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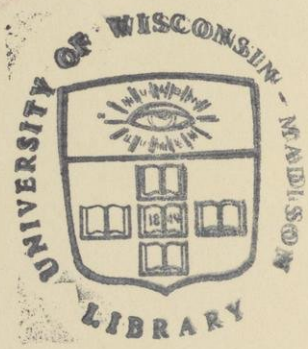
THE UNIVERSITY OF WISCONSIN CATALOGUE

1915-1916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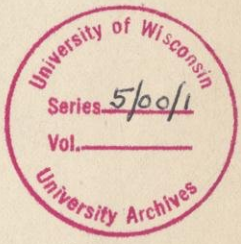
BULLETIN OF THE UNIVERSITY OF WISCONSIN
Serial No. 788; General Series No. 565

THE

UNIVERSITY OF WISCONSIN

CATALOGUE

1915-1916



MADISON
Published by the University
May, 1916

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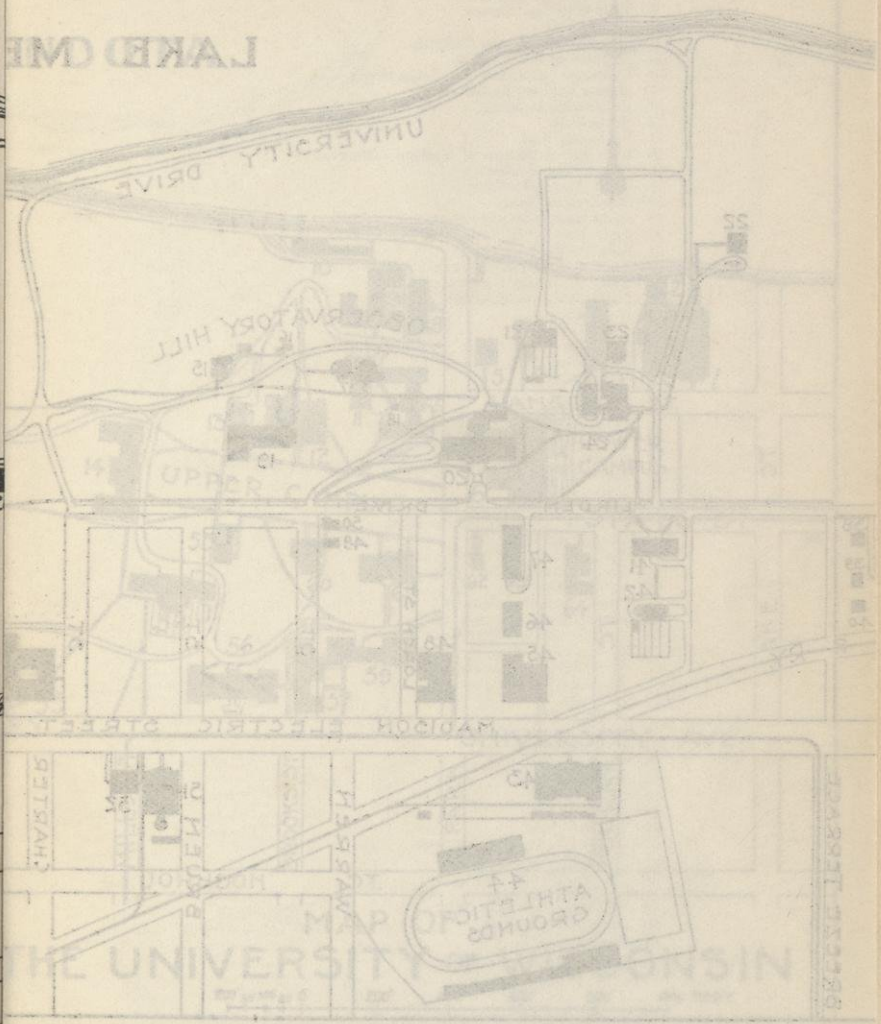
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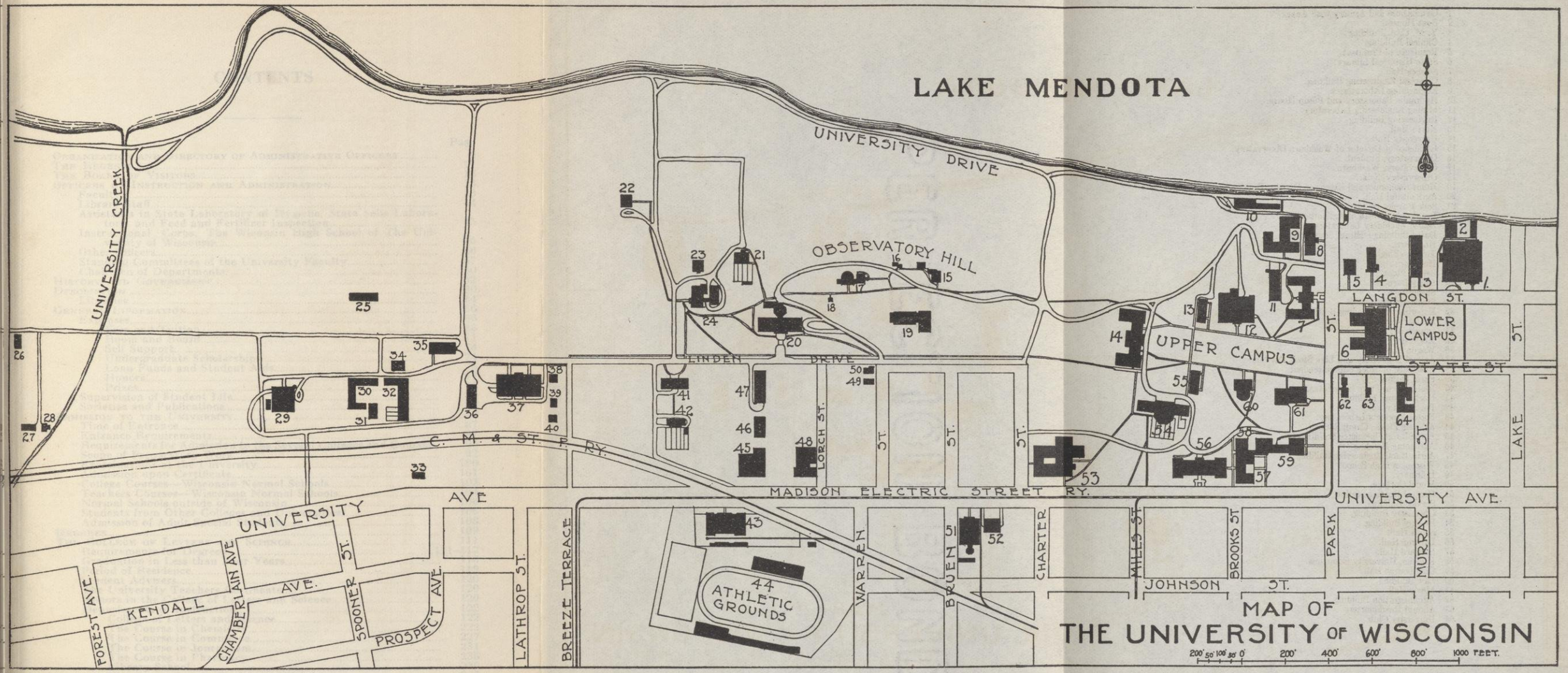
UPPER CAMPUS
MADISON ELECTRIC STREET
CHARTER STREET
ATHLETIC GROUNDS



62 Administration Building
45 Agricultural Chemistry Building
47 Agricultural Engineering Building
20 Agricultural Hall.
46 Agronomy Building.
63 Alumni Headquarters
37 Animal Husbandry and Live Stock Pavilion
44 Athletic Field—Camp Randall.
57 Barnard Hall.
54 Biology Building.
2 Boat Houses.
51 Central Heating Station.
59 Chadbourne Hall.
8 Chemical Engineering Building.
53 Chemistry Building.
4 Clinical Building.
29 Dairy Barn.
24 Dairy Building—Hiram Smith Hall.
23 Dairy Machinery Laboratory.
12 Engineering Building.
9 Engineering Laboratories.
32 Experimental Breeding Building.
19 Extension Division and Home Econ. Building.
39 Farm Dormitory.
43 Forest Products Laboratory.
1 Gymnasium and Armory with Annex.
25, 27 Hog Barns.
35 Horse Barn.
41 Horticultural Building.
10 Hydraulic Laboratory and Pump House.
34 Implement Shed.
49 Infirmary.
58 Kitchen, University Commons.
56 Lathrop Hall.
60 Law Building.
11 Mining Engineering Laboratory.
50 Model Cottage.
61 Music Hall.
13 North Hall.
18 Observatory, Solar.
16 Observatory, Student.
17 Observatory, Washburn.
42 Potting House.
33 Poultry House.
22 Residence of Dean of Agriculture.
40 Residence of Farm Superintendent.
5 Residence of President.
38 Residence of Stock Superintendent.
15 Residence of Director of Washburn Observatory.
7 Science Hall.
52 Service Building.
28 Serum Plant.
30 Sheep Barn.
21 Soils-Physics Building.
55 South Hall.
6 State Historical Library.
31 Stock Auditorium.
26 Tobacco Shed.
64 University Club.
14 University Hall.
36 Wagon Shed.
48 Wisconsin High School.
3 Y. M. C. A. Building.

1 Gymnasium and Armory with Annex.
2 Boat Houses.
3 Y. M. C. A. Building.
4 Clinical Building.
5 Residence of President.
6 State Historical Library.
7 Science Hall.
8 Chemical Engineering Building.
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14 University Hall.
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16 Observatory, Student.
17 Observatory, Washburn.
18 Observatory, Solar.
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57 Barnard Hall.
58 Kitchen, University Commons.
59 Chadbourne Hall.
60 Law Building.
61 Music Hall.
62 Administration Building.
63 Alumni Headquarters.
64 University Club.

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1916

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CALENDAR

1915		
Sept. 20–21–22	Mon.–Tu.–Wed.	Registration days.
Sept. 20–21	Mon.–Tu.	Examinations for admission.
Sept. 23	Thursday	Lectures and recitations begin.
Nov. 25	Thursday	Thanksgiving Day: Legal holiday.
Dec. 16	Thurs. (Noon)	Christmas recess begins.
1916		
Jan. 4	Tues. (8 a. m.)	Exercises resumed.
Jan. 31–Feb. 9	Mon.–Wed.	Final examinations, first semester.
Feb. 10–11	Thur.–Fri.	Registration days.
Feb. 14	Monday	Lectures and recitations begin.
Feb. 22	Tuesday	Washington's birthday: legal holiday.
April 12–18	Wed.–Tues. (Inclusive.)	Spring recess.
May 30	Tuesday	Memorial Day: legal holiday.
June 10–16	Sat.–Fri.	Final examinations, second semester.
June 15–16	Thur.–Fri.	Examinations for admission.
June 18–21	Sun.–Wed.	Commencement week.

Commencement Week

June 18	Sunday	Baccalaureate address.
June 19	Monday	Class Day exercises.
June 20	Tuesday	Alumni Day.
June 21	Wednesday	Commencement Day.

Summer Session

June 26	Monday	Summer session opens.
*August 4	Friday	Summer session closes.

*The summer session in the Law School closes September 1.

THE ACADEMIC YEAR 1916–1917

1916		
Sept. 18–19–20	Mon.–Tu.–Wed.	Registration days.
Sept. 18–19	Mon.–Tu.	Examinations for admission.
Sept. 21	Thursday	Lectures and recitations begin.
Nov. 30	Thursday	Thanksgiving Day: legal holiday.
Dec. 21	Thurs. (Noon)	Christmas recess begins.
1917		
Jan. 9	Tues. (8 a. m.)	Exercises resumed.
Jan. 29–Feb. 7	Mon.–Wed.	Final examinations, first semester.
Feb. 8–9	Thur.–Fri.	Registration days.
Feb. 12	Monday	Lectures and recitations begin.
Feb. 22	Thursday	Washington's birthday: legal holiday.
April 11–17	Wed.–Tues. (Inclusive)	Spring recess.
May 30	Wednesday	Memorial Day: legal holiday.
June 9–15	Sat.–Fri.	Final examinations, second semester.
June 14–15	Thur.–Fri.	Examinations for admission.
June 17–20	Sun.–Wed.	Commencement week.

THE UNIVERSITY OF WISCONSIN

ORGANIZATION AND DIRECTORY OF ADMINISTRATIVE OFFICERS

Charles R. Van Hise, President—University Hall.
W. D. Hiestand, Registrar—University Hall.
H. J. Thorkelson, Business Manager—Administration Building.
M. E. McCaffrey, Secretary of the Regents—Administration Building.
G. L. Gilbert, Bursar—Administration Building.
Lois K. Mathews, Dean of Women—Lathrop Hall.

The College of Letters and Science

E. A. Birge, Dean—2 South Hall.
F. W. Roe, Assistant Dean—3 South Hall.

The School of Music.
C. H. Mills, Director—1 Music Hall.
The Course in Chemistry.
Louis Kahlenberg, Director—153 Chemistry Building.
The Course in Commerce.
W. A. Scott, Director—55 North Hall.
The Course in Journalism.
W. G. Bleyer, Chairman—33 South Hall.
The Library School.
M. S. Dudgeon, Director—Capitol.
The Course in Pharmacy.
Edward Kremers, Director—303 Chemistry Building.
The Department of Physical Education.
G. W. Ehler, Director—1A Gymnasium.
The Course for the Training of Teachers.
V. A. C. Henmon, Acting Director—123 University Hall.

