$ Anderson, Indiana |
| $A g r$ | 34 | $\dagger$ Lawrenceville |
| ${ }_{\text {Agr }}{ }_{\text {ar }}$ | 67 | * + Soutl ${ }_{\text {Nebo }}$ Bend, Indiana |
| $\stackrel{\text { Agr }}{\text { Com }}$ | 33 | * $\dagger$ Nebo |
| Agr (SS) sp |  | * $\dagger$ Urbana |
| LAS | 63 | * $\dagger$ Belleville |
| LAS | 134 | * Carlisle, Indiana |
| Mugrsp |  | * + Champaign |
| LAS |  | * + Champaign |
| Com | 14 | $\dagger$ Sheldon, Iowa |
| LAS | 48 | $\dagger$ Urbana |
| $L_{C E}$ |  | $\dagger$ Varna, Bulgaria |
| ${ }_{C E}$ CE | $\stackrel{8}{35}$ | * + Griggsville |
| $C E$ | 30 | * Metropolis |
| Lib |  | * $\dagger$ Crete, Nebraska |
| HSLAS | 70 | * $\dagger$ Blue Island |
| LAS |  | * + Chicago |
| $A E$ |  | * + Berwy |
| Care | 107 33 | * $\dagger$ Chicago |

Stephens, Ethel Gertrude
Stephens, Hazel Margaret
Stephens, William
Stephenson, Juanita Alice
Sternaman, Edward Carl
Steuart, Edward Paul
Stevens, Harry Howard
Stevens, Helen Ford
Stevens, John Grier
Stevens, Joseph Hammond
Stevens, Marie Felicia
Stevens, Richard William
Stevens, Robert Gardiner
Stevens, Roger Greenleaf
Stevens, Vernon Thompson, A.B., 1915
Stevens, Wayne McKenzie
Stevenson, Ailsie Miller
Stevenson, Dorothy
Stevenson, Edward Hiel
Stevenson, Elmira Comfort
Steuernagel, Bella
Stewart, Beulah Louise
Stewart, Carl Russell
Stewart, Edward Mason
Stewart, Frank
Stewart, Frank
Stewart, Frank Samuel
Stewart, John Wilson
Stewart, Melville Boicourt
Stewart, Mrs. Ruth
A.B. (Illinois Woman's College) 1916

Stewart, William Ellis
Stice, Ostin Angus
Stidham, Melissa Geneva
Stiegemeyer, Clara Marie
Stienecker, John Alvin
Stiff, Ethel
Stigall, Bennett Merriman
Stillwell, Genevieve Maud
Stillwell, Helen
Stiritz, Benjamin Andrew
Stockdale, Thomas Elmer
Stockenberg, Ruben
Stoddard, George Wellington
Stoddard, John Colby
Stoevener, Petronilla Gcrtrude
Stokes, John Edward
A.B.. (West Maryland Coll.) 1913

Stoltey, Benjamin Franklin
Stoltey, Ethel Lynette
Stoltey, Marjorie Zell
Stone, Charles Arthur
Stone, George William
Stone, William Samucl
Storer, Esther Susie
Storer, Walter Henry
Storm, Mabel Fern
Story, Jessie Gertrude
Story, William Murray
Stouffer, Earl Walter
Stouffer, Ernest Lawrence
Stout, Mrs. J E
Stout, Samuel
Stoutenborough, George
Stoutzenberg, Florence Thomas
Stover, Earl Bertram
Stoyanoff, Nicola D
Straight, Leta Lenore
Straight, Merton Taunor
Strain, Robert Mulford
Strane, Archie Abir
Strathern, N Grant
Stratton, Grace Bruce
Straub, Ernest Joseph
Straub, Fred Guy
Straub, Joseph Valentine, Jr.
Straub, Walter Fred
Strauch, Donald Jay
Straus, Martin Louis
Strauss, Daniel Arden
Strawbridge, Ewart
Strawn, Paul
Strawn, Robert Emerson
Streed, Felix Lewis
Stremmel, George Stephens

| LAS (SS) | $109 \frac{1}{3}$ | * $\dagger$ Murphysboro |
| :---: | :---: | :---: |
| HSAgr | 33 | * + Champaign |
| EE | 62 | * Champaign |
| SS | 28 | Sparta |
| ME | 36 | * $\dagger$ Springfield |
| LAS | 48 | * $\dagger$ Harvey |
| Com |  | * Mazon |
| LAS |  | * $\dagger$ Oglesby |
| ME | 31 | * $\dagger$ Chicago |
| Com | 34 | * $\dagger$ Chicago |
| LAS | 67 | * $\dagger$ St. Louis, Missouri |
| Agr (SS) | 114 $\frac{1}{2}$ | * $\dagger$ Joliel |
| EE | 67 | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Chicago |
| Lavo | 184 | * + Corpus Christi, Tcxas |
| Agr | 113 | * + Taylorville |
| MSAgr | 99 | * + Peoria |
| HSAgr | 96 | * $\dagger$ Gilman |
| Agr | 69 | * + Elvasion |
| HSAgr | 30 | * † Streator |
| ${ }_{L A S}^{\text {LS }}$ |  | Belleville |
| LAS |  | Freeport |
| Agr | 159 | * $\dagger$ Monmouth |
| ${ }_{\text {AE }}$ S |  | * $\dagger \underset{\text { Nashas Cille }}{\text { Naty, }}$ Missouri |
| LAS | 92 | * $\dagger$ Denver, Colorado |
| Agr | 164 | * $\dagger$ Monmouth |
| SS | 11/6 | Sioux Falls, South Dakota |
| MinE | 141 | Metropolis |
| HSLAS |  | $\dagger$ Urbana |
| Com |  | $\dagger$ Columbus, Indiana |
| Agr | 33 | * $\dagger$ Waverly |
| Agr sp | 28 | * † Mahomet |
| SS | $53 \frac{1}{2}$ | St. Louis, Missouri |
| SS | 95\% | Chicago |
| ${ }_{S S}^{L A S}$ (SS) | $76 \frac{1}{2}$ | * † Harrisburg |
| HSAgr (SS) | $78 \frac{1}{2}$ | * $\dagger$ Urbana |
| LAS (SS) | 72 | * $\dagger$ Urbana |
| Agr | 68 | * $\dagger$ Murphysboro |
| CE | 111 | * † Grand View, Idaho |
| ME | 40 | * $\dagger$ Rockford |
| $A E$ | 103 | * $\dagger$ Milwaukec, Wisconsin |
| SS | 8 | Atkinson |
| LAS |  | * † Raymond |
| SS |  | Firstburg, Maryland |
| LAS (SS) sp | b) $6 \frac{1}{2}$ | * $\dagger$ Champaign |
| IISLAS (SS) |  | * + Urbana |
| SS | 5 | Champaign |
| Cer E | 108 | * $\dagger$ Chicago |
| Agr | 23 | * $\dagger$ Polomac |
| LAS | 42 | * $\dagger$ Villa Ridge |
| LAS | 73 | * + Centralia |
| LAS | $32 \frac{1}{2}$ | * + Centralia |
| LAS | 56 | * $\dagger$ Morrisonville |
| LAS | 57슬 | * + Nebraska |
| AE |  | * + Chariton, Lowa |
| Agr |  | * † Hampton, Iowa |
| Arch | 72 | * † Decatur |
| SS | 1 | * Preemption |
| $M d P$ |  | * $\dagger$ Mahomel |
| LAS | 35 | * $\dagger$ Maroa |
| HSAgr | 114 | * Greenville |
| REE | 60 | * † Oak Park |
| LAS |  | * Granite City |
| LAS |  | * $\dagger$ Fonda, Iowa |
| Agr | 75 | * $\dagger$ Fonda, Iowa |
| LAS |  | * $\dagger$ Mulberry Gorve |
| ME | $32 \frac{1}{2}$ | * M Marion, Iowa |
| LAS | 69 | * † Springfield |
| LAS | 96 | * ¢ Chattanooga, Tennessee |
| $C E$ |  | + Kansas Cily, Missouri |
| LAS |  | * + Chicago City Missouri |
| ${ }_{\text {A }}^{\text {Chem }}$ |  | * † Kansas City, Missouri |
| ${ }_{\text {Chem }}$ (SS) | 62 | * $\dagger$ Chicago |
| RCES (SS) | 102 | * ${ }_{*} \dagger$ Peoria ${ }^{\text {St. Louis, Missouri }}$ |
| LAS |  | * $\dagger$ Sorth Manchester, Indiana |
| Com |  | * $\dagger$ Chicago |
| Agr | 15 | * Jacksonville |
| Agr sp | 26 | * Pleasant Plains |
| MSE | 69 | * $\dagger$ Waukegan |
| $M d P(S S)$ | 18. | * Macomb |

Stringer, Joseph Kenneth
Strode, Alsia Mae
Strong, James Kibbe
Strong, Jesse Woodford
Strong, Truman Jefferson
Strubinger, Gladys Lenore
Strubinger, Joseph Roy
Strubinger, Louie Delecorix
Struckmeyer, Carl Henry
Strusacker, Eugene Phillip
Stuart, Herbert Edwin
Stubblefield, Ellis Deloss
Stubblefield, Jesse
Stubenrauch, Edgar Albert
Stuhr, William
Sturgeon, Margaret Erma
Sturm, Clark Henry
Sukumlyn, Stephen William
Sulger, Alden Harwood
Sullivan, Edna Frances
Sullivan, George Cornelius
Sultzaberger, James Adam
Summitt. James Levi
Sun, Eu-lin
Sunderland, Glenn Henderson
Sunkel, Walter William
Suppes, Elsie Mabel
Sutcliffe, Constance
Sutcliffe, Dorothy
Sutherland, Harold Hoyle
Sutton, William Henry
Swaim, Donald Tyler
Swaim, Earle Frank
Swanberg, Edmund De Forest
Swanberg, Marion Goerz
Swanson, Carl Ernest
Swartz, Fay Wood
Swearingen, Paul Van
Sweeney, Arthur Frantz
Sweet, James William
Sweet, Orville Roberts
Sweigert, Ray Leslie
Swenson, Carl Elmer
Swenson, Stanley Rudolf
Swensson, Earl Ebenezer Samuel
Swick, Curvella H
Swickard, William S, Jr.
Swift, Dana Elery
Swift, Gertrude Lucile
Swigart, Faith Gretchen
Swindler, Henry Oscar
Swindler, Rollin Leland
Taggart, David Alexander
Taggart, John Findlay
Talbert, Lawson Stanton
Talbot, Clarence Prescott
Talbot, James
Talbot, Rachel Harriet
Talbot, Violet Blanche
Taliaferro, Virginia Beulah
Tallmadge, Chester Livingston, Jr.
Tang, Chen Long
Tanner, John Porter
Tanner, Thomas Sheridan
Tanton, Glenwood Charles
Tapscott, Charles Cameron
Tarbox, Robin James
Tatsch, Walter Karl
Taulbee, Horton Mills
Taylor, Amos Lovejoy
Taylor, Benjamin Franklin
Taylor, Chalmer Cline
Taylor, Charles Bagwell
Taylor, George
Taylor, Grace DeEtte
Taylor, Kathleen
Taylor, Laurence Righter
Taylor, Margery Leeds
Taylor, Max
Taylor, Norris Onslow
Taylor, Orville Edgar
Taylor, Paul Canaday
Taylor, Ross
Taylor, Ross Wallace
Taylor, Roy H

| Com (SS) | 95 | * $\dagger$ Dubuguc, Ioxa |
| :---: | :---: | :---: |
| Mus sp |  | * + Champaign |
| Agr | 100 | * $\dagger$ Keithsburg |
| Com (SS) | 74 | * + Canton |
| Arch | $114 \frac{1}{2}$ | * + Cheney, Washinston |
| LAS |  | * Barry |
| Agr | 34 | * † Sidell |
| Com |  | * Barry |
| SS |  | Hoylctore |
| LAS sp |  | * † Chicago |
| $M E$ | 52 | * Chicago |
| Agr |  | * + Normal |
| $A g r$ |  | * $\dagger$ McLear |
| Arch | 49 | * + Sheboygan, Wisconsin |
| Arch | 26 | * $\dagger$ Rock 1sland |
| HSL. 4 S |  | * $\dagger$ Fisher |
| EE | 70 | * + Elgin |
| $L A S$ (SS) | 30 | * + Kief, North Dakota |
| Agr | 76 | * + Terre Haute, Indiana |
| HSLAS (SS) | 32 | * + Champaign |
| ME |  | * + Highland Park |
| ChE |  | * $\dagger$ Kansas City, Missouri |
| LAS | 43 | * + Pesotum |
| Agr (SS) | 91 | * + Washington, D.C. |
| $S S$ |  | Golden Gate |
| ChE |  | * † Tulare, California |
| LAS | 57 | * $\dagger$ Somonauk |
| LAS (SS) | 84 | * † Urbcna |
| SS |  | Urbana |
| Agr | 56 | * † McNabb |
| $L A S$. | 65 | * TVashinston, D. C. |
| Cont | 92 | * † Danville |
| LAS | 53 | * + Chicago |
| EE | 70 | * + Worthington, Minnesola |
| HSLAS | 66 | * $\dagger$ Detroit, Michigan |
| $A E$ | 833 | * Aledo |
| Mus (SS) | 113 否 | * + Urbana |
| ME (SS) | 24 | * Champaign |
| Com | 61 | * $\dagger$ Chicago |
| SS | 8 | Polo |
| Agr | 67 | * + Sherman |
| $A E$ |  | * + Sterling |
| $M E$ | 117 | * Chicago |
| Com |  | * + Chicago |
| ME | 73 | * † Lindsboro, Kansas |
| Law | 85 $\frac{1}{2}$ | * $\dagger$ Galton |
| LAS |  | * + Newman |
| $M E$ |  | * $\dagger$ Waverly |
| LAS | 66 | * + Streator |
| LAS | 99 | * + Champaign |
| Com | 61 | * Magnolia |
| Agr | 104 | * + Champaign |
| LAS |  | * † Wooster, Ohio |
| Agr | $100 \frac{1}{2}$ | * + Wooster, Ohio |
| Com sp |  | * $\dagger$ Garrett, Indiana |
| Agr |  | * $\dagger$ Rochelle |
| Agr | 34 | * $\dagger$ Sterling |
| LAS | 71 | \% + Urbana |
| LAS |  | * + Evanston |
| LAS |  | * T Topeka, Kansas |
| LAS | 83 | + Chicago |
| RCE |  | * † Chi-shu Hsien, China |
| SS |  | Owensboro, Kentucky |
| $A E$ (SS) | 118 | * + Duright |
| Agr | 88 | * Washington |
| LAS |  | * + St. Louis, Missouri |
| Agr | 34 | * + Urbana |
| $C E$ | 29 | * $\dagger$ Chicago |
| ${ }_{S}{ }_{S} \mathrm{Sr}$ | 69 | * $\dagger$ Hillsboro |
| SS |  | * Creal Springs |
| LAS | 33 | * Lacoir |
| LAS |  | * + Leroy |
| $C E$ | 76 | * + Urbana |
| LAS |  | * Pryor, Oklahoma |
| HSAgr | 96 | * West Plains, Missouri |
| HSLAS | 30 | * $\dagger$ Harrisburg. |
| LAS | 43 | * $\dagger$ Indianapolis, Indiana |
| LAS |  | * $\dagger$ Michigan City, Indiana |
| SS | 119 | - Pryor, Oklahoma |
| ChE | 67 | * $\dagger$ Geneseo |
| SS | 71 $\frac{1}{3}$ | - Genoa |
| Com |  | * † Mooresville, Indiaiza |
| LAS sp | 16 | - Carriers Mills |
| LAS | 63 | * $\dagger$ Bement |
| Agr (SS) | 79 | * ¢ Bismorck |

Taylor, Tracy Alvord
Taylor, Townsend John
Taylor, William Quinn
Teal, Paul Hamilton
Teasdale, John Warren
Teeters, Mary Etta
Teixeira, Emilio Alvers
Temple, George William
Tendick, Frank Hulit
Tener, Katherine Randall
Ten Eyck, Irene Blanche
Teninga, Alfred John
Terpinitz, Jennie Grace
Terry, Mead Meehan
Terry, Robert Byron
Thacker, Charles Brooks
Thacker, Ralph William
Thal, Adolph Freiderich
Thatcher, Frederick Robert
Theobald, Paul Kellogg
Thiele, Ernest William
Thiele, Joel Baker
Thiele, Ross Henry
Thiem, Ezra George
Thomas, Alfred Clarence
Thomas, Edward Harry
Thomas, Grace
Thomas, Harold Dewey
Thomas, Harry A
Thomas, Joe Lee
Thomas, John Theron
Thomas, Joseph Hancock
Thomas, Myron Selah
Thomas, Nelson Reno
Thomas, Raymond Victor
Thomas, Royle Price
Thomas, Stanley Jeremiah
Thomas, Theodore Gladstone
Thompson, Alice Agnes
Thompson, Fred Leo
Thompson, George S
Thompson, Guy Holsinger
Thompson, Herle Allen
Thompson, Jesse James
Thompson, Leslie Clayton
Thompson, Lowell Ernest
Thompson, Marvin Waterburn
Thompson, Orlando Stephen
Thompson, Rex Roland
Thompson, Russell Hopkins
Thompson, Stella McDowell
Thompson, William Charles
Thompson, William Lewis Voris
Thompson, William McKinley
Thomsen, Marvin William
Thomson, Lillian Euphenia
Thomson, Vivian Margaret
Thomson, William White
Thor, Alfred Ulmo
Thornsburgh, Zada Goff
Thornton, Maurice Emerson
Thornton, William DeSales
Thorp, William Walter
Thorsell, Arthur Alfred
Thorud, Bert Marshall
Thory, Hans Christian
Thurlow, Henry Plummer
Thurston, Alfred William
Ticknor, James Hotchkiss
Tiffany, Mary
Tiffin, Joseph Dow
Tikotzky, Carl
Tilden, Ralph Sanford
Tillotson, Amy Iola
Tillotson, Clara Eva
Tillson, Vivian Earle
Tinkey, Otto George
Tipton, Warren Armstrong
Tobias, Frank
Todd, Dana Lee
Todd, Malcolm Newton
Toll, Arno William
Tolman, Robert Gardner
Tolmie, Thomas William
Tombaugh, Glen Deach

| Chem |  | $\dagger$ Rockford |
| :---: | :---: | :---: |
| SS | 54 | Owensboro, Kentucky |
| RME |  | * $\dagger$ Rockford |
| Agr | 159 ${ }^{\frac{1}{3}}$ | * $\dagger$ Arcadia, Indiana |
|  | 94 | * $\dagger$ St. Louis, Missouri |
| HSLAS | 98 | * $\dagger$ Auburn, Indiana |
| ME (SS) | 120을 | * + Cassia, Minas, Brazil |
| Ccm |  | * $\dagger$ Champaign |
| ChE | 132 | * Canton |
| LAS | 100 | * $\dagger$ East Cleveland, Ohio |
| HSLAS |  | * + Rockford |
| Agr |  | $\dagger$ Chicago |
| LAS |  | * $\dagger$ Champaign |
| Com | 32 | * $\dagger$ Chicago |
| LAS (SS) | 96 | * + Gerard |
| $\mathrm{Agr}^{\text {S }}$ (SS ) | 102 $\frac{1}{2}$ | * $\dagger$ Vienna |
| SS |  | Santa Ana, California |
| ChE | 36 | * $\dagger$ Champaign |
| Com | 72 | * † Elgin |
| SS |  | Jacksonville |
| LAS | 60 | * Chicago |
| EE | 33 | * $\dagger$ Ramsey |
| Arch | 123 | * Ramsey |
| Agr |  | * $\dagger$ Chicago |
| LAS |  | * $\dagger$ Des Moines, Iowa |
| MdP |  | * $\dagger$ Argenta |
| Mus | 16 | * Weldon |
| Agr (SS) | 3312 | * $\dagger$ Bisbee, Arizona |
| Agr | 64 | * $\dagger$ Rockford |
| Agr | 157 | * $\dagger$ Charleston, W. Virginia |
| LAS | 35 | * $\dagger$ Belleville |
| MdP |  | * † Nezo Douglas |
| AE |  | * Waterville, Kansas |
| Com | 35 | $\dagger$ St. Louis, Missouri |
| SS |  | Ashland, Oregon |
| Agr | 26 | * $\dagger$ Sullivan, Indiana |
| CE | 1082 | * $\dagger$ Vincennes, Indiana |
| Arch | 69 | * $\dagger$ Chicago |
| LAS | 3 | * $\dagger$ Columbus, Indiana |
| LAS | 4821 | * Garrett, Indiana |
| Com | 102 | * † Elkhart, Indianc |
| SS |  | Chambersburg, Pennsylvania |
| Agr | 27 | * $\dagger$ White Heath |
| SS | 153 | Benton, Kentucky |
| Agr |  | * $\dagger$ Piper City |
| Com |  | Rantoul |
| LAS | 20 | * $\dagger$ Chicago |
| Agr | 107 | * $\dagger$ Harvey |
| LAS | 24 | * + Berwyn |
| Com | 102 | * $\dagger$ Sulliran, Indiana |
| SS | $6 \frac{1}{2}$ | Parkville, Missouri |
| Arch | 56 | * $\dagger$ Chicago |
| Com | 31 | * † Indianapolis, Indiana |
| MdP | 30 | * LaRose |
| LAS | 76 | * Fulton |
| LAS | 63 | * † Creston, Lowa |
| SS |  | Waukegan |
| LAS | 96 | * $\dagger$ Rockville, Indiana |
| Agr | 63 | * $\dagger$ Rollo |
| LAS (SS) | 74 | * + Urbana |
| ${ }_{\text {ASch }}$ | $34{ }_{\frac{2}{3}}$ | * † Indianapolis, Indiana Gencra, New York |
| Com | $29^{\frac{1}{2}}$ | * $\dagger$ Rochelle |
| ME |  | * $\dagger$ Rockford |
| AE | 72 | * $\dagger$ Chicago |
| LAS (SS) | 39 ${ }^{\frac{1}{2}}$ | * Chicago |
| $\mathrm{Agr}^{\text {r }}$ | $98 \frac{1}{2}$ | $\dagger$ Lynn, Massachusetls |
| $A g r$ | 68 | * Champaign |
| $A E$ | 1281 | * $\dagger$ Peoria |
| Mus sp |  | * $\dagger$ Antiach |
| Agr | 63 | * + Walshville |
| ChE |  | * $\dagger$ Chicago |
| LASS |  |  |
| LAS (SS) | 41 | $\dagger$ Roswell, New Mexico |
| Chem | 67 | * $\dagger$ Baker, Louisiana |
| EE | 10.4 | * $\dagger$ Decatur |
| ME |  | * $\dagger$ Alton |
| Com | 33 | * $\dagger$ Normal |
| LAS | 58 | * $\dagger$ Oklahoma City, Oklahoma |
| SS |  | Tunnellon, Indiana |
| ME | 37 | * $\dagger$ Chicago Heights |
| Com |  | * $\dagger$ Yonkers, New York |
| $A E$ | 115 | * $\dagger$ Dubuque, Iowa |
| Agr | $73 \frac{1}{2}$ | * $\dagger$ Pontiac |

Tomecko, Cyprian George
Tompkins, Ralph Hawthorne
Tompkins, Roy Woodruff
Tong, Teh-Chang
Tong, Towe
Toothaker, Harry Hawkins
Torgerson, Edward Fritchoff B.S., 1914

Tornquist, Alpha Caroline
Torrence, Franklin Albert
Tourtelot, Frederick Ignatius
Touve, Lisette Magdalena
Towe, Harold Theodore
Tower, Alexander McJunkia
Tower, Carleton Myron
Tower, Tracy Travers
Townsan, George Leland
Townsend, Mildred Lorene
Townsend, Sidney Funk
Tracy, Paul Hubert
Trautman, Louis Leander
Traver, Chauncey M
Traxler, Dollie Maye
Traxler, Elinor Evangeline
Traxler, Ivan Ward
Traylor, Ross Jennings
Treat, Edna
Trelease, Sidney Briggs
Trenchard, Leonard Ambrose
Trenchard, Wilma Lois
Trickle, Lenox Edmond
Trout, Clement Eddy
Troster, Marion Collier
Troutman, William Chilton
Trowbridge, Emma Cornelia
Trowbridge, William Oliver
Truax, Allison Eugene
Truc, Leighton Joy
Truitt, Theodosia
Trumbo, Elias Halberlin
Trumbo, James Kceley Chester
Tsang, Wai Kwong
Tucker, Gladys May
Tucker, Gustave Morton
Tucker, Harold James
Tucker, Marion
Tucker, Rolland Henry
Tucker, Will Hunsinger
Tucker, William Henry
Tuell, Wallace Gerry
Tuckey, Harold Bradford
Turley, Harold Edwin
Turnbull, Clifford Griffith
Turnbull, Helen Eleanor
Turner, Alexander Harvey
Turner, Carl Winford
Turner, Charles Edward
Turner, Chester Charles
Turner, Harold Horton
Turner, James Marion
Turner, Luther Martin
Turner, Merle Bernice
Turner, Robert Nathaniel
Turner, Wayne Isaac
Turner, William Robert
Turnquist, Elmer Nels
Turnquist, Ivar William
Turnquist, Ruby Marie
Turpin, Charles Udell
Turrell, Mrs. Amy Sara
Turrell, Marion Charles, A.B.
(West Virginia Univ.) 1903
Tuthill, James Pierce
Tuttle, Charlotte
Tutwiler, Robert Evans
Twells, Robert
Twigg, Marguerite Teresa
Twitchell, Angie Ruth
Udinski, William Philip
Ulich, Lynne Herman
Underhill, George Ellsworth
Unger, George Walter
Upchurch, Mabel Frances
Urbach, Dalton Normon
Urbain, Arthur Jules


HSLAS
EE
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Com
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Agr
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Com
Com (SS)
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Mus sp
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Agr
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ME
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SS

| CE | 109 |
| :---: | :---: |
| Arch | 36 |
| Com |  |
| CerE | 38 |
| LAS |  |
| LAS | 60 |
| $C E$ | 61 |
| SS | 6 |
| EE |  |
| Arch | 69 |
| SS | $8 \frac{1}{2}$ |
| LAS |  |
| Chem (SS) | 84를 |

Liplon, Sask., Canada
Eagle Grove, Iowa Joliet
Hunan, China
Washington, D. C.
Sandoval
Urbana
Champaign
Chester
Oak Park
Centralia
Toledo, Ohio
Fort Wayne, Indiana
Gillett, Arkansas
Mendota
Urbana
Champaign
*
Paris
West Indies
San Francisco, California
$\dagger$ Urbana
Urbana
Urbana
Coffeen
Urbana
Hardin, Missouri
Mardin, Missouri
Rantoul
Champaign
$\dagger$ Bellflower
$\dagger$ Carl Junction, Missouri
Green Valley
South Bend, Indiana
Crystal Lake
$\dagger$ El Cajon, California
Chicago
Ottawa
Pontiac
Hong Kong, China
Highland Park
Chicago
McDowell
Champaign
Minonk
Mi. Vernon