The College of Engineering

F. E. Turneaure, Dean—111 Engineering Building.
J. D. Phillips, Assistant Dean—303 Engineering Building.
THE CIVIL ENGINEERING COURSE.
THE MECHANICAL ENGINEERING COURSE.
THE ELECTRICAL ENGINEERING COURSE.
THE CHEMICAL ENGINEERING COURSE.
THE MINING ENGINEERING COURSE.

The College of Agriculture

H. L. Russell, Dean—101 Agricultural Hall.
D. H. Otis, Assistant Dean—105 Agricultural Hall.
THE EXPERIMENT STATION.
THE LONG COURSE IN AGRICULTURE.
THE MIDDLE COURSE IN AGRICULTURE.
THE COURSE IN HOME ECONOMICS.
Abby L. Marlatt, Director—119 Home Economics Building.
THE SHORT COURSE IN AGRICULTURE.
THE DAIRY COURSE.
THE FARMERS' INSTITUTES.

The Law School

H. S. Richards, Dean—Law Building.

The Medical School

C. R. Bardeen, Dean—Clinical Building.

The Graduate School

G. C. Comstock, Dean—157 University Hall.

The University Extension Division

L. E. Reber, Dean—108 University Extension Building.
THE DEPARTMENT OF INSTRUCTION BY LECTURES.
THE DEPARTMENT OF CORRESPONDENCE-STUDY.
THE DEPARTMENT OF GENERAL INFORMATION AND WELFARE.
THE DEPARTMENT OF DEBATING AND PUBLIC DISCUSSION.

The Summer Session

S. H. Goodnight, Director—22 South Hall.

THE REGENTS

CHARLES R. VAN HISE, *President of the University, Ex-Officio.*
CHARLES P. CARY, *State Superintendent of Public Instruction, Ex-Officio.*

	TERM EXPIRES
State-at-Large—GILBERT E. SEAMAN, Milwaukee	1919
State-at-Large—MRS. FLORENCE G. BUCKSTAFF, Oshkosh	1917
First District—A. J. HORLICK, Racine	1919
Second District—F. W. A. NOTZ, Watertown	1918
Third District—EDWARD M. MCMAHON, Madison	1919
Fourth District—THEODORE M. HAMMOND, Wauwatosa	1922
Fifth District—JAMES F. TROTTMAN, Milwaukee	1921
Sixth District—MISS FRANCES G. PERKINS, Fond du Lac	1921
Seventh District—D. O. MAHONEY, Viroqua	1920
Eighth District—GRANVILLE D. JONES, Wausau	1922
Ninth District—ORLANDO E. CLARK, Appleton	1918
Tenth District—BEN F. FAAST, Eau Claire	1920
Eleventh District—A. P. NELSON, Grantsburg	1917

Officers of the Regents

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*On leave of absence, academic year 1916-17.
†Resigned November 1, 1915.
‡Resigned, to take effect February 1, 1916.

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*On leave of absence first semester, 1916–17.
†On leave of absence, academic year, 1915-16.

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*On leave of absence, academic year, 1915-16.

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HISTORY AND GOVERNMENT

In the settlement of the pioneer regions of the United States, it very early became the established practice to set apart a share of the unoccupied land for the support of an institution of higher learning. Immigrants were thus assured that the opportunities of an advanced education would not be denied the children of the new community because the founders of it had ventured into the wilderness. This system, conceived in a spirit of statesmanship at once high and prudent, tended to draw an intelligent body of citizens into the region which was being settled, and to set at work forces which would be felt in the permanent elevation of the tone of public education. Thus in 1836, the first year of the territory of Wisconsin, steps toward the establishment of a university were taken by the territorial legislature. In 1839, the National Congress granted to the territory two townships of public land "for the use and support of a university"; and in 1848, when Wisconsin was applying for admission to statehood, provisions for the university were written into the constitution laid before Congress.

The state was admitted May 29, 1848; the necessary legislative acts providing for the organization of the University were approvat July 26 of the same year; and the first Board of Regents met ed Madison in October. The new state had nothing with which to endow the new institution but the unsettled land already granted to it. The Regents, therefore, had before them the choice between two courses;—to sell the lands at low prices in competition with the other wild lands of the state, or to refrain from selling until the increase of population should have raised the value of the University property to a substantial amount. The one course would sacrifice the material endowment; the other would prevent the state from

benefiting by the influence of the University in its formative years. The Regents, wisely, as the history of the state has proved, determined to open the institution without delay. The financial operations which followed have been severely condemned, but there can be no question that the intelligent bounty of the state legislature has afforded the University a safer and a far more generous support than the largest possible endowment that could have been secured by the conservative management of the land of the institution. Moreover, the direct dependence of the University upon the legislature has made it a part of the life of the state in an intimate way, and by making higher education a practical matter for all citizens, has performed a useful service as an element in raising political questions above a merely material plane.

The new institution began instruction in February, 1849. It bore the name of a University, but had in operation only a preparatory school of twenty pupils, under the tuition of John W. Sterling, a graduate of Princeton, who bore the title of Professor of Mathematics. Professor Sterling gave a life of sacrificial devotion to the institution as it added to its academy a little college, and as the little college carried on its struggling and painful life. He was happy enough to live until the University began to assume proportions worthy of its ambitious name. The chancellor, John H. Lathrop, a graduate of Yale, called from the presidency of the Univeristy of Missouri, entered upon his duties in the autumn of 1849. He was a man whose plans were genuinely large and at the same time definite but were in the main never realized because of the paucity of funds. He insisted upon maintaining a solid classical course as the nucleus about which all possible future developments were to be gathered but which was never to be sacrificed to any other objects, however plausible they might seem and however much he desired to meet them. Under his administration (1849–1858) the faculty grew to seven members, and some systematic instruction was given in modern languages, English literature, the art of teaching, and agriculture, as well as in ancient languages, mathematics, and philosophy. The college was bitterly criticized. There was a feeling abroad, vague but insistent, that the University did not do for the community what it should. A "practical" education was wanted, without any clear idea of what a practical education might be, or how expensive the equipment for it must be. Chancellor Lathrop resigned, and after a few months, during which the well known educational theorist, Henry Barnard, then in ill health, held the title of chancellor, the administration lapsed into

the hands of the faculty, Professor Sterling presiding as vice-chancellor. The dark days of the civil war followed. The professors lived on half pay. Many of the students took their place in the army, so that in 1864 no commencement exercises were held, only one of the senior class being in residence.

The maintenance of the institution during these days of struggle had this important effect—that a center and a tradition were created. The material beginning of the University may fairly be said to be the grant under the Morrill act (1862) for the support of a college of agriculture and mechanic arts "without excluding other scientific and classical studies." This noble statute bears evidence of the influence of the civil war in that it made instruction in military tactics a condition of the continuance of the grant. The very smallness of the literary college perhaps made it the more natural to amalgamate the new institution with the old, and thus to give to The University of Wisconsin its peculiar character. In the state all types of highest instruction, whether liberal, professional, or technical, are given by the one institution. A school of music and the beginnings of a school of decorative art have since been added; and in addition many scientific bureaus are administered in close relation with the University. The University of Wisconsin has accordingly a very great diversity of functions and a very complex organization. In this way unseemly rivalries among institutions of higher learning conducted by the state have been avoided and the conception of instruction within the University has been in some departments liberalized and in others elevated.

The reorganization of the institution after the acceptance of the Morrill grant was carried out under the vigorous presidency of Dr. Paul A. Chadbourne of Williams College (1867–1870). A department of agriculture and a college of law were established in 1868; steps were taken toward the acceptance of women students on an equality with men; and the legislature began, first of all, to appropriate moneys to compensate for the impairment of the University fund, later assumed the responsibility of providing necessary buildings, and finally took the step of voting direct taxes for the support of the University. At the same time a system bringing the University into close relations with high schools in the state. was organized. The presidency of Dr. John H. Twombly (1871–1874) followed that of Dr. Chadbourne.

The foundations of the University had now been laid, and the policy of including within it a group of technical and professional colleges, as well as a strong college of liberal arts, had been deter-

mined upon. During the presidency of Dr. John Bascom (1874–1887) the University was developed into a firmly organized and well equipped teaching institution, was brought into close and orderly relations with the other public schools of the state, and was made a moral force in the lives of its students and of the community. Dr. Bascom found the recognition of co-education half-hearted and ambiguous and made it distinct and complete. He found the income deficient, the buildings, the library, and the scientific apparatus inadequate, and the faculty too small for the proper division of departments and the maintenance of high standards. In every point the institution was put on a sound basis. Buildings were erected and satisfactorily equipped, especially for the science departments. The library was enlarged. The faculty became a body of specialists, and not of general teachers. Dr. Bascom more than any other man was responsible for the increase in income which made this progress possible, by the creation of a ratio tax, established in 1876 in the proportion of one-tenth mill to each dollar of the property valuation of the state. The system has been maintained with few interruptions and with liberal increases ever since. Finally the free high schools, the establishment of which was promoted by an act of 1875, granting state aid to such institutions, were bound to the University by a system of accrediting their graduates on the one hand, and on the other by the recognition of the University degree as a qualification for a certificate to teach in the public schools of the state.

In the administration of Dr. Bascom's successor, Dr. Thomas Chrowder Chamberlin (1887–1892), a graduate of Beloit College, the strong college of Dr. Bascom began to grow into a true university. In all ways graduate work assumed a place as an active part of the institution. Scholars with the ideals of research brought from Johns Hopkins or from Germany were added to the faculty. The first university fellowships were established. The degree of Doctor of Philosophy was offered. A new organization, into the Colleges of Letters and Science, Engineering, Agriculture and Law, effected in 1889, testifies to the growing vigor and more distinctly understood aims of the professional and technical institutions. Intercollegiate debates and athletics and "student activities" began to be heard of; and in brief the tendencies which have resulted in the conditions of the present day showed themselves definitely.

During the presidency of Dr. Charles Kendall Adams (1892–1901) these tendencies became dominant. A large armory and gymnasium was built. An athletic field was acquired,—Camp

Randall, the historic encampment where the Wisconsin troops were concentrated during the civil war. The University became socially more complex. A dean of women was appointed. A school of music and a choral society were established. In every way the institution developed. The colleges of law and of engineering grew rapidly, and had to be provided with new buildings. The fields of political, economic, and social science and of history were greatly strengthened. The University had become very definitely the recognized culmination of the public instruction of the state, and was resorted to in increasing numbers by graduates of the state normal schools. The institution was cramped for want of room; and though the increases in building and equipment were rapid, they barely kept pace with the enormous growth in the number of students. The crowning achievement of Dr. Adams's administration was the erection on university ground of a building to house, with the University library, the library of the State Historical Society,—a reference library of great value, and in some aspects unique. The improvement of the facilities placed at the service of the University by the opening of the library, which took place in 1900, marks an epoch in the history of the institution.

Dr. Adams's health failed in 1900; and from that time to 1903, with but a few weeks of interruption, Dr. Edward Asahel Birge, for many years a member of the faculty and then Dean of the College of Letters and Science, was acting president. Throughout the entire period the increase in numbers and the corresponding development of the work of the institution went on uninterruptedly.

Charles Richard Van Hise, Professor of Geology, was the first alumnus of the University to be called to the presidency, which he assumed in 1903 and still occupies. The material progress of the institution has continued under his administration. The College of Agriculture has become an important teaching college, as well as an institution of research. A course in Home Economics has been created; the first two years of a Medical Course are given. Courses in Journalism, in Chemistry, for the Training of Teachers, have been established, while the older similar School of Commerce, now denominated a Course, continues to thrive. Lagging somewhat behind these advances have come the material provisions for them, so that the University remains crowded. The mere enumeration of the newly organized courses illustrates the fact that during the administration of the present incumbent, the tendency of the University to accentuate professional equipment rather than a liberal culture has suffered no abatement. At the same time, the work of

the departments of the humane arts and the pure sciences constitutes the largest single part of the activity of the University, and the opportunity and the ideal of liberal culture are maintained with energy.

The University of Wisconsin is the culmination of the free educational system of the state. In the educational polity of the state, the University is related to the high schools as are the high schools to the primary and grammar schools. It is not expected that all pupils who complete the grammar grades will advance to the high school; nor is it expected that all who complete a high school course will go forward to the University. But the school system of the state has been so arranged as to make advancement from one step to another as easy and natural as possible. The University encourages in its teachers and advanced students research, including learning, investigation, and the application of scientific knowledge to the arts of life. Its largest work is to disseminate knowledge through the systematic discipline of organized courses to resident students, both in liberal and professional study. In addition, the University, through an Extension Division organized upon the broadest basis, assists those who for any reason cannot attend the University, to enjoy the benefits of its facilities and equipment, with the fewest possible restrictions.

The University is supported partly by the income of federal grants, partly by taxation of the people of the state, partly by student fees, and to a slight extent by private gifts. There have been seven federal grants, namely: the Two-Township Grant of 1848; the Supplementary Two-Township Grant of 1854; the Morrill Grant of 1862 for the support of studies pertaining to agricultural and mechanic arts; the Hatch Grant of 1887 for the support of agricultural experiment stations, the Supplementary Morrill Grant of 1890; the Adams Grant of 1906; the Nelson Grant of 1907; and the Smith-Lever Grant of 1914, for the promotion of extension work in agriculture and home economics.

Besides numerous and large appropriations for buildings and other scientific puposes, the State of Wisconsin has made a number of continuing grants. The first was the one-tenth mill tax of 1876. The principle of this tax was once temporarily abandoned, but has been recurred to by the legislature, the present ratio being three-eighths of a mill on the dollar.