Morrison
Canton
$\dagger$ Berwyn
Burney, Indiana
Champaign
Champaign
Loda
East St. Louis
Mt. Sterling
Urbana
Chicago
Lovington

* $\dagger$ Beardstown
*     + Champaign
$\dagger$ Dayton, Ohio
$\dagger$ Urbana
Pabmyra
* † Canton
*     + Chicago
*     + Chicago
* $\dagger$ St. Louis, Missouri

Milledgeville

* $\dagger$ Elgin

Wilmette
River Forest
Chattanooga, Tennessee Brocton Belleville
Jersey City, New Jersey
Villisca, Iowa

* $\dagger$ Elgin

Oak Park
Erving
Dubuque, Iowa

* $\dagger$ DuQuoin

| Usis, Bessie Nellie | Com |  |  |
| :---: | :---: | :---: | :---: |
| Uthoff, Pearl Kathryn | L.AS | 31 | + Princeton |
| Utley, Nelson Monroe | Comr | 68 | $\dagger$ Chicago |
| Utt, Arthur Holliday | $A g r$ | 11 | $\dagger$ Springfield |
| Utt, Ralph Chester | $A g r$ |  | Chicago |
| Vail, Charles Winfeld, Jr. | Com |  | * $\dagger$ Chicago |
| Vail, Edna Cora | HSLAS | 32 | * - Springfiel |
| Vail, Nina Lee | LAS |  | * $\dagger$ Macomb |
| Valentine, Edwin Ernest | AE | 12 | $\dagger$ Green Bay, Wisconsin |
| Valentine, Frank Wayne | Chem | 71 | * † Mit. Vernon |
| Valentine, George Snow | Com | 67 | * $\dagger$ Evanston |
| Van Bramer, Douglas Francis | Agr |  | * $\dagger$ Chicago |
| Vance, Claire Kinsey | ME |  | * Logansport, Indiana |
| Van Cleave, Bruce | Lazo | 98 | * $\dagger$ Springficld |
| Van Cleave, Wallace | Agr | 62 | * - Springfield |
| Van Dam, Earnest | LAS | 19 | * $\dagger$ Ludlow |
| Vanden Bosch, James Walter | Com | 33 | * $\dagger$ South Bend, Indiana |
| Vanderpool, Arthur Meritt | ME | 36 | * $\dagger$ Morris |
| Vandervort, Maurice Linwood | $A E$ |  | * $\dagger$ Kankakee |
| Van Deusen, Arthur Stowe, Jr. | Com | 65 | * $\dagger$ Evanston |
| Van Deusen, John LeRoy | $C E$ | 56 | * † Greenville |
| Van Deventer, Dale Vernelle | $\mathrm{Ag}^{\circ}$ |  | * $\dagger$ LeRoy |
| Vandeventer, Fenton Ross | Agr | 33 | * $\dagger$ Mt. Sterling |
| Van Deventer, Frank Macknet | ME | 104 | * $\dagger$ Decatur |
| Van Deventer, Ruth Marlowe | Agr |  | * $\dagger$ Springfield |
| Van Dorn, Theodore Joseph | Law | 60 | * $\dagger$ Springfield |
| Van Dyke, Earl Henry | Agr | 101 | * $\dagger$ Plainfield |
| Van Houten, Frank Henry | Agr | 2 | * $\dagger$ Chicago |
| Van Inwegen, Helen | Agr |  | * $\dagger$ Oregon |
| Van Lieu, John M | SS | $7 \frac{1}{3}$ | Des Moines, Iowa |
| Van Meter, Craig | Law | 91 | * $\dagger$ Mattoon |
| Van Meter, Verl Fred | Com |  | * † Bushncll |
| Vanneman, Edgar | SS | $6 \frac{1}{2}$ |  |
| Van Praag, Alex, Jr. | $C E$ (SS) | 111 | * $\dagger$ Decatur |
| Van Ryn Van Alkemade, Leendert Willum | LAS |  | * $\dagger$ Chicago |
| Van Vleet, Ruth Hazel | LAS |  | * $\dagger$ Aurora |
| Van Winkle, Paul Keith | Com | 100 | * Chicago |
| Varney, Clara Elsie | HSAgr | 18 | * $\dagger$ Delavan |
| Vaughan, Fred Nathan, Jr. | Agr | 59 | * † Amboy |
| Vaughan, Rufus Emerson | Agr | $50 \frac{1}{2}$ | * $\dagger$ St. Louis, Missouri |
| Vaughn, Howard Flaghn | $A E$ (SS) | 57 | * $\dagger$ Urbana |
| Vaught, Sallie McCormick | Lib | 33 | * $\dagger$ Lebanon, Indianc |
| Vear, Leonard Ray | Agr | 60 | * + Chicago |
| Vedder, Earl Charles | LAS | 101 | * † Lockport, New York |
| Veirs, Willard Lewis | Med | 103 | * † Urbana |
| Vennum, Mary Durham, A.B., 1913 | Larv |  | * $\dagger$ Onarga |
| Vernon, Edith Blan | LAS (SS) | 24 | * $\dagger$ Toledo |
| Vernon, Maris Hurford | $C E$ | 111 | * $\dagger$ Moline |
| Vernon, Russell Longacre | Agr |  | * $\dagger$ Goshen, Indiana |
| Veronda, Maurice | LAS | 60 | * + Carbon Hill |
| Vial, Harold Craigmile | Agr | 69 | * $\dagger$ La Grange |
| Vial, Helen Gertrude | LAS | 421/6 | * + La Granse |
| Vial, Nathaniel Smith | Agr (SS) | $588^{\frac{1}{2}}$ | * $\dagger$ La Granze |
| Vidal, Stephen Peter | MSE | 30 | * $\dagger$ Gallup, New Mexico |
| Vinkvist, Bertha Aurora | Agr (SS) Sp |  | * $\dagger$ Uppsala, Sweden |
| Virgin, Eli Horace | SS | 78 | Virginia |
| Visscher, Nina May | SS |  | Frankfort, Kcntucky |
| Vissering, Eckbart Bernhardt | Com | 66 | * $\dagger$ Minonk |
| Vliet, Elmer Bennett | ChE (SS) | 70 | * $\dagger$ Joliet |
| Vogele, Alfred Charles | Agr | 69 | * $\dagger$ Assumption |
| Vogt, Frank Walter | $C E$ |  | * + Chicago |
| Voigt, Marie Louise | Mus | 48 | * + Athens, Ohio |
| Volk, William Joseph | $C E$ (SS) | 59 | * + Chicago |
| Von Babo, Beatrice Louise | LAS | 69 | * + Chicago |
| Von Ohlen, Floyd William George | Agr | 32 | * $\dagger$ II inckley |
| Voorhees, Evangeline | LAS | 16 | * + Allon |
| Voorhees, Vanderveer | ChE | 49 | * - Upper Alton |
| Vopat, Joseph Francis | $C E$ | 72 | * $\dagger$ Oak Park |
| Voris, Bryant Brey | LAS |  | * $\dagger$ Waterloo |
| Voss, Anne | Mus | 72 | * Champaign |
| Voss, John, Jr. | $A E$ | 70 조 | * Peoria |
| Waddington, Glenn George | ME | 99 | * $\dagger$ Dewey |
| Wadsworth, Goldie May | LAS | $96 \frac{1}{2}$ | * + Connersville, Indiana |
| Wagenseller, John Richard | Agr |  | * + Fairbury |
| Wager, Maurice | ME |  | * $\dagger$ Chicago |
| Waggener, Jeannette Cordelia | LAS sp |  | * $\dagger$ Martin, Tennessee |
| Waggoner, Karl Marshall | Arch | 118 | * Decatur |
| Waggoner, Marion Earle | Agr |  | * † Gibson City |
| Wagner, Charles Arthur, Jr. | EE (SS) | 65 | * I Springficld, Missouri |
| Wagner, Esther Angelica | LAS |  | * $\dagger$ Forest Park |
| Wagner, Frank Hans | Agr | 24 | * $\dagger$ Rochford |
| Wagner, Roberta Jennie | LAS |  | ${ }_{*}^{*}+$ Chicago |
| Wagner, Wesley Gephart Wagner, William John | ${ }_{\text {A }}^{\mathrm{Com}}$ | 31 | ${ }_{*}^{*} \dagger \text { Urbana }$ |
| Wagstaff, Charles Dudley | Agr | 82 | * + Tipton, India na |

Wahl, Leo Jacob
Wakefield, Mildred Amy
Wakeland, Fred Raymond
Wakeland, Guy Earl
Waldo, Abner Weston
Waldo, John Hardenbergh
Waldron, Norman E
Walk, Marney Lawrence
Walker, Elliott Pyle
Walker, Frank Abram
Walker, Helen
Walker, Nelle
Walker, Russell Telis
Walker, Stanton
Walker, Volney Denchar
Walkerly, Margaret Magdalene
Wall, Harriet Edythe
Wallace, Edgar Dearborn
Wallace, Edwin
Wallace, Elwin
Wallace, Frank Maltby
Wallace, Paul Samuel
Wallace, Samuel Haywood
Wallage, Stanley Tiffin
Wallis, Mrs. Grace Hite
Wallis, May Avona
Walmer, Joseph Charles
Walrath, Abigail Jessie
Walser, Stephen Albert
Walsh, John Edward
Walsh, Leo Bernard
Walsh, Richard Leon
Walsh, William Celestine
Walter, Fred
Walter, Kenneth Hubert
Walters, Prentice Therman
Walton, James K, Jr.
Walworth, Stanton Eugene
Wamsley, Adalaid May
Wamsley, John Henry
Wanderer, Elizabeth Catherine
Wang, Chin Wu
Ward, Andrew Lewis
Ward, Arthur Andrew
Ward, Cecilia Blair
Ward, Charlotte Baldwin
Ward, Dan Putnam
Ward, Herbert Benjamin
Ward, Janet
Ward, Justus Conrad
Ward, Mary Helen
Ward, Mary Winifred
Ward, Ralph Waldo
Ward, Raymond Ford
Ward, Raymond Lee
Ward, Victor
Warden, Ida Elizabeth
A.M. (Wooster Coll.) 1913

Ware, Gay Hollenbeak
Ware, Manierre Barlow
Warford, David Arthur
Warinner, Mabel Straube
Warmolts, Cornelia Sara
Warmolts, Lambertus, Jr.
Warner, Robert Leman
Warren, Daniel Edwin
Warren, Dorothy
Warren, Harry DeHaven
Warren, Harry Theodore
Warren, Anna May
Warren, Milton Willard
Warren, Ralph Rowe
Warren, Robert Clarke
Wascher, Herbert Frederick
Washburn, James William
Washburr, Raymond Allen
Washler, Orla Virgil
Wasson, Loran Arthur
Waterbury, Harry Bremner Waterman, Louise Hale
Waterman, Mary Elizabeth
Waterman, William Layton
Waters, George Gerald
Watson, Harry Francis

| SS | 65 |
| :--- | :---: |
| $L A S$ | 23 |
| $A g r$ | 62 |
| $A g r$ | 94 |
| $C o m$ | 102 |
| $L A S$ | 43 |
| $C e r E$ | 60 |
| $A g r$ | $24 \frac{1}{3}$ |
| $A E$ | 399 |
| $C o m$ | 66 |
| $A g r$ | 62 |
| $H S L A S$ | 72 |
| $L A S$ | $110 \frac{1}{2}$ |
| $E E$ | $95 \frac{1}{2}$ |
| $M S E$ | $114 \frac{2}{2}$ |
| $M E$ |  |
| $C o m(S S)$ |  |
| $L A S$ | 40 |
| $L A S$ | 27 |
| $A g r$ | $138 \frac{1}{2}$ |
| $A g r$ | 8 |

Sterling
Lake Benton, Minnesota
Hoopeston
Hoopeston
Libertyville
Libertyville
Urbana
Walcottville, Indiana
Sigel
Butler, Missouri
Aurora
Clinton.
Carterville
Dongola
Champaign
Cicero
Champaign
Staunton
Chicago
Assumption
Assumption
Chicago
Savanna
† Oak Park
Paris
Centralia
Cairo
Cairo
Lebanon
$\dagger$ Brooklyn, New York
Peoria
Ranloul
Rantoul
$\dagger$ Mattoon
Arenzville
Bremen, Indiana
Macomb
*
67

HSAgy (SS)sp
Com
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LAS
EE
HSLAS
Com
$\begin{array}{ll}\text { Agr } & 26 \\ L A S & 62\end{array}$
Chem

| IISAgr | 33 |
| :--- | :--- |
| LAS | 66 |

SS
Com
CE
33
SS

| Agr sp | 怱 |
| :---: | :---: |
| Agr | 105 |
| Law | 74 |
| SS | 595\% |
| L.AS | 56 |
| LAS (SS) | 102 $\frac{1}{2}$ |
| Lav | 15 |
| Agr | 107 |
| HSLAS | 35 |
| ME |  |
| Chem | 17 |
| LAS | 101 |
| ${ }_{\text {A }} \mathrm{E}_{\mathrm{E}}$ |  |
| ${ }_{\text {c }}{ }_{\text {c }} \mathrm{Er}$ | 63 |
| Agr | 34 |
| MSE | 98 |
| ${ }_{\text {LS }}$ SAS | 14 |
| SS | $\stackrel{8}{87}$ |
| Com | 37 |
| ${ }_{\text {Agr }}$ | 95 |
| L.4S | 120 |
| CE |  |
| EE | 32 |
| L.AS (SS) | 95 |

Urbana
Quincy
Tuscola
Oak Park
China
$\dagger$ Oak Glen
$\dagger$ Oak Glen
Urbana
Urbana
Marshalltown, Iowa
Geneseo

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\(\dagger\) Chicago
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Clinton
Sterling
Saybrook
Worcester, Massachusctts
$\dagger$ Normal
$\dagger$ Bement
El Paso
Wellsburg, West Virsinia
Barry
$\dagger$ Chicago
Elizabethtown
Urbana
Oregon
Oregon
Dixon
Belvidere
Watseka
Moline
Centrclia
Mansfield
Mansfield
LaSalle
LcGrange
$\dagger$ Champaign
Lenox Dale, Massachusetts
$\dagger$ Keveanee
Union City, Indiana
Harrisburg

+ Chicago
Chicago
Galesburg
Chicago
Chicago
Granitc City

| Watson, Jane C | SS |  | Champaign |
| :---: | :---: | :---: | :---: |
| Watson, Ray Marcus | Agr | 102 | * $\dagger$ Cobden |
| Watson, Raymond Vance | Agr |  | * $\dagger$ Clinton |
| Watt, Glendora | Mus sp |  | * + Champaign |
| Watt, Margaret Louise | LAS |  | * $\dagger$ Winchester |
| Watt, Russell A | $A E$ | 66 | * Champaign |
| Watts, Amos Holston | LAS | 32 | * $\dagger$ Nashville |
| Watts, Helen Mae | LAS | 32 | * $\dagger$ Urbana |
| Wayne, Forrest Howells | Com |  | * Orion |
| Weart, James Garrison, Jr. | Agr | 38 | Winnetka |
| Weasel, Nellie Wilma | LAS |  | Pesolum |
| Weaver, George | MdP | 2 | * $\dagger$ Cumberland, Iowa |
| Weaver, Lillian Ruth | LAS | 117 | * $\dagger$ Cumberland, Iowa |
| Webb, Brent Girdler | Arch | 55 | * $\dagger$ Louisville, Kentucky |
| Webb, Elizabeth | LAS |  | * $\dagger$ Farmer City |
| Webb, Haldeman Adair | Coms |  | * $\dagger$ Chicago |
| Webb, Katherine Ann | LAS | 31 | * $\dagger$ Chicago |
| Webber, Albert G., Jr. | Lave | 57 | * $\dagger$ Decatur |
| Webber, Robert Alfred | ChE | 63 | * $\dagger$ Urbana |
| Weber, Frederick Gottlieb | $A \mathrm{gr}$ | 253 | * $\dagger$ Tower Hill |
| Weber, Leonard Fred | MdP | 59 | * $\dagger$ Buckley |
| Weber, Pauline Barbara | LAS |  | * $\dagger$ Olney |
| Webster, Frederick Farrar | Agr | $99 \frac{1}{2}$ | * $\dagger$ Oberlin, Ohio |
| Webster, Gladis Gilbert | Agr | 99 | * † Washington, Indiana |
| Webster, Lewis Selwyn | MSE | $52 \frac{1}{2}$ | * $\dagger$ Bartow, Florida |
| Wedge, Leslie B | Com | 65 | * $\dagger$ Kewance |
| Weeks, Charles Horace | Com | 68 | * $\dagger$ Joliel |
| Weems, Charles Lee | LAS | 80 | $\dagger$ Quincy |
| Weenink, Ruth Antionett | HSAgr | 102 | * $\dagger$ Dillon, Montana |
| Weeter, Mabel Slout | LAS |  | * $\dagger$ Williamsport, Pennsylvania |
| Weeter, Nelle Mae | LAS (SS) | 37 | $\dagger$ Rimersburg, Pennsylvania |
| Wehrle, Thomas Henry | Com | 31 | * $\dagger$ Carmi |
| Weikert, Earl Harper | Agr sp |  | * $\dagger$ Galesburg |
| Weil, Ruth Carmen | LAS | 98 | $\dagger$ Oelwein, Iowa |
| Weilepp, Laura Elizabeth | HSLAS | 10112 | * $\dagger$ Decatar |
| Weinberg, Elizabeth | HSAgr | 100 | * $\dagger$ Rushville |
| Weingarten, Helen Henrietta | LAS | 23 | * Champaign |
| Weinshank, Harry | ME | 30 | * † Indianapolis, Indiana |
| Weir, Amy Azalea | LAS | 62 | * $\dagger$ Marshall |
| Weir, Mary Jane | HSAgr |  | * $\dagger$ Marshall |
| Weir, Pearl | HSAgr | 66 | * $\dagger$ Marshall |
| Weise, Nicholas George | Agr | 60 | * $\dagger$ Chicago |
| Weiser, Albert Luther | SS |  | Grimes, Iowa |
| Weisiger, George Bates | SS | 98 | Homer |
| Weiss, John Nelson. | Agr |  | * $\dagger$ Geneseo |
| Weiss, Marion Virginia | LAS | 111 | * $\dagger$ Champaign |
| Weiss, Theodore Frank | ChE |  | * $\dagger$ Champaign |
| Weissman, Joseph | $A g r$ |  | * $\dagger$ Chicago |
| Weitknecht, Helen Bernice | LAS |  | * $\dagger$ Mitchell, Indiana |
| Welch, Charlotte Bruce | LAS |  | * Highland Park |
| Welch, Frank Joseph | LAS |  | * $\dagger$ Moline |
| Welch, Mary Mildred | LAS |  | * $\dagger$ Highland Park |
| Welch, Stanley Edwin | Com |  | $\dagger$ Chicago |
| Welch, Vyrna | SS |  | Urbana |
| Welensky, David Arthur | CE |  | * † Chicago |
| Welge, Bertha Henriette | SS |  | Hillsboro |
| Welker, Leo Edward | SS |  | Colfax, Iowa |
| Weller, Herbert Clay | LAS | $30{ }^{\frac{1}{2}}$ | * $\dagger$ Hindsboro |
| Wells, Harry Andrew | Agr | 97 | * $\dagger$ Dalton, Pennsylvania |
| Wells, Le Roy Myron | ${ }_{\text {A }}^{\text {gr }}$ |  | $\dagger$ Torrington, Connecticut |
| Welsh, St. Clair Duval | $C E$ |  | * $\dagger$ Des Moines, Iowa |
| Welty, David Charles | Agr | 98 | * $\dagger$ A mboy |
| Weltmer, James Horace | SS | 8 | * Nevada, Missouri |
| Wenke, Vernon Arthur | Com | 29 | * $\dagger$ Geneseo |
| Wensley, Lucy Drinkwater | HSLAS | 31 | * Cleveland, Ohio |
| Wenz, Carolyn Louise | SS | 1191/6 | Paris |
| Wenzlaff, Soloman Henry | LAS | 35 | * † Yanklon, South Dakola |
| Wenzlaff, William Bradford | Com |  | * † Armour, South Dakota |
| de Werff, Henry August, B.S., 1914 | Agr |  | - Farina |
| Werner, Harry William | ME |  | * $\dagger$ Blue Island |
| Werstler, William Joseph | Agr | 27슬 | * $\dagger$ Chicago |
| Wert, Catherine Selma Leotta | HSAgr |  | * $\dagger$ Kendallville, Indiana |
| Wertheim, Edgar | SS | $8 \frac{1}{2}$ |  |
| Westcott, Florence May | SS | $7 \frac{1}{2}$ | Chillicothe |
| Wesley, Curtis Elroy | Agr |  | * † St. Louis, Missouri |
| Wesseling, Amalie Elizabeth | LAS | 22 | * St. Louis, Missouri |
| West, Estol Kenneth | SS |  | Mi. Vernon |
| West, Linnie Minnie | HSLAS (SS) | 98 | * $\dagger$ Watseka |
| West, Lloyd Alvin | EE | $62 \frac{1}{2}$ | * $\dagger$ Yates City |
| West, Marion Isabel | HSAgr | 60 | * $\dagger$ Loda |
| Westbay, James Herron | RME | 115 56 | * + Monetl, Missouri |
| Westbrook, Harold William | Com MinE | 56 70 | * + Centralia |
| Westerman, Richard Wilbur | LAS |  | * $\dagger$ Quincy |
| Westfield, Norman Elmer | Agr |  | * $\dagger$ Chicago |
| Weston, Jessie Beatrice | Lib | 38 | * † Urbana |


| Wetherell, Edwin Harry | Arch | 48 | $\dagger$ Des Moines, Iowa |
| :---: | :---: | :---: | :---: |
| Wetzel, Gilbert John | LAS |  | $\dagger$ Chicago |
| Whalin, Oren Leslie | Agr | 61 | * + Rose Hill |
| Wham, Benjamin, A.B., 1915 | Law | 162 | * $\dagger$ Carter |
| Wharton, Wayne Thompson | Com | 30 | * $\dagger$ Moline |
| Wheat, Marcell Henry | Com | 34 | * $\dagger$ Chicago |
| Wheat, Orvie Albert | Arch |  | * Deland |
| Wheeler, Adelaide Cynthia | HSAgr | 100 | * $\dagger$ Laurens, Iowa |
| Wheeler, William Erastus, Jr. | Law | 120 | * $\dagger$ East St. Louis |
| Wheelhouse, Elizabeth Lux | HSLAS | 72 | * $\dagger$ Decatur |
| White, Agnes Chloe | LAS | 96 | * + Marion |
| White, Catherine Nell | LAS (SS) | 40 | * $\dagger$ Urbana |
| White, Harold Hartwell | Com | 68 | * $\dagger$ Chicago |
| White, Helen Wheeler | LAS |  | * Chicago |
| White, Homer | LAS |  | * $\dagger$ Pawnee |
| White, Leila Olive | LAS |  | * Rockford |
| White, Marion Kingsley | HSAgr | 99 | * $\dagger$ St. Joseph, Missouri |
| White, Merle Marie | HSAgr | 20 | * + Urbana |
| White, Milton Worley | Agr | 43 | * + Oxford, Ohio |
| White, Russell Sherman | Com | 60 | * $\dagger$ Chicago |
| White, William Wallace | Com | 14 | * $\dagger$ Chicago |
| White, Winifred Elizabeth | LAS (SS) | 66 | * + Chicago |
| Whitelaw, Charles Hugh | Com |  | * + Seattle, Washington |
| Whiteside, Merrill Wesley | MdP |  | * $\dagger$ Eldorado |
| Whitford, Hobart S | Agr | 29 | \% $\dagger$ Golden |
| Whiting, Vivian Justina | HSLAS | 101 | * $\dagger$ Urbana |
| Whitman, Beulah Mae | HSLAS | $40 \frac{1}{2}$ | * $\dagger$ Cameron |
| Whitman, George Bruington | ${ }_{\text {Agr }}$ | $52 \frac{1}{2}$ | * + Cameron |
| Whitmire, Laura Gwendolen, A.B., 1914 | SS |  | Urbana |
| Whitney, Harold Bruce | CE | 36 | * $\dagger$ Silver Spring, Maryland |
| Whitney, Joseph Lafeton | Com | 101 | * + Oak Park |
| Whitney, Leland LeRoy | Com |  | * $\dagger$ Marion, Ohio |
| Whitney, Leonard Hilliard | MinE | 111 | * + Downers Grove |
| Whitney, Merlyn Ruloff | Com | 81 | * $\dagger$ Marion, Ohio |
| Whitson, Herman Ansel | MdP | 56 | * $\dagger$ Rushville |
| Whittemore, Katherine | HSAgr |  | * East Aurora, New York |
| Whittemore, Kenneth Stoddard | Com | 67 | * $\dagger$ East Aurora, New York |
| Whitten, George Arion | $L A S$ |  | * † Urbana |
| Whitten, Jennie Alma | LAS (SS) | 91 | * $\dagger$ DeKalb |
| Whitten, Mabel Doris | LAS (SS) | 69 | * † DeKalb |
| Whitten, Phil R | Mus sp |  | + Urbana |
| Whittington, Ray Norton | ${ }^{\text {Agr }}$ | 33 | * $\dagger$ Benton |
| Whittum, Florence Luciile | LAS | 36 | * $\dagger$ Herscher |
| Whitver, Howard Clifford | Com (SS) | $71 \frac{1}{2}$ | * $\dagger$ Urbana |
| Wible, Tom K | Com | 30 | * Mason City |
| Wieboldt, Anna Ernestine | LAS | 73 | * $\dagger$ Chicago |
| Wiedemann, Charles Phillip | Agr |  | * $\dagger$ East St. Louis |
| Wiedemann, Newell Evert | Arch | 61 | * $\dagger$ East St. Louis |
| Wien, Julius Harry | EE | 67 | * + Chicago |
| Wiersema, Henry | EE | 16 | * $\dagger$ Fulton |
| Wiggins, William Kelley | $E E$ | 21 | * $\dagger$ Anna |
| Wiggins, Rolla Elbert | SS | $8 \frac{1}{2}$ | Goreville |
| Wight, Edith Marian | LAS | 66 | * $\dagger$ Chicago |
| Wikoff, Ruth Isabel | LAS | 65 | * + Chicaga |
| Wilber, Harold Courtney | Com | 67 | * $\dagger$ Potomac |
| Wilbourne, Willie Coakly | LAS |  | $\dagger$ Olive Branch |
| Wilder, Charles Lucas | ME | 29 | * $\dagger$ Peoria |
| Wildermuth, Joe Henry | Arch | 36 | * + Gary, Indiana |
| Wiles, Bertha Harris | LAS | 100 | * $\dagger$ Minatare, Nebraska |
| Wiley, Harry Houghes | CE | 103 | * $\dagger$ Sioux Cily, Iowa |
| Wiley, Kathryn Grace | LAS sp |  | * $\dagger$ Aurora |
| Wiley, Russel Warren | AE | 37 | * $\dagger$ Chicago |
| Wiley, Sumner Conklin | LAS |  | * Earlville |
| Wiley, Wallace Faris | AE | 36 | * $\dagger$ Anna |
| Wilford, Robert Nicholas | Agr | 100 | * $\dagger$ Aurora |
| Wilkins, Ernest Jesse | LAS | $69 \frac{1}{2}$ | * $\dagger$ St. Louis, Missouri |
| Wilkins, Ruth Elizabeth | SS | 7 | Metropolis |
| Wilkinson, Cecil Herbert | Agr |  | * $\dagger$ Mt. Carmel |
| Wilkinson, Porter Augustus | Com |  | * $\dagger$ Bethany |
| Wilkinson, Scott Jackson | LAS |  | * Bethany |
| Wilkinson, Wardell | Com | 67 | * + Chicaga |
| Willard, Ruth Frances | LAS |  | * $\dagger$ Decatur |
| Willett, Alfred P | LAS |  | $\dagger$ Orono, Maine |
| Willett, Donald Biggar | Com | 17 | * † Oak Park |
| Willey, Gilbert Stewart | Agr (SS) | $58 \frac{1}{2}$ | * $\dagger$ Warren, Minnesols |
| Williams, Bertha | SS |  | Green Valley |
| Williams, Chester Albert | Arch | 106 | * $\dagger$ Sterling |
| Williams, Earle Joubert | MSE |  | * $\dagger$ Cobden |
| Williams, Eugene Charles | Com | 313 | * + Sterling |
| Williams, Frieda Katharine, A.B., (Indiana University), 1915 | Lib |  | * $\dagger$ Darlington, Indiana |
| Williams, George Alfred | LAS | 63 | * $\dagger$ Peoria |
| Williams, Grace Ethel | LAS | 47 | * + Watseka |
| Williams, Harold Simpson | LAS |  | * $\dagger$ Louisville |
| Williams, Helen Jackson | LAS | 72 | * $\dagger$ Streator |


Woo, Yin

| LAS | 56 | + Ravanna, Missouri |
| :---: | :---: | :---: |
| Com | 60 | $\dagger$ Alla |
| LAS | 68 | * + Dixon |
| ME |  | * + Streator |
| SS | 29 | Granile City |
| EE |  | $\dagger$ Freeporl |
| LAS |  | Ava |
| Agr |  | * $\dagger$ La Moille |
| A ${ }^{\text {gr }}$ |  | * † Franklin, Arkansas |
| Com | 60 | * $\dagger$ Jocksonville |
| M $u$ S |  | * Edwardsville |
| LAS |  | $\dagger$ Champaign |
| SS | 81 | Tuscola |
| Com |  | Lexirgton |
| Com |  | $\dagger$ Chicago |
| Com (SS) | 68 | * $\dagger$ Harvey |
| HSLAS |  | * $\dagger$ Bonaporte, Iow |
| Mine (SS) |  | Baltimore, Marsland |
| CE (SS) | 111 | * $\dagger$ La Grange |
| $L A S$ (SS) | 6 | * $\dagger$ Princetonz, Missouri |
| LAS |  | * $\dagger$ Chicago Corbondale |
| Med | 65 | * $\dagger$ Carbondale |
| LAS | 17 | * Rosssille |
| SS | 4 | Catlin |
| LAS |  | $\dagger$ Champaign |
| EE | 109 | * $\dagger$ Walnut |
| MdP |  | * † McNabb |
| SS | 4 | Los Angeles, Celifornia |
| ${ }_{\text {A }}^{\text {A }}$ gr | 7 | * † Atwood |
| SE | 5 | * + Paris ${ }^{\text {Hamburg }}$ |
| EE (SS) | 50 | * $\dagger$ Chicago |
| Agr | 57 | * + McNabb |
| Com | 70 | * † Princeton, Missouri |
| LAS |  | * $\dagger$ Chicago |
| Mus sp |  | * West Liberly, Iowa |
| Com | 84 | Wilmot, Mississippi |
| LAS | 65 | * $\dagger$ Coal Cily |
| LAS | 87 | * $\dagger$ Atwood |
| HSAgr | 26 | * $\dagger$ Marion, Indiana |
| LAS |  | * $\dagger$ Urbana |
| Agr | 67 | Mt. Morris |
| LAS | 24 | * $\dagger$ Chicago |
| Com |  | * Avon |
| Lavu | 71 | * $\dagger$ Belleville |
| Agr | $64 \frac{1}{2}$ | * $\dagger$ Newmen |
| EE | 88 | * † Kansas City, Missouri |
| Comsp | 23 | * † Chicago Heights |
| LAS | 65 | * Tiskilwa |
| Agr | 33 | $\dagger$ Lerwiston, Montana |
| Agr | 76 | * Annavvan |
| Lib |  | * $\dagger$ Deloware, Ohio |
| Com | 69 | * $\dagger$ Chicago |
| Mus | 36 | * Kansas |
| HSLAS | 1073 ${ }^{\frac{1}{2}}$ | * † LeRoy |
| LAS (SS) | 84 | * $\dagger$ Vaterloo |
| ChE | 109 | * $\dagger$ Mit. Carmel |
| HSLAS |  | * $\dagger$ Cerro Gordo |
| LAS | 24 | * $\dagger$ Chompaign |
| LAS | 100 | * $\dagger$ DeLand |
| Com |  | * $\dagger$ DeLand |
| EE | 74 | * + Velvicere |
| LAS |  | $\dagger$ Ashlond, Wisconsin |
| SS | 51 | Champaign |
| SS | 4 | Danville |
| LAS | 31 | $\dagger$ Springfield |
| Com |  | * $\dagger$ Mendon |
| LAS | 60 | * $\dagger$ Grand Rapids, Michigan |
| Agr |  | * Pleasant Plains |
| EE | 85 | * $\dagger$ Chicogo |
| SS | 136 | - Dixon ${ }^{\text {d }}$ |
| Agr |  | * $\dagger$ Dixon |
| Agr (SS) | 27 | * $\dagger$ Marengo |
| Agr | 66 | * † Chicago |
| Agr sp | 31 | * † Urbana |
| HSL. 4 S | 67 | * $\dagger$ Urbana |
| Mus sp |  | * Danforth |
| LAS |  | * † Danforth |
| ${ }_{\text {A }}^{\text {Cr }}$ | 68 | * $\dagger$ Danrille |
| Com | 49 32 | * T China Sancisco, California |
| Com | 1153 | * Chine |



| SS |  | Alma, Michigan |
| :---: | :---: | :---: |
| Com | 25 | * $\dagger$ Independence, Missouri |
| SS | 8 | Springfield |
| LAS | 31 | * $\dagger$ Pekin |
| LAS |  | Augusta |
| SS | 6 | Waggoner |
| Arch | 17 | $\dagger$ Carrollion |
| MdP |  | * + Decalur |
| HSLAS | 95 | * † Ogden, Utak |
| Agr | 32 | $\dagger$ Grayville |
| $A g r$ |  | * $\dagger$ Albion |
| LAS | 94 | * Champaign |
| Agr | 94 | * † Grecn Valley |
| Com | 372 | $\dagger$ Champaign |
| ME | 106 | * $\dagger$ Chicago |
| LAS | 78 | * † St. Louis, Missouri |
| LAS | 24 | * $\dagger$ Sterling |
| LAS | 47 | * † Champaign |
| Lib | 33 | * $\dagger$ Berkeley, California |
| Agr | 99 | * ¢ Evanston |
| Com | 100 | * $\dagger$ Evanston |
| ${ }_{S}{ }^{\text {gr }}$ |  | * $\dagger$ Chattanooga, Tennessee |
| SS | 7\% | Taurion, Massachusells |
| $\mathrm{Agrsp}^{\text {a }}$ |  | + Chicago |
| Com | 963 | * Dixon |
| MdP | 29 | * Arcola |
| LAS | 25 | * Terre Haute, Indianu |
| Com | 6 | $\dagger$ Champaigr |
| SS | 133 | Urbana |
| Law | 59 | * $\dagger$ Roodhouse |
| LAS |  | * + El Paso |
| ${ }^{\text {a }}{ }^{\text {r }}$ | 66 | * + San Jose |
| LAS |  | $\dagger$ Bowen |
| CE | 101 | * $\dagger$ Chicago |
| ChE | 72 | * $\dagger$ Chicago |
| SS |  | McLean |
| Mus |  | $\dagger$ Champaign |
| ME | 26 | * + Lrbana |
| ChE |  | * $\dagger$ Chicago |
| CerE | 107 | * $\dagger$ Herscher |
| HSAgr |  | * $\dagger$ Brocton |
| ${ }_{S}^{\text {Agr }}$ | $\begin{array}{r} 62 \\ 131 \end{array}$ | * † Okauches, Wisconsin |
| Agr |  | * + Champpign |
| LAS (SS) | 62 | * + Gifford |
| LAS (SS) | 34 | * $\dagger$ Paris |
| Com |  | * + Maywood |
| ChE |  | * $\dagger$ Chicago |
| EE | 14412 | * $\dagger$ Hunan, China |
| Com | 74 | * $\dagger$ Alton |
| Arch | 36 | * † St. Loutis, Missouri |
| LAS | 31 | \% † Chicago |
| RCE | $36 \frac{1}{2}$ | * $\dagger$ Chicago |
| LAS | $26 \frac{1}{3}$ | * Vermont |
| Com | 84 | * ¢ Vermont |
| HSLAS | 60 | * † St. Louis, Missouri |
| SS | 8 | New Baden |
| Agr |  | * $\dagger$ Aurora |
| LAS |  | $\dagger$ Japan |
| Com |  | * † Osaka, Japan |
| EE | 123六 | * † IVashington, D. C. |
| ${ }^{\text {Agr }}$ |  | * $\dagger$ Buffalo |
| LAS |  | * $\dagger$ Douglas, Arisona |
| Com |  | * $\dagger$ Maywood |
| Com | 71 | * $\dagger$ Maywood |
| LAS | 38 | * † East Lynn |
| ChE (SS) | $105 \frac{3}{3}$ | * + Hunan, China |
| LAS |  | * $\dagger$ Ridgefarm |
| Agr MinE | ${ }_{77}^{66 \frac{1}{2}}$ | * + Watervliet, Michigan |
| Com |  | * + Monticello |
| Com | 69 | * + Beardstown |
| EE |  | * Honolulu |
| CE | 28 | * $\dagger$ Fullon |
| EE |  | * $\dagger$ Chicago |
| EE |  | * $\dagger$ Honolulu |
| Com sp |  | * South Bend, Indiana |
| Com | 106 | * $\dagger$ Chicago |
| LASr |  | * Newman |
| Com | 34 | * $\dagger$ Chicago |
| LAS | 27 | * $\dagger$ Hoopeston |
| Agr | 37 | * + Santa Paula, California |
| Com | 29 | * Middletown, Indiana |

Yii, Lan
Zahradka, Jerome George
Zaleski, Jan Paul
Zaleski, John Thaddeus
Zaring, Ivan Armon
Zearing, Dorothy Anne
Zehr, George Andrew
Zeiders, Emil Philip
Zelehofer, Edna Lila
Zeller, Lawrence Willard
Zeppenfeld, Eugene William, B.S., 1914
Zerby, Rayborn, Lindley
Zetlmeisl, Irmgaard
Ziegenhagen, Walter
Ziegler, Arthur William
Ziegler, John Wesley
Zieroth, Edward Henry
Zimbelman, Frank Arthur.
Zimmerman, Garnet Bernice
Zimmerman, Harry Gustav
Zolotkoff, Hyman Jacob
Zuckerman, Benjamin Selman

Arch
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HSLAS
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$E E$
LAS
LAS
LAS
Arch

61
Kiang-Si, China
Chicago
Zalesie, Poland Chicago Scottsburg, Indiana

* $\dagger$ Ladd

Washington
Mansfield Leroy

* † Brazil, Indiana

St. Louis, Missouri
Eureka
$\dagger$ Laura

+ Oak Park
East St. Louis
East St. Louis
Chicago
Aurora
Oakland
Peru
Chicago
Chicago


## COLLEGE OF MEDICINE

| Name | Year | Residence |
| :---: | :---: | :---: |
| Allen, George Albert | 1 | Clintont |
| Anderson, Richard Elseph, B.S. | 3 | Lyun Center |
| Armstrong, Clifford Oakley | 2 | Bloomington |
| Armstrong, Victor Scott | 4 (SS) | Sioux Falls, South Dakota |
| Arnquist, Andrew Samuel | 1 | New Richmond, Wisconsin |
| Ascherman, Elmer Nathaniel | 1 | Chicago |
| Ashley, Rea Ernest | 1 | Denver, Colorado |
| Baker, George Newton | 1 | Thornburg, Iowa |
| Baker, William Asa | 4 | Richmond, Maine |
| Baxter, Lewis Thomas | 1 | Astoria |
| Beilin, David Solomon | 2 | Chicago |
| Benjamin, Harry Webb | 4 (SS) | Chillicothe |
| Berge, Maurice Aurelius | 4 (SS) | Ransom |
| Blair, Edgar Theror | 1 | Chandlerville |
| Brown, James L, Jr. | 1 | Peoria |
| Brown, Howard Storm, A.B., Ph.C., M.S. | 3 | Norman, Oklahoma |
| Brown, Lyle Leland | 3 | Crookston, Minnesota |
| Byrnes, William Armstrong | 4 (SS) | Minneapolis, Minnesota |
| Cann, LeRoy R | 1 | Chicago |
| Capek, Ladislaw V | 1 (SS) | Chicago |
| Carothers, Herbert Chapman | 4 (SS) | Chicago |
| Carpenter, Fred Elton | 3 | Reasnor, Iowa |
| Cecil, Eugene Randolph | 3 | Chicago |
| Champlin, Howard William | 1 | Chicago |
| Clarke, George Edward | 1 | Noblcsville, Indiana |
| Cline, Gerald Morris | 1 | LeRoy |
| Cohen, Carl | 1 | Atlanta |
| Colbert, Carter Neville | 3 | Racine, Wisconsin |
| Connell, Walter Joseph | 2 | Farley, Iowa |
| Cottle, Maurice Henry |  | Chicago |
| Craddock, John William |  | Chicago |
| Crawford, Woodruff Lynden | 1 | Pontiac, |
| Curl, Howard E, A.B. | 4 | Osborne, Kansas |
| Curtis, William | 1 | Chicago |
| DaCosta, Harold Fonseca | 1 | Chicago |
| Dame, Louis | 4 (SS) | Chicago |
| Dana, Winfred Peterson | 2 | Tacoma, Washington |
| Diller, Harold Francis | 1 | Rantoul |
| Donovan, Edward Vincent | 1 | Chicago |
| Douglass, Albert Eugene | 1 | Logansport, Indiana |
| Dowling, John Joseph | 1 | Chicago |
| Draper, Laurence Francis | 1 | Clinton ${ }^{\text {Kener }}$ |
| D'Vorak, Albert Charles, B.S. | 3 | Kewaunee, Wisconsin |
| Dyer, Robert Edward | 2 | Chicago |
| Dysart, Benjamin Quincy, B.S. | 3 | Granville |
| Eby, Ida | 2 | Columbus Grove, Ohio |
| Ehrlich, Maxmilian Charles | 1 | Chicago |
| Eisler, Edwin Roy | 2 | Minneapolis, Minnesota |
| Elvidge, George | 1 | Lone Rock, Iowa |
| Engerman, Max | 1 | Chicago |
| Far, Shakir Elias | 1 | Palestine, Turkey |
| Faxon, Donald Eugene | 1 | Sandwich |
| Fetherston, James Edward, B.S. | 3 | Edmonton, Alberta |
| Fisch, Max Elezar | 2 | Chicago |
| Fischer, Walton Rathfon | 1 | Chicago |
| Ford, Hanby Lewis | 1 | Flat Rock Chicago |

Francisco, Sixto Acosta
Fraser, John Howden
Furth, George Mathew
Gabriel, Carson King
Gernon, Gerald Deland
Gilchrist, Virgil Martha, B.S.
Goldblatt, Louis
Golden, Waldo Emerson, A.B.
Golub, Samuel
Gramer, Edward Phillip
Granger, Wayne Bernard
Greenfield, Jacob Rachmiel
Greenwood, Ray Ellsworth
Grissom, Calton Barney
Groos, Louis Peter
Gwin, Ethel Anna
Hall, Alice Kassie, A.B.
Hanson, Harlow James, B.S.
Hardinger, Paul Milton
Hartwell, Basil Orman
Hayes, Marshall Daniel
Heller, Henry Frederick
Henderson, Arthur Justin
Hilbert, John William
Hildebrand, Gustav John
Hocum, Harold
Hospers, Anthony
Hottman, Herbert Harry
Huber, Paul Robert, Ph.G.
Hughart, Harold Hershall
Hyatt, Emory G
Iverson, Louis
Irvine, George Burgess
Irwin, Charles Edward
Jeffrey, James Robinson, Jr.
Jelinek, Joseph
Jensen, Ingvald
Jelliffe, Martin Bushnell
Johnson, John Walter
Jones, Orion Chester
Kaiser, Karl John
Karatz, Morris Baron
Keckler, Ethel Leona
Kelly, Everett Clyde
Kipnis, Benzion
Koptik, George, B.S.
Lambertson, Everett Raymond
Langlois, Harvey Louis, A.B.
LaRocca, Joseph
Leiserwitz, Samuel Brody
Leonard, Ruth
Levinson, Samuel Azor
Liberman, David Lionel
Lovellette, LeCount Rochambeau
Lutter, John
McCoy, Henry James
McDermott, Raymond Adam
McGrath, Floyd Lawrence
McGuinness, Hugh Stanley
Malcolm, William Alexander
Marcus, Morris
Mars, Hartley Farnham, Ph.C.
Martin, Leon Wade, Ph.C.
May, Edwin Ralph
Meggers, Edward Charles
Mercey, Raymond Jones, B.S.
Merrill, Charles Leo
Metcalf, G Stanley
Meyers, Carl Heinrich
Miller, Myron Herbert
Morin, Oswell
Moulton, Gertrude Evelyn, A.B.
Murphy, Thomas Benton, B.S.
Mustell, Robert Rowlaine
Naroditsky, Samuel
Noonan, William James
Norwood, Lincoln Harrison
Ochs, Clara Marie
Ochs, Milton Marquette
Oliver, Henry Earle
Olson, Albert Eric
Olson, Clarence Willard
O'Malley, Francis Xavier
Orcutt, Arthur Henry, A.B., B.S
Ostler, David Elmer

Batangas, Philippine Islands
Monticello, Iowa
Chicago
Payson
Kankakee
Moscow, Idaho
Chicago
Champaign
Gitonir, Russia
Chicago
Phillipsburg, Kansas
Brooklyn, New York
Kankakee
Syracuse, Kansas
Escanaba, Michigan
Modesto, California
Chicago
Hutchinson, Minnesola
Gays
Maysville, Missouri
Chicago
Des Plaines
Lake Mills, Iowa
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Sheboygan, Wisconsin
Minneapolis, Minnesota
Pella, Iowa
Dubuque, Iowa
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Macon, Missouri
Badger, Minnesota
Lake City, Minnesota
Belle Plaine, Iowa
Nortonville, Kansas
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A mboy
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Savanna
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Higbee, Missouri
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Plainwell, Michigan
Clinton
Walker, Iowa
St. David
Richnond, Utah
Janesville, Wisconsin
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Reva, South Dakota
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Cashmere, Washington
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Bluejacket, Oklahoma
Oak Park
Oak Park
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Arcola
Salt Lake City, Utah

Parker, James William, Jr.
Paskind, Harry Arthur
Pauker, Norbert
Pelc, Joseph
Perkins, Chester Henry
Peterson, Joe Oliver
Petrass, Andrew
Pickoff, Fred, A.A.
Piaseczynski, Francis
Pilot, Isadore
Propst, Duane Willard, A.B.
Raab, Raphael August
Rackliffe, Thomas Thayer
Radabaugh, Rudolph Charles, B.S
Ramos, Rafael Alpuche
Ray, James Henry
Rieke, Arthur George
Roach, Lloyd Edward
Robinson, Raymond Dudley
Rogers, William Turner
Rosenburg, Harry Louis
Royster, Hallace Rector
Rubright, Franklin LeRoy
Ruppenthal, Armond
Salpas, Spero
Sanders, George Edward
Sapper, Herbert Victor Louis, B.S., A.B.
Sauer, Francis Jospeh
Schachter, Jospeh Andrew
Schelm, George William, B.S.
Schnidt, Elmer Jacob
Schmidt, Herbert
Schneider, Herbert G
Schroeder, Paul Louis
Sercd, Harry
Sexsmith, Edna Kathryne, A.B.
Shurtleff, Raymond S
Sladek, Edward Frank, B.S.
Slaughter, Mary Gertrude (Mrs.)
Small, James Craig, B.S.
Smith, Clayton Sidney, Ph.D.
Sponder, Joseph
Stein, Michael
Stevenson, James
Stone, Theodore
Stromberg, William Benjamin
Sutch, Armand Kredel
Sykes, Newman Marion, B.S.
Szwajkart, Adam Leo
Taylor, Thaddeus, A.B., M.D.
Tanquary, John Hansford
Tharp, Herbert Milton
Thomas, James Russell
Thompson, Fred Rush
Vaughn, Edward Perry
Velitchkoff, Metodi
Vrtiak, Emil
Waldmann, Louis Francis
Wagoner, Guy Leon, B.S.
Walpe, Hyman Susan
Weaver, George Lynn
Werner, Peter Joseph
Welden, Ned Amos
White, Cyrus Lanyon
Whitmire, Clarence Leonard
Williams, Mary Edith, A.M.
Williamson, Earl Willbre
Willis, Howard Henry
Wishenfsky, Louis Jerome
Wittelle, Frank Max
Wojniak, Frank

Peoria
Chicago
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Temple, Oklahoma
Princeton, Minnesola
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Kamonka Str., Austria
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Springfield
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Sl. Joseph, Missouri
Zumbro Falls, Minnesola
Campeche, Mexico
Alexander City, Alabama
Blairslown, Iowa
Tama, Iowa
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Hume
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Argo
Emerson
Brillion, Wisconsin
Chicago
Champaign
Chicago
Chicago
Chicago
Denison, Iowa
Seymour, Wisconsin
Chicago
Chicago
Nashville
Milwaukee, Wisconsin
Greenfield, Iowa
Cuba
Chicago
Chicago
Chambersburg, Pennsylvania
Chicago
Chicago
Chicago
Chicago
Chicago
Chicago
Chicago
Decatur, Alabama
Chicago
Natchiloches, Louisiana
Bellmont
Reasnor, Iowa
Minneapolis, Minnesola
Cedarville
Minneapolis, Minnesota
Bulgaria
Hungary
Council Bluffs, Iowa
McCombs, Iowa
Chicago
Antigo, Wisconsin
Chicago
Wheaton
Mineral Point, Wisconsin
Waverly, Iowa
Evanston
Tuscola
Newmarket, Ontario
Chicago
Chicago
Chicago

## Name

Achinelly, Oscar L
Adams, Raymond Eugene
Allen, Bernard Ruben
Allgeier, James Harold
Anderman, Sanford
Anderson, Martin R
Arneson, Odel Thomas

## Year

2 1 2

## Residence

La Plata, Argentine Republic
Chicago
Chicago
Chicago
Chicago
Lynn Center
Whilehall, Wisconsin

| Arneson, J Bertram | 2 | Chicago |
| :---: | :---: | :---: |
| Bacher, William A | 1 | Bayonne, New Jersey |
| Baird, William Glen | 3 | Portland, Oregon |
| Ball, Frank | 2 | State Center, Iowa |
| Bashur, Abraham | 2 | Burj Safita, Syria |
| Baumgartner, Arthur | 1 | Chicago |
| Beane, Edgar Graham | 3 | McKees Rocks, Pennsylvania |
| Bellan, Chester P | 2 | Chicago |
| Bellows, Marion Ellsworth | 1 | Kalamazoo, Michigan |
| Berens, Vincent J | 2 | Shakopec, Minnesota |
| Best, Reginald | 1 | Evanstor: |
| Blatt, Arthur | 1 | Chicago |
| Bloom, Max | 1 | Chicago |
| Bluestein, Bernard | 1 | Clicago |
| Brennan, W Adrian | 1 | Flandreau, South Dakota |
| Breyer, Austin S | 2 | Waupun, Wisconsin |
| Briggs, Orville Clinton | 2 | Columbia City, Indiana |
| Brodsky, Jacob A | 1 | Chicago |
| Brooks, Stanley O | 1 | Faulkton, South Dakota |
| Brown, Clyde | 2 | Planl City, Florida |
| Burnstein, Harry | 1 | St. Joseph, Missortri |
| Bush, Earl F | 1 | E. Stroudsourg, Penusylvania |
| Campbell, George A | 1 | Grand Forks, North Dakota |
| Carroll, Frederick William | 2 | Chicago |
| Carter, Lowell Jameson | 1 | Des Moines, Iowa |
| Chambers, Laura (Mrs.) | 2 | Chicago. |
| Collins, Gerald Ralph | 2 | Vermillion, South Dakota |
| Connor, Ralph William | 1 | Wilmette |
| Conroy, Cecil Raymond | 3 | Belleville |
| Cunningham, Norris L | 2 | Bowen |
| Dann, Forrest | 1 | Centerville, South Dakota |
| Di Cosola, Septimo | 1 | Chicago |
| Di Cosola, Salyatore | 1 | Chicago |
| Dipple, Frederick C | 1 | North Frcedonn, Wisconsin |
| Dipple, Albert R | 2 | North Freedom, Wisconsin |
| Dodge, Charles A,D.D.S. | $s p$ | Chicago |
| Dolson, John Lewis | 3 | Charlotte, Michigan |
| Doyle, Thomas Lee | 1 | Fulton |
| Drea, Arthur S | 2 | Chicago |
| Droher, Isaac H | 2 | St. Joseph, Missouri |
| Duke, Harrison Reed | 1 | Chicago |
| Dursema, Chester Davis | 2 | Racine, Wisconsin |
| Eklund, Egner A | 3 | Cleveland, Ohio |
| Erickson, Edwin O | 2 | Cottonwood, Minnesota |
| Evanoff, Eove | 1 | Chicago |
| Felz, John E | 3 | Chicago |
| Fine, Rachael, D.D.S. | 2 | Minsk, Russia |
| Finnegan, John | 1 | Homer |
| Forslund, Cecil W | 1 | Fairbury, Nebraska |
| Forwalter, Maurice | 1 | Convoy, Ohio |
| Franklin, Harry V | 3 | Dubuque, Iowa |
| Franzwa, Charles | 3 | Mondovi, Wisconsin |
| Freeman, Charles B | 2 | Volga, South Dakota |
| Geduldig, Chester J | 1 | Chicago |
| Goldberg, Joseph I | 1 | Chicago |
| Goldberg, Isadore | 2 | Chicago |
| Goldman, Maurice | 1 | Chicago |
| Gorman, Elsie (Mrs.) |  | Sioux Falls, South Dakota |
| Gorman, Francis L | 2 | Chicago |
| Halbmaier, Albett $\mathbf{E}$ | 1 | Flandrcau, Sozth Dakota |
| Halmhuber, Paul G | 1 | Detroit, Michigan |
| Hamachek, Slavie O | 1 | Kewarnee, Wisconsin |
| Handler, Louis | 1 | Chicago |
| Hein, L F A | 1 | Stevens Point, Wisconsina |
| Hewritt, Norman Oscar | 2 | Montreal, Canada |
| Hibbard, Leo C | 3 | Lake Geneva, Wisconsin |
| Horwich, Harvey Hughes, Theron Rex |  | Chicago |
| Hughes, Theron Rex | 1 | Berwyn |
| Huseby, Richard John | 1 | Grand Forks, North Dakola |
| Ihde, Dean E | 3 | Waupun, Wisconsin |
| Jarrett, Frank Alfred | 3 | Chicago |
| Jaros, Joseph Edward | 3 3 | Chicago |
| Johnson, Harral Richard | 3 | Aırrora |
| Kadlec, Lillian A | 2 | Chicago |
| Kalinsky, Joseph Henry | 3 | Chicago |
| Kane, Joseph J | 1 | M. Pleasant, Michigan |
| Kastel, Abe J | 1 | Chicago |
| Karvamura, Hiroshi, D.D.S. | 3 3 | Tokyo, Japan |
| Ketterhagen, Alfred J | 2 | Burlington, Wisconsin |
| Korsbrek, Oscar | 2 | Wheaton, Minnesota |
| Kozinski, Lucian C | 2 | Chicago |
| Krost, Max Howard | 2 | Chicago |
| Kubacki, Wauclau | 3 | Chicago |
| Lace, John L | 1 | Watseka |