Of the gifts that have come to the University from individuals, that of Dane County for the purchase of lands for the University farm, that of the late Governor C. C. Washburn for the founding

of the Washburn Observatory, that of the late Judge Mortimer M. Jackson for the establishment of the Mortimer M. Jackson Professorship of Law, that of the late Dr. C. K. Adams and Mrs. Adams for the foundation of fellowships, and that of Mrs. Fannie P. Lewis for the foundation of scholarships for women are important. On August 27, 1908, Colonel William F. Vilas, who for fifty years had been deeply interested in the University as student, as regent, and as citizen, died. His entire estate was bequeathed to the University, the income, however, in part, or whole, if need be, to go to his wife and daughter during their lives. Half of the income of the estate is to be used for the support of research professorships, fellowships, and scholarships and the remainder to increase the principal. While it will be many years before the University gains financial assistance from this bequest, its influence for the development of the University along the highest lines cannot but be felt at once.

In 1911, friends of the University created the Carl Schurz Memorial Foundation, with the object not only of perpetuating the memory of Carl Schurz, the German-American statesman and patriot, who at one time was a resident of the state and a Regent of the University, but of promoting cultural and scholarly relations between Germany and America. A fund of $30,000, contributed mainly by Wisconsin citizens of German descent, was given in trust to the Regents of the University for "the maintenance of a Professor's Chair in the State University to be known as the 'Carl Schurz Memorial Professorship,' which is to be filled from time to time and for such lengths of time as will be found advisable by visiting professors of recognized character and standing from the universities of Germany."

The first incumbent of the chair was Professor Eugen Kühnemann of the University of Breslau, who gave courses of lectures on German literature during the first semester of 1912–13. He was succeeded in 1914–15 by Professor Moritz Bonn of the University of Munich, who lectured on economic subjects.

A striking mark of good will toward the University has been very recently manifested by the bequest made by the late J. Stephens Tripp, banker, of Prairie du Sac, who died July 23, 1915, at the age of eighty-seven. Mr. Tripp made the University residuary legatee of his estate of approximately $400,000. The bequest is chargeable with certain annuities, and like Colonel Vilas's, will not become available for a number of years. The fact that it is absolutely free from limitations or restrictions of any kind makes it

stand out as a remarkable expression of confidence in the permanent administration of a great public educational trust.

The government of the University is vested in the Board of Regents, who possess all the powers necessary to accomplish the objects of its establishment and to perform the various duties prescribed by law.

The Regents, appointed by the governor of the state, include one member from each of the eleven congressional districts, and two from the State-at-large. At least two of the members are women and the President of the University and Superintendent of Public Instruction are ex-officio members of the Board.

The Regents appoint all administrative officers and faculty members, and all faculty rules regarding the government of students are subject to their approval.

The University faculty exercises authority, subject to the approval of the Board of Regents, in all matters relating to educational policy, scholastic standards, and, in general, the relation of students to the University.

All members of the staff of instruction with the rank of assistant professor or above constitute the governing faculty, with power to take action on questions within the jurisdiction of that body. Other members of the staff of instruction have a voice but no vote at all meetings of the University faculty with the exception of executive sessions.

The faculty of each college, school, or division is similarly organized for the purpose of administering matters relating solely to its own unit of organization.

DESCRIPTION

By the provisions of the constitution of the State of Wisconsin the University must be located at or near the state capital, afterwards fixed at the "village of Madison." The founders of Madison intelligently adapted the original plan of the city of Washington to local conditions, selecting an eminence in the center of the city for the site of the capitol, and laying out radial thoroughfares approaching it so that it closed the vista from every direction. A mile to the west, at the end of one of these radial streets, on a second elevation rising abruptly to a height of more than a hundred feet above the south shore of Lake Mendota, the principal building of the University was erected, thus closing the view from the capitol in that direction. This building, University Hall, was constructed in the simple and dignified modification of classical renaissance architecture accepted in America since colonial times. The building, much enlarged, but in a manner harmonious with the original design, still remains the center of the University. From University Hall a broad open avenue lined with elms, the "Upper Campus," sweeps downward to the street which leads through the town from the capitol. Until recently the main buildings of the various colleges and professional schools, each one in the style prevailing in this country at the time of its erection, were placed on either side of the avenue, and outward from it north and south along the eastern border of the University grounds. Here for example are the recitation buildings and laboratories of the College of Engineering and the Law and Medical Schools, and all but the most recent buildings of the College of Letters and Science. Later in the history of the University it was found seriously inconvenient to erect all the buildings on the slopes of hills, and lands were acquired in the low and level part of Madison to the eastward of the Upper Campus, and near the lodgings of the body of students. Here there is now a group of buildings, for example the offices of the medical staff, the infirmary, the administration building, and the president's house, which are so intimately connected with the general activities of the University that they must be of easy access. The gymnasium and armory stands here on the lake shore, with the plant for aquatic sports behind it and an open space covering an acre and a half

before it,—the "Lower Campus,"—which is utilized as a parade ground and for such athletic sports as do not require the ample area of a regular athletic field. Of all the buildings on this part of the University grounds the most notable,—the most stately of all the buildings connected with the work of the University,—is the Library Building, which houses the library of the State Historical Society and also the library of the University—an edifice of Bedford limestone with a colonnade and terrace of much beauty and dignity fronting the Lower Campus.

The street along the southern edge of the University Hill is now in great measure built up by recently constructed buildings, the most impressive of which is Lathrop Hall, the woman's building, containing a spacious modern gymnasium and swimming pool, a refectory, and accommodations for the social life of the women of the University, and the offices of administration concerned especially with women students. It is built of buff sandstone in a style similar to that in the earlier buildings, but somewhat more ornate, and with its long and lofty façade standing at the top of a high flight of steps and in part flanked by smaller buildings it is next to the Library the most striking of all the buildings of the University.

About a quarter of a mile to the west of the height on which University Hall stands is a second summit of the ridge, crowned by the Washburn Observatory. On the southern and western slopes of this second hill are the buildings of the College of Agriculture which are used for instruction. The experimental farm of the University, used mainly for experiments in detail with crops and feeding, is in the main on level or slightly sloping ground to the west of Observatory Hill. About the southern and eastern edges of it are the various barns: the horse barn, the dairy barn, the sheep barn, the poultry buildings, and the other buildings required by the College of Agriculture, especially for its demonstration work, as the Dairy Building and the Horticultural Building. Of all these the most notable is the Stock Pavilion, containing an oval amphitheater with a seating capacity for two thousand people, and an earthern arena for exhibition purposes covering over 10,000 square feet.

The grounds already in part occupied by buildings, 100 acres in all to the edge of the Experimental Farm, will no doubt in the course of no very long time be entirely devoted to the buildings required for purposes of instruction. In addition, the University owns lands along the shore of the lake to the west, mainly uplands with a diversified surface now used as a general farm, and for experiments on a large scale in farm administration and tillage.

The athletic field, forty-two acres in extent, is at some distance to the south of the agricultural buildings. The field includes satisfactory football and baseball grounds, with a running track, tennis courts and archery grounds. Plans for extensive improvements, including the erection of a modern stadium, have been adopted and will soon be in operation.

The total area of the grounds of the University is not much less than one thousand acres. They are of marked natural beauty, and provide for the probable increase of the University in a far-sighted way. The grounds have a special archaeological interest because of the abundance in and near Madison of the so-called Indian effigy mounds. These are small mounds of earth in the form of animals and other totems, made by the Winnebago and allied native tribes in pre-historic periods, and are unique, being found only in Wisconsin and along the boundaries of the state to the west and south.

The class-room facilities of the University although on the whole adequate are greatly crowded in some departments. The scientific departments are provided with the necessary equipment of auditoriums, class-rooms, and laboratories, large and small, fitted for elementary and advanced classes, with special laboratories for research students, and with a number of private laboratories for the investigations carried on by the staff. They have in all cases the necessary equipment for the instruction which they offer and facilities for further special research upon which graduate students may enter. Detailed accounts of the equipment of the Colleges of Engineering and Agriculture are given in the announcements of these colleges.

The museums of the University are in the main working illustrative collections for use in connection with the instruction of the departments. The collection of chemical manufactures includes the products of a number of the most important European and American establishments. The drug collection contains some five thousand specimens for illustrative purposes contributed mainly by manufacturers, being especially noteworthy for its collection of drugs of Asiatic origin, particularly Malay and Ceylonese drugs and medicines. The herbarium, which has grown from the collection purchased from the estate of I. A. Lapham of Milwaukee as a nucleus, is now especially rich in Wisconsin flowering plants and fleshy fungi, and contains an almost complete collection of North American mosses.

The geological museum contains extensive systematic collections for exhibition and for use in instruction, including carefully planned general and special collections of minerals, rocks, ores, and fossils. The display exhibits are particularly ample in illustrating the origin and formation of rocks. The main body of specimens in the division of rocks consists largely of the Hobbs collection of European igneous rocks including over twenty-five thousand thin sections. The department under the laws of the state also receives the rock collections of the present State Geological Survey, and has in addition the use of nearly seventy thousand specimens and twenty thousand thin sections belonging to the United States Geological Survey, which were collected during studies of the Lake Superior region. A few of the type fossils described by the former Geological Survey of Wisconsin escaped the fire which destroyed the collection of that organization in 1884, but the losses are being gradually replaced.

The museum of the State Historical Society, which though not administered by the University is open to the use of its students for purposes of study and research, makes a specialty of the archaeology and social history of the western Indians, and of western pioneer life, especially in Wisconsin, and is notable for its collections illustrating the early history of the upper Mississippi valley.

The art museums belonging to the University or accessible to its students are not yet developed. The Art Museum of the Historical Society contains a number of modern pictures of merit, a collection of Piranesi's etchings of classical ruins, and a number of good prints and reproductions valuable for study. By the gifts of Mr. C. R. Crane, Colonel W. C. Brumder, the friends of Irish Art, and the loans of Professor Paul S. Reinsch, the University is in possession of a collection of almost two hundred valuable paintings as an art nucleus. The collection is now arranged in historical sequence in the Wisconsin High School and is open to public inspection from 3 to 5 P. M. on the first Sunday of each month.

LIBRARIES

The libraries at Madison, all of which are at the service of members of the University, are six in number, *viz.:* the Library of the University of Wisconsin, the Library of the Historical Society of Wisconsin, the Library of the Wisconsin Academy of Sciences, Arts, and Letters, the State Law Library, the Legislative Reference Library, and the Madison Free Library. These libraries duplicate books only to supply exceptional demands, and have an effective strength approximately equal to the whole number of volumes possessed by them. The total number of bound volumes in all the libraries is about 533,000 and the number of pamphlets exceeds 248,000.

The first three libraries above named are housed in the library building of the State Historical Society on the lower campus of the University. This building, erected by the State of Wisconsin, affords most convenient accommodations for students. In the planning of the building, the especial needs of the University were consulted.

In the south half of the first floor are located three department libraries of the Historical Society, *viz.:* documents, newspaper files, and maps and manuscripts. In the north end of this floor is a series of six seminary rooms, allotted to American history, European history, political economy, political science, mathematics, and Semitic languages. The greater part of the second or main floor is occupied by the general reading room and the periodical room, which are used in common by the two libraries. In these rooms two hundred and seventy-five readers may find accommodation at one time. In open cases in the reading rooms are shelved several thousand reference and "reserved" books. To these, as well as to the large collection of general periodicals in the periodical room, all readers have direct access. The main portions of both libraries are stored in the stack wings adjoining the delivery room on the west. Officers of the University have direct access to the shelves in all parts of the library, and students engaged in advanced work, upon recommendation of their instructors, are allowed access to those parts of the collection dealing with their special subjects.

The administrative rooms of the Historical Society and of the University Library are situated at the south and north ends of the second floor respectively. The north end of the third floor is occupied by six seminary rooms for the subjects of philosophy and education, Latin, Greek, and modern languages and English. The

museum and gallery of the Historical Society occupy the fourth floor. The library is open fourteen and one-quarter hours daily, during the academic year, except on Sundays and legal holidays.

The library of the University of Wisconsin, including its branches, contains about 240,000 volumes and 50,000 pamphlets. The catalogue is the usual dictionary card catalogue of authors, subjects, and titles in one alphabetical arrangement. Subject to certain restrictions, books may be drawn by all members of the University. Students are required to make a guarantee deposit of $2.00 with the Bursar of the Regents before borrowing books from the library. This amount is refunded upon the presentation to the Bursar of the library deposit card endorsed by the Librarian.

The Law School has a special library of 24,000 volumes; and the Washburn Observatory is provided with the Woodman Astronomical Library, now containing 2,600 books and 2,800 pamphlets. The agricultural library of about 15,000 volumes is located on the first floor of Agricultural Hall. The engineering library is located on the first floor of the Engineering Building.

The library of the State Historical Society contains over 193,000 volumes and 196,000 pamphlets. While strong in all fields of American history and allied subjects, it is especially rich in manuscript and other material for the study of the history of the Mississippi valley. Its collections in English history are among the most extensive in this country.

The library of the Wisconsin Academy of Sciences, Arts, and Letters is a valuable collection of reports and transactions of learned societies, comprising about 5,000 volumes. It is located in the Library Building, and constitutes a useful supplement to the other libraries in this special field.

The State Law Library in the Capitol numbers about 59,000 volumes.

The Legislative Reference Library in the Capitol numbers between 30,000 and 35,000 volumes, pamphlets and collections of clippings. This library collects information on all subjects of legislation. The material is largely in the field of political science and political economy.

Students are allowed to draw books from the Madison Free Library, a well selected collection of over 36,000 volumes.

GENERAL INFORMATION

EXPENSES

Fees and Tuition*

COLLEGE OF LETTERS AND SCIENCE, COLLEGE OF ENGINEERING, COLLEGE OF AGRICULTURE (LONG AND MIDDLE COURSES), LAW SCHOOL, MEDICAL SCHOOL, GRADUATE SCHOOL, SCHOOL OF MUSIC.†

Resident tuition	Free
*Nonresident tuition, per semester	$62 00
Incidental fee for all students, per semester	12 00

COLLEGE OF ENGINEERING

Summer vacation work	7 00

COLLEGE OF AGRICULTURE

Resident tuition, all courses	Free
Short Course	
*Nonresident tuition, per term	$48 21
Incidental fee for all students, per term	6 50
Dairy Course	
*Nonresident tuition, per term	41 00
Incidental fee for all students, per term	6 50

***Nonresident tuition is fixed by statute. This has been $100 per year but by act of the last legislature the amount was increased to $124, the increase to become effective September 1, 1916. Provision for remission of these fees, wholly or in part, is made in a limited number of cases.**

†Persons who are members of other colleges of the University may take the general courses in music without charge. Members of the School of Music and other departments, who take special courses, will pay special fees, as stated in the catalogue.

Forest Rangers Course	
*Nonresident tuition, at the University, per term	$48 21
Incidental fee for all students, per term	3 25
Farmers Course	
*Nonresident tuition	6 82

Library School

Resident tuition, per semester	25 00
Nonresident tuition, per semester	50 00

Students who have paid fees in other departments of the University before entering the Library School will pay an additional fee to reach the above amounts.

Summer Session

Graduate School (six weeks)	15 00
Letters and Science, (six weeks)	15 00
Engineering, (six weeks)	15 00
Agriculture, (six weeks)	15 00
Agriculture, (ten weeks)	25 00
Law, (ten weeks)	25 00
Field courses, geology, mining, metallurgy, farm management, (four weeks)	10 00
Students remaining beyond the regular summer session, additional fee, per week	2 50

*Wisconsin High School

Resident tuition, per quarter, 6th and 5th classes	6 00
4th, 3rd, 2nd, and 1st classes	8 00
Nonresident tuition, per quarter	15 00

The complete school year of the Wisconsin High School consists of four quarters of twelve weeks each. At the present time (1916) the school is in regular session but three quarters.

General Requirements

All fees must be paid at the beginning of each semester. Until this has been done, cards entitling the student to admission to classes will not be issued.

Graduate students pay the same fees as undergraduate students of the College of Letters and Science. Graduate students *in absentia* pay the same fees as graduate students in attendance at the University, provided that after such students have paid fees to the amount which they would naturally pay, if in attendance, for the degree for which they are candidates, no further fee will be required. Members of the instructional and research force of the University and members of the research staff of the State Geological and Natural History Survey who are candidates for degrees shall pay such fees as are prescribed for graduate students resident in Wisconsin, but the total fee so paid shall be limited to the aggregate sum required of students giving to such candidacy their entire time during the period ordinarily required to obtain the degree sought. The period ordinarily required to obtain a master's degree or corresponding professional degree shall be construed as two semesters, and the corresponding period for the doctor's degree as seven semesters.

An additional fee of one dollar per semester must be paid by students who pay their fees after the prescribed registration days. (See Calendar.)

Upon the recommendation of the Commandant of the Department of Military Science, the Secretary of the Regents is authorized to remit fees to the extent of $10 per semester to company officers of the battalion having the rank of captain or above, and to award a prize of $50 at the end of each year of service of the field officers, colonel, lieutenant colonel, and adjutant.

Partial Fees and Refunds

From students entering after one-half of a semester or term shall have elapsed, only one-half of the prescribed tuition and fees shall be collected.

The Bursar, upon the recommendation of the Registrar, is authorized to refund to students withdrawing from the University, the proportion of any semester's tuition and fees indicated by the following table:

From beginning of semester	Deduct per cent	Refund per cent
Until 2 weeks	20	80
Between 2 and 4 weeks	40	60
" 4 and 6 weeks	60	40
" 6 and 8 weeks	80	20

No refund after eight weeks.

In cases of students entering after regular registration days and withdrawing within the eight-week period, the amount to be returned may be determined by using the above table as a basis.

Summer session refunds will be on the same proportional basis as refunds for the regular year.

The full amount of fees paid shall be returned to students who for some reason fail of admission to the University.

No claim for remission of fees will be considered unless such claim be presented during the fiscal year to which the claim is applicable.

Regulations for Doctor's Thesis

Each candidate for the degree of Doctor of Philosophy must deposit in the University Library printed copies of his thesis or of an approved part thereof, as provided by the regulations of the Graduate School (see p. 379). The candidate may receive his diploma before the thesis is printed provided a typewritten copy of the thesis with an abstract thereof is deposited with the Librarian, and the sum of $50 with the Bursar of the Regents. The money will be returned on presentation to the library of the required number of printed copies of the thesis or approved part thereof within one year.

Laboratory Fees

Charges are made in the various laboratories to cover the expense of material consumed. In the following statement a *fee* is a charge none of which is returnable; a *deposit* is a charge, part or all of which may be returnable.

Biology—The laboratory fee in Biology 1 for the first semester is $4 *plus* a deposit of $1; for the second semester $4.50 *plus* a deposit of fifty cents. For laboratory fees and deposits in other biological courses see the statements under Botany, Zoology, and the Medical School.

Botany—In most of the courses in botany the semester laboratory fee is fixed on the basis of one dollar for each laboratory credit, i. e., for each two hours per week of work in the laboratory; in addition, a deposit of from fifty cents to one dollar is required to cover the cost of keys and breakage. For example, in Botany 1 there is a laboratory fee of $4 and a deposit of $1. In plant physiology (Botany 146), in which large amounts of materials and apparatus are used, the fee is $4 and the deposit $2. Research students pay a fee of $2.50 per semester.

CHEMISTRY—In the chemical laboratories a deposit is made which varies with the nature of the course and the amount of work taken. The sum refunded at the end of the course will depend on the chemicals used and the care exercised by the student in avoiding breakage of apparatus.

For the basal courses, the deposits are as follows: course 1, $15 for the first semester and $10 for the second semester; course 2, $15 for the year; course 11 or 120, $20 for the first semester, and $15 for the second semester; course 130, $15 for the first semester, and $10 for the second semester. The deposits for the various shorter and special courses are also determined by the materials consumed, the amounts commonly ranging within the limits above mentioned.

GEOLOGY.—The fees in the courses primarily for undergraduates are as follows: courses 1, 3, 4, $1; course 8, $2; courses 6, 7, $4. Fees, when required, in the more advanced courses vary from $2 to $6, according to the amount and expense of material.

PHYSICS.—The laboratory fee in the physical laboratories is $2 for each unit-hour (two hours per week of actual work) per semester.

PSYCHOLOGY.—The laboratory fee for the course in experimental psychology is $3; for other experimental work $3 per semester, or $5 per year.

ZOOLOGY.—In Zoology 21 a laboratory fee of $1.50 is charged, without deposit. In all other courses in which a fee is required, there is a deposit of 50 cents, refunded upon return of keys. The fees for courses primarily for undergraduates *plus* the deposit are as follows: course 20, $1.50; courses 4, 9, 19, $2; course 3, $3.50; course 11, $4; course 1a, $4.50; course 1b, $5.50. Fees in the more advanced courses vary from $2 to $6.50, according to the amount and expense of material.

COURSE IN PHARMACY.—See under Botany, Chemistry, Zoology, and Medical School.

COLLEGE OF MECHANICS AND ENGINEERING.—The charge for laboratory work is $2 per unit-hour (two hours per week of actual work) per semester.

COLLEGE OF AGRICULTURE.—The charge for each unit-hour of laboratory work in the various departments is $1.00 per semester. A breakage deposit of $3.00, of which the unused balance is refunded at the end of the semester, must be made for each course in which laboratory work is done. The total fees for laboratory work during the first two years of the four-year course are approximately as follows: Freshman year, first semester, less the refund, $18, sec-

ond semester, $12; sophomore year, first semester, $18, second semester, $5. The cost during the remainder of the course and for graduate work depends upon the nature of the work elected. Laboratory fees must be paid before the student may enter classes. Resident short course students pay a laboratory fee of $5, nonresident students, $15. All students in the winter dairy course pay a laboratory fee of $10, and in the summer course, $5. Nonresidents in the winter dairy course pay a laboratory fee of $20, and in the summer course, $15. All dairy course students pay a refundable key and breakage deposit of $2.

MEDICAL SCHOOL.—The fee for comparative anatomy is $5 a semester; for histology and embryology, $10 a semester. The fees for human anatomy are: osteology, $2; dissection, $10 per part dissected. There is also a breakage deposit of $2.50 a semester. The laboratory fee for physiology is $2 *plus* a deposit of $3; for course 5, $11 *plus* a deposit of $4, and for physiological chemistry, $10 *plus* a deposit of $5. The fee for medical bacteriology is $2 for each unit-hour of credit with a deposit for breakage of $2. The fee for pharmacology and toxicology is $10 *plus* a deposit of $5.

Gymnasium Practice and Military Drill

Young men of the College of Letters and Science, College of Mechanics and Engineering, and the four-year courses in agriculture and pharmacy, are required to take gymnastic exercises during the first two years of their course, and are also required to take military drill. Students required to drill must provide themselves with a uniform, including suit, shirt, cap, and shoes, of color and pattern required by the Regents, the cost of which is about $18.

Locker fee, including laundry, per semester..... $1 25

Young women are required to take gymnastic exercise during the first two years of their course. A uniform gymnasium costume is required and can be purchased in the fall at the gymnasium office. Price, $5.00.

Locker fee, including laundry, per semester..... $1 25

Room and Board

At the present time the only rooming facilities provided by the University are in Chadbourne and Barnard Halls, halls of residence for women, which accommodate 266 students. (For details see below.) All other students are dependent for rooms upon private

rooming houses, the Y. M. C. A. building, and the various fraternity, sorority, and club houses. The price of single rooms ranges from $2.50 a week to $4.50 a week. There are a few double rooms that can be secured for $1.50 a week, per student, but the more desirable ones rent for from $2.00 to $3.50 per student.

Dining rooms are maintained in Chadbourne and Barnard Halls and all occupants of the halls are required to take their meals where they reside. These dining halls also furnish boarding accommodations for a number of other women students. In addition the University maintains a public cafeteria in Lathrop Hall. The average price of board in private boarding houses ranges from $4.50 to $5.00 a week.

The Committee on Student Life and Interests issues a Rooming and Boarding House Directory, copies of which may be had on application.

Chadbourne and Barnard Halls

The University of Wisconsin has two halls of residence: Chadbourne Hall, which has accommodations for 115 women students, and Barnard Hall, which has accommodations for 151 women students. Each hall is lighted by electricity, and the heating apparatus is connected with the central heating plant. Elevators operated by electricity connect the several floors.

Each room is provided with rug, dresser, rocker, three-quarter cot, study table, study chair, bookshelves and window shades, but occupants other than summer session students are expected to provide towels, pillow cases, blankets, and counterpanes or couch covers for the school year.

The young women who occupy these buildings are under the immediate charge of the Mistresses of the halls, and are expected cheerfully to conform to the requirements necessary for a family of students. Self government is maintained.

In accordance with the act of the legislature of July, 1913, preference in the assignment of rooms in these halls is given to residents of the State of Wisconsin; for students outside the state, the children of alumni are given preference over others. Applications will be filled in regular order in accordance with this provision.

In order to give preference to members of the lower classes, the following apportionment is made:

Until September 1, the number of seniors, juniors, and sophomores to whom rooms in the halls are assigned is limited. Before September 1, no assignments are made to students not residing in Wis-

consin. Beginning with September 1, any places available shall be assigned in the following order:

(a) To legal residents of Wisconsin in order of their application, without regard to the class to which they belong.

(b) To daughters of Wisconsin alumni outside of the state.

(c) To others.

Seniors and juniors resident in the halls, if they conform to the regulations as to residence in the state given above, will receive preference over those who are nonresidents.

Applications will be received in excess of the number of accommodations, and vacancies during the year will be filled in regular order from this waiting list.

The price for the college year of a single room in either Chadbourne or Barnard Hall is $100.00; of a room accommodating two, $75.00 per person; of two rooms in suite accommodating two, $100.00 per person. There are a few rooms in Barnard Hall that may be had for $75.00 and one suite in Chadbourne Hall accommodating three at $100.00 for each person.

All residents of Chadbourne and Barnard Halls must take their meals in the hall in which they reside. In addition there are accommodations in the dining rooms for a number of other women students. The cost of board at present is $171.00 for the school year of 36 weeks,* payable in monthly installments in advance. The halls are closed and no charge is made for board during the Christmas recess.

Applications for rooms should be made to the Bursar of the University after January 15, for the following college year, and must always be accompanied by a deposit of $10.

The deposit will be credited on the rent of the room; but if the room is not taken it will be forfeited unless notification is received by the Mistress prior to September 1. Applicants must accept the rooms assigned to them either in writing or in person before the opening day of the school year or they will forfeit the room. The balance due for rent must be paid to the Bursar not later than the second week after the beginning of each semester.

All applicants are supposed to retain their rooms for the entire year. If it is necessary for a student to withdraw at the end of the first semester, the deposit fee will be refunded provided the room has been filled by the Mistress of the Hall from the waiting list.