Lambert, A Myron
Landgren, Clarence A
Lapp, Samuel
Lasker, Herman
Lee, Carl S
Lehman, Abe
Levin, Solomon H
Lincoln, Richard Grant
Lippitz, Maurice
Loomis, Clifford C
Maillard, Felix McD
Malter, Ernest
Marchand, Raoul Joseph
Marsily, Genalin Raymond D
Masters, Lyle W
McClurkin, James Lee
McGugin, D N
McKeague, $L$ M
McNear, Philip Martin
Meinhardi, John D
Mershimer, James Dwight
Metcalf, William George
Middleton, W Vance
Miller, G A, D.D.S.
Motlong, Chauncey E
Nava, Jose F
Nemecek, Charles A
Newall, Mary
O'Connor, John Francis
Oelschlager, John M
Olson, William D
Ort, Robert Krider
Ostrowski, Theodore C
Owen, Jesse S
Pastor, Joseph R
Plevo, Joseph E
Ploche, Leon R E
Pretlow, Russel T
Pyle, Benjamin G
Rasmussen, Harry
Reiland, Marjorie M
Reckard, Harry J
Rice, Arthur L
Riedel, John Philip
Robbins, Clarence J
Rubenzik, Harry
Rubin, Edward Allen
Rund, Jaroslav
Rosenthal, William
Sannes, Dedrik
Savage, Edmund H
Schiltz, Albert F
Schindler, Edward
Secrest, Paul J
Senty, Myron J
Shalek, Victor James
Shalek, Kenneth
Sherman, Robert I
Skolnik, Herman H
Skaten, Otto M
Simon, Barney H
Sippy, Burne O, A.B.
Smith, Barnett Quillen
Smith, William Rudolph
Spafford, Eugene Adam
Spillane, Leslie O
Starrett, Frederick Homer
Stiernberg, Robert C
Stillerman, Jacob H
Stuart, Carroll W, D.D.S.
Stubbs, James Walter
Swain, Herbert Dow
Tark, Leo
Teter, Harry Arthur
Thomas, Ashley
Turner, William Earl
Upp, Carlos Alfred
Vita, Emil M
Weaver, William Jackson
Webb, E W
Weir, George Lester
West, Harold
White, Leslic George
Wilder, Robert E
Wilson, J F
$\sim$

Harvey
Fergus Falls, Minnesota
Chicago
Chicago
Mondovi, Wisconsin
Chicago
Chicago
Union Grove, Wisconsin
Chicago
Chicago
Trinidad, B. W. I.
Oak Park
Rolla, North Dakota
Honolulu, Hawaii
Angola, Indiana
Girard, Ohio
Pierre, South Dakota
Detroit, Michigan
Columbia City, Indiana
Whitehall, Michigan
Chicago
Streator
Des Moines, Lowa
Chicago
Crete
Manila, Philippine Islands
Chicago
Chicago
Chicago
Cleveland, Ohio
Volgc, South Dakota
Cherıbusco, Indiana
Chicago
Chicago
Cayey, Porto Rico
Chicago
Santiago, Cuba
Winchester, Indiana
Kalamazoo, Michigan
Chicago
E. Chicago, Indiana

Chicago
Oak Park
Chicago
Carthage, South Dakota
Chicago
Chicago
Chicago
St. Joseph, Missouri
Madison, Wisconsin

## eaion

Iowa City, Iowa
Kalamazoo, Michigan
Delevan
Arcadia, Wisconsin
Chicago
Chicago
Chicago
Chicago
Whitehall, Wisconsin
Chicago
Carrollton, Missouri
Mineral Point, Wisconsin

## Rockford

Battle Creek, Michigan
Hancock, Michigan
Port Lavaca, Texas
Chicago
Chicago

## Aurora

Kewanee
Chicago
Chicago
Faulkton, South Dakota
Wheatland, North Dakota
Havana
Chicago
Raleigh, North Carolina
Edgemont, South Dakota
North Platte, Nebraska
Stevens Point, Wisconsin
Golden
Chicago
Stanberry, Missouri

Winner, Harry
Winsberg, Harry
Wood, Alfred Haro!d
Wynkoop, William B
Yeatman, Oscar B

Osseo, Wisconsin
Chicago
Utica, New York
St. Joseph, Michigan
Huntsville, Alabama

## SCHOOL OF PHARMACY, 1916-17

## Name

Addie, Earl Harry
Agdesteen, Oliver Toby
Allen, Raymond Leslie
Alstaedt, Benjamin William
Anderson, Mrs. Ednah Blanche
Anderson, Lloyd Chester
Antonello, Joseph
Babbitt, Corydon Aephalia
Bagdziunas, Joseph Francis
Baird, Harold Glen
Bakkers, Arthur
Bakkers, Mrs. Neff Kuyper
Barone, Christopher
Benedicto, Ernesto Vazques, A.B.
(Rizal University) 1909
Bertsch, Raymond William
Biaselli, Cosmo David
Bidwell, Charles
Bloch, William
Bloom, Irwin
Bonnen, Edward George
Borovik, Reuben Ray
Bower, Miss Georgiana Grace
Cagney, John Joseph
Calderon, Guillermo
Calef, John Fred
Carlson, Ethel Marie
Christiansen, Carl Bernhard
Chochola, James Joseph
Compton, Allen Brownlow
Datz, Charles Percival
DeMarti, Salvatore
Dillow, Russell Lowell
Dimond, Walter Harry
Doherty, Daniel Joseph
Downey, John Patrick
Dunn, Ulysses Simpson, A.B.
(Lincoln University) 1913
Dyniewicz, Hattie Adela
Dyniewicz, Josephine Marion
Early, Harold Ivan
Easter, Joseph Henry
Elliott, Victor Alfred
Feigl, Ferdinand John
Ferring, Alphonze Peter
Fineman, Paul
Flynn, William Howard
Forbrich, Edward James
Formhals, Wallace Joseph
Frederick, Albert Charles
Friedley, Andrew Carl
Fritschell, Arno William
Gendreau, Albert Earl
Goldman, Benjamin
Gordon, Maurice William
Green, Leonard Ralph
Grenberg, Richard Emmanuel
Grosse, Arthur Gustav
Guild, Grant
Haeberle, Erwin John
Haffner, Carl Francis
Harvey, Roy Ernest
Heidbreder, Grant Henry
Hesse, Calvin William
Hlavacek, Louis
House, Lester Allen
Huhn, William
Johannes, Fred Richard
Jordan, Clement
Kahler, Howard Morris

## Course ${ }^{1}$


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## Residence

Oak Park
Chicago
Mt. Vernon
Chicago
Dow City, Iowa
Manitowoc, Wisconsin
Chicago
Chicago
Chicago
Horvard
Chicago
Chicago
Chicago
Manapla, Philippine Islands
Galena
Chicago
Albion, Indiana
Chicago
Chicago
Gibson City
Chicago
Chicago
Chicago
El Paso, Texas
Norwood Park
Hubbard Woods
Chicago
Chicago
Mt. Vernon
Chicago
Buffalo, New York
Dongola
Chicago
Clinton, Iowa
Chicago
Ravenna, Ohio
Chicago
Chicago
Barry
East St. Louis
Casey
Chicago
New Vienna, Iowa
Chicago
Springfield
Chicago
Ottawa
Chicago Heights
Chicago
Chicago
Chicago
Chicago
Chicago
Herrin
Rockford
Chicago Heights
Geneseo
Broken Eow, Nebraska
Bloomington
Chicago
Quincy
Springfield
Chicago
DuQuoin
Chicago
Chicago
Wapella
Rochelle

[^116]Kaminski, Richard Marshall
Kaplan, Samuel Saimon
Kaspar, William John
Kell, Richard Marcellus
Klein, Beulah
Kmiecik, Stanley
Kodl, Albert James
Koepsell, Willie Edward
Koontz, John Charles
Kunkel, Wayne Andrew
Landers, Chester Arthur
Latsis, Harry Hia
Lenz, Charles Gustave
Leone, John Edwin
Levy, John Arthur
Lindahl, John Harry
Lowe, Charles Edward
Lundgren, Oscar Ludvick
Lyons, Owen Merle
McDonald, William James
McGinnis, Walter Thomas
McClure, Miss Pauline
McCool, Frank Sell
Marshall, Bruce Scott
Mayerson, Alexander Carl
Melvin, James Edwin
Menard, Wilfred Ignatius
Menella, Vincent Robert
Miller, Carl Theodore
Muench, Adam Ernest
Neumann, Herbert Leonard
Nichols, Hiram Vanderbilt
Olk, John Jacob
Ostrowski, Bernice Antoinette
Owens, Hubert Fred
Parkhurst, Ralph
Pelikan, Mrs. Alice Eliska
Perez, Victor
Person, Frank Daniel
Petronek, Charles Wesley
Pieper, Henry Anthony
Pohlman, Paul Henry
Porter, Lillian
Post, Charles Ezra
Prutsman, Harold Claude
Ralph, William Francis
Rauschert, Emil Paul
Reisman, Samuel
Robinson, Adrian Arthur
Robinson, Garnsie II
Roman, Miguel Angel
Ruder, Mrs. Rose J
Sallmann, Frank
Schobert, Rudolph Johannes
Schreyer, Michael
Seibert, Lyle Albert
Shapiro, Leo Harold
Shindler, Harold Allen
Shine, Joseph John
Siewers, Karl Lyons
Silberberg, Gust
Silverman, Samuel
Simmons, Donald Fletcher
Slepicka, Irwin Miles
Smith, Franklin Pierce
Smith, Gene William
Snyder, Dayle Albert
Snyder, John Samuel
Steffen, Edward Diedrich
Stein, Victor
Steinweg, Walter Charles
Still, Perrie Clayton
Tate, William Mack
Thompson, Raymond Lu
Thoroman, Ralph Rickey
Tumell, Edward Oscar
Ude, Louis Edward
Ungcr, Joseph August
Vahlteich, Hans Walter
Vovesney, Joseph Paul
Ward, Burt Hamor
Warren, Leslie Ernest
Wherley, Homer Leo
White, Edward Napoleon
Whittington, Omar Rosewell

[^117]Wilson, Charles Harvey
Wilson, Ruth Frieda
Windmueller, Ralph Willian
Wisniewski, Thomas A1
Wong, Ping Wa
Wood, George Washington
Worsham, Irl Conger
Wyle, Arnim Robert
Yule, Paul Watson


Poniona, Califoinia
Chicago
Chicago
Chicago
Hong Kong, China
Chicago
Guthrie, Missouri
Waverly
Harcourt, Iowa

# DEGREES CONFERRED 

## THE UNDERGRADUATE COLLEGES

Degrees of Backelor of Arts, Bachelor of Science, and Bachelor of Music

Conferred June 14, 1916

Daniel Arthur Albrechi, Bachelor of Arts (Science)
John Alva Alexander, Bachelor of Arts (Science)
Eugenie Allais, Bachelor of Arts (Liberai Arts)
Alice Alexandrla Allen, Bachelor of Arts (Liberal Arts)
Ernest Victor Allen, Bachelor of Science (Mining Engineering)
Frank Oscar Allen, Eachelor of Arts (Liberai Arts)
Paul Glen Allen, Bachelor of Arts (Liberal Arts)
Worth Arthur Allison, Bachelor of Arts (Liberal Arts); Bachelor of Science (Agriculture)
Genevieve Raymond Alvord, Bachelor of Arts (Libetal Arts)
Mervil Carlyle Alyea, Bachelor of Science (Agrivulture)
Louise Amborn, Bachelor of Arts (Liberal Arts)
Douglas Jacques Amos, Bachelor of Science (Agriculture)
Paul Donald Amsbary, Bachelor of Science (Architecture)
Owen Huntington Anderson, Bacheior of Science (Mechanical Engineering)
Harry Lee Andreivs, Bachelor of Atts (Liberal Arts)
Roscoe Crum Andrews, Bachelor of Arts (Liberal Arts)
Frederick Verne Arber, Bachelor of Arts (Liberal Arts)
William Louis Ashbeck, Bachelor of Science (Architectural Enginecring)
Homer Franklin Attebery, Bachcior of Science (Agriculture)
Ralpir Edgar Augustas, Bachelor of Science (Agriculture)
John Thompson Auten, Bachelor of Science (Agriculture)
Jennie May Babcock, Bachelor of Arts (Liberal Arts)
Robert Hamilton Bacon, Bachelor of Science (Electrical Engineering)
Wallace Bothwell Bain, Bachelor of Science (Agriculture)
Walter Earl Baker, Bachelor of Arts (Commerce)
Sarva Rupa bakhshi, Bachelor of Science (Railway Civil Engineering)
Janet Christine Baldwin, Bachelor of Arts (Liberal Arts)
Leo Starr Baldwin, Bachelor of Arts (Science); Bachelor of Science (Architectural Engineering)
Salome Rose Balkema, Bachelor of Arts (Liberal Arts)
John Kenneth Barber, Bachelor of Arts (Liberal Arts)
Anna Laura Bardwell, Bachelor of Arts (Liberal Arts)
Otis Ayery Barnes, Bachelor of Science (Science) ${ }^{1}$
Russell Daniel Barnes, Bachelor of Science (Architectural Engineering)
Nellie Flora Bartells, Bachelor of Arts (Liberal Atts)
Edward Fred Barth, Bachelor of Science (Agriculture)
James Summerfield Bartholow, Bachelor of Arts (Liberal Arts)
John Solomon Bartley, Bachelor of Science (Architecture)
Harriett Thompson Barto, Bachelor of Arts (Liberal Arts)
Frank Herman Beach, Bachelor of Arts (Liberal Arts)
Walter Hubert Beal, Bachelor of Arts (Liberal Arts)
Edward Corbyn Obert Beatty, Bachelor of Arts (Liberal Arts)
Warren Platt Beaubien, Bachelor of Science (Architectural Engineering)
Edivin Adams Bebb, Bachelor of Science (Agriculture)
Forrest Bebb, Bachelor of Science (Agriculture)
Lewis Michael Becker, Bachelor of Science (Mechanical Engineering)
Herbert Richard Behr, Bachelor of Science (Electrical Engineering)
Helen Behrensmeyer, Bachelor of Arts (Liberal Arts)
Kenneth Corwin Bell, Bachelor of Arts (Commerce)
Charles Franklin Belshaw, Bachelor of Science (Mechanical Engineering)
John Shafer Beltz, Bachelor of Science (Electrical Engineering)
Frank Luverne Bennett, Bachelor of Science (Agriculture)
Hazel Marguerite Bennett, Bachelor of Arts (Liberal Arts)
Clarence Louis Bentz, Bachelor of Science (Architectural Enginecring)
Ben Conrad Berg, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Marie Valentine Berlin, Bachelor of Arts (Liberal Arts)
Josephine Elizabeth Bernhardt, Bachelor of Arts (Liberal Arts)
Albon Ledru Bevis, Bachelor of Arts (Commerce)
Elizabeth Gunder Beyer, Bachelor of Arts (Liberal Arts)
Marie Teresa Bleuel, Bachelor of Arts (Science)
Edward Stevenson Block, Bachelor of Science (Agriculture)
Hsi-Fan Boggs, Bachelor of Arts (Commerce)
Emerson Franklin Bolinger, Bachelor of Science (Electrical Engineering)
Clinton L A Bookemohle, Bachelor of Science (Architectural Engineering)
Walter Fred Roye, Bachelor of Arts (Liberal Arts)
${ }^{1}$ With thesis.

John Thomas Bradley, Bachelor of Arts (Commerce)
George Keyports Brady, Bachelor of Arts (Liberal Arts)
Emil George Brandner, Bachelor of Arts (Liberal Arts)
Joseph Franklin Brandon, Bachelor of Science (Agriculture)
John Breedis, Bachelor of Science (Science) ${ }^{1}$
Emima Matilda Breitstadt, Bachelor of Arts (Liberal Arts)
Hulda Charlotte Breitstadt, Bachelor of Arts (Liberal Arts)
Amos Lloud Breneman, Bachelor of Science (Agriculture)
Clell McArthur Brentlinger, Bachelor of Science (Electrical Engineering)
Verne William Brinkerhoff, Bachelor of Science (Science)
Roger Beckwith Bronson, Bachelor of Arts (Commerce)
Ethel Isabel Brooks, Bachelor of Arts (Liberal Arts)
Raymond Harrison Brooks, Bachelor of Science (Agriculture)
Bayard Brown, Bachelor of Science (Agriculture)
Clair William Brown, Bachelor of Science (Agriculture)
Kenneth George Brown, Bachelor of Arts (Liberal Arts)
Lisbeth Brown, Bachelor of Arts (Liberal Arts)
Robert Rea Brown, Bachelor of Arts (Commerce)
Earl Vivian Bruington, Bachelor of Science (Agriculture)
Orello Simanons Buckner, Bachelor of Science (Ceramics)
Temple Hoyne Buell, Bachelor of Science (Architecture)
Abraham Samuel Buhai, Bachelor of Science (Ceramic Engineering)
Lloyd Daniel Bunting, Bachelor of Arts (Liberal Arts)
David Warner Burgoon, Bachelor of Science (Electrical Engineering)
Paul Henry Burkhart, Bachelor of Science (Electrical Engineering)
Clifford Clare Burns, Bachelor of Science (Agriculture)
Owen McIntosh Burns, Bachelor of Arts (Liberal Arts)
Thomas Henry Burrell, Bachelor of Science (Architectural Engineering)
Ralph Samuel Burwash, Bachelor of Science (Mechanical Engineering)
Kenneth Burman Bush, Bachelor of Science (Civil Engineering)
Chester Junius Cadle, Bachelor of Arts (Commerce)
David Joseph Campbell, Bachelor of Science (Agriculture)
Carrie Esther Carlson. Bachelor of Arts (Liberal Arts)
Lee Russell Carlson, Bachelor of Arts (Commerce)
Franklin Otis Carroll. Bachelor of Science (Railway Electrical Engineering)
Russell D V Castle, Bachelor of Arts (Commerce)
Grace Elizabeth Champlin, Bachelor of Science (Agriculture)
Tien Tsai Chang, Bachelor of Science (Agriculture)
John Baptist Chartrand, Bachelor of Science (Electrical Engineering)
Carney Edward Chatten, Bachelor of Atts (Science)
Lan Sung Chen, Bachelor of Arts (Commerce)
Dorothy Chew, Bachelor of Arts (Liberal Arts)
Glen Christy, B.Mus., Bachelor of Arts (Liberal Arts)
Otto Christy, Bachelor of Science (Agriculture)
Edaund Ciesilix, Bachelor of Science (Civil Engineering)
George Clark, Bachelor of Science (Agriculture)
Harold Edward Clark, Bachelor of Science (Ceramics)
James Russell Clark, Bachelor of Science (Architecture)
Meribai Eliza Clark, Bachelor of Arts (Liberal Arts)
Albert Jay Clarkson, Bachelor of Science (Railway Electrical Engineering)
Clara Alice Clausen, Bachelor of Arts (Liberal Arts)
Dorothea Marion Clayberg, Bachelor of Science (Architecture)
Howard John Clinebell, Bachelor of Science (Agriculture)
Frieda Cobb, Bachelor of Arts (Science)
Russell Smith Colton, Bachelor of Science (Municipal and Sanitary Engineering)
David Oris Conley, Bachelor of Arts (Medicine)
Richard Newell Coolidge, Bachelor of Science (Civil Engineering)
Gabriel Victor Cools, Bachelor of Arts (Liberal Arts)
Charles Edward Cooper. Bachelor of Science (Agriculture)
David William Cooper, Bachelor of Science (Electrical Engineering)
Edward Alden Cooper, Bachelor of Arts (Science)
Vail Cordell, Bachelor of Arts (Liberal Arts)
Bruce Herbert Corzine, Bachelor of Arts (Liberal Arts)
Manoel Ferreira de Costa, Bachelor of Science (Electrical Engineering)
Licinio da Silva Couto, Bachelor of Science (Electrical Engineering)
Clinton Harrman Cowgill. Bachelor of Science (Architecture)
Dudley Winthrop Crane, Bachelor of Science (Agriculture)
Thomas Carl Cravens, Bachelor of Science (Agriculture)
John Powell Crebs, Bachelor of Science (Agriculture)
Hilda Marion Croll, Bachelor of Arts (Liberal Arts)
Harold Fordyce Crooks, Bachelor of Arts (Science)
Henry Fay Crosby, Bachelor of Science (Agriculture)
George Arthur Cross, Bachelor of Science (Agriculture)
William Crutchfield, Bachelor of Science (Architecture)
John DeWitt Culp, Bachelor of Science (Civil Engineering)
George Curtiss, Bachelor of Science (Agriculture)
William Goss Curtiss, Bachelor of Science (Agriculture) Class of 1882
Dorothy Lucile Cuthbert, Bachelor of Arts (Liberal Arts)
John William Dammers, Bachelor of Science (Science)
Clara Elizabeth Davis, Bachelor of Music
Martha Laurafred Davis, Bachelor of Arts (Libera! Arts)
Lister Alward Deaver, Bachelor of Science (Ceramics)
Raymond Edward Denz, Bachelor of Arts (Liberal Arts)

Lucy Leonora Dewolfe, Bachelor of Arts (Liberal Arts)
Harry Charles Dibell, Bachelor of Arts (Commerce)
Clarence Richard Dietmeier, Bachelor of Arts (Commeice)
Lois Ellen Dodds, Eachelor of Arts (Liberal Arts)
John Riley Donaldson, Bachelor of Science (Civil Engineering)
Allan Douglas Donnell, Bachelor of Science (Electrical Engineering)
Mary Elva Dorsett, Bachelor of Science (Agriculture)
John Francis Doyle, Bachelor of Arts (Commerce)
Henry Edward Dralle, Bachelor of Science (Electrical Engineering)
Mildred Evangeline Drew, Bachelor of Arts (Liberal Arts)
Frank James DuFrain, Bachelor of Arts (Liberal Arts)
Frank Leroy Dunavan, Bachelor of Science (Civil Engineering)
Effie Charlotte Dunlap, Bachelor of Arts (Commerce)
Francis Ellsworth Dunlap, Bachelor of Science (Architecture)
Ellen Frances Dwyer, Bachelor of Arts (Libetal Arts)
Bess East, Bachelor of Arts (Liberal Arts)
Rex Carr Eaton, Bachelor of Science (Agriculture)
Elmer Tryon Ebersol, M.S., Bachelor of Science (Agriculture)
M Reece Edwards, Bachelor of Science (Agriculture)
Henry Emanuel Eisstrand, Bachelor of Science (Architecture)
Harvey Ellis, Bachelor of Arts (Commerce)
Wyatt Goan Emmond, Bachelor of Arts (Commerce)
Join Gottlieb Eppinger, Bachelor of Arts (Commerce)
Carl Paul Ernst, Bachelor of Science (Civil Engineering)
Elmore George Ernst, Bachelor of Science. (Architecture)
Eugene Philip Fager, Bachelor of Arts (Science)
Saleem Razi Farah, Bachelor of Science (Agriculture)
Albert Ayrton Farniam, Bachelor of Science (Agriculture)
Miriam Rebecca Fasold, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Ruth Catherine Fedde, Bachelor of Arts (Liberal Arts)
Joseph Elmer Feldman, Bachelor of Science (Agticulture)
Walter Blaine Felger, Bachelor of Arts (Science)
Florence Roxana Ferguson, Bachelor of Arts (Liberal Arts)
Frank Cleveland Ferguson, Bachelor of Arts (Liberal Arts)
Clarence Eugene Fifield, Bachelor of Arts (Commerce)
James Henry Finnegan, Bachelor of Science (Agriculture)
Laivrence Fisher (as of the class of 1891), Bachelor oî Science (Architecture)
Erivin Fisher, Bachelor of Arts (Commerce)
Eva Josephine Fisher, Bachelor of Arts (Liberal Arts)
Helen Vastine Fisher, Bachelor of Arts (Liberal Arts)
Alvin Texas Fishman, Bachelor of Science (Agriculture)
Leora Almita Fitz-Gerald, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Jack Allen Fitzgerrell, Bachelor of Science (Agriculture)
Denna Frank Fleming, Bachelor of Arts (Liberal Arts)
Frederick Rudolfi Fletemeyer, Bachelor of Science (Architectural Engincering)
Ernesto Augusto Fock, Bachelor of Science (Civil Engineering)
Mildred Lillian Forkey, Bachelor of Science (Agriculture)
Claude Clifrord Foulke, Bachelor of Arts (Commerce)
Helen Elizabeth Francis, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Anna Dora Frazee, Bachelor of Arts (Liberal Arts)
Parke West Freark, Bachelor of Science (Municipal and Sanitary Engineering)
John Frier, Bachelor of Science (Mechanical Engineering)
Guy Chandler Fulton, Bachelor of Science (Architecture)
John Howard Gage, Bachelor of Arts (Science) ${ }^{1}$
Elwyn Tracy Gants, Bachelor of Science (Mechanical Engineering)
Joseph Frederick Gauger, Bachelor of Science (Agriculture)
Robert Edwin Gayle, Bachelor of Science (Agriculture)
Evelyn Ella Gehant, Bachelor of Science (Agriculture)
Rosalie Florence Gehant, Bachelor of Science (Agriculture)
George Albert Geib, Bachelor of Science (Civil Engineering)
Grace Mildred Geyer, Bachelor of Arts (Liberal Arts)
Oscar Harry Gibson, Bachelor of Arts (Liberal Arts)
Minnie Ellen Gilbert, Bachelor of Arts (Liberal Arts)
John Ray Gilkey, Bachelor of Science (Agriculture)
Barbara Frances Glessing, Bachelor of Arts (Liberal Arts)
Everett E Glick, Bachelor of Science (Agriculture)
Donald Mitchell Glover, Bachelor of Arts (Medicine)
Reuel Ariel Godehn, Bachelor of Science (Architectural Engineering)
William Henry Goelitz, Bachelor of Arts (Commerce)
Robert Sidney Goldstein, Bachelor of Science (Railway Civil Engineering)
Gretchen Louise Gooci, Bachelor of Arts (Liberal Arts)
John Christian Grabbe, Bachelor of Science (Agriculture)
Albert Ambrose Ignatius Graff, Bachelor of Science (Electrical Enginecring)
Clarence Todd Grant, Bachelor of Science (Electrical Engineering)
Ruth Margaret Grant, Bachelor of Arts (Liberal Arts)
Ruth Gray, Bachelor of Arts (Liberal Arts)
John Edward Grayback, Jr., Bachelor of Science (Civil Engineering)
Louis Jacob Greengard, Bachelor of Science (Agriculture) ${ }^{1}$
Hans Peter Greison, Bachelor of Arts (Commerce)
William Whiting Gridley, Bachelor of Arts (Commerce)
Leroy Oliver Grieser, Bachelor of Science (Agriculture)
Francis Dickerson Griffith, Bachelor of Science (Agriculture)
Joun Elmer Gruner, Bachelor of Science (Electrical Engineering)