*This includes the time from the beginning of classes in September to the last day of examinations in June, exclusive of the Christmas and spring recesses. The halls are, however, open from the first day of registration to Commencement day, with the above exceptions, and board furnished at these times is charged extra at the regular rate.

If for any reason one of the occupants of a suite shall be obliged to give up her place in the suite, the remaining person may be required to take a single room if one is vacant, or to pay the price of the full suite during the time it is occupied by her alone.

Rooms are ready for occupancy not earlier than the Saturday before the first registration day.

SELF SUPPORT

Students who desire to attend the University on a partially self-supporting basis will find this possible. The University maintains a Student Employment Bureau under the direction of the Alumni Association at the Alumni Headquarters, 821 State Street, Madison. Students who find it necessary to earn part of their expenses while at the University should communicate with the Bureau as soon as possible. Application blanks and detailed information about student employment in Madison will be sent upon request. The Bureau is principally called upon to furnish stenographers, typists, clerks, waiters, dishwashers, janitors, and choremen. Owing to the keen competition for places, the Bureau can not promise positions to students in advance; but applications will be received at any time.

Women students who wish to secure work such as waiting on table, the care of children, light house-work, sewing, mending, etc., are requested to communicate with the Mistress of Chadbourne Hall, Madison; those who desire positions as stenographers, typists, or clerks should register with the Student Employment Bureau.

There are also a number of undergraduate scholarships and loan funds (see below). While every possible assistance is rendered self-supporting students they are advised not to enter the University without some available funds. It is also recommended that they plan to take more than the regularly specified time for the completion of a course.

Undergraduate Scholarships

The Amelia E. H. Doyon Scholarships

The will of Mrs. Amelia E. H. Doyon, late of Madison, provided for a gift to the University of $5,000 to be known as the Amelia E. H. Doyon Student Aid Fund. The income from this fund is divided into two equal parts, designated as the Amelia E. H. Doyon Scholarships, which are to be given to young women in attendance at the University, to be selected by the faculty. In

making this selection the scholarship or standing of the persons selected and their need of financial help are both taken into consideration. Neither of these scholarships is to be bestowed on any young woman who has not been in attendance as a student at The University of Wisconsin for at least one year.

The Fannie P. Lewis Scholarship Fund

By the will of the late Fannie P. Lewis, of Watertown, Wisconsin, the sum of $10,000 was left to be held in trust by the University Regents. The annual income from this money is to be equally divided between two women students of the University who shall be selected by the Regents, on the recommendation of the faculty. In making these recommendations both scholarship and need of financial assistance are to be considered.

The Christian R. Stein Student Aid Fund

By the will of the late Christian R. Stein, of Madison, a bequest of $1,000 was made to the University, the interest of which maintains a scholarship to be given by the faculty to a student of the University who has been in attendance at least one year.

The Mortar Board Scholarship

Mortar Board, a society composed of senior women, maintains an annual scholarship of $100 which is awarded to a woman student, the award being made on the basis of scholarship and need of financial assistance.

The Gamma Phi Beta Scholarship

The Gamma Phi Beta sorority, in 1911, established an annual scholarship of $100 for women students, to be awarded on the basis of scholarship and need of financial assistance.

The Henry Strong Educational Fund Scholarship

The Regents of the University, in 1912, accepted from the trustees of the Henry Strong Educational Fund the sum of $1,000 to be awarded to meritorious students in the University, in the form of undergraduate scholarships.

Self Government Association Scholarship

The Self Government Association, in 1915, established a scholarship of $100 for women students, the award to be based on scholarship and need of financial assistance.

Kappa Kappa Gamma Scholarship

This is an annual scholarship of $150 provided by the Kappa Kappa Gamma sorority for the assistance of needy and meritorious women students.

The A. J. Horlick Scholarship

In 1915 Regent A. J. Horlick gave a scholarship of $225. This was awarded in the College of Agriculture and provided for special research on some phase of inheritance of disease resistance in plants.

Loan Funds and Student Aids

The John A. Johnson Student Aid Fund

The University is indebted to the liberality of Hon. John A. Johnson, late of Madison, for a gift of $5,000 made in 1876, the interest of which is lent to students. The principal of this fund now amounts to about $13,000. The sum obtained by one student in one year shall not exceed $50, and the total amount shall not exceed $200. The income of this fund is lent by the Faculty Committee on Loans and Undergraduate Scholarships.

The Alexander H. Rogers Loan Fund

Through the generosity of the sons of the late Alexander H. Rogers, of Chicago, the sum of $1,000 from the estate of Mr. Rogers has been turned over to the University to be used as a loan fund for the assistance of needy students. By the terms of the gift no one student may secure more than $250 from this fund.

The Graduating Class Loan Fund

The class of 1900 gave to the University several hundred dollars, the profit of the Senior Class Play, as the nucleus of a loan fund for the aid of needy students, to which several succeeding classes have made substantial additions.

The Secretary's Loan Fund

The Secretary of the Regents in 1900 established a fund of $500 for the aid of meritorious students. Additions to the fund have been made by others. No loans shall exceed $50 in a single year, and the aggregate loans to any person shall not exceed $200.

Emery Loan Fund

In 1900 a fund was started by Miss Annie Crosby Emery, formerly Dean of Women, which is lent to needy women students on recommendation of the Committee on Loans.

College of Engineering Loan Fund

The College of Engineering Loan Fund was started in 1901 by members of the faculty of the College of Engineering. It has been added to at various times until it now amounts to about $800. It is used for the assistance of needy students in the College of Engineering.

Self Government Association Loan Fund

The Self Government Association has established a loan fund for the assistance of women students in need of financial assistance. This fund now amounts to about $500.

Chicago Alumni Association Loan Fund

In 1913 the Chicago Association of Wisconsin Alumni donated a fund for loans to needy women students. Preference is given to juniors and seniors and no student may secure more than $50 from the fund.

Agricultural College Loan Fund

A loan fund of $1,100 is available to students in the College of Agriculture. It is lent to needy students in small amounts at 5 per cent interest.

HONORS

Honors at graduation will be voted by the faculty to those students whose graduation theses show exceptional excellence, and who have completed with unusual success a long course of study in the department in which the thesis is presented. The thesis must show work additional to all other requirements for graduation equal to two hours a week for one year. In granting special honors, the faculty acts upon the recommendations of the instructor under whose direction the thesis is written, approved by a committee of the faculty. For the Science Club Medal, see page 84. Students desiring to become candidates for special honors in any department

must make application to the faculty, at the opening of the second semester, through the professor in whose department the honors are sought. For honors in the College of Letters and Science, see page 120.

Prizes

Lewis Prize

James T. Lewis, of Columbus, formerly Governor of the State, in 1865 gave to the University $100, and in 1866 added a further gift of $100, to constitute a fund the annual income of which should be expended to purchase a medal to be given as a prize for superior scholarship. In 1873 it was decided, with the consent of the donor, that the income should be presented as a prize to the undergraduate student producing the best written essay. By 1905 the fund had grown, through accumulated interest, to something over $300. In that year the Regents of the University decided that, in recognition of this having been the first gift to the University as a permanent endowment, henceforth the "Lewis Prize" should consist of $25 annually, and any deficiency in the income for any year shall be paid from the general account of the University. The prize is awarded to the undergraduate student who shall produce, during the collegiate year, pursuant to regulations prescribed by the President and faculty, the best written essay.

Bryan Prize Fund

In 1899 William Jennings Bryan presented to the University the sum of $250, the annual income of which is used as a prize for the best essay on "The Science of Government."

William F. Vilas Medal and Prize Fund

In each of the fiscal years 1910-11 and 1911-12, Anna M. Vilas gave $125 for medals for intercollegiate debating and oratory. In June, 1912, in order to put this annual gift on a permanent basis, she turned over $4,000 to the Central Wisconsin Trust Company of Madison, the annual income to be used as follows:

First: $125 for seven medals in oratory, to be known as the William F. Vilas Medals for Oratory.

Second: Two cash prizes for essays—one for $50 and one for $25, to be known as the William F. Vilas Prizes for Essays.

Prize of the Wisconsin Menorah Society

In December, 1911, Julius Rosenwald offered the University $100 annually for a prize, to be known as the prize of the Wisconsin Menorah Society, and to be awarded for an original essay by an undergraduate of the University, on a topic relating to the literature, the history, or the achievements of the Jewish people.

The award of this prize is in the hands of a faculty committee, who judge with a view not merely to substance but to literary form. If none of the competing essays is deemed worthy of the prize, no award is made. Essays are limited to ten thousand words. They are to be submitted in typewritten form, according to the rules for theses. The title-page is to bear an assumed name, the real name of the writer being enclosed in a sealed envelope marked on the outside with the assumed name and handed in with the essay. All essays must be placed in the hands of the committee on or before May 1.

For the year 1913-14 the prize was awarded to Marvin Marx Lowenthal for an essay on "Zionism". The prize of 1912-13 (awarded in 1913-14) was divided between Hemendra Kisor Rakshit, "The Jews and the Interest Rate in Angevin England," and Percy B. Shostac, "A Short Survey of the Modern Yiddish Stage."

SUPERVISION OF STUDENT LIFE

A booklet of "Regulations for the Guidance of Undergraduate Students" is published and distributed annually, containing specific instructions concerning registration, fees, advisers, election of studies requirements, the grading system, the regulations concerning social life, public exhibitions, eligibility for student activities, admission into fraternities, and information concerning student self-government. The Faculty Committee on Student Life and Interests publishes a directory of lodging and rooming houses for students, with detailed information. The Y. M. C. A. publishes a booklet of useful local information on many matters of interest to students. Any of these books will be sent upon request.

The Faculty Committee on Student Life and Interests has general supervision over all organized student activities, and its chairman is available for correspondence and consultation regarding student affairs at all times.

The academic and social welfare of women students is under direct supervision of the Dean of Women. For the benefit of those

who are not accommodated in Chadbourne and Barnard Halls (see Index), she has prepared a list of addresses where rooms for young women may be obtained. All houses on the list have been inspected by her, and though responsibility for them cannot be assumed by the University, they are believed to be suitable homes for women students. Copies of this list will be sent on application.

Women students are expected to occupy rooms only in such lodging houses as accommodate women exclusively, and in which a parlor is provided for the reception of visitors; and exceptions are made only by permission of the Dean of Women. The houses on the prepared list meet these requirements. All arrangements must be made directly with the persons mentioned in the list, and should be made early by those who desire a wide choice of rooms. All women students are required to report to the Dean of Women in order that they may register their addresses, and may be directed, if rooms have not been secured. All changes of address should be reported promptly.

Lathrop Hall, a commodious building for the use of the women of the University, provides, in addition to a finely equipped gymnasium, restaurant and rest room, a meeting place for student organizations, and a center for the social life of the University.

Mrs. Lois Kimball Mathews, the Dean of Women, invites correspondence with parents and guardians, and gladly cooperates with them regarding the welfare of students.

The organs of student self government are the Student Conference, the Self Government Association, the Student Court, and the Women's Judiciary Committee.

The Student Conference, consisting of 53 members at the present time, is the representative body of the men students of the University. The conference exercises important though not very exactly defined functions concerned with the interests of men students, such as control of the Union, the arrangement of social functions, control of the class rush, and the election of the student court.

Every woman student in the University is *ipso facto* a member of the Self Government Association. The object of the association is in its own words: "to regulate all matters pertaining to the student life of its members which do not fall under the jurisdiction of the Faculty; to further in every way the spirit of unity among the women of the University; to increase their sense of responsibility toward each other, and to be a medium by which the social standards of the University can be made and kept high."

Each hall of residence, each sorority house, each lodging house where more than ten girls reside, and each section of Madison where girls are living at home, has a representative on the board of this organization.

The Self Government Association undertakes each year, besides the objects named in its constitution, to provide entertainment of various sorts for the University women, to add a small sum to the loan fund for girls, and to undertake, under direction of an assistant in the office of the Dean of Women, a vocational conference for the purpose of presenting to the women students occupations other than teaching.

The Student Court, the outgrowth of a pledge given in October, 1909, by the Student Conference and the student body to abolish hazing, operates under a charter granted by the University faculty and approved by the Board of Regents.

The chief duties and powers of the Court as stated in the charter are: "to maintain good order throughout the male student body, and to enforce university regulations within its jurisdiction. The Student Court shall have original and exclusive jurisdiction in all cases of discipline of male undergraduates, except cases arising in the summer session, except cases involving dishonesty in University work, and except such flagrant cases of action or behavior so contrary to the welfare of the University as to require immediate consideration."

An appeal from the decision of the court may be made to the Faculty Committee on Appeals, and a further appeal may be made to the University faculty.

The Women's Judiciary Committee is a committee of the Self Government Association whose powers and duties are identical with those of the Student Court, where women students are concerned.

Student Advisers

In the College of Letters and Science, the College of Engineering, and the College of Agriculture each student is, upon entrance, assigned to a member of the faculty who acts as his adviser. Each semester the student is required to consult his adviser concerning the choice of studies, and the adviser must give his approval before the student is permitted to enter classes. It is the duty of the adviser to guide the students under his care in all matters concerning their University course; to see that all rules relating to required or elective studies, promotion, and graduation are strictly complied

with; and, in general, to aid the students that they may obtain the greatest individual profit from their University course while complying fully with all University rules.

The system of student advisers varies somewhat in the different colleges, and does not obtain in the Law School.

Student Health

The Department of Clinical Medicine has general supervision of the health of the students. It aims to determine the medical fitness of each student entering the University, to study the intricate problems of the relation of health to higher education, and to prevent disease among the students by attempting to correct proved errors in present educational practices and in the life of the individual.

Medical Examinations.—Students entering the University for the first time are required to undergo a careful medical examination in order to determine their fitness to carry on University work. An appointment for medical examination is made at the time of registration and it is necessary that this appointment be met promptly. Records of the results of these examinations are kept in the office of the Department of Clinical Medicine for future reference in the supervision of the mental and physical development of the student. Recommendations are made to the deans relative to the general health, and in the case of those required to take physical education, to the Department of Physical Education relative to the physical condition of the student.

In addition to this routine medical examination, which includes an examination of the heart, lungs, and other vital organs, together with tests for vision and hearing, freshmen and those entering the sophomore class are required to undergo the physical efficiency tests conducted by the Department of Physical Education.

The Medical Adviser's* Office is established for the general supervision of students needing medical attention. It is earnestly desired that all cases of student illness be promptly reported to this office whether or not professional service is desired. At the same time it is hoped that students should feel free to seek advice concerning the care of their health. A careful examination is made of the physical condition and the functional activity of those who consult the members of the staff, and where it seems

*762 Langdon Street, Telephone, University 306.

advisable, the family physician is notified for future advice and consultation.

Minor illnesses and conditions affecting the general welfare of the University community are treated by the members of the staff, but students requiring special care—major surgery, treatment of the eye, ear, etc., are referred to specialists.

At least one call is made on request of any student confined to the house by illness. Continuous care of students confined to the house by protracted illness can be given, however, only in exceptional cases. In cases of prolonged illness the services of a local physician are advised, or, when practicable, the student is removed to his home and placed in the care of the family physician.

Arrangement for students needing hospital care has been made with the Madison General Hospital Association, which has set aside two wards furnished in part by student contributions, one ward for men and one for women.

Students suffering with smallpox, diphtheria, and scarlet fever are cared for at the City Contagious Hospital. An infirmary for the care of minor contagious diseases is maintained by the University at 752 Langdon Street.

While it is expected that those who can pay for the cost of the hospital care shall do so, special provision is made for those who cannot afford this, so that no student need be deprived of proper medical attention.

SOCIETIES AND PUBLICATIONS

Literary and Scientific Societies

The literary and debating societies of the University have played so important a part that they may almost be said to constitute a department by themselves. The Athenian and the Hesperian societies are nearly as old as the University itself, Athena having been organized in 1850, and Hesperia in 1854. Philomathia was organized in 1886, and Olympia in 1902. The societies are sustained with great enthusiasm, and are an important means of intellectual training. Athena, Hesperia, and Philomathia form what is known as the Joint Debate League, which arranges annually a public debate between two of these three societies. This joint debate has been a feature of the University for nearly forty years. These four above-mentioned are

men's societies in the College of Letters and Science. The debating society of the Law School is Forum-Columbia. The young women maintain two literary societies, Castalia, established in the early years of the University, and Pythia, in 1902. These seven societies form the Oratorical Association, which has charge of intercollegiate debating and oratory. This association is a member of a quadrangular debating league, composed of the universities of Michigan, Illinois, Minnesota, and Wisconsin. Each university meets two of the others each year in debate in rotation, so that in the complete round each of the universities meets each of the others twice. A series of preliminary contests, held at the middle of each year, is made up of a sophomore contest, a junior contest, a junior-ex contest, (between representatives of each of the literary societies chosen from the junior class), and a senior contest. The winner in this series is chosen as the representative of Wisconsin in the Northern Oratorical Contest, in which he meets representatives from the universities of Chicago, Iowa, Michigan, Minnesota, Northwestern, and Oberlin.

The most important scientific organization in the University is the Science Club, which includes both officers of instruction and advanced students, and seeks to promote an interest in scientific study and research. It conducts public meetings for the discussion of scientific topics of current interest. The Historical and Political Science Association and the Language and Literature Club are societies organized by instructors and graduate students for the purpose of fostering advanced work. Each of these three organizations awards a bronze medal annually for the best baccalaureate thesis in its field. In various departments of the University there are journal clubs or societies for furthering the special work of the departments. Among these are the *Germanistische Gesellschaft;* a Scandinavian society, the *Nora Samlag;* the Romance Language Club; the Pharmaceutical Society; the Classical Club; the Physics Journal Club; the Biological Club; and the Chemical Club. In other departments, where no such organization has been effected similar results are reached by means of the various seminaries. In the technical colleges similar societies are maintained: the Civil Engineering Society, the Electrical Engineering Society, the American Society of Mechanical Engineers, the Mining Club, the U. W. Engineers' Club, the Country Life Club, the Euthenics Club, and the Live Stock Club. The graduate students of the University maintain a Graduate Club. The University Press Club, the Cubs' Club, the Advertising Club, and the Hoard Press Club are composed of

students preparing for journalism. Delta Alpha is a professional fraternity which is composed of students interested in journalism and Theta Sigma Phi is the professional journalistic sorority. The more important musical organizations are: the Choral Union of 200 voices, the University Band, the University Orchestra, the Men's and Women's Glee Clubs, the Mandolin Club, and the Music Students' Club.

The Haresfoot Club is maintained by University dramatic talent, and presents a play annually; the Red Domino Club is a similar organization maintained by young women; and the Edwin Booth Club aims to promote dramatic interest and train dramatic talent. Phi Alpha Tau is a semihonorary fraternity devoted to the interest of oratory and public speaking. Admission is determined by the members, largely on the basis of native ability and proved success in these fields.

Social and Religious Organizations

The women have organized a Woman's Self Government Association, which seeks to further in every way the unity of spirit of women in the University, to increase their sense of responsibility toward each other, and to be a medium by which the social standard of the University can be made and kept high. The religious organizations of the University include the Young Men's Christian Association, and the Young Women's Christian Association, and the Catholic Students Association. The Y. W. C. A. maintains one secretary and the Y. M. C. A. four, who devote their entire time to religious and philanthropic work among the students. Six student pastors, supported by as many religious denominations, cooperate with the secretaries and promote Christian work in the student body in a very systematic way. Honorary fraternities are represented by Phi Beta Kappa, established in 1898, Tau Beta Pi, the honorary engineering fraternity, established in 1899, Alpha Zeta, the honorary agricultural fraternity, established in 1906, the Phi Lambda Upsilon, the honorary chemical fraternity, established in 1906, and Sigma Xi, the honorary scientific fraternity, established in 1907. The Iron Cross, the honorary senior society, is composed of students who have distinguished themselves in the various lines of student activity. Mortar Board is a similar senior society for women students.

The social life of the undergraduate finds expression in more than one hundred fraternities, societies, clubs, and class organiza-

tions. The most important of the men's organizations is the Wisconsin Union, of which every male student in the University is a member without the payment of dues or fees. The Union maintains large and well-equipped club rooms which are open to all, and is most active in promoting the social welfare of the student body on a large scale.

Publications of the University

The Bulletin of The University of Wisconsin is published bimonthly at Madison. The Economics and Political Science series, the History series, the Philology and Literature series, the Science series, the Engineering series, and the University Extension series contain original papers by persons connected with the University. A check list showing the issues to date in the above-named series and giving more detailed information regarding other publications of the University may be obtained on application to the University Librarian.

The General series of the Bulletin includes the annual catalogue, special announcements of the various schools and colleges, etc. A directory of officers and students of the University is issued in the early part of each academic year, and a general catalogue of officers and graduates of the University is published once in five years, the last having been issued in 1912.

The High School series comprises a number of manuals designed to assist secondary school teachers in the subjects included in the high school curriculum.

From Washburn Observatory are issued the Publications of Washburn Observatory; from the Agricultural Experiment Station, bulletins and annual reports; and from the office of the Farmers' Institute, the Wisconsin Farmers' Institute Bulletin.

Student and Alumni Publications

The publications issued by the students include the Daily Cardinal; the Wisconsin Magazine, a monthly devoted to University interests and literature; the Badger, the junior class annual; the Wisconsin Engineer, a monthly publication of the engineering students; and the Wisconsin Country Life Magazine, a monthly publication issued by agricultural students. The Wisconsin Alumni Magazine, a monthly journal, is the official organ of the alumni.

ADMISSION TO THE UNIVERSITY

Methods of Admission

Students are admitted either upon examination at the University or upon certificate, or upon evidence of their standing in other institutions of higher learning, or as adult special students, in accordance with the provisions stated below.

For the examinations at the University, see page 100.

Time of Entrance

New students ordinarily enter the University at the opening of the first semester. It is possible, however, to enter at the beginning of the Summer Session. If a student desires to strengthen his preparation, or to complete his college course in less than four years, he may find it best to enter at that time. In general, there are advantages in beginning work in the Summer Session. By entering then a student becomes acquainted with university methods of instruction in advance, and his experience and the advice of his instructor will help him in planning his work at the beginning of the regular session. For the courses offered, see Index under Summer Session.

New students may enter at the beginning of the second semester, but they should be on hand the week preceding, in order to make the necessary arrangements, since the regular work of the semester begins promptly on Monday morning.

Entrance Requirements

The requirements for admission are stated in terms of units. The term *unit* means the equivalent of five recitations a week for one year in one branch of study. In closely allied branches not usually taught in periods of one year each, such as physiology and zoology, units may be constructed by adding the respective

time values of such studies. In any subject three recitations a week for one year and a half may be counted as one unit.

Fourteen units are required for admission, of which six are required of all, and eight are elective. For a description of the amount of work expected in each of the subjects named in the entrance requirements, see page 92, under Preparatory Work.

I. The following six units are required of all:

English.....2 units
Mathematics.....2 units
Latin, German, or French.....2 units

II. In addition to the requirements under I, eight units must be offered from the following elective subjects:—

English.....1 or 2 units
Mathematics.....½, 1, 1½, or 2 units
Greek.....1 or 2 units
Latin.....1, 2, 3, or 4 units
German.....1, 2, 3, or 4 units
French.....1, 2, 3, or 4 units
Scandinavian Languages (See note following).
Spanish.....1 or 2 units

History: (Not more than four units in all.)
- Ancient History.....1 unit
- Medieval and Modern History.....1 unit
- Medieval and English History.....1 unit
- English History.....1 unit
- United States History.....1 unit

Civics.....½ or 1 unit

Economics.....½ unit

Science: (Not more than four units in all.)
- Botany.....1 or 2 units
- Chemistry.....1 or 2 units
- Physics.....1 or 2 units
- Physical Geography and Geology.....1 or 2 units
- Physiology.....½ unit
- Zoology.....1 or 2 units

Vocational Subjects (See note below).....½, 1, 2, 3, or 4 units
Agriculture (See note below).....1, 2, 3, or 4 units
Commercial Work (See note below).....½, 1, 2, 3, or 4 units
(Including Commercial Law ½ unit; Commercial Geography ½ unit.)
Domestic Science (See note below).....1, 2, 3, or 4 units
Manual Arts (See note below).....1, 2, 3, or 4 units

Optional Subject (See note below).....1 unit

LIMITATIONS.—Not more than four of the required fourteen units will be accepted in any one subject. No foreign language course of less than two units will be accepted from students presenting only one foreign language. Students who present not less than three units of one foreign language may receive credit for one unit of a second foreign language.

VOCATIONAL SUBJECTS.—(Including Agriculture, Commercial Work, Domestic Science, and Manual Arts).—Not more than a total of four units in vocational subjects may be presented. These units may be within any one group or may be made up of such a combination of work from the different groups as may be approved by the University. Work in any of the vocational groups will be accepted for admission only after inspection and approval by the University.

SCANDINAVIAN LANGUAGES.—Elementary work in any Scandinavian language to the extent of two units, neither more nor less, may be accepted for admission to the University as part of the requirements; provided that pupils presenting such work for admission shall also present at least two units of work in Latin, or German, or French; and provided further that such work in Scandinavian languages shall be accepted only after special inspection and approval.

OPTIONAL SUBJECT.—An optional subject is any subject of the student's high school course not specified in the list of elective subjects. One optional subject of one unit, or two of one-half units each, may be offered. No optional subject may be offered with four units of vocational subjects.

ADMISSION WITHOUT FOREIGN LANGUAGE.—Students may be admitted without foreign language under the following conditions: (1) They must offer fourteen units subject to all the limitations stated above, except that one optional unit may be offered with manual training, or two optional units without manual training.

(2) The language requirements must be met before graduation. This will ordinarily require extra work to the extent of four hours a week for one year, which will not be credited as part of the number of unit-hours required for graduation in the several colleges and courses. Opportunity for making up the deficiency in language will be offered by the University.

ADVISED GROUPING OF PREPARATORY SUBJECTS.—Students are advised to adapt their preparatory work to the course that they expect to pursue in the University. Attention is called to the requirements for admission to the several colleges and courses, and to the statements of the several departments covering the preparation best adapted to the work of each.

Requirements for Admission to the Several Colleges and Courses

COLLEGE OF LETTERS AND SCIENCE.—The studies under I, and electives under II, to make fourteen units.

Students entering this college are advised to present Latin and a second foreign language, to the amount of at least six units. The requirements in foreign language for the degree of Bachelor of Arts are as follows: sixteen unit-hours for those who offer four years or more of language at entrance; twenty-four unit-hours for those who offer less than four years of language at entrance. (See Index under Requirements for Degrees.)

COURSE IN COMMERCE.—The studies under I, and electives under II, to make fourteen units.

PRE-MEDICAL COURSE.—The studies under I, and electives under II, to make fourteen units. Students entering this course are advised to present two units of Latin, inasmuch as the medical schools require this amount of Latin for entrance. The University offers a beginners' course in Latin, without credit toward a degree. Students are also advised to present four units of German.