[^118]Herman C Grunewald, Bachelor of Science (Civil Engineering)
Harry Allen Gum, Bachelor of Science (Mechanical Engineering)
Leslie Monroe Gumin, Bachelor of Science (Electrical Engineering)
Woodward William Gunkel, Bachelor of Arts (Commerce)
George Philip Gustafson, Bachelor of Arts (Commerce)
Katsuki Hada, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Chester Gilbert Hadden, Bachelor of Science (Agriculture)
Thomas Angus Hagan, Bachelor of Science, (Agriculture)
Fred Charles Hahn, Bachelor of Science (Science) ${ }^{1}$
Forest Livingston Haines, Bachelor of Arts (Commerce)
Minnie Thomas Hake, Bachelor of Arts (Liberal Arts)
Walter Henry Halas, Bachelor of Science (Architectural Engineering)
Charles Morgan Halbruge, Bachelor of Arts (Commerce)
Pauline Halliwell, Bachelor of Arts (Liberal Arts)
Eugene Carl Hamili, Bachelor of Science (Architectural Engineering)
Raul Hannush, Bachelor of Science (Agriculture)
Stanley Hansen, Bachelor of Science (Mechanical Engineering)
Tso Chang Hao, Bachelor of Arts (Commerce)
Albert Austin Harding, Bachelor of Music
Laura Ellen Hartalan, Bachelor of Arts (Liberal Arts)
Elodia Ferne Harris, Bachelor of Arts (Liberal Arts)
Leo Gabriel Harris, Bachelor of Arts (Commerce)
Ralph Frame Harvey, Bachelor of Science (Agriculture)
Sylvan Dix Harwood, Bachelor of Arts (Liberal Arts)
Carl Otto Hawkinson, Bachelor of Science (Architectural Engineering)
Emin Witherspoon Hawkins, Bachelor of Science (Agriculture)
Francis Leo Headley, Bachelor of Science (Agriculture)
Dwight Frederici Heath, Bachelor of Arts (Science) ${ }^{1}$
Roy Thomas Hecketsweiler, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Nellie May Hedgcock, Bachelor of Arts (Liberal Arts)
Bertram Atrinson Hedges, Bachelor of Arts (Liberal Arts)
Edna May Hedrick, Bachelor of Arts (Liberal Arts)
George Samuel Hedrick, Bachelor of Science (Agriculture)
John Harold Heindel, Bachelor of Science (Architectural Engineering)
Agnes Johanna Sophia Helmreicir, Bachelor of Arts (Liberal Arts)
Alexander Swift Henderson, Bachelor of Arts (Sciencc)
Frank Spoor Henderson, Bachelor of Science (Electrical Engineering)
James Bruce Henderson, Bachelor of Science (Agriculture)
Elfreda Viola Hennings, Bachelor of Arts (Liberal Arts)
Okla Harold Hershman, Bachelor of Science (Mechanical Engineering)
Leonard B Hiebel, Bachelor of Science (Agriculture)
Irma May Higgins, Bachelor of Arts (Liberal Arts)
Fred Janes Hill, Bachelor of Science (Ceramics)
James Edward Hill, Bachelor of Science (Agriculture)
Lucy Belle Hill, Bachelor of Music
Warren Elliott Hill, Bachelor of Science (Agriculture)
Edward George Hirt, Jr., Bachelor of Science (Architecture)
Laura Edna Hirth, Bachelor of Science (Agriculture)
Mabel Hitt, Bachelor of Arts (Liberal Arts)
Fremont John August Hoehn, Bachelor of Science (Ceramics)
Elmo Paul Hohman, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Arnold Carl Holinger, Bachelor of Science (Architectural Enginecring)
Blanche Louise Hollandsworth, Bachelor of Arts (Liberal Arts)
David Preston Hollis, Bachelor of Arts (Liberal Arts)
Charles Vernon Holmes, Bachelor of Arts (Science)
Doris Jean Holloway, Bachelor of Arts (Liberal Arts)
Harry Stevens Holtze, Bachelor of Science (Architectural Engineering)
Gold Sanuel Hopkins, Bachelor of Arts (Commerce)
Dorothy Stewart Hormel, Bachelor of Arts (Liberal Arts)
Olive Dean Hormel, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Susan Eunte Hosford, Bachelor of Arts (Liberal Arts)
Bruce Quin Hoskinson, Bachelor of Arts (Liberal Arts)
Waldern Henry Hough, Bachelor of Science (Architectural Engincering)
Irma L Houser, Bachelor of Arts (Liberal Arts)
Charles Ralpi Howe, Bachelor of Science (Agriculture)
William Thomas IIowe, Bachelor of Science (Agriculture)
Grace Laura Howell, Bachelor of Arts (Liberal Arts)
Willis Wilkinson Hubeard, Bachelor of Science (Architecture)
Charles Thurman Hufford, Bachelor of Science (Agriculture)
Kenneth Blane Humphrey, Bachelor of Science (Electrical Engineering)
Charles Everett Hungerford, Bachelor of Science (Municipal and Sanitary Engineering)
Frank Sumner Hunt, Bachelor of Science (Ceramics)
Leslie Lmann Hunt, Bachelor of Science (Agriculture)
Homer Irving Huntington, Bachelor of Science (Agriculture)
Oliver Cromwell Kemp Hutchinson, Bachelor of Science (Mechanical Engineering)
Robert Hyndman, Jr., Bachelor of Science (Electrical Engineering)
Cora Edna Jackson Hypes, Bachelor of Arts (Liberal Arts)
George William Hypes, Bachelor of Science (Agriculture)
James Lowell Hypes, Bachelor of Arts (Liberal Arts)
Oliver Stapp Imes, Bachelor of Science (Electrical Engineering)
Horace Ballou Ingals, Bachelor of Science (Agriculture)
Stierman Ingels, Bachelor of Science (Agriculture)
Charles Harold Jackman, Bachelor of Science (Mechanical Engineering)
${ }^{1}$ With thesis.

Rowling Jarvis, Bachelor of Science (Electrical Engineering)
John Benjamin Jefferson, Bachelor of Science (Mcchanical Engineering)
Carson Gary Jennings, Bachelor of Science (Civil Engineering)
Florence May Jervis, Bachelor of Music
Leo Charles Jez, Bachelor of Science (Agriculture)
Edna Louise Johnson, Bachelor of Arts (Science)
Mary Fern Johnson, Bachelor of Arts (Liberal Arts)
Marcus Leonard Johnson, Bachelor of Science (Civil Engineering)
Maurice Carl Johnson, Bachelor of Science (Mechanical Engineering)
Maynard Wayne Johnson, Bachelor of Arts (Commerce)
Dwight Irwin Johnston, Bachelor of Arts (Commerce)
David Robert Jones, Bachelor of Science (Civil Engineering)
J Russell Jones, Bachelor of Arts (Commerce)
Mildred Joyner, Bachelor of Arts (Liberal Arts)
Louis Frederick Jungkunz, Bachelor of Arts (Commerce)
Max Joseph Kadinsky, Bachelor of Science (Railway Civil Engineering)
Thomas Debenham Kahlert, Bachelor of Science (Agriculture)
Rufus Maurice Kamai, Bachelor of Science (Science) ${ }^{1}$
Wilbur Fred Kamin, Bachelor of Arts (Science) ${ }^{1}$
Robert Clair Kane, Bachelor of Science (Electrical Engineering)
James Kantor, Bachelor of Sicence (Electrical Engineering)
Aiva Hugo Karraker, Bachelor of Science (Agriculture)
Willan Henry Kasten, Bachelor of Science (Agriculture)
Tane Kawamoto, Bachelor of Science (Electrical Engineering)
Walter Moore Keach, Bachelor of Science (Agriculture)
Oro Sylvester Keener, Bachelor of Science (Science) ${ }^{\text { }}$
Sakai Keitoku, Bachelor of Arts (Liberal Arts)
Arthur Raymond Keller, Bachelor of Science (Civil Engineering)
Francis Hugh Kelley, Bachelor of Science (Agriculture)
Henry Philips Kelley, Bachelor of Science (Agriculture)
Samuel Adams Kellogg, A.B., Bachelor of Science (Agriculture)
Byron Florence Kenner, Bachelor of Science, (Mechanical Engineering)
Vernon Harlow Kern, Bachelor of Science (Agriculture)
Paul Peter Kiessig, Bachelor of Science (Agriculture)
Levett Kimmel, Bachelor of Science (Agriculture)
DeWitt Leonard King, Bachelor of Science (Mechanical Engineering)
Vivian King, Bachelor of Arts (Liberal Arts)
Armin Martin Kircher, Bachelor of Science (Civil Engineering)
Sidney Dale Kirkpatrick, Bachelor of Science (Science) ${ }^{1}$
Robert Herman Klamt, Bachelor of Science (Agriculture)
Frances Grace Klani, Bachelor of Arts (Liberal Arts)
Carrol Aaron Klien, Bachelor of Science (Architecture)
Emala Adele Kleinau, Bachelor of Arts (Liberal Arts)
Charles Gorr Klopp, Bachelor of Science (Mechanical Engineering)
Harry Farrar Knappenberger, Bachelor of Science (Architecture)
Paul Kenneth Knight, Bachelor of Arts (Commerce)
Cary Lee Knodle, Bachelor of Science (Mechanical Engineering)
Cornelius Walter Koebele, Bachelor of Science (Civil Engineezing)
Henry Michael Koll, Bachelor of Science (Electrical Engineering)
Frank Alexander Kopf, Bachelor of Arts (Science)
Frieda Elizabeth Korth, Bachelor of Arts (Liberal Arts)
Agnes Rose Koupal, Bachelor of Arts (Liberal Arts)
Garabet Hovaness Kouyoumjian, Bachelor of Science (Electrical Engineering)
Arthur Endres Kraechmann, Bachelor of Science (Agriculture)
Elie Spencer Kriegh, Bachelor of Science (Mechanical Engineering)
Richard Walker Kritzer, Bachelor of Arts (Commerce)
Leo Peter Kurt, Bachelor of Science (Mechanical Engineering)
Kate Lackey, Bachelor of Arts (Liberal Arts)
William Stanton Ladd, Bachelor of Science (Agriculture)
Lloyd E Lamkins, Bachelor of Science (Agriculture) ${ }^{1}$
Ruth Ellen Lancaster, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Oral Albert Lansche, Bachelor of Science (Electrical Engineering)
Jess Charles Largent, Bachelor of Science (Architectural Engineering)
Irving Nicholas Larson, Bachelor of Science (Architectural Engineering)
Raymond Victor Larson, Bachelor of Science (Agriculture)
Charlton Page Lathrop, Bachelor of Science (Agriculture)
Mary Jane Lawless, Bachelor of Arts (Liberal Arts)
Nelson Lawnin, Bachelor of Science (Mechanical Engineering)
Edgar Alfred Lawrence, Bachelor of Science (Civil Engineering)
Joel William Laws, Bachelor of Science (Agriculture)
Mac E Leach, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Paul Jackson Leach, Bachelor of Science (Agriculture)
Leroy William Legerwood, Bachelor of Science (Architectural Engineering)
Ellena Lee, Bachelor of Science (Agriculture)
Wilkie Wright Leggett, Bachelor of Arts (Liberal Arts)
Roy Walter Leibsle, Bachelor of Science (Architecture)
Wayne Snyder Leighty, Bachelor of Science (Agriculture)
Roy Edward LeKander, Bachelor of Science (Civil Engineering)
Edgar Guy Lemmon, Bachelor of Arts (Liberal Arts)
Norman Joseph Lenhart, Bachelor of Arts (Commerce)
Clarence Alonzo Lentz, Bachelor of Arts (Science)
Chester William Lenzing, Bachelor of Science (Science) ${ }^{1}$
Earl Emanuel Libman, Bachelor of Science (Ceramic Enginering)

[^119]Irene Lillian Liggett, Bachelor of Arts (Liberal Arts)
Marcello Francisco de Lima, Bachelor of Science (Civil Engineering)
Cloviṣ Ward Lincoln, Bachelor of Science (Mechanical Engineering)
Sven Cyril Linder, Bachelor of Science (Ceramics)
Horace Willard Lindsay, Bachelor of Science (Electrical Enginecring)
Carrie Edna Linnell, Bachelor of Arts (Liberal Arts)
Clyde Maurice Linsley, Bachelor of Science (Agriculture)
Charles Reeves Little, Bachelor of Arts (Commerce)
Ruth Flagg Livesay, Bachelor of Arts (Liberal Arts)
John Oras Long, Bachelor of Arts (Liberal Arts)
Harold Benjamin Lotz, Bachelor of Science (Architectural Engineering)
Clifford Sharon Love, Bachelor of Science (Agriculture)
Mary Elizabeth Love, Bachelor of Arts (Liberal Arts)
Che Tsing Lu, Bachelor of Science (Mining Enginecring)
Benjamin Edward Ludvir, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Lester John Ludwig, Bachelor of Arts (Commerce)
Leslie Robert Lumley, Bachelor of Science (Agriculture)
Merle Francis Luanis, Bachelor of Arts (Science)
George Richard Lunde, Bachelor of Science (Agriculture)
Andrew Victor Theodor Lundgren, Bachelor of Science (Architectural Engineering)
Edgar Eminanuel Lungren, Bachelor of Science (Science) ${ }^{1}$
Richard Dana Lyman, A.B., Bachelor of Science (Agriculture)
John Boyd Lyon, Bachelor of Science (Ceramics)
Carrie Fay Lyons, Bachelor of Arts (Liberal Arts)
Hazel Sibyl Lyons, Bachelor of Arts (Liberal Arts)
May Elizabeth McAdans, Bachelor of Science (Agriculiture)
Leo Gay McAfee, Bachelor of Arts (Commerce)
Miles John McClelland, Bachelor of Science (Architecture)
Winifred Leo McClure, Bachelor of Arts (Liberal Arts)
Alva Elisita McCoy, Bachelor of Science (Agriculture)
Wendell Kemp McCracken, Bachelor of Arts (Commerce)
Charles William McCumber, Bachelor of Science (Architectural Engineering)
Alexander Paul Macdonald, Jr., Bachelor of Science (Agriculture)
Robert E McDowell, Bachelor of Science (Agriculture)
William Thomas McElveen, Jr., Bachelor of Arts (Commerce)
Dusias Miller McFall, Bachelor of Arts (Liberal Arts)
Guy Envis McGaughey, Bachelor of Arts (Liberal Arts)
Frances Jean Macinnes, Bachelor of Science (Agriculture) ${ }^{1}$
Harry Woodington MacKechnie, Bachelor of Arts (Science)
Joseph Moore McKeon, Bachelor of Science (Municipal and Sanitary Engineering)
John Leo McNally, Bachelor of Arts (Science)
Helen Loutse Madden, B.Mus., Bachelor of Arts (Liberal Arts)
Harry Samuel Mahood, Bachelor of Science (Civil Engineering)
Pauline Germaine Maloit, Bachelor of Arts (Liberal Arts)
Charles Frederic Mansfield, Bachelor of Science (Agriculture)
Hazel Frances Marks, Bachelor of Arts (Liberal Arts)
Ralph William Marshall, Bachelor of Arts (Liberal Arts)
Fay Waldo Martin, Bachelor of Arts (Commerce)
Arthur Helgeson Mason, Bachelor of Arts (Commerce)
Ross Seguine Mason, Bachelor of Science (Mechanical Engineering)
Howard Wilson Mateer, Bachelor of Science (Electrical Engineering)
William B Mathews, Bachelor of Arts. (Science)
Leo Joseph Matingly, Bachelor of Science (Architectural Engineering)
Hugh Nelson Mavor, Bachelor of Science (Architectural Engineering)
Arthur Edward Mealiff, Bachelor of Science (Agriculture)
Ollive Myrtle Meneley, Bachelor of Music
John Riley Merrmañ, Bachelor of Science (Agriculture)
Louis Edward Mesenkamp, Bachelor of Arts (Science)
Arthur Maurice Metzler, Bachelor of Arts (Commerce)
Carl Theodore Meyer, Bachelor of Science (Architecture)
Russell Ward Millar, Bachelor of Science (Science). ${ }^{1}$
Daniel Edwin Miller, Bachelor of Science (Mechanical Engineering)
Elliott Strong Miller, Bachelor of Arts (Commerce)
Erwin Franklin Miller, Bachelor of Science (Architecture)
Fred Raney Miller, Bachelor of Arts (Liberal Arts)
Joseph Harrison Miller, Bachelor of Science (Civil Engineering)
Richard Bardwell Millin, Bachelor of Science (Agriculture)
John Turner Mills, Bachelor of Science (Agriculture)
Henry Miner, Bachelor of Science (Agriculture)
Lemuel Ernest Minnis, Bachelor of Science (Agriculture)
Elsie Louise Mitchell, Bachelor of Science (Agriculture)
Grace Mitchell, Bachelor of Arts (Liberal Arts)
Harry Mohlman, Bachelor of Science (Agriculture)
Raymond Mooney, Bachelor of Science (Electrical Engineering)
Lewis Albert Moore, Bachelor of Science (Agriculture)
Willlam Abner Moore, Bachelor of Arts (Liberal Arts)
Truagan Pharaoh Moote, Bachelor of Science (Civil Engineeting)
John William Morgan, Bachelor of Arts (Science)
Ralph Waldo Morgan, Bachelor of Science (Science) ${ }^{1}$
Thomas Sherman Morgan, Bachelor of Arts (Liberal Arts)
Leslie Shernan Morrill, Bachelor of Science (Mechanical Engineering)
Robert Louis Moses, Bachelor of Science (Agriculture)
Olga Fern Moser, B.Mus., Bachelor of Arts (Liberal Arts)
${ }^{1}$ With thesis.

Leota Irene Mosier, Bachelor of Arts (Liberal Arts)
Julia Louise Motiter, Bachelor of Arts (Liberal Arts)
Will Walter Mounis, Bachelor of Science (Agriculture)
Harvey Louis Mueller, Bachelor of Science (Science) ${ }^{1}$
IIenry Rollo Mueller, A.B., Bachelor of Science (Agriculture)
Herbert Zoller Muellgr, Bachelor of Science (Electrical Engineering)
Touis Edvard Mulac, Bachelor of Science (Mechanical Engineering)
Everett Franislin Murpiry, Bachelor of Science (Agriculture)
HOWARD DAWSON MURPHY, Bachelor of Science (Agriculture)
Mary Agnes Murphy, Eachelor of Music
Ruth Isabel Mussenden, Bachelor of Arts (Liberal Arts)
Waldo Ray Myers, Bacheior of Arts (Commerce)
Nripendra Kumar Nag, Bachelor of Science (Electrical Engineering)
Veta Thorpe Nebel, Bachelor of Arts (Liberal Arts)
Adolifi Lincoln Nelson, Bachelor of Science (Mechanical Engineering)
Oliver John Neslage, Bachelor of Science (Mechanical Engineering)
Floris Wilson Nichols, Bachelor of Arts (Commerce)
Yin Hsiang Niv, Bachelor of Science (Railway Mechanical Engineering)
Josepil Morgan Nonle, Bachelor of Arts (Liberal Arts)
Albert Joseph Nolan, Bachelor of Science (Agriculture)
Alfred Norberg, Bachelor of Science (Civil Engineering)
Clyde James Nortir, Bachelor of Science (Agriculture)
Chiyozi Oninata, Bachelor of Arts (Commerce)
Carlton Frederick Olsen, Bachelor of Science (Mechanical Engineering)
Glen Elizabeth Opie, Bachelor of Arts (Liberal Arts)
Pauline Theonora Osborne, Bachelor of Arts (Liberal Arts)
David Lee Ott, Bachelor of Science (Mechanical Engineering)
Charles Norton Owen, Bachelor of Science (Mechanical Engineering)
Hakry Lea Owen, Bachelor of Science (Agricultural Engineering)
Kenneth Warren Parkinson, Bacinelor of Science (Agriculture)
John Beitner Pagin, Bachelor of Science (Mechanical Engineering)
William Love Parish, Bachelor of Science (Architectural Engineering)
Mukand Lall Pathak, Bachelor of Science (Electrical Engineering)
Adolph Frederick Pauli, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Bernice F Peadro, Bachelor of Arts, (Liberal Arts)
Richard Henry Perrott, Bachelor of Arts (Science)
Eleanor Sarah Peterson, Bachelor of Science (Agriculture)
William Chandler Peterson, Bachelor of Science (Architecture)
Eric Frederic Pihlgard, Bachelor of Science (Architecture)
John Fraincis Piciken, Bachelor of Science (Agriculture)
Walter Raymond Pierson, Bachelor of Arts (Commerce)
Fred Theodore Pinkney, Bachelor of Science (Science)
Velma Coe Pletcrier, Bachelor of Arts (Liberal Arts)
Harold Augin Pogue, Bachelor of Arts (Commerce)
Alemander Hyman Polakow, Bachelor of Science (Science) ${ }^{1}$
Ellis J Potter, Bachelor of Science (Architecture)
James Bruce Pratt, Bachelor of Arts (Commerce)
Alvin Fred Preston, Bachelor of Science (Agriculture)
Charles Bradlaw Price, Bachelor of Science (Agricultire)
James Kelley Primm, Bachelor of Arts (Science)
Philip Timon Primm, Bachelor of Science (Agriculture)
William Josepi Prince, Bachelor of Arts (Science)
Duane Willard Propst, Bachelor of Arts (Science)
Eugene Francis Pruetr, Bachelor of Science (Agriculture)
Ireine Emma Pulsipher, Bachelor of Science (Agriculture)
Ruti Lucille Quesenberry, Bachelor of Arts (Liberal Arts)
Benjamin Ifarrison Questel, Bachelor of Science (Agriculture)
Anita Emma Raab, Bachelor of Arts (Liberal Arts)
Robert Charles Rahn, Bachelor of Science (Ceramic Engineering)
Frani Raffowitz, Bachelor of Science (Mechanical Engineering)
Claude Raibourn, Bachelor of Arts (Commerce)
Isaac LaGrange Ratcliffe, Bachelor of Arts (Commerce)
Leal Wiley Reese, Bachelor of Arts (Liberal Arts)
George W Renwick, Bachelor of Science (Mechanical Engineering)
Ora Edgar Reynolds, Bachelor of Arts (Liberal Arts)
Carlyle Seeds Rhodes, Bachelor of Science (Civil Engineering)
Granville Leroy Rigg, Bachelor of Science (Agriculture)
Charles Lawrence Ritis, Bachelor of Science (Architecture)
Frances Ella Roberts, Bachelor of Arts (Liberal Arts)
Hugh Scifuyler Robertson, Bachelor of Science (Ceramic Engineering)
Albert William Robinson, Bachelor of Science (Mechanical Engineering)
William Otto Roessler, Bachelor of Science (Agriculture)
Gardner Spencer Rogers, Bachelor of Science (Agriculture)
Harry Thomas Rogers, Bachelor of Science (Architectural Engineering)
Russell David Rogers, Bachelor of Science (Architectural Engineering)
Walter Louis Rohlfing, Bachelor of Science (Agriculture)
Fred Andrew Romn, Bachelor of Science (Architectural Engineering)
Kimball Valentine Root, Bachelor of Arts (Science)
Harold Boone Rose, Bachelor of Science (Mechanical Enginecring)
Frank Rosenberg, Bachelor of Science (Ceramic Engineering)
Kennetii Dwigirt Ross, Bachelor of Arts (Commerce)
Howard Moore Rotrock, Bachelor of Science (Civil Engineering)
Ired Grafton Rounds, Bachelar of Science (Architecture)
${ }^{1}$ With thesis.

Ellen Mary Rourke, Bachelor of Arts (Liberal Arts)
Joseph Alvin Rueff, Bachelor of Science (Mechanical Enginecring)
Mabel Louise Ruehe, Bacielor of Music
Mary Hilliard Rumsey, Bachelor of Arts (Liberal Arts)
horvard Edward Rundee, Bachelor oit Science (Railway Electrical Engineering)
William Lloyd Rundies. Bachelor of Science (Agriculture)
Roy Leslie Rush, Bachelor of Arts (Liberal Arts)
Louis John Rust, Bachelor of Science (Electrical Engineering)
Burtch Irwin Rutledge, Bachelor of Arts (Science)
Freda Irma Samuels, Bachelor of Arts (Liberal Arts)
Harriet Adelade Sanford, Bachelor of Arts (Liberal Aits)
Albert Merritt Santee, Bachelor of Arts (Lioeral Arts)
Edgar Frederick Schaefer, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Miciael Andrew Schalck, Bachelor of Science (Agriculture)
Gilbert Simon Schaller, Bachelor of Science (Mechanical Engineering)
Rilph Wendell Schecter, Bachelor of Arts (Liberal Arts)
Donald Charles Scheele, Bachelor of Science (Miechanical Engineering)
Louis Herman Schickedanz, Bachelor of Science (Mechanical Engineering)
Ralpii Louis Schiesswohl, Bachelor of Arts (Commerce)
Edward Holmes Schlader, Bachclor of Science (Railway Electrical Engineering)
Waldo Lauff Schlueter, Bachelor of Arts (Commerce)
Karl William Scimidt, Bachelor of Science (Architectural Engineering)
Rimmond Stanley Schole, Bachelor of Science (Agriculture)
Don Buel Schuler, Bachelor of Science (Architecture)
Ernest Rudolph Schulz, Bachelor of Science (Agricuiture)
Lincoln Bain Scott, Bachelor of Science (Agriculture)
Shirley Edward Scott, Bachelor of Arts (Liberal Arts)
Vinfield Scott, Bachelor of Science (Agriculture)
Herbert Frank Seifert, Bachelor of Arts (Science)
Artiur George Seifried, Bachelor of Science (Agriculture)
Williais Heine Sellards, Bachelor of Science (Agriculture)
Arthur Truman Semple, Bachelor of Science (Agriculture)
Iple Elwood Severance, Bachelor of Science (Agriculture)
Mae Magdalen Sexauer, Bachelor of Arts (Liberal Arts)
Rolla Flemming Shaffer, Bachelor of Science (Agriculture)
Ray Iris Shawl, Bachelor of Science (Agriculture)
A Yernon Sheetz, Bachelor of Arts (Commerce)
Edwin Shelby, Jr., Bachelor of Science (Civil Engineering)
Earl Frank Shelby, Bachelor of Science (Civil Engineering)
Walter William Shelden, Bachelor of Arts (Commerce)
Henry Kellogg Sheldon, Bachelor of Science (Electrical Engineering)
John Erwin Shields, Bachelor of Science (Agriculture)
Franklin William Shilling, Bachelor of Arts (Commerce)
James Wright Shoemaker, Bachelor of Arts (Liberal Arts)
Horace Abbott Shonle, Bachelor of Science (Science) ${ }^{1}$
Edward Olaf Siegfried, Bachelor of Science (Architectural Engineering)
Oscar Silberman, Bachelor of Science (Civil Engineering)
Theodore Switzer Simmons, Bachelor of Science (Agricuiture)
Mary Alice Simpson, Bachelor of Science (Agriculture)
William Henry Smms, Jr., Bachelor of Science (Agricuiture)
Raymond Samuel Smons, Bachelor of Arts (Science)
Charles Leonard Skelton, Bachelor of Science (Agriculture)
Herbert Lee Slach, Bachelor of Science (Civil Engincering)
William Finley Sloan, Bachelor of Science (Agriculture)
Lionel David Smiley, Bachelor of Science (Electrical Engineering)
Charles Eugene Smith, Bachelor of Science (Civil Engineering)
Glenn Calvin Smith, Bachelor of Science (Agriculture)
Helen May Smith, Bachelor of Arts (Liberal Arts)
Herbert Edgar Smith, Bachelor of Arts (Liberal Arts)
Irene Fern Smith, Bachelor of Science (Science) ${ }^{1}$
Julian Francis Smith, Bachelor of Science (Science) ${ }^{1}$
Wilhelma Zoe Smith, Bachelor of Arts (Liberal Arts)
Raymond Leffel Snoddy, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Glenn Snyder, Bachelor of Science (Agriculture)
Walter Andrew Stahl, Bachelor of Science (Nechanical Engineering)
John Edwin Stark, Bachelor of Arts (Liberal Arts)
Alwin Gustav Steinmayer, Bachelor of Science (Electrical Engineering)
Reinhard August John Steinmayer, Bachelor of Science (Ceramics)
Edith Hasseltine Stevens, Bachelor of Science (Agriculture)
Rira Stinson, Bachelor of Science (Agriculture)
James Crear Stirton, Bachelor of Science (Civil Engineering)
Harry Frederick Stocker, Bachelor of Science (Civil Engineering)
Clarence Milton Stoffel, Bachelor of Science (Civil Engineering)
Albert Getten Stone, Bachelor of Science (Architectural Engineering)
William Augustus Strong, A.B., Bachelor of Science (Agriculture)
Elimer Henry Stumpf, Bachelor of Arts (Commerce)
Roy Dehm Sundell, Bachelor of Science (Mechanical Engineering)
Ray Malcoly Strickland, Bachelor of Science (Agriculture)
Dorotiy Sutcliffe, Bachelor of Arts (Liberal Arts)
Wilbor Mills Sutherland, Bachelor of Science (Agriculture)
Frank Howard Sutton, Bachelor of Arts (Commerce)
Frances Eleanor Swanson, Bachelor of Arts (Libera. 1 Arts)
Norvid Raymond Swanson, Bachelor of Science (Agriculture)
${ }^{1}$ With thesis.

Edgar Chessman Swartwout, Bachelor of Science (Agriculture)
Lewis Wentworth Swett, Bachelor of Science (Electrical Engineering)
Nelife May Sivick, Bachelor of Arts (Liberal Arts)
Marguerite Maude Swits, Bachelor of Arts (Liberal Arts)
Clementine Taggart, Bachelor of Arts (Liberal Arts)
Robert Isaac Terry, Bachelor of Science (Agriculture)
Olga Elizabeth Thal, Bachelor of Arts (Liberal Arts)
Abner Royce Thomas, Bachelor of Science (Agriculture)
Clair Joel Thomas, Bachelor of Science (Agriculture)
Polly Elizabeth Thomas, Bachelor of Arts (Liberal Arts)
Ralph Raymond Thomas, Bachelor of Science (Electrical Engineering)
Lillian Maude Thompson, Bachelor of Arts (Liberal Arts)
Frank Hilton Thorne, Bachelor of Science (Agriculture)
Walter Joseph Tilton, Bachelor of Science (Science) ${ }^{1}$
Irene Towson, Bachelor of Arts (Liberal Arts)
Elizabeth Lail Tracy, Bachelor of Arts (Liberal Arts)
Gladys Annie Treat, Bachelor of Science (Agriculture)
Chester Treischel, Bachelor of Science (Ceramics)
Max Rudolph Hendrick Treu, Bachelor of Science (Agriculture) ${ }^{1}$
Frances Irene Tritt, Bachelor of Arts (Liberal Aris)
Philip Theodore Troeger, Bachelor of Science (Agriculture)
Opal Winifrede Trost, Bachelor of Science (Agriculture)
Oliver John Troster, Bachelor of Science (Agriculture).
Charles Edgar Trowbridge, Bachelor of Science (Municipal and Sanitary Engineering)
Floyd Elsworth Troxel, Bachelor of Science (Mechanical Engineering)
Silas Max Trumbo, Bachelor of Science (Architectural Engineering)
James Oliver Tupper, Bachelor of Science (Agriculture)
Lottie Octavia Urbain, Bachelor of Arts (Liberal Arts)
Gerry Christopher VandenBoom, Bachelor of Science (Mechanical Engineering)
Elliott Dudley VanFrank, Bachelor of Science (Architecture)
Francis Marion VanNatter, Bachelor of Arts (Science)
Rodman Fleming Vansant, Bachelor of Science (Agriculture)
Myra Vaughn, Bachelor of Arts (Liberal Arts)
Ralph Hoyt Vial, Bachelor of Science (Agriculture)
Siegfried Nathaniel Vibelius, Bachelor of Science (Architecture)
Herbert Louis Voigt, Bachelor of Science (Civil Engineering)
Alvin Claude Volk, Bachelor of Science (Civil Engineering)
Laurence Elmer Voorhees, Bachelor of Arts (Science)
Clifton James Walker, Bachelor of Science (Civil Engineering)
George William Walker, Bachelor of Science (Agriculture)
Jennie Grace Walker, Bachelor of Arts (Liberal Arts)
Lewis Bryant Wallace, Bachelor of Arts (Commerce)
Marie Elizabeth Wallin, Bachelor of Arts (Liberal Arts)
Wesley Burnham Walraven, Bachelor of Science (Civil Engineering)
Ida Emilie Walz, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Te Chang Wang, Bachelor of Science (Agriculture)
Amy Ward, Bachelor of Arts (Liberal Arts)
Harper McDill Warnock, Bachelor of Science (Agriculture)
John Wesley Watson, Bachelor of Science (Agriculture)
Lelia Elta Watson, Bachelor of Arts (Liberal Arts)
Jasper Kent Webb, B.S., Bachelor of Science (Agriculture)
Gertrude T Webber, Bachelor of Arts (Science)
Harry Edwin Webber, Bachelor of Science (Architectural Engineering)
Edward Grover Weiler, Bachelor of Science (Electrical Engineering)
Flora Jane Weinberg, Bachelor of Science (Agriculture)
Emil Hjalmer Westlund, Bachelor of Arts (Commerce)
Hazel Dean Wheaton, Bachelor of Arts (Liberal Arts)
Mary Elizabeth Wheelhouse, Bachelor of Arts (Liberal Arts)
Helen Katherine Whipple, Bachelor of Arts (Liberal Arts)
Helen Margaret Whitchurch, Bachelor of Science (Agriculture)
Frank Herbert White, Jr., Bachelor of Science (Electrical Engineering)
George Richard White, Bachelor of Science (Architectural Engineering)
Lyde Evangeline White, Bachelor of Arts (Commerce)
Phares Lemar White, Bachelor of Science (Railway Mechanical Engineering)
Guyon Call Whitley, Bachelor of Arts (Commerce)
Robert Ernest Wiley, Bachelor of Science (Mechanical Engineering)
Mary Etta Wills, Bachelor of Arts (Liberal Arts)
Alfred David Wilson, Bachelor of Science (Agriculture)
Harold Edvin Wilson, Bachelor of Science (Mechanical Engineering)
Helen May Wilson, Bachelor of Arts (Liberal Arts)
Isabella Chilton Wilson, Bachelor of Arts (Liberal Arts)
Orion N Wing, Bachelor of Arts (Liberal Arts)
Morris Charles Winokur, Bachelor of Science (Railway Civil Engineering)
Ingal Ensor Wold, Bachelor of Science (Agriculture)
Mitchell Wolter, Bachelor of Arts (Liberal Arts)
Adeline Wood, Bachelor of Science (Agriculture)
Rachel Margaret Woolman, Bachelor of Science (Agriculture)
Richardine Woolman, Bachelor of Arts (Liberal Arts)
Charles William Wray, Bachelor of Science (Agriculture)
Agnes Wright, Bachelor of Arts (Liberal Arts) ${ }^{1}$
Douglas Wrighr, Jr., Bachelor of Science (Agriculture)
Edward Paul Wrigit, Bachelor of Science (Civil Engineering)
Josef Franklin Wright, Bachelor of Arts (Commerce)
${ }^{1}$ With thesis

George Alfred Wrisley, Bachelor of Science (Science) ${ }^{1}$
Ethel Marie Wykle, Bachelor of Science (Agriculture)
Soichi T Yamamoto, Bachelor of Science (Electrical Engineering)
Carl Alfred Zelle, Bachelor of Science (Science) ${ }^{1}$
Arthur Charles Zimmerman, Bachelor of Science (Architectural Engineering)
Robert Bruce Zinser, Bachelor of Arts (Commerce)

## THE COLLEGE OF LAW

## The Degree of Bachelor of Laws

Elliott Billman
Olen Robert Clements, A.B., 1914
Walter Thomas Day
John William Freels
James Harman Gilbert
Donald Ashway Grossman
William Ward Hart
Ray David Henson
Joseph Howard Hinshaw, A.B., 1913
Charles Francis Hough, Jr.
Robert Jarnagna

Fred Hanford Kelly
Ralph Kenshalo
Roland John Klingler Wilbur Edward Krebs Joseph Dayle Lawyer
Carl King Rang, A.B., 1914
John Lester Robinson
Thomas Lenor Ruth
Lew R Sarett, A.B., Beloit College, 1911
Joe Whitnel

## The Degree of Doctor of Law

Nuel Dinsmore Belnap, A.B., 1914
Frank Bonner Leonard, Jr., A.B., 1912

Frank Clifton Slater, A.B., 1914
Frank Sewall Stroheker, Ä.B., 1915

## THE LIBRARY SCHOOL

## The Degree of Bachelor of Library Science

(Without Thesis)
Elsie Lourse Baechtold, A.B., Grinnell College, 1911
Susan True Benson, A.B., Missouri Wesleyan College, 1909
Jessie Elizabeth Bishop, A.B., Smith College, 1911
Nelle Uree Branch, A.B., 1907
Mary Gladys Burwash, A.B., 1913
Marian Leatherman, A.B., Cornell University, 1907
Marguerite Mitchell, A.B., Ohio State University, 1915
Beatrice Prall, A.B., University of Arkansas, 1911
Charles Holmes Stone, B.S., A.M., University of Georgia, 1912, 1913
Alta Caroline Swigart, A.B., 1910
Margaret Stuart Williams, A.B., University of Texas, 1912

## THE COLLEGE OF MEDICINE

## The Degree of Bachelor of Science

Richard Elseph Anderson
Fred Elton Carpenter
Schuiler Opp Cotton
Benjamin Quincy Dysart
James Edward Fetherston
Leo Vincent Gates

George Koptik
Raymond John Mercey
Thomas Benton Murphy
George Wrlliam Schelm
Edward Frank Sladek
Guy Leon Wagoner

## The Degree of Doctor of Medicine and Surgery

Conrad George Appelle
Robert Irving Barickman
Edwin Judge Barnett
Alick Bernstein
Hannah Jane Beatty
J Francis Bennett
Clifford Edward Bergin
Franklin Carlisle Brvings
Wareen Caldwell Blim
Pliny Russell Blodgett, B.S.
Bernard Joseph Bolka
Rollo Preston Bourbon
Roy Melson Bowell
Lewis Edwin Joel Browne
Edward Arthur Brucker
Wesley Morgan Burling
Manley Joseph Capron
William Franklin Carroll
Albert Brockway Carstensen

Emmet Francis Casey
Alger Arthur Clark
Blaine Wilson Claypool
Horace R Cobb
Michael Milton Cody
James Swaney Cooper, B.S.
Ward Cooper
Schuyler Opp Cotton
Aubrey James Cross
Agnes Beulah Cushman
Lloyd David Cutting
Maurice Doktorsky
William Holmes Dyer
Fred Elwell Earel
Charles Patt Eck, Ph.C., Ph.G.
David Eisenberg
Lynn Wickwire Elston, B.S.
Arthur Morgan Evans
Boyd Franklin Eye, Jr.
${ }^{1}$ With thesis.

Marion Shelley Fink
Victor Pinsand
Alexander William Fordyce
Sophia Hennrietta Frederickson
L Vincent Gates
Russell Adams Gilmore
Harold Mortmer Glover, A.b.
John Gervase Goggin
Benjamin Goldberg
Victor Hugo Hasek
Grace Maude Hawthorne, R.N.
Placido Ramos Vasquez Hommel
Arshavid Ignatius
William Israelson
Clarence August Jacobsen
Leo Jacob Jacobson
Walter John Jaracz
Daniel William Jeffries
Harry Katz
Ralpi King
Ralph Gleñ Kline
Herman Carl Koch
Bernard J Kulasavicz
Helen Pearl Kutzenberger
Max Lampert
Henry Roeert Leibinger
George R Lipp
Jacob Liffschutz
Bruno August Lungmus
Aniceto Yiagan Mandanas
Juan Sixto Marcian
Hervey Fulton Masson, Ph.C., M.D.
Cora Arminta Matthews
Hubert Franilin Meacham
Reuben Alvord Moffett
William James Muliolland

Mary Rutil McGuire
maury Holcombe Mcrae
Fusa Taro Nakaya
Rocco Nigro
Harry Sims Norton
Jacob Paskind
Ralph Waldo Petersen
Harry Micilael Peterson
Ralph Harrison Pino
Victor Piro
William Bowker Preston
William Raing
Henry Benjamin Raman
forin Lestrange Rock, B.S., A.B.
Samuel Joy Rowland
Nathan Samuel Schiff
Abraham Seletz
James Melvin Severson
Roy Davis Short
Willis Irving Silverstein
Lloyd Emerson Smith
Arthur Kern Spiering
Jacob Stern
Louis Henry Stern
Ladislaw Stolfa
Samuel Jace Taub
Ian Davis Tiedeman
Russell R Tomlin
Charles Lewis Tomsu
Joel Edinin Tootitaker
Mardiros Bedros Vart
Athol Horatio Wedge
Harry Hults Wilson
Marcus Bryed Wilson
Paul Jacob Wglf

## THE COLLEGE OF DENTISTRY

## The Degree of Doctor of Dental Surgery

Herbert Ralph Alden
Harold Hannum Berman
Natilan M Bernstein
Lutifer Lincoln Blaine
Mairrice Irwin Blair
Thomas Chew Bonney
Edivard Joseph Bostik
Harold Scribner Condit
William Arthur Cusick, Jr.
Robert Jesse Dixson
Harri M Harnick
Kiyoshi Horiuchu
Roeert I Humphrey
Jacob Jesser
Ernest Garfield Jounson
Earl E Johnson

Lawrence Martin Koch
Louis Bernard Koúsnetz
Andrew Arthur Litscher
Louis C Lowenthal
Louis Francis Meier
Charles J McCornall
Leo Orlofs
Harold L Playman
Allgot G Person
Henry Reiseman
Camille Marie Richter
Noah Webster Schlussel
Victor IUugo Sears
Pepper Wheeler Smith
Roscoe Winters Upp
Manwell T Wood

## THE SCHOOL OF PHARMACY

## Graduate in Pharmacy

Frinnie Ifillian Aron
William Beckman
Asher Holland Bogard
Josepir C Butts
Pobert Claus
Dante Cortesi
Raymond James Crist
Raymond Anderson Curlee
Cifarles Elmer Davidson
Everett William Dewey
William John Friedl
Jfarry Gasen
Frank William Grahas
Robert Lee Greenwood
Walter John Kostika
David Lofgren
Benjamin Lowis
Israel Mawrence
Leonard Quartetti
Robert Bruce Ritzinan

Ernest Christian Schultz
James Wileiam Templeton
Ralph Ricisey Thoroman
Edwin Joseph Underriner
Leland Vale
Robie Rolland Weaver
Werner Fred Wilhelm
Guy Vernon Whitney
EDWARD A F Borucki (Class of 1915)
Wicllam Stuhlmann Bucke (Class of 1915)
Richard William Goltermann (Class of 1915)

Sylvester Henry Hojnacki (Class of 1915)
Hubert Spangler Huston (Class of 1914)
Oscar William Johnson (Class of 1915)
Edward Joseph Kral (Class of 1915)
Josepl Benjamin Kvasnicka (Class of 1915)
Francis A Pankau (Class of 1914)
Edwin Robert Riemer (Class of 1915)
Fraik Josepil Vondrasek (Class of 1915)

# The Degree of Pharmaceutical Chemist <br> Conferred May 27, 1916, in Chicago 

# THE GRADUATE SCHOOL 

## Tie Degree of Master of Arts

In Botany
Robert Lesley Davis, A.B. (University of Nebraska) 1914
John Marvin LeCato, A.B. (Universily of Michigan) 1913
Rose Smith, A.B., 1911

## In Chemistry

Edman Greenfield, A.B. (University of Kansas) 191\&
Carl Shipp Marvel, A.B. (Illinois Wesleyan University) 1915
Ernest Henry Vollweiber, A.B. (Miami University) 1914

## In Classics

Mary Viola Bruner, A.B., 1913
Mary Elizabeth Colcord, A.B. (Greenvillc Collcge) 1910
Míchal Velma Janison, A.B. (Northwestern University) 1912
Margaret Olmsted, A.B . (Augustana Collegc) 1915
Mary Luella Troivbridge, A.B., 1915
In Economics
William Henry Dreesen, A.B. (Grecnaille College) 1907
Maurrce Elzin Murphy, A.B. (Indiand University) 1913

## In Education

Jeannette Morrison Engle, A.B., 1915
Theodore Spafford Henry, A.B. (Hedding College) 1913
Ortis Hoskinson, A.B. (Union Christian College) 1900
Mary Hazel Melrose, A.B., 1910
John Breen Phillips, A.B., 1912
Tenjes Henry Schutte, A.B., 1912
In Entomology
James Lowell. Hypes
In History
Daisy Dean Dryden, A.B. (University of Kausas) 1905
Walter Wilson Jennings, A.B., 1915
Katiryn Maddock, A.B. (Rockford College) 1915
Laura McAllister Moore, A.B. (Indigna University) 1892
Helen Katherine Schoepperle, A.B., 1915
Helen Dale Story, A.B. (Monmouth College) 1912
Mabel Gregory Walker, A.B., 1909
In Mathematics
Willlam Henry Cullum, Jr., A.B. (Albion Collcgc) 1915
Mary Belle Davis, A.B., 1901
Kate Lackey
Robert Haskell Marshall, A.B., 1914
Merlin Grant Smith, A.B. (Greenville Collcge) 1915

## In Modern Languages

(In English)
Clyde Byron Beck, A.B. (Earlham College) 1906
Levette Jay Davidson, A.B. (Eureka College) 1915
Effie Marguerite Morgan, A.B. (James Millikin University) 1913
James Manley Phelps, A.B. (Northwestern University) 1912
Edith Irene Sendenburgh, A.B., 1913
Thomas Blaine Stanley, A.B. (Earlham College) 1913
Annette Steele, A.B. (Transylvania University) 1911
Merle Arthur Sweney, A.B. (Hedding Collegc) 1913

## (In German)

Olive Caroline Harris, A.B. (Hedding College) 1915
Ethel Louise O'Connor, A.B. (Hedding Collegc) 1915

## (In Romance Languages)

Otho Willlam Allen, A.B., 1915
In PhysicsCharles Francis Hill, A.B., 1914Eleanor Frances Seiler, A.B., A.M. (University of Denver) 1913, 1914
In Political Science
A Ernest Mahannah, A.B. (Fairmount College) 1914
In Sociology
William Morland Graham, B.S. (McKendree College) 1913Carrie Patton Clark, A.B. (Northwestern University) 1909
In Zoology
Rachel Ann Baumgartner, A.
Lillian Dora Dole, A.B., 1915
George Marsif Higgins, B.S. (Knox College) 1914
The Degree of Master of Science
In Agronomy
M Reece Edwards
Trennace Flowerree, B.S., 1913
Warren Rippey Schoonover, B.S. (Occidental College) 1913
In Animal Husbandry
Wilbur Jerome Carmicharl, B.S., 1913
James Bruce Henderson, B.S., 1916
Wililam Algernon Kingsmill Morkel, A.B., 1915
Julius Edward Nordby, B.S. (Universily of Idaho) 1915
James Wilbur Whisenand, B.S. (University of Nebraska) 1914
David Willard Williams, B.S. (Ohio Siate University) 1915
In Architecture
La Force Bailey, B.S., 1915
In Ceramic Engineering
Ralph Raymond Danielson, B.S., 1914
Frank Allen Kirkpatrick, B.S., 1914
Arthur Edward Williams, B.S., 1910
In Chemistry
Don Warren Bissell, B.S. (New Hampshive College) 1914
Frederick North Crawford, B.S. (Wesleyan University) 1908
Carl Nathan Davidson, A.B. (Lawrence College) 1914
Edward Adelbert Doisy, A.B., 1915
Frank F Footitt, A.B. (Albion College) 1914
Jay Thomas Ford, A.B. (DePauw University) 1914
William Durrell Hatfield, B.S. (Illinois College) 1914
John Frederick Gross Hicks, B.S. (University of Pennsylvania) 190
Walter Gerald Karr, B.S. (Alfred University) 1913
Henry Rhodes Lee, A.B. (Carroll College) 1914
Henry Rhodes Lee, A.B. (Carroll College) 1914
Stewart Dent Marquis, A.B. (Lake Forest College) 1911
Robbins Russel, B.S. (Illinois College) 1914
Albert Durand Shepard, B.S. (South Dakota State College) 1914
Nim Chi Shum, B.S., 1914
Terrence Onas Westhafer, A.B. (University of Oklahoma) 1914
In Civil Engineering
Kaimin Kay Feng, B.S., 1915
Kozaburo Mise, C.E. (Tokyo Imperial Universily) 1911
Jackson Heath Wilkinson, B.S., 1915
James Fook Onn Yapp, B.S., 1915
In Dairy Bacteriology
Harrison August Ruehe, B.S., 1911
In Electrical Engineering
Carl Shipman Breese, B.S. (Kansas State Agricultural College) 1912
Walter Arthur Gatward, B.S. (Washington Siale College) 1913
Tane Kawamoto
In Entomology
Clyde Carney Hamilton, B.S. (Kansas State Agricullural College) 1913
Joseph Lyonel King, B.S. (Ohio State Universily) 1914
Lewis Bradford Ripley, B.S. (Trinity College) 1915
In Geology
Mason Kent Read, B.S. (Denison University) 1914
In Horticulture
James Alfred Crawtord, B.S. (Cornell Universily) 1915

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In Household Science
Marie Breese Miller, B.S. (Ohio State University) 1911
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In Mechanical Engineering
Lester Clyde Lichty, B.S. (University of Nebraska) 1113
William Pens Lukens, A.B. (Swarthmore College) 1913
Walter Jacob Wohlenberg, B.S. (University of Ncbraska) 1910
In Pathology and Bacteriology (Medicine)
Frederick Howard Falls, B.S. (University of Chicago) 1908, M.D. (Rush Medical College) 1910
In Physics
Harry Tyler Booth, B.S. (Carleton College) 1915
In Railway Mechanical Engineering
Everett Gillham Young, B.S., 1913
In Theoretical and Applied Mechanics
Andrew John Albert Anderson, B.S. (Lewis Institute) 1913, B.S., M.S., 1915
Raymond Earl Davis, B.S., C.E. (Universily of Miaine) 1911, 1914
Jasper Owen Draffin, B.S. (University of Vermont) 1913

## Professional Degrees in Engineering

The Degree of Civil Ensineer
Levi Patten Atwood, B.S., 1894
Edwin Walker Buxton, B.S., 1907
Byron Kemp Coghlan, B.S., 1908
Charles Edmund DeLeuw, B.S., 1912
Arthur Ludvig Enger, B.S., 1911
Howard Charles Haungs, B.S., 1907
George Martin Aloysius Ilg, B.S., 1909
Harry Ashton Roberts, B.S., 1902
Benjamin Bruce Shaw, B.S., 1911
Milton Frederick Stein, B.S., 1909
The Degree of Electrical Engineer
Edgar Dwight Doyle, B.S., 1910
Frederick john Foerstercing, B.S., 1911
Ralph Mayo Gaston, B.S., 1903
Harky Forest Geist, B.S., 1912
Rudolph McDermet, B.S., M.S., 1912, 1914
The Degree of Mechanical Engineer
Clarence Boyle, Jt., B.S., 1910
Perry John Freeman, B.S., 1907
Harry Frederick Godeke, B.S., 1905
Kenneth Gardner Smith, A.B. (Universily of Chicago) 1896, B.S., 1905
Arthur Otto Spierling, B.S., 1910