COURSE IN CHEMISTRY.—The studies under I, and electives under II, to make fourteen units.

COURSE IN PHARMACY.—Four Year Course: The studies under I, and electives under II, to make fourteen units. No practical experience in pharmacy is required. Two Year and Three Year Course: (1) Graduates from high schools are admitted without examination and without practical experience in a drug store. (2) Non-graduates are admitted if they comply with the following requirements:

1. They must be at least eighteen years of age.

2. They must present satisfactory certificates of at least one year's attendance from some standard high school, or its equivalent from a similar institution.

3. The time intervening between the secondary education and the college course should have been spent in a drug store, where physicians' prescriptions are regularly compounded.

COLLEGE OF ENGINEERING.—The following units are required of all:

English.....2 units
Algebra.....1½ units
Geometry, Plane and Solid, combination course extending over 1 year, as described on page 94.....1 unit
or Plane 1 year and Solid ½ year.....1½ units

The longer course covering 1½ units is recommended.

German or French.....2 units
Physics.....1 unit

The remainder of the required fourteen units must be made up from elections under II; excepting that no units may be offered in domestic science.

Students who enter with two years of French or German will be required to take one additional year of foreign language in their University course. For those who enter with three years of one foreign language or four years of two or more foreign languages no additional foreign language is required. Students who enter without foreign language will find it difficult to complete any of the courses in engineering in four years.

Students deficient in advanced algebra or solid geometry, but who meet the present requirements for entrance to the College of Letters and Science will be admitted to the College of Engineering, but will be required to make up the deficiency during the first semester. Special classes will be provided for this purpose.

COLLEGE OF AGRICULTURE.—The studies under I, and electives under II, to make fourteen units.

LAW SCHOOL.—(1) Candidates for a degree: Credits equivalent to the work of the freshman and sophomore years in the College of Letters and Science. (2) Not candidates for a degree: The studies under I, and the electives under II, to make fourteen units, provided candidates are at least twenty-one years of age.

Scope of the Preparatory Work

The following description serves to indicate the extent of the preparation expected in each of the several subjects named in the preceding requirements for admission:

English

ENGLISH. 2, 3, or 4 units. All applicants for admission must present two units in English, one of which must consist of composition, and one of the reading and study of English classics. The two units required in English correspond in amount and character to the work of the first two years of the standard high school course, in which one-half of the time is devoted to theme-writing and instruction in the principles of composition, and one-half to the careful study of a number of English classics. It is recommended that applicants present at least three units in English, the third unit to consist of additional work in composition, and either (1) an outline history of English and American literature with the reading and study of representative selections of each period, or (2) the intensive study of a few typical examples of the novel, the drama, the lyric, and the essay. Four units of English should include composition, and both (1) and (2) given above, in addition to the two required units. A complete statement of the work for each unit of preparation is given in No. 1 of the High School Series of the Bulletin of The University of Wisconsin, entitled, *The High School Course in English.*

COMPOSITION AND RHETORIC. Systematic practice in theme-writing with instruction in the principles of composition and the forms of discourse must form an important part of each unit of English presented for entrance. Every student entering the University is examined as to his ability to express himself in clear, correct, idiomatic English. The test consists in requiring the student to write an essay on a familiar subject, in which he plans his work by paragraphs, and constructs both paragraphs and sentences in accordance with the simpler principles of composition. No student will be passed in this test and permitted to pursue the course in Freshman English whose work shows serious weakness in spelling, punctuation, grammar, sentence construction, or division into paragraphs. Facility of expression will not be sufficient to offset marked deficiency in spelling, punctuation, grammar, or sentence structure. A more detailed statement of the necessary

qualifications for the Freshman English course is given in Bulletin No. 13 of the High School Series on *Requirements for Admission to the Freshmen English Course* (*English 1*). Students whose preparation in English composition is found to be deficient must make up such deficiency in one year under penalty of being dropped from the University. The University provides a course of instruction for such students. See English A, p. 139.

READING AND STUDY OF ENGLISH CLASSICS. 2 units. The two units in English required of all applicants for admission must include the thorough study of at least ten of the English classics on the list of uniform college entrance requirements in English, or their equivalents. The first aim in the reading and study of these selections should always be to understand fully the thought expressed in the word, the allusion, or the figure of speech; to combine the ideas so as to get the thought of the sentence; and to follow the development of the thought from sentence to sentence in order to grasp the meaning of the paragraph, essay, story, or poem as a whole. The study of the form, the structure, the style, and the purpose of the selection; a knowledge of the author's life; the consideration of the relation of the selection to the age in which it was written and a comparison of it with other works of the same type, all give a better understanding of the classic. Particular attention should be given to words and idioms in the reading with a view to increasing the student's command of language.

HISTORY OF ENGLISH AND AMERICAN LITERATURE. 1 unit. In addition to the two required units in English, applicants for admission may present one unit in the history of English literature, or in the history of English and American literature. In designating this unit as a study of English and American literature, it is intended that the greater part of the time should be devoted to the reading of selections from representative authors of each period; and that in the study of the history of literature, which should not occupy more than one-quarter of the time, emphasis should be placed on general movements and tendencies in literature as shown in the selections studied. In the history of English literature characteristic selections from most of the following authors should be read: Chaucer, Shakspere, Bacon, Milton, Pope, Addison, Goldsmith, Gray, Burns, Scott, Wordsworth, Coleridge, Keats, Shelley, Tennyson, Browning, Lamb, George Eliot, Dickens, and Thackeray. In connection with the history of American literature the student should be familiar with representative works of Longfellow, Whittier, Bryant, Holmes, Irving, Hawthorne, Cooper,

Poe, Lowell, and Emerson. A study of the principles of composition and the application of them in theme-writing must be included in this unit.

ADVANCED STUDY OF CLASSICS. 1 unit. Besides the two units of required work in the reading and study of English classics, students may offer one unit representing advanced work in the study of literature corresponding to the fourth year of the standard high school course in English. This should consist of an intensive study of the form, the structure, and the style of typical examples of the novel, the drama, the lyric, and the essay. At least one work from each of the following four groups should be included for this unit: (1) Thackeray's *Henry Esmond;* Hawthorne's *The House of Seven Gables;* Dickens's *Tale of Two Cities;* George Eliot's *Silas Marner;* (2) Shakspere's *Macbeth, Hamlet, King Lear;* (3) Palgrave's *Golden Treasury* (First Series), Books II and III, or Book IV; Milton's *Lycidas, L'Allegro* and *Il Penseroso;* (4) Burke's *Speech on Conciliation;* Webster's *First Bunker Hill Oration,* and Washington's *Farewell Address;* Macaulay's *Life of Johnson, Essay on Milton;* Carlyle's *Essay on Burns.* A study of the principles of rhetoric, with frequent and systematic theme-writing, must form a part of this unit.

Mathematics

ALGEBRA. 1 or 1½ units. The unit is required of all students and should include the following subjects: Addition, subtraction, multiplication, division, equations of the first degree with one unknown number, simultaneous equations of the first degree, factors, highest common factor, lowest common multiple, quadratic equations, simultaneous equations above the first degree, elementary theory of indices and radicals.

An additional half year of algebra is strongly recommended for all students and is required of engineering students. The work should cover the following subjects: Simultaneous quadratic equations; ratio, proportion and variation; graphical representation of simple relations between two variables; binomial theorem for positive integral exponents; logarithms, including use of tables in simple numerical work; first arithmetical and geometrical progressions.

GEOMETRY. At least one unit is required of all students.

1 unit, *combination course of a single year in plane and solid geometry.* This should consist of about 180 propositions of which 45 must be in solid and spherical geometry.

1 unit, *plane geometry*. A unit credit will be given for a more extensive and intensive course of a year in plane geometry.

½ unit, *solid geometry*. A half year of solid geometry following a year of plane geometry will be accredited ½ unit.

The requirement for admission to the College of Engineering is either the combination course or 1½ units of plane and solid geometry.

TRIGONOMETRY. ½ unit. The important properties of the trigonometric functions, the addition theorem and the more important formulas which follow from it, and the solution of the various cases of right and oblique plane triangles. The student should become familiar with the use of logarithmic and trigonometric tables.

An additional credit of ½ to 1 unit may be given to students who have had further work in algebra, trigonometry, and surveying, or other mathematics, but the total credit shall not exceed 4 units.

History, Civics, and Economics

HISTORY. 1, 2, 3, or 4 units. History may be offered in the following "blocks":

Ancient History to the year 800 A. D., 1 unit.

Medieval and Modern History, 1 unit.

Medieval and English History, 1 unit.

English History, 1 unit.

United States History, 1 unit.

One, two, three, or four blocks may be presented. A real equivalent may be presented in place of a block recommended above, but one year's course in general history will not be accepted.

CIVICS. ½ or 1 unit. A knowledge of the relationship existing between subordinate and higher political units together with a description of the chief functions performed by the institutions of the various political units.

Civics may be combined with history or economics in the construction of an elective unit.

ECONOMICS. ½ unit. A knowledge of the fundamental principles of economic science as presented in a good elementary treatise on the subject.

Science

BOTANY. 1 unit. The course in botany should cover a study of the life histories of types from the main groups of plants, and should include also a series of simple physiological experiments. At least two-thirds of the course should consist of laboratory work. For further details see the report of the committee of the Wisconsin State Teachers Association for 1902 on a high school course in botany.

Where it is not possible to give a full year's work to the subject, botany may be combined with physical geography and physiology in the construction of units.

CHEMISTRY. 1 unit. A year's course in chemistry, consisting of a study of the more common elements and their compounds. This course should include about four or five actual hours of work a week in the laboratory, and two or three periods a week in the classroom. Two laboratory periods are considered as equivalent to one class exercise. A record of all the work done in the laboratory should be kept in a notebook.

PHYSICS. 1 unit. A year's course in physics which must include both class-room work with a textbook and laboratory practice. The class-room work should be given not less than three periods a week, while the laboratory practice should require at least four actual hours of work a week in the laboratory and a record of all work done should be kept in a carefully prepared notebook. Any one of the standard books, such as Carhart and Chute, Milliken and Gale, or Gage, may be used as a text.

PHYSICAL GEOGRAPHY. 1 unit. The physical geography should include: (1) The principles as presented in the best recent textbooks, which give adequate treatment of the atmosphere and ocean and emphasize the development and influence of topographic forms. (2) Field study. The nature of this must be controlled by the locality; but every candidate offering physical geography will be expected to submit a statement of the field trips required in his course. (3) The interpretation and habitual use of topographic maps, weather maps, charts, and pictures in the laboratory.

Where it is not possible to give a full year's work to the subject, physical geography may be combined with botany and physiology in the construction of units

PHYSIOLOGY. ½ unit. In this subject instruction must be given in anatomy, histology, and physiology of the human body,

and the essentials of hygiene. The amount expected is indicated by that given in Martin's *The Human Body, Briefer Course.* The textbook work must be illustrated by charts and models, and anatomical demonstrations and chemical experiments should also be made.

ZOOLOGY. 1 unit. At least two-thirds of the course should consist of laboratory work. The student should study at least eight to ten types of animals and make careful descriptions and drawings of this work. Knowledge of life histories and habits and relation of environment is desirable. The laboratory work should be accompanied with class exercises, so that the student may gain intelligent appreciation of the meaning of his observations and of the bearing on zoological science of the facts observed by him. The nature and scope of work expected may be indicated by the textbooks of Needham, Colton, Jordan and Kellogg, or Linville and Kelly.

Language

GREEK. 2 units. Grammar; Xenophon's *Anabasis,* four books; Homer's *Iliad,* three books; or an equivalent amount of the *Odyssey,* Greek composition.

LATIN. 4 units. Grammar and elementary book; *Caesar,* books I-IV, or an equivalent; *Cicero,* six orations (selections from the letters may be substituted for two orations). *Virgil,* six books; composition, preferably in connection with *Caesar* and *Cicero.* The work recommended in the report of the Cleveland Commission on College Entrance Requirements in Latin is accepted by the University.

These requirements are planned with special reference to the needs of those candidates who propose to continue in the University the study of ancient and modern languages and of history.

LATIN. 2 units. Grammar and elementary book; *Caesar,* books I–IV, or an equivalent; composition. Students who present two units and others whose preparation in Latin is, for any reason, deficient may continue in the study in the University with course A or course B, which may be credited towards the bachelor's degree and used to satisfy the University language requirements. No such credit will be given for high school Latin.

GERMAN. 2, 3, or 4 units. German may be offered for entrance as a subject of two, three, or four units, requiring respectively two, three, or four years of high school study and approximately

corresponding to the "elementary," "intermediate," and "advanced" courses outlined in the "Report of the Committee of Twelve." This report can be procured, at the price of sixteen cents, from D. C. Heath & Co., Boston. A detailed statement of the work of each unit may also be found in "The High School Course in German," No. 2 of the High School Series of the Bulletin of The University of Wisconsin.

A. Elementary German. 2 units. Applicants should be able to pronounce and to translate at sight (into good idiomatic English) simple German prose, help being given upon unusual words and constructions, to put easy English sentences into German, and to carry on a very simple conversation upon the texts set for translation. The required amount of grammar is contained in the current "brief" grammars, or in the "first parts" of larger grammars like those of Joynes-Meissner or Thomas. Of the strong verbs only the more usual are required. Applicants should have read not less than 200 pages of easy German, chiefly modern narrative prose, but including some simple poems and one or two short plays.