## The Degree of Engineer of Mines

Elmer Allen Holbrook, B.S. (Massachuseits Insitute of Technology) 1904

## The Degree of Doctor of Philosophy

In Bacteriology
Fred Wilbur Tanner, B.S. (Wesleyan University) 1912, M.S., 1914

## In Botany

John Asbury Elliott, A.B. (Fairmount College) 1913, A.M. (University of Kansas) 1914
Ernest Michael Rudolph Lamkey, A.B., A.M., 1913, 1914
Rosalie Mary Parr, A.B., A.M., 1906, 1911
Harry Dwight Waggoner, A.B., A.M., 1909, 1914

## In Chemistry

Theodore Rolly Ball, B.S. (Drake University) 1908, M.S., 1914
St. Elmo Brady, A.B. (Fisk University) 1908, A.M., 1914
Karl Adolf Clark, A.B., A.M. (McMaster University) 1910, 1912
Paul Marshall Dean, A.B., A.M. (University of Colorado) 1908, 1911
Edgar Wallace Engle, B.S. (Drury College) 1912, M.S., 1914
Duane Taylor Englis, A.B. (Eureka College) 1912, A.M., 1914
Ray Washington Hess, A.B. (Morningside College) 1912, A.M., 1914
Thomas Ernest Layng, A.B., A.M. (McMaster Universily) 1909, 1912
Harry Fletcher Lewis, B.S., M.S. (Wesleyan University) 1912, 1913
Floyd William Mohlman, B.S., M.S., 1912, 1914
John Carl Ross, A.B. (University of the Cape of Good Hope) 1911, M.S., 1915
Clarence Scholl, B.S., M.S., 1913, 1914
In Economics
Fred Emerson Clark, A.B. (Albion College) 1912, A.M., 1913
Frederic Arthur Ru'ssell, A.B., A.M. (Albion College) 1908, 1909

In Education
Joseph Henry Johnston, A.B., A.M. (University of Norih Carolina) 1910, 1914
In Entomology
Philip Garman, B.S. (Kentucky State University) 1913, M.S., 1914
Anna Grace Newell, A.B., A.M. (Smith College) 1900, 1908
Alvah Peterson, B.S. (Knox College) 1911, A. M., 1913

## In Engineering

Harold Malcolm Westergaard, B.S. (Royal Engineering College, Copenhogen) 1911

## In History

Wayne Edson Stevens, A.B. (Knox College) 1913, A.M., 1914
In Modern Languages (In German)
George Washington Spindler, A.B., A.M. (Indiana University) 1900, 1908
In Philosophy
Ethel Ervestine Sabin, A.B., A.M. (University of Wisconsin) 1908, 1914
In Physics
Jonas Bernard Nathanson, A.B. (Ohio State University) 1912, A.M., 1913
Oscar Alan Randolph, B.S. (Missouri School of Mines) 1911, M.S., 1913
In Political Science
Niels Henriksen Debel, A.B., A.M. (University of Nebraska) 1913, 1914
In Psychology
Helen Clark, A.B., (Vassar College) 1913

## In Zoology

Jesse LeRoy Conel, A.B. (James Millikin University) 1912, A.M., 1913
Horace Wesley Stunkard, B.S. (Coe College) 1912, A.M., 1914

# FELLOWS AND SCHOLARS IN THE GRADUATE SCHOOL 

## 1916-17

Miriam Cynthia Akers, Schoiar in Classics
Worth Arthur Allison, Scholar in Animal Husbandry
Ethel Loutise Bedient, Scholar in Economics
Elizabeth Bodfish, Scholar in Zoology.
Stlas Alonzo Braley, Fellow in Chemistry
Edward Marion Augustus Chandler, Fellow in Organic Chemistry
Ernest Edward Charlton, Research Fellow in Industrial Chemistry
Harold Dudley Clayberg, Fellow in Botany
Frank Warren Clippinger, Scholat in English
Gilbert Hooper Collings, Fellow in Agronomy
Delviar Gross Coore, Fellow in English
Arthur Reuben Cooper, Fellow in Zoology (Honorary)
Edward Hill Cox, Fellow in Chemistry
Henry Gordon MacGregor Crawford, Scholar in Entomology
Hilda Marion Crozl, Scholar in Household Science
Sylvan Jay Crooker, Fellow in Physics
Dorothy Lucile Cuthbert, Scholar in Classics
Ralph Hipple Dean, Scholar in Chemistry (Nominec of Lake Forest College)
Alice Mary Doane, Scholar in English
John Ezra Dotterer, Scholar in Mathematics
George Lewis Doty, Scholar in Romance Languages
Louise Burnfan Dunbar, Scholar in History
Rhoda Fahnestock, Scholar in Household Science
Ernest Carroll Faust, Fellow in Zoology
Constance Wilberta Ferguson, ${ }^{1}$ Scholar in French (Nominzee of Illinois Wesleyan University)
Alvin Texas Fishalan, Scholar in Animal Husbandry (Nominee College of Agriculture)
Hobart Dichinson Frary, Fellow in Mathematics
Harry Rheinhardt Fritz, Research Fellow in Electrical Engineering
Elizabeth Leah Fullentider, Scholat in English
Marguerite Eiston Gauger, Scholar in Household Science
Marcus Selden Goldman, Scholar in English
Margaret Lola Goldsmith, Scholat in German (Nominee of Illinois Wesleyan University)
Clara Luise Haessler, Fellow in German
Dwight Frederick Heath, Scholar in Mathematics
Ruth Higley, Fellow in Zoology
Robert McClaughey Hill, Scholar in Chemistry (Nominee of Carthage College)
Jacob Arnold Hofto, Fellow in History
Elmo Paul Hohman, Scholar in History (Nominee of College of Liberal Arts and Sciences)
Charles Morse Huffer, Scholar in Mathematics
Helen Dorcas James, Scholar in English
Walter Wilson Jennings, Fellow in History
Sebastran Karrer, Fellow in Physics
Albert Keiser, Fellow in English
Paul Kenneth Knight, Scholar in Economics
Louis J Larson, Research Fellow in Theoretical and Applied Mechanics
Charlton Page Lathrop, Scholar in Pomology
Mac E Leach, Scholar in English
Alva Elisha McCoy, Scholar in Agronomy
thomas Byra Magath, Fellow in Zoology
A Ernest Mahannah, Fellow in Political Science
Leslie Ray Marston, Scholar in Education (Nominee of Grecnville Collcge)
Ethel Ruth Murray, Scholar in Classics
Merle Lours Nebel, Feilow in Economic Geology
Willis James Nolan, Scholar in Entomology
Benito Rene Orodnez, Research Fellow in Railway Electrical Engineering (Nomince of the College of Engineering)
William Love Parish, Scholar in Architectural Engineering
Newton Lyman Partridge, Fellow in Horticulture
Adolph Frederick Pauli, Scholar in Latin
Bernard Pepinsky, Research Scholar in Engineering Mechanics
Ray Stuart Quick, Research Fellow in Engineering
Lewis Bradford Ripley, Fellow in Entomology
Edward Alexander Roberis, Research Fellow in Railway Engineering
Gwladys Ellen Roberts, Scholar in Latin
Charles Marion Ross, Scholar in Physiology (Nominee of Eureka College)
Kenneth Dwight Ross, Scholar in Economics
Robert Royal Russel, Fellow in History
Rachel Louisa Sargent, Scholar in Latin
Helen Katherine Schoepperle, Fellow in History

Ernest Rudolph Schulz, Scholar in Agronomy
Herbert Frank Seifert, Scholar in Entomology
Franklin Fred Sherwood, Fellow in Chemistry
Horace Abrott Shonle, Scholar in Animal Husbandry
Linton Millard Smith, Scholar in Chemistry (Nominee of Shurleff Collese)
Merlin Grant Smith, Fellow in Mathematics
Allen Edwin Stearn, Fellow in Chemistry
Bird Richard Steplenson, Scholar in Physics
Charles Jacob Stowell, Fellow in Economics
Frederick Paul Strauch, Research Fellow in Gas Engineering
Stetfan Fugta Tanabe, Research Fellow in Physics
John Latwrence Teare, Scholar in Political Science
Gerald Stamper Tebbe, Scholar in Educational Psychology
Richard Laurence Templin, Research Fellow in Theoretical and Applied Meelianics
Ralph Earle Tieje, Fellow in English
Helena Marie Ulrici, Scholat in German (Nominee of Rockford College)
Harold Parsons Vail, Research Scholar in Mechanical Engineering
Camillo Weiss, Research Fellow in Civil Engineering
Edward Wichers, Fellow in Inorganic Chemistry
William Harold Wilson, Fellow in Mathematics
George Norton Wolcott, Fellow in Entomology
Dale S Young, Scholar in Mathematics (Nominee of Heading College)
Hachiro Yuasa, Scholar in Entomology

## The Francis John Plym Fellowship in Architecture

Roger Charles Kirchioff, 1913

# UNIVERSITY HONORS 

Awarded by the Faculty of the University 1915-16<br>HONORS AT COMMENCEMENT<br>(Juile, 1916)<br>College of Liberal Arts and Sciences<br>THE DEGREE OF A.B. WITH HONORS<br>SPECIAL HONORS

Edward Corbyn Obert Beatty, in History
Ben Conrad Berg, in History
Miriam Rebecca Fasold, in Economics
Dwight Frederick Heath, in Mathematics
Emmo Paul Hohman, in History
Olive Dean Hormel, in English
Ruti Ellen Lancaster, in History
Mac E Leach, in English
Adolph Frederick Pauli, in Classics
Agnes Wright, in History
Sidney Dale Kirxpatrick, in Chemical Enginecring
Chester William Lenzing, in Chemistry
Horace Abbott Shonle, in Chemistry
Walter Josepir Tilton, in Chemistry

# College of Commerce and Business Administration 

 THE DEGREE OF A.B. WITH HONORSKenneth Dwight Ross

## FINAL HONORS

Walter Earl Baker
Paul Kenneth Knight
John Lester Ludwig

Clarence Louis Bentz Tinomas Henry Burrell
Clarence Todd Grant
Eugene Carl Hamill
arnold Carl Holrnger
Willis Wilkinson Hubbard
Frank Sumner Hunt
Charles Harold Jaciman
Cornelius Walter Koebele
Leroy William Ledgerwood
Earl. Emanuel Libman

Eugene Carl Hamill
Adolph Lincoln Nelson

Edvin Adams Bebb
Forrest Bebb
Earl Vivian Bruington
Alvin Texas Fishman
John Ray Gilkey
Lours Jacob Greengard
Leonard B Hiebel
SHERMAN INGELS
Leo Charles Jez
William Stanton Ladd

Leo Gay McAfee
Elliott Strong Miller
Kenneth Dwight Ross

## College of Engineering

FINAL HONORS
Leo Joseph Mattingly
Leslie Sherman Morrill.
Adolph Lincoln Nelson
William Love Parish
Eric Frederick Pihlgard
George W Renwick
Frank Rosenberg
Don Buel Schuler
James Crear Stirton
Albert Getten Stone
Arthur Charles Zimmermann

## SPECIAL HONORS

Frank Rosenberg
College of Agriculture
FINAL HONORS
Charlton Page Lathrop
Ellena Lee
Alexander Paul. Macdonald, Jr.
Benjamin Harrison Questel
Ernest Rudolf Schulz
Arthur Truman Semple
Wilbur Milis Sutherland
Clair Joel Thomas
Oliver John Troster

SPECIAL HONORS<br>Louts Jacob Greengard, in Botany

# College of Law <br> FINAL HONORS 

Nuel Dinsmore Belnap

Rutil Amelia Alverson Fred Phelps Baker Louis Rolland Berner James Bennett Childs Grace Jean Christy Dorothy Lanning Doty Helene Eleanore Doty Charles Fairman
McKinley Gardner Esther Cranston Green

Fred Hanford Kelly
Library School
FINAL HONORS
Jessie Elizabeth Bishop
School of Music
Mabel Louise Ruehe
PRELIMINARY HONORS
October, 1916

## College of Liberal Arts and Sciences

Joseph Lowe Hall
Flora Emily Hottes
anna Libman
Aldda Helen Moss
Catherine Needham
Marion Goerz Swanberg
Vivian Earle Tillson
John Milton Williams
Winifred Wilson

## College of Commerce and Business Administration

Mildred Dumke
Elmore Albert Gripp
William Lee Klink
Ralph Morlan Netz
Francelia Plumly Sargent

Frank Spain Shy
Carleton Myron Tower
Ward Maurice Willits
Laurence Morse Winters

Harry George Antenen
Curtis Love Boardman Willard Edwin Bull
Charlie James Calikin
Earle Wesley Carrier
Casimir Stanley Cierpik
Charles Henry Clarahan
Pavl V Cottingham
Helge Christopher Dieserud
Joseph Dvorak
Jacob Howard Euston
Ronald Edward Foulke
Jesse Lehman Gary

College of Engineering
Penco Gherganoff
John Reed Hodge
David Horwreh
Oscar Ivan Lyons
Robert Emmett McKeever
Harold Loeffel Olesen
Frederick Albert Peck
Edwin Rudolph Petzing
Harry Richmond Seavey
Ernest Lawrence Stouffer
Clark Henry Sturm
Lyle Avery Wilson
Leland Edward Yeager

College of Agriculture
Harriet Muriel Phillips
Ben James Prince
Frank Sailer
Gertrude Sawyer
Ralpi Lindon Smith
En-Lin Sun
Harold Bradford Tukey
College of Law
Thomas Sherman Morgan
School of Music
Clara Grace Armington

## MILITARY HONORS

## COMMISSIONED AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD, ISSUED BY THE GOVERNOR IN 1916

Ediwin Shelby, Jr.
Francis M Van Natter
Lloyd E Lamkins
Ralph R Thomas
Oliver J Troster
Ross S Mason
George Curtiss
Reinhard A J Steinmayer
Daniel E Miller
Charles W McCumber
Charles N Owen
William H Kasten
Oliver C K Hutchinson
Edgar C Swartwout
Edward C O Beatty
Kenneth C Bell
Alwin G Steinmayer
Leslie S Morrill
Dudley W Crane
Clyde J North

John H Gage
Eric $F$ Pimlgard
Hans P Greison
Maurice C Johnson
Dwight F Heath
Walter W Shelden
Leslie R Lumley
Waldern H Hough
Russell W Millar
Chester G Hadden
Warren P Beaubien
Russell D Barnes
Leal W Reese
Harry W MacKechnie
Albert G Stone
John G Eppinger
Carson G Jennings
Siegfried $N$ Vibelius
George A Gieb
Kenneth B Bush
Charles L Ritts

## REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY, AS DISTINGUISHED CADETS

George Curtiss
George Albert Geib
Waldern Henry Hough
Carson Gary Jennings
Lloyd E LAMKINS
Ross S Mason
Charles W McCumber

Daniel E Miller
Leslie S Morrill
Eric H Pihlgard
Edwin Shelby, Jr.
Reinhard A J Steinalayer
Oliver J Troster
Ralph $R$ Thomas

## ROSTER OF OFFICERS OF THE UNIVERSITY BRIGADE, 1916-17

| W o Nelson | Colonel |
| :--- | :---: |
| J H Powers | Lieutenant-Colonels |

## Majors

H L Husson
M B Ware
A R Keagy

## Captains

> C A Britt
> M D Roberts
> L L Davis
> D T Sivaim
> J N Johnson
> H G Overend
> P W Ott
> W Smith
> L Warmolts
> M Cuskaden
> G C Smith
> C W Smith
> G L Smith
> T S Hamilton

$\begin{array}{cc}\text { J H NEEDLER } & \text { C R GDEON } \\ \text { H Sieguund } & \text { D D SHARER }\end{array}$
L W Chalcraft

## First Lieutenants

C Fairman
L S Foote
E R BRIGHAM
W M Wrlletrs
L E Yeager
F C Kalthoff
H R Ide
F D Ball
D R E Brown
OG Brain
J M Gray
R Hummeland
C M Roberts
V A Pecchia
E R Petzing
w h bon Durant
J N Cost
F N Vaughin
G E Dickson
J H Hackley

E W Bailey
E S Moberly
D M Chalcraft
H A Wells
D W Hickey
M B Harland
W F COOLIDGE
H A Huisken
E I Kober
H T Meer
N O Taylor
R H Mallory
E M Fickett
A K WUERKER
C A Wagner

H S Olesen<br>C C Brooks<br>W E Cleveland<br>I Hultman<br>A LEE<br>I W TURNQUISt<br>W Van Cleve<br>F H Miller<br>C Anderson<br>H O SWINDLER<br>C C Larson<br>D R Gooch<br>C E Snell<br>S B Trelease<br>J A Peterson<br>$R$ C Gore<br>I B Olin<br>R H Antoszewsei<br>G A Sowers

## Second Lieutenants

A L Kline
J M Gregory
A E Parr
W J Alcock
W B Hostetler
A H Frick
H Reichelderfer
A J Eichberg
H B Tukey
F E Lundgren
J S McCarroll
A K Schifflin
H S Dieserud
M A Yockey
A C Wilson

## ANNUAL COMPETITIVE DRILS-1916

University Gold Medal........................................................................................................... Wajore W. Risley, Company "L" First Infantry
Hazelton Gold Medal

Infantry<br>University Bronze Medals<br>(Sophomore Competitive Drill)

## Company "E" First Regiment

| Captain, | L. S. Morrill | Privates, | W. Hawthorne |
| :---: | :---: | :---: | :---: |
| 1st Lieutenant, | H. O. Siegmund |  | T. H. Jackson |
| 2nd Lieutenant, | J. H. Needler |  | C. S. Kayser |
| 1st Sergeant, | W. E. Cleveland |  | J. T. Kelly |
| Q. M. Sergeant, Sergeants, | H. T. A. Armstrong |  | C. Kreidler |
|  | C. Lively |  | R. J. Maxwell |
|  | D. Horwich |  | G. Murphy |
|  | A. R. Moore |  | G. W. Nachtrieb |
|  | R. Stevens |  | J. M. Nafziger |
|  | F. H. Pearson |  | F. B. Parden |
|  | L. Williams |  | B. J. Prince |
| Corporals, | H. P. Buck |  | J. R. Purcell |
|  | W. H. Doescher |  | L. C. Raines |
|  | F. Sailor |  | E. T. Rundquist |
|  | P. T. Sawyer |  | A. N. Reece |
| Privates, | F. B. Barber |  | E. Sisson |
|  | M. M. Benson |  | R. C. Smith |
|  | H. E. Bruns |  | L. L. Smith |
|  | C. E. Born |  | J. F. Staples |
|  | J. M. Birks |  | W. Stephens |
|  | H. H. Carrithers |  | A. Thor |
|  | Q. K. Chen |  | I. W. Traxler |
|  | A. M. Conger |  | S. N. Van Winkle |
|  | K . G. Cooling |  | L. Westenhaver |
|  | H. R. Criley |  | R. S. White |
|  | M. Fogler |  | A. O. Wiese |
|  | L. E. Gildner |  | J. M. Williams |
|  | A. V. Hardesty |  | O. H. Williams |

University Bronze Medals ${ }^{1}$<br>(Freshman Competitive Dril1s)

## Company "I" First Regiment



Signal Company
University Bronze Medals


Hospital Company Competitive
Best Drilled Cadet
Private, N. Feldman

## Litter Section

| Sergeant, | P. G. Kreider, In Charge | Privates, | W. Curtis |
| :--- | :--- | :--- | :--- |
| Privates, | R. H. Antoszewski |  |  |
|  | J. A. Peterson |  |  |

${ }^{1}$ Sophomores, bronze medals. Freshmen, bronze pins.

## Rifle Teams

FIRST TEAM
Silver Medals
Company L, 2nd Infantryist Sergeant, Sergeants,

Privates,
E. R. Brigham W. W. Hancock C. A. Wagner
P. S. Nelson J. E. Halligan R. L. Morse
R. Stockenberg
P. M. Young
C. M. Hayes
R. T. Twells

SECOND TEAM
Bronze Medals
Company I, ist Infantry1st Sergeant, Sergeant, Privates,
A. Lee,
M. C. Troster H. W. McDaniel
G. R. Postel
G. S. McLaughlin
M. D. Downs
A. Shroeder
G. W. Stone
T. E. Henley
W. P. Jones

PRIZES
American Institute of Architects Medal
Carol arron Klein

## The B'nai B'rith Prize

Charlotte B Goldberg

## The Phi Beta Kappa Prize

Edward Corbyn Obert Beatty
Honorable Mention
Kenneth Dwight Ross

## The St. Patrick's Day Prize

Minnie Lucile Needham
Conference Medal for Excellence in Scholarship and Athletics for the Year 1916
Elmo Paul Hohman
SUMMARY OF DEGREES CONFERRED1916
Degrees in the Graduate School
A.M. ..... 52
M.S. ..... 53
C.E ..... 10
E.E ..... 5
M.E. ..... 5
E.M ..... 1
Ph.D. ..... 33
Total ..... 159
Baccalaureate Degrees
A.B., College of Liberal Arts and Sciences ..... 228
B.S., College of Liberal Arts and Sciences ..... 21
A.B., College of Commerce and Business Administration ..... 69
B.S., College of Engineering ..... 223
B.S., College of Agriculture ..... 189
B.Mus., School of Music ..... 7
Total ..... 737
Degrees in LawLL.B.21
J.D. ..... 4
Total ..... 25
Degrees in Library Science
B.L.S ..... 11
Total, Colleges and Schools at Urbana ..... 932
Degrees in Medicine
B.S. ..... 12
M.D. ..... 109
Total ..... 121
Degrees in Dentistry
D.D.S. ..... 32
Degrees in Pharmacy
Ph.G ..... 39
Ph.C. ..... 2
Total ..... 41
Total, Departments in Chicago ..... 194
TOTAL, ALL DEPARTMENTS ..... 1126

## SUMMARY OF OFFICERS

## BY COLLEGES AND SCHOOLS

| 1916-1917 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OFFICERS OF INSTRUCTION |  |  |  |  |  |  |  |  |
| Colleges, Schools, and Departments | Professors |  | Associate <br> Professors |  | Assistant |  | Associates |  |
|  | Men | Wom. | Men | Wom. | Men | Wom. | Men | Wom. |
| Liberal Arts and Sciences.. | 46 |  | 9 | . . | 20 |  | 24 |  |
| One-Year Medical. . | 3 |  | . |  | 3 | . | 3 |  |
| Commerce and Business |  |  |  |  |  |  |  |  |
| Administration......... | 4. | . |  |  | 3 | . | .. |  |
| Engineering. | 21 |  | 3 | . | 19 | $\ldots$ | 20 |  |
| Agriculture. . | 13 | 1 | 2 | . | 18 | 1 | 17 | 6 |
| Music.. | 1 | . . | . | . | 1 | . . | . |  |
| Law. | 7 |  | . | . | 1 | . | . |  |
| Library. | 1 | . | . | . | . | 1 | 1 |  |
| Military Science. | 1 |  | . | . | 4 | . |  |  |
| Physical Training. | 1 | 1 |  | . | . . | . | 3 |  |
| Photography. | . | $\cdots$ | $\ldots$ | $\cdots$ | . | . | . |  |
| Totais at Urbana..... | 98 | 2 | 14 | . | 69 | 2 | 68 | 7 |
| Medicine... | 29 |  | 6 | 1 | 23 | 1 | 8 |  |
| Dentistry. | 8 |  | . . |  | 6 |  | 2 |  |
| Pharmacy.. | 1 |  |  |  | 2 |  |  |  |
| Totals in Chicago. | 38 |  | 6 | 1 | 31 | 1 | 10 |  |
| TOTALS IN UNIVERSITY. |  | 2 | 20 | 1 | 100 | 3 | 78 | 7 |
| OFFICERS OF ADMINISTRATION General. |  |  |  |  |  |  |  |  |
| Library Staff. |  |  |  |  |  |  |  |  |
| TOTAL, INSTRUCTIONAL A ND AD MINISTRATIVE |  |  |  |  |  |  |  |  |
| Deduct duplicates..... |  |  |  |  |  |  |  |  |
| NET TOTAL IN UNIVERSITY. |  |  |  |  |  |  |  |  |

## SUMMARY OF OFFICERS

## BY COLLEGES AND SCHOOLS

1916-1917

| Special <br> Lecturers |  | Instructors |  | Assistants |  | Graduate Assistants |  | $\begin{aligned} & \text { Student } \\ & \text { Assistints } \end{aligned}$ |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | Wom. | Men | Wom. | Men | Wom. | Men | Wom. | Men | Wom. | Men | Wom. | Total |
| 3 | .. | 44 | 8 | 87 | 15 | 22 | 8 | 6 |  | 261 | 32 | 293 |
| . | . . | 3 | . | 6 | 2 | 1 | . . | . |  | 19 | 2 | 21 |
| 1 | .. | 12 | .. | 7 | .. | .. | . | .. | . | 27 | . | 27 |
| . . | . | 35 | $\cdots$ | 19 | . | . | . | . | . | 117 | . | 117 |
| . | . | 24 | 7 | 30 | 7 | - | . | . | . | 104 | 22 | 126 |
| .. | . | 6 | 3 | . | . . | . | . | . | . | 8 | 3 | 11 |
| . | . | . . | . | - | . | . | . | . | . | 8 |  | 8 |
| . | 1 | - | 2 | - | . | . | . | . | . | 2 | 4 | 6 |
| . | . | . | . | $\cdots$ | - | - | . | 10 | . | 15 | . . | 15 |
| . | . | 3 | 3 | 2 | 2 | . | . | . | 1 | 9 | 7 | 16 |
| . | . | 1 | $\ldots$ | . | . | . | . | . | . | 1 | . | 1 |
| 4 | 1 | 128 | 23 | 151 | 26 | 23 | 8 | 16 | 1 | 571 | 70 | 641 |
| 3 | . | 59 | 2 | 15 | 3 | . | . . | 5 | . | 148 | 7 | 155 |
| 2 | . | 9 | . | 4 | 1 | . | . | 5 | - | 36 | 1 | 37 |
| 1 |  | 3 | . | . | . | . | $\ldots$ | . | . | 7 | . | 7 |
| 6 | . | 71 | 2 | 19 | 4 | $\ldots$ | $\ldots$ | 10 | $\cdots$ | 191 | 8 | 199 |
| 10 | 1 | 199 | 25 | 170 | 30 | 23 | 8 | 26 | 1 | 762 | 78 | 840 |
|  |  |  |  |  |  |  |  |  |  | 52 | 3 | 55 |
|  |  |  |  |  |  |  |  |  |  | 7 | 43 | 50 |
|  |  |  |  |  |  |  |  |  |  | 821 | $12 \pm$ | 9.45 |
|  |  |  |  |  |  |  |  |  |  | 71 | 6 | 77 |
|  |  |  |  |  |  |  |  |  |  | 750 | 118 | 868 |

# SUMMARY OF STUDENTS <br> 1916-1917 



## total in Chicago

Total in University, to February 21, 1917
Duplicates to be Deducted
Summer Session Undergraduates returned for Winter Session.
Summer Session Graduate Students returned for Winter Session.
Other duplicate registrations.

## Total duplicates

NET TOTAL, to February 21,1917

## SUMMARY OF STUDENTS 1916-1917



## DIRECTORY OF ALUMNI ASSOCIATIONS

## GENERAL ALUMNI ASSOCIATION

Office: 358 Administration Building, University of Illinois, Urbana-Champaign
Official Publication: The Alumini Quarterly and Fortnigrtly Notes, 358 Administration Building.

To foster a spirit of loyalty and fraternity among the graduates and former students of the University of Illinois and to effect united action in promoting the welfare of the University.
President: H. J. Burt, '96, 1400 Monroe Building, Chicago, Ill.
Secretaity-Treasurer: Franklin W. Scott, '01, 703 Michigan avenue, Urbana, I11.

## DEPARTMENTAL ALUMNI ASSOCIATIONS

The Alumni Association of the Library School
President: Mrs. Bertha S. Baird, '11, Mason City Public Library, Mason City, Iowa
Secretary-Treasurer: Josie B. Houchens, '05, University of Illinois Library
The Alumni Association of the College of Medicine
President: Dr. H. E. Irish, '01, 1958 W . Grand avenue, Chicago
Secretary: Dr. W. C. Hammond, '11, 737 Sheridan Road, Chicago
The Alumni Association of the College of Dentistry
President: Dr. C. M. Loescher, ${ }^{0} 04$.
Secretary: Dr. Louis Miller, '06, 813 W . Harrison street, Chicago
The Alumni Association of the School of Pharmacy
President: George P. Mills, '84, Evanston, III.
Secretary-Treasurer: A. H. Clark, 74 E. Twelfth street, Chicago

## LOCAL ALUMNI ASSOCIATIONS

## California

San Francisco: The Golden Gate Alumni Association of the University of Illinois
President: Wm. G. Humnel, '07, 2691 Cedar street, Berkeley
Secretary-Treasurer: Ella Barber, 's4, 2121 Shattuck avenue, Berkeley
Southern California: The University of Illinois Alumni Association of Southern California
President: Frank L. Drew, '04, 1154 N. Mentor avenue, Pasedena
Secretary: Emest Ingold, '09, Twelfth and Grand, care Electric Equipment Co., Los Angeles

## Colorado

University of Illinois Club of Colorado
President: Frank L. Birney, '81, 309 Ideal block, Denver
Secretary-Treasurer: Dr. T. J. Fenton, '06, Majestic building, Denver

## District of Columbia

Washington: University of Illinois Club of Washington
Secretary: W. O. Gordon, '11, Bureau of Animal Husbandry, Dept. of Agriculture, Washington, D. C.

## Idaho

The Illini Club of Idaho
President: C. F. Pike, '99, U. S. Assay Office, Boise
Secretary: F. N. Roop, '08, Federal bldg., Boise
Illinois
Aurora: Aurora Illini Club
President: M. A. Kendall, '07, 715 Garfield blvd.
Secretary-Treasurer: W. B. Greene, '08, care Stephens-Adamson Co.
Belleville: The Illini Club of Belleville
President: L. N. Perrin, '07, Penn bldg.
Secretary: C. R. Ogle, ' ${ }^{13,617 \text { E. B street }}$
Centralia: Centralia Illini Club
President: Charles Wham, '12
Champaign: Champaign County Illini Club
President: L. U. Everhart, '09, 1207 S . Orchard street, Urbana
Secretary-Treasurer: R. F' Little, '07, 606 Chalmers street, Champaign
Chicago: The Illini Club of Chicago
President: Geo. T. Donoghue, '06, 523 Oakdale ave., Lake View
Secretary: R. N. Erskine, '09, 517-20 Harris Trust bldg., Chicago
University of Illinois Alumnæ Association of Chicago
President: Mabel Hopkins Hubbard, '10, 1409 Iowa street, Oak Park
Secretary-Treasurer; Carrie Norton Laemmle, '07, 6132 Langley ave., Chicago
Decatur: Decatur Illini Club
President: W. J. Carey, '06, 718 W. Marietta street
Freeport: Freeport Illini Club
President: George Schrmelze, ex-10, 447 Lincoln ave.
Scerctary: R. M. Seeley, ex-16, 44 Lincoln ave.
La Salle County: La Salle County Illini Club
President: D. G. Cairns, '02, 633 Congress street, Ottawa
Sccretary-Treasurer: J. R. Fornof, '10, 804 S. Park street, Streator

Peoria: Peoria Illini Club
President: Irwin Fuller, '10, 415 Woolner bldg.
Secretary: E. V. Champion, '12, 549 Woolner bldg.
Rocimory: University of Illinois Club of Rockford
President: E. G. Brands, '11, care of Rockford Morning Star
Secretary-Treasurer: J. G. Fillmore, '09, 411 W. State street
Springeield: Springfield Illini Club
Vice-President: E. D. Poston, ex-'11, 409 North Fifth street
Secretary: E. K. Stuart ' 10,109 W. 5th street
Vermilion County: Vermilion County Illini Club
Secretary-Treasurer: Mabel Bredehoft, '09, 309 Walnut street, Danville
Western Illinors: Western Illinois Illini Association
President: W. E. Whiteside, '07, Moline
Secretary-Treasurer: James M. Johnston, '09, Moline
Indiana
Indianapolis: Indianapolis Illini Club
President and Acting Secretary: C. E. Sargent, '86, 2272 N. Meridian street
Iowa
Des Moines: Des Moines Illini Club
President: L. S. Ross, '89, 130 S Twenty-seventh street
Secretary: E. R. Crowson, ex-'16, care American Life Ins. Co.
Massachusetts
Bostor: New England Illini Club
President: C. P. Jeffers, '74, Swampscott, Mass.
Secretary: F. G. Norbury, '13, g-291 Brookline ave., Boston
Michigan
Detroit: The University of Illinois Alumni Association of Detroit
President: O. C. F. Randolph, '13, 21 Rowena street
Secretary-Treasurer: Roy G. Bluth,' 15,832 Second ave.
Minnesota
Minneapolis and St. Paul: Illini Club of the Northwest
President: G. W. Rathjens, '10, 163 West Robie street, St. Paul
Secretary: E. O. Korsmo, '11, Y. M. C. A., St. Paul

## Missouri

Kansas City: University of Illinois Southwestern Alumni Association
President: A. G. Higgins, '93, 2315 Flora ave., Kansas City
Secretary: D. C. Ketchum, '99, 518 New York Life bldg., Kansas City
St. Louis: The Illini Club of St. Louis
President: C. C. Willmore, '11, 5736 Page blvd.
Secretary-Treasurer: Cari Harnist, '08, 2321 Whittemore pl.
New York
New York City: University of Illinois Alumni Association of New Yorls
President: S. T. Henry, '04, 239 West 39th street
Secretary: E. C. Prouty, '14, 239 West 39th street
Schenectady: The Illini Club of Schenectady
President: O. E. Shirley, '10, 706 South ave.
Secretary-Treasurer: D. R. Lagerstrom, '11, Box 810

## North Dakola

Fargo: Fargo Illini Club
President: E. S. Keene, '90, 1028 Seventh street, N.
Secretary-Treasurer: Frank White, '80, Valley City
Ohio
Cincinnati: Cincinnati Illini Club
President: F. L. Swanberg,'03
Secretary: C. M. Kennan,'12, Y. M. C. A., Seventh and Walnut streets
Cleveland: The Illini Club of Cleveland
President: H. S. Greene, '05, care Mungesser Carbon \& Battery Works
Secretary: L. C. Kant, '13, 79 Belmore rd.
Oregon
Portland: The Illinois Alumni Association of Portland
Pennsylvania
Pittsburgir: University of Illinois Club of Pittsburgh
President: I. B. Stiefel, ' 12,600 Mulberry street
Secretary-Treasurer: L. F. Hamilton, '97, care National Tube Co.

## Tennessee

Memphis: Memphis Illini Club
President: D. M. Crawford, '05, Builders' Exchange
Secretary: L. D. Knapp, '15, 839 Rayner street
Texas
Houston: Houston Illini Club
President: F. G. Frost, '01, Box 1286
Secretary-Treasurer: C. E. Brockman, '11, 510 First National Bank Bldg.
Palacios: Gulf Coast Alumni Club
President and Acting Secretary: Mary Williamson Elder, ' 87

## Utah

Inter-Mountain Alumni Association of the University of Illinois
President: Wesley E. King, '97, 116 U street, Salt Lake City
Secretary: W. H. Gregory, 406 Utah Savings \& Trust bldg., Salt Lake City
Washingtorz
Puget Sound Association of the alumni and former students of the University of Illinois
President: S. F. Bullard, '86, 622 Provident bldg., Tacoma
Secretary-Treasurer: Roy Mason, '10, 1209 Wilcox bldg., Portland, Ore.

## Wisconsin

Madison: University of Illinois Alumni Association of Madison
President: G. R. Bascom, '05, care University of Wisconsin
Secretary-Treasurer: Sidney D. Morris, care University of Wisconsin
Milwaukee: University of Illinois Club of Milwaukee
President: C. L. Hall, '06, 186 13th street
Secretary: E. O. Finkenbinder, '10, 1115 Maryland ave.

## LOCAL ASSOCIATIONS IN FOREIGN COUNTRIES

India
University of Illinois Association of India
President: George C. Hewes, '83, M. E. Mission, Sitapur, Oudh, India
Secretary: Agnes G. Hill, '92, Y. W. C. A., Lucknow, India
Japan
Illini Club of Japan
President: S. Shiga, '93, Tokyo Technical School, Tokyo
Secretary: G. Fujimura,'11, Agricultural Experiment Station, Taihoku, Formosa

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[^0]:    ${ }^{1}$ The Senate is composed of all University officers of full professorial rank and all others in charge of independent departments of instruction. The order is that of seniority. For index of names, see page 545.
    ${ }^{2}$ On leave, first semester.
    : On leave.

[^1]:    ${ }^{1}$ On leave.

[^2]:    ${ }^{1}$ On leave.

[^3]:    ${ }^{1}$ Resigned.

[^4]:    ${ }^{1}$ Resigned.

[^5]:    ${ }^{1}$ Resigned.

[^6]:    ${ }^{1}$ Resigned.

[^7]:    ${ }^{1}$ Resigned.

[^8]:    ${ }^{1}$ Resigned, September 30, 1916.

[^9]:    ${ }^{1}$ For definition of unit, see page 67.
    ${ }^{2}$ For definition of semester hour, see page 247.

[^10]:    ${ }^{1}$ A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise.
    ${ }^{2}$ One and one-half units of high-school algebra are prerequisite for registration in all university courses in mathematics, and college mathematics is prerequisite for courses in physics and advanced chemistry. It is necessary, therefore, for students who intend to pursue curriculums involving college mathematics, physics, or advanced chemistry, including the curriculums in household science, medicine, chemistry, and chemical engineering, or curriculums in commerce and business administration in which university courses in mathematics are prescribed, to present for admission to the University, or make up after entrance, one-half unit of advanced algebra in addition to the required unit of List A.

[^11]:    ${ }^{1}$ Students entering the curriculums in Household Science must also offer 1 unit in high-school physics, which is a prerequisite for Household Science 1, a prescribed freshman course.
    ${ }^{2}$ See footnote page 67.
    ${ }^{2}$ Not accepted in satisfaction of the foreign language prescription of the College of Liberal Arts and Sciences or of the School of Music, but only as an elective.
    ${ }^{4}$ Greek and Roman History, 1 unit; Medieval and Modern History, 1 unit; English History, 1/2 or 1 unit; American History, $1 / 2$ or 1 unit.

[^12]:    ${ }^{1}$ The subjects named in List $C$ must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.
    ${ }^{2}$ In giving credits for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.
    ${ }^{3}$ See footnote, page 67.
    ${ }^{4}$ See footnote, page 68.

[^13]:    ${ }^{1}$ Four units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, $1 / 2$ unit or 1 unit; American history, $1 / 2$ unit or 1 unit.

    2 Notebook required for 1 unit; not required for $1 / 2$ unit.
    ${ }^{3}$ Notebook required.

[^14]:    ${ }^{1}$ Notebook required.
    ${ }^{2}$ Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, $1 / 2$ unit or 1 unit; American history, $1 / 2$ unit or 1 unit.
    ${ }^{2}$ Notebook required for 1 unit; not required for $1 / 2$ unit.

[^15]:    For scholarships in the College of Law, see page 206.
    For scholarships in the Summer Session, see page 201.
    For fellowships and graduate scholarships, see under Graduate School, page 182.

[^16]:    ${ }^{1}$ Additional equipment costing $\$ 6.75$ must be purchased.

[^17]:    ${ }^{1}$ Not payable if the student has previously matriculated in any other college of the University of Illinois.

[^18]:    ${ }^{1}$ Not payable if the student has previously matriculated in any other college of the University of Illinois.

[^19]:    ${ }^{1}$ Students of music, special students, and conditioned students must make needed changes iu the amount given for "semester fees."

[^20]:    ${ }^{1}$ See special examination in Rhetoric 1, page 72 .
    ${ }^{2}$ English $10-11$ is open only to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 310 .
    ${ }^{2}$ The figure immediately following the subject is the number of the course (see page 247), the figure in parenthesis indicates the number of credit hours to be secured in the course each semester.

[^21]:    ${ }^{1}$ Either semester.
    ${ }^{2}$ May be taken either semester, but not in both.
    ${ }^{3}$ Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.
    ${ }^{4}$ English $10-11$ is open to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 310 .
    ${ }^{5}$ The figure immediately following the subject is the number of the course (see page 247), the figure in parenthesis indicates the number of credit hours to be secured in the course each semester.
    ${ }^{6}$ Prerequisite: Entrance credit in Physics, and Chemistry 1 or 1a.

[^22]:    ${ }^{1}$ For new additional courses in journalism see the description of courses beginning on page 247 under English (Rhetoric).
    ${ }_{2}$ Semester hours. For definition, see page 247.

[^23]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^24]:    ${ }^{1}$ Semester hours. For definition see page 247.
    ${ }^{2}$ If Chemistry 1a is taken, a 2 -hour elective must be added, with the approval of the adviser.
    ${ }^{3}$ Attention is called to the fact that high school physics is a prerequisite for Household Science 1.
    ${ }^{4}$ Choice depends on whether the student wishes to emphasize the sciences or economics as a minor.

[^25]:    ${ }^{1}$ Semester hours. For definition see page 247.

[^26]:    ${ }^{2}$ Semester hours. For definition see page 247.

[^27]:    ${ }^{1}$ Students electing Option B must register in Mathematics 7.

[^28]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^29]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^30]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^31]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^32]:    ${ }^{1}$ Scmester hours. For definition, see page 247.

[^33]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^34]:    ${ }^{1}$ The School of Railway Engineering and Administration (page 194) offers, in addition to the three curriculums named here, curriculums in railway transportation and railway administration under the direction of the College of Commerce and Business Administration. See pages 137-139 above.

[^35]:    ${ }^{1}$ See also School of Rallway Engineering and Administration, page 194.

[^36]:    ${ }^{1}$ Semester hours. For definition, see page 247.
    ${ }^{2}$ The numbers refer to courses in the Description of Courses, pages 247.
    ${ }^{3}$ Students who have had chemistry in the high school equivalent to Chemistry 1 b will register in Chemistry 1a.
    ${ }^{1}$ Any approved non-technical course requiring sophomore standing. See printed list of approved non-technical electives, page 151 .

[^37]:    ${ }^{1}$ Any approved non-technical course requiring sophomore standing. See printed list of approved non-technical electives, page 151.
    ${ }^{2}$ Semester hours. For definition see page 247.
    ${ }^{3}$ The numbers refer to courses in the Description of Courses, page 247.

[^38]:    ${ }^{1}$ Semester hours. For definition, see page 247.
    ${ }^{2}$ The numbers refer to courses in the Description of Courses, page 247.
    Any approved non-technical course. See page 151.

[^39]:    ${ }^{1}$ Only st.udents having high grades may elect a thesis.
    ${ }^{2}$ Semester hours. For definition see page 247.
    The numbers refer to courses in the Description of Courses, page 247.

    - Any approved non-technical elective. See page 151.

[^40]:    ${ }^{1}$ Semester hours. For definition see page 247.
    ${ }^{2}$ The numbers refer to courses in the Description of Courses, page 247.
    ${ }^{8}$ Any approved non-technical course. See page 151.

[^41]:    ${ }^{1}$ Semester hours. For definition see page 247.
    2 The numbers refer to courses in the Description of Courses, page 247.

    - Any approved non-technical course. See page 151.

[^42]:    ${ }^{1}$ Any approved non-technical course. See page 151.
    ${ }^{2}$ Semester hours. For definition see page 247.
    ${ }^{3}$ The numbers refer to courscs in the Description of Courses, page 247.

[^43]:    ${ }^{1}$ Only students having high grades may elect a thesis.
    ${ }^{2}$ Any approved non-technical course. See page 151.
    ${ }^{3}$ Semester hours. For definition see page 247.
    ${ }^{5}$ The numbers refer to courses in the Description of Courses, page 247.

[^44]:    ${ }^{1}$ Semester hours. For definition see page 247.
    2 Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 72.

[^45]:    ${ }^{1}$ If physics has not been offered for entrance, its equivalent should be elected.
    2Semester hours. For definition see page 247.
    ${ }^{2}$ If Chemistry 1a is taken, a 2-hour elective must be added with the approval of the adviser.
    4 Attention is called to the fact that high school physics is a prerequisite for Household Science 1.

[^46]:    ${ }^{1}$ Students taking the professional course are required to register in Horticulture 39, each semester.
    ${ }_{2}$ Students taking the Curriculum for Teachers may take Animal Husbandry 30 for one-half semester and receive $21 / 2$ credits therefor.

[^47]:    ${ }^{1}$ No other will be accepted by the Dean.

[^48]:    ${ }^{1}$ The figures after each subject indicate the minimum number of lecture or recitation hours a week which the student should devote to that subject throughout one college year.

[^49]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^50]:    Semester hours. For definition, see page 247.
    ${ }^{2}$ Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 72.

[^51]:    ${ }^{1}$ Semester hours. For definition, see page 247.

[^52]:    "At the option of the county superintendent, a high school certificate may be issued without examination to graduates of a recognized normal school, college, or university, who present within three years after graduation, certified credits in English, pedagogy and six high school subjects (chosen from a list published by the Examining Board) and accompanied by faculty recommendations of ability to teach in the high school." (Section 6.)

[^53]:    ${ }^{1}$ Semester hours. For definition see page 247.

[^54]:    ${ }^{1} \mathrm{~A}$ unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise. In general, two hours in laboratory, shop, or drawing room are considered equivalent to one hour of recitation.
    ${ }^{2}$ Semester hours. For definition see page 247.

[^55]:    ${ }^{1}$ Not required in the case of students who have previously matriculated in any other college of the University of Illinois.

[^56]:    ${ }^{1}$ The first and second semesters are indicated by the Roman numerais I and II, respectively. A portion of a semester is indicated by the words in parenthesis foliowing the semester numerai. Unless otherwise specifically stated, the Arabic numerals indicate the number of one-hour periods a week in each subject.

[^57]:    ${ }^{1}$ Resigned, September 30,1916 ; gave courses 101 and 103 in the summer session of 1916.

[^58]:    ${ }^{1}$ Resigned, September 30, 1916; gave courses 101 and 105 in the Summer Session of 1916.

[^59]:    ${ }^{1}$ Not given in 1916-17.

[^60]:    ${ }^{1}$ A unit is the amount of work represented by the pursuit of one high-school subject for one year oi 36 weeks, with five forty-minute recitations each week, or the equivalent in laboratory or other practise.

[^61]:    ${ }^{1}$ The first number indicates the total number of hours in a course; the number after the hyphen indicates the number of exercises a week; the Roman numerals I, II indicate the first and second semesters, and the final numbers $1,2,3$ indicate respectively the freshman, junior, and senior years. Thus 112-7; I; 2 means that the course includes 112 hours, 7 a week, given during the first semester of the junior year.

[^62]:    ${ }^{1}$ First Semester.
    ${ }^{2}$ Second Semester.

[^63]:    ${ }^{1}$ Not required in the case of students who have previously matriculated in any other college of the University of Illinois.

[^64]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2 , or 3 , or 4 , or 5 .

[^65]:    ${ }^{1}$ A required inspection trip to certain soil experiment fields or farms will be arranged in May or early June, in connection with courses 12 and 12a, which will require an expense of about $\$ 10$ on the part of the student.
    ${ }^{2}$ The student is advised to collect in advance a representative composite sample of surface soil (at least 6 pounds) from land in which he is interested (see page 44 of the Soil Fertility Laboratory Manual, or Illinois Experiment Station Circular 150).
    ${ }^{3}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^66]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, nol the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^67]:    ${ }^{1}$ Resigned, November 1, 1916.

[^68]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, nol the possiblc hours, as shown here, but the number of hours for which he intends to take the course; e. 8 ., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^69]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the pessible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^70]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studyist, not the possible hours, as shown here, but the number of hours for which he intends to take the ourse; e. g., not 1-2, but, 1 , or 2 .

[^71]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. 8 ., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^72]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, nol the possible hours, as shown here, but the number of hours for which he intends to take the course, e. g., not $1-2$, but 1 , or 2 .

[^73]:    ${ }^{1}$ Resigned, February 28, 1917.

[^74]:    ${ }^{1}$ Certain required inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate $\$ 15.00$ for each course.

[^75]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^76]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2 , or 3 , or 4 , or 5 .

[^77]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

    2 On lcave of absence.

[^78]:    ${ }^{1}$ On leave of absence, first semester.

[^79]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^80]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^81]:    ${ }^{1} \mathrm{On}$ leave of absence.

[^82]:    ${ }^{1}$ Students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from the first semester's work. The exarnination for those desirous of meeting this qualification will be given at 7 p . m., September 18 , in room 228 N . H.
    ${ }^{2}$ Credit will not be given for both 3 a and 3 b , nor for more than six hours in Phetoric 3.

[^83]:    ${ }^{1}$ In registering for a course with variable eredit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^84]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^85]:    Prercquisite: Geology 16.]

[^86]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^87]:    ${ }^{1}$ On leave of absence.

[^88]:    ${ }^{1}$ On leave of absence.

[^89]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list, $n o l$ the possible hours, as shown here, but the number oi hours for which he intends to take the course; e. $\varepsilon$., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^90]:    ${ }^{1}$ Resigned.

[^91]:    ${ }^{1}$ Millinery for those taking Household Science 11 is given from 10 to $120^{\prime}$ clock on Saturday the second semester, and Sewing from 10 to $120^{\circ}$ clock on Saturday the first semester.

[^92]:    ${ }^{1}$ On leave of absence.

[^93]:    ${ }^{1}$ In registering for a course with variable credit bours, a student must put down on bis studylist, nol the possible hours, as shown here, but the number of hours for which he intends to take the course: e. g., not $1-4$, but 1 , or 2 , or 3 , or 4 .

[^94]:    S 2. College Algebra.-(Equivalent to course 2.) Rietz and Crathorne's College Algebra. (3).

    Mr. Frary
    Prerequisite: $21 / 2$ units entrance mathematics.

[^95]:    ${ }^{1}$ See page 120.

[^96]:    1 In registering for a course with variable credit hours, a student must put down on his study-list not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5 .

[^97]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down no his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4 , or 5 .

[^98]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must pat down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^99]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his study-list. nol the possible hours, as shown here, but the number of hours for which he intends to take the course: e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^100]:    In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course: e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^101]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^102]:    ${ }^{1}$ In registering for a course with variable credit hours, a student must put down on his studylist, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not $2-5$, but 2 , or 3 , or 4 , or 5 .

[^103]:    ${ }^{1}$ Resigned November 1, 1916.
    ${ }_{2}$ Employed locally as county adviser, but not on the Smith-Lever fund.

[^104]:    ${ }^{1}$ The Station Staff includes only those scientific workers who have been recommerded by the President and appointed by the Board of Trustees.
    ${ }^{2}$ Deceased April 14, 1916.
    ${ }^{3}$ Resigned.

[^105]:    ${ }^{1}$ Resigned, November 1, 1916

[^106]:    ${ }^{1}$ Absent on leave.

[^107]:    ${ }^{1}$ Degrees were conferred by the University of Illinois unless otherwise specified. Two degrees from the same institution are indicated thus: A.B., A.M., 1909, 1911.
    ${ }^{2}$ Attendance during the Summer Session of 1916 is indicated by SS; during the first and second semesters of $1916-17$ by the asterisk (*) and the dagger ( $\dagger$ ) respectively in the columns next the home address.
    ${ }^{3}$ Candidate for professional degree in engineering.

[^108]:    ${ }^{1}$ Candidate for professional degree in engineering.
    ${ }^{2}$ In Graduate Courses in Medical Sciences, offered in Chicago, Summer Session, 1916.

[^109]:    ${ }^{1}$ Candidate for professional degree in engineering.

[^110]:    ${ }^{1}$ Candidate for professional degree in engineering.

[^111]:    ${ }^{1}$ Candidate for professional degree in engineering.

[^112]:    In Graduate Courses in Medical Sciences, offered in Chicago, Summer Session, 1916.
    ${ }^{2}$ Candidate for professional degree in engineering.

[^113]:    ${ }^{1}$ Candidate for professional degree in engineering.
    In Graduate Conrses in Mcdical Sciences, offered in Chieago, Summer Session, 1916.

[^114]:    In Graduate Courses in Medical Sciences, offered in Chicago, Summer Session, 1916.

[^115]:    ${ }^{1}$ Computed October 1, 1916.
    ${ }^{2}$ Attendance, first semester, indicated by asterisk (*); second semester, by dagger ( $\hat{\mathrm{H}}$ ).

[^116]:    ${ }^{1}$ Abbreviations: P, Pharmacy; PC, Pharmaceutical Chemistry; 1, first year; 2, second year; sp, special.

[^117]:    $\begin{array}{ll}P & 2 \\ P C & 2 \\ P & 1\end{array}$
    2
    2
    1
    $\begin{array}{ll}P & 1 \\ P & 1 \\ P & 2\end{array}$
    1
    $s p$
    sp
    1
    C
    P
    $P$

[^118]:    ${ }^{1}$ With thesis.

[^119]:    ${ }^{1}$ With thesis.