B. Intermediate German. In addition to the work outlined under *A*, applicant should have read from 300 to 400 pages of moderately difficult prose and poetry, with constant practice, both oral and written, upon portions of the texts read. The work in grammar, accompanied by exercises in composition, should be continued.

C. Advanced German. Besides the work outlined under *A* and *B*, applicants should have read from 400 to 500 pages of standard literature in prose and poetry, with reference reading in the history of modern German literature. They should be able to translate at sight any ordinary modern German text that is free from unusual difficulties, to write a brief German essay on a simple topic relating to the texts read, and to follow a recitation conducted in German.

Students without preparation in German enter course 1a. Those who have had two years of high school German will begin their work in the University with course 2a. Those who have had three years of German enter course 2b. Students who have studied German for four years in the high school regularly enter course 14, if they enter in the first semester, and course 3, if they enter in the second semester, unless their general course of study requires a special class in German, like 3S or 3C.

FRENCH. 2, 3, or 4 units. French may be offered for entrance as a subject of two, three, or four units, requiring respectively

two, three, or four years of high school study, and approximately corresponding in difficulty to the "elementary," "intermediate," and "advanced" courses outlined in the "Report of the Committee of Twelve," pp. 75–83.

A. Elementary French. 2 units. The applicant should have a thorough knowledge of the grammatical forms of the language, and possess a sufficient vocabulary to read simple texts with ease.

Fraser and Squair's grammar is being used at present in the University, emphasis being placed upon oral and written drill outlined in the first 161 pages. Not less than 500 pages of simple French should have been read with careful attention paid to pronunciation during the entire period. A list of suitable texts will be found on page 76 of the "Report of the Committee of Twelve."

B. Intermediate French. In addition to course *A*, the applicant should have read at least 600 pages of French chosen from nineteenth century classics, and done work in oral and written composition equivalent to that given in Fraser and Squair's *Complete French Grammar.*

C. Advanced French. One year of high school work in addition to Intermediate French. The applicant should be able to write a short composition in French and show his understanding of a simple lecture in French by answering questions upon it in French. He should also be familiar with the outline of French history and literature.

SPANISH. 2 units. Spanish may be offered for entrance as a subject of two units, corresponding to the amount of work done in the elementary courses of the University. The student should have acquired a fair pronunciation, considerable facility in the translation of easier Spanish texts and a fairly accurate knowledge of grammatical principles and of regular and irregular verbs. The work in grammar should in scope be approximately the same as that contained in Parts I and II of Giese's *First Spanish Book and Reader.* About four hundred standard pages should have been translated, the following texts being regarded as especially suitable:—Ramsey's *Elementary Spanish Reader, Gil Blas, El Capitan Veneno,* Alarcón's *Novelas Cortas, El Pájaro Verde,* and at the end of the course, *Dona Perfecta* or *José.* The student should be taught the Castilian pronunciation.

Vocational Subjects

(Including agriculture, commercial work, domestic science, and manual arts.)

Owing to the present state of development of the vocational subjects in the high school curriculum no specific conditions are indicated for agriculture, domestic science, commercial work, or manual arts. The acceptance of work from any school for admission to the University will be based upon a special inspection; and the approval of courses will be dependent primarily upon adequate equipment and efficiency of instruction.

A tentative statement of acceptable units in these subjects is as follows:

AGRICULTURE: Plant Production, Agricultural Chemistry, and Soils, 1 or 2; Animal Husbandry, 1; Rural Economics, Farm Management, and Farm Mechanics, 1 or 1½.

COMMERCIAL WORK: Bookkeeping, 1 or 2; Stenography and Typewriting, 1 or 2; Commercial Arithmetic, ½; Commercial Law, ½; Commercial Geography, ½.

DOMESTIC SCIENCE: Food Study, 1 or 2; Textiles and Clothing, 1 or 2; House Problems, 1.

MANUAL ARTS: Mechanical Drawing and Shopwork, 1, 2, 3, or 4; Freehand Drawing and Design, 1 or 2.

Examinations at the University

The regular examinations of the University are two in number, one in June and one in September. The earlier one is intended for those who wish to be examined while fresh from their preparatory studies, and for those who wish to test their qualifications at an early date in order that they may have time to make up deficiencies if necessary. The September examination immediately precedes the opening of the first semester.

For the current year the earlier examinations will be held on Thursday and Friday, June 15 and 16, beginning at 9 o'clock A. M. The later examinations will be held on Monday and Tuesday, September 18 and 19, beginning at 9 o'clock A. M. Students who are in any doubt as to their qualifications are urged to present themselves in June. All candidates are required to be present at 9 o'clock on the first day of the examination. Special examinations will not be given for any reason.

Candidates for admission to the University may divide the subjects and take the examinations in two trials; but a failure to pass all of the subjects in the two trials will necessitate a complete re-examination.

The character of the entrance examinations is indicated by the extent of the preparation expected in each of the several branches, as described above, under the heading: Scope of the Preparatory Work.

Admission Upon Certificate

ACCREDITED SCHOOLS.—Any high school or academy in the state whose course of instruction covers the branches requisite for admission to the University may be admitted to its accredited list of preparatory schools after a satisfactory examination by a committee of the faculty. Application for such an examination may be made by an officer of the school to the Secretary of the Committee on Accredited Schools, on the basis of which a committee of the faculty will examine the course of study and the methods of instruction in the school, and on their favorable recommendation and the concurrence of the faculty it will be entered upon the accredited list of the University. No school will be placed upon the list whose course of study is not fully equal to the four-year course of high schools recommended by the State Superintendent. The graduates of such an approved school will be received by the University without examination, on the presentation of a certificate showing the satisfactory completion of the fourteen required units, and containing the recommendation of the principal. Forms of such certificates, prepared by the University, must be used, and may be obtained from the Registrar. *These certificates should be sent to the University before August 1.*

Any high school or academy with a complete four-year course whose course of instruction does not include foreign language may be admitted to the accredited list under the conditions stated above, provided that its course of instruction covers fourteen units in the subjects accepted for admission to the University. Graduates of such a high school or academy will be admitted upon certificate, under the conditions for admission without foreign language. (See Index under Admission).

Principals of accredited schools are requested to note the statement regarding the examination of freshmen in English, as stated under the heading: Scope of the Preparatory Work (see Index), and also the statement regarding the additional requirement and

examination in algebra for admission to the College of Engineering, as stated under: Requirements for Admission (see Index).

The University desires to keep itself fully informed regarding the work of its accredited schools by means of annual reports and frequent inspections. Every accredited school is required to report each year concerning its teachers, course of study, methods of instruction, and material equipment. Blank forms are furnished by the University for this purpose. The University sends out inspectors at its own expense and at the convenience of the members of the staff. Especial attention is called to the necessity of promptly notifying the Secretary of the Committee on Accredited Schools of changes in the dates of examinations and vacations. The list of accredited schools will be published near the end of the academic year; it will be sent to all accredited schools and to all high schools in the State of Wisconsin. Copies of the list may be had upon application to the Registrar.

Graduates of four-year non-accredited schools in Wisconsin will be admitted without examination, on probation, upon the favorable recommendation of the principal, in such special cases where the graduate has fully and satisfactorily covered in his high school course of study the full requirements for admission to the University.

Schools Outside of Wisconsin.—The following regulations will apply to graduates of schools from without the state:

1. Graduates of secondary schools outside of Wisconsin, included in the current list of accredited schools of the North Central Association, will be admitted when recommended and certified by the principal as indicated on page 102, provided that the minimum admission requirements of the University be fulfilled in all cases.

2. Graduates of other secondary schools outside of Wisconsin will be admitted when properly recommended and certified; provided (a) That the school maintains on the basis of regular inspection accredited relationship with the state university, or other university located within the state, included in the membership of the Association of American Universities. In all instances the state university shall maintain the same standard of admission requirements as those institutions belonging to the Association of American Universities.

(b) That the minimum admission requirements of The University of Wisconsin be fulfilled both as regards number of units and character of work. In such cases the character of the work

submitted shall be interpreted to mean an average standing of Good.

Credentials properly certified by the principal on forms provided by the University should, in all cases, be submitted for approval by the University *before August 1.*

Advanced credit for high school work may be granted to students with satisfactory average standings presenting more than fifteen units accepted for admission, provided (1) that the subjects in which advanced credit is sought must be the general subjects that are accepted for admission to the University, (2) that the work must be advanced as work given in the freshman year, (3) that the student's course of study in which credit is desired be approved by the chairman of the department, (4) and that the students must pass a satisfactory examination of at least two hours in length, held at the University before or during the Christmas recess. No advanced credit will be given for work in language unless it be in excess of six units of language offered for admission, nor will advanced credit be given for less than three semester hours.

College Courses—Wisconsin Normal Schools

The University will accept for credit to advanced standing the work of the two years in college studies now undertaken by the state normal schools of Wisconsin. The credits named hereafter will be given to students who, at the time of entering the normal school, were fully prepared to enter the freshman class at the University. The standard amount of credit will be thirty credits for one year's full work, and sixty credits for two years' full work in studies approved by the several colleges and taken substantially in the order required of students at the University.

The following credits may be taken in the several colleges and courses:

A. College of Letters and Science.

Bachelor of Arts—Sixty credits in required work and work regularly offered by the University to freshmen and sophomores.

Bachelor of Philosophy—Junior rank.

Bachelor of Science—A special amount as may be determined by the committee on advanced standing.

B. College of Agriculture.

Required and elective language, mathematics, and science, approved as equivalents by the College of Letters and Science, to the amount of sixty credits. Technical agricultural work credited only if given by special and properly qualified teachers.

C. College of Engineering.

Credit for language and science, so far as these are required in engineering, on the same basis as credit is given in the College of Letters and Science. For mathematics, usually less credit; ordinarily one semester less than the amount taken in normal school. In mechanical drawing, credit only so far as work is equivalent, as a technical study, to the course in the University. All drawings and plates made at the normal school must be submitted by a student who desires credit.

D. Law School and Medical School.

Students who are entitled to sixty credits in college studies will be admitted to the Law School, and also to the Medical School if they have taken the studies required for entrance to that school.

Students from the college courses in normal schools will not be granted more than two years' credit toward graduation; nor will they be granted more than sixty credits unless they enter a course whose first two years require more than sixty credits. In such case they may be granted more than sixty credits if the studies offered include the requirements of the University course.

Teachers Courses—Wisconsin Normal Schools

Graduates of the Wisconsin state normal schools who desire to become candidates for degrees will be given credits as follows:

A. *Bachelor of Philosophy.* Graduates of the two year departmental courses in the state normal schools, who have previously graduated from four year high school courses and who upon graduation from the normal school are entitled to become candidates for an unlimited state certificate, will, upon presentation of their high school and normal school standings and certificates of graduation, be admitted to the junior year in the Bachelor of Philosophy course.

Graduates of the two year departmental courses, who are not high school graduates, must present a complete record of their academic training and teaching experience. If this record is the substantial equivalent of high school graduation and two years of normal school work, such students will be given junior rank in the Bachelor of Philosophy course.

B. *Bachelor of Arts.* Graduates of the two year departmental courses and of the specialized teachers courses, who desire to become candidates for the Bachelor of Arts degree, must submit for evaluation by the Committee on Advanced Standing a full statement of their high school standings and certificates of graduation. The amount of advanced standing granted ordinarily varies from 30 to 60 credits depending upon the nature of the work taken in the normal school. The following conditions will be applied:

1. Graduates of the two year departmental courses of normal schools must absolve all the University requirements for the degree (see Index for requirements for the Bachelor of Arts degree.)
2. Elementary foreign language is an entrance requirement. If elementary foreign language is taken by the student in the normal school, it will be accepted toward entrance requirements but will not be counted toward the requirement for the degree unless it be a second foreign language.
3. Application for laboratory credit in science must be accompanied by laboratory or field books.
4. No credit will be given for any work in a normal school done in a quarter, term, or semester in which more than 20 hours per week, exclusive of physical education and similar work, were taken, except on special recommendation of the president of the school.
5. Graduates of the two-year departmental teachers courses of normal schools will not be granted more than two years credit toward graduation; nor will they be granted more than sixty credits unless they enter a course whose first two years require more than sixty credits. In such case they may be granted more than sixty credits if the studies offered include the requirements of the university course.

The University has given no consideration to the question of credit for the newly established three year courses in the normal schools; the matter having been postponed at the request of the

normal school presidents. In making the above statement in regard to credit for the two year departmental courses, there is no implication that additional credit will be given for the three year courses.

C. *Bachelor of Science.* Graduates of the departmental courses, who desire to become candidates for the Bachelor of Science degree must comply with substantially the same requirements as for the Bachelor of Arts degree.

Normal Schools Outside of Wisconsin

Graduates and students of normal schools of other states will be admitted to the University with such advanced credit as their previous work entitles them to; except that no credit will be given greater in amount than that granted to graduates of any normal school by the State University of the state within which the normal school is situated. In addition to the normal school certificate and the certificate of high school work completed such graduates or students must present an official statement from the university of the state in question as to the amount of advanced credit that would be given for the work so completed.

See page 171 for a statement of the requirements for the degree of Bachelor of Philosophy.

Students From Other Colleges and Universities

Students from other institutions, who have pursued standard college courses equivalent to those of the University will be admitted, and will receive credit for such courses upon the presentation of proper certificates of creditable standing and honorable dismissal. Blank forms for this purpose are provided by the University; and transfer records from other institutions are required to be made out on these forms and submitted for consideration in advance of the opening of the University. Transfer records must be accompanied by a letter of honorable dismissal.

The University of Wisconsin long ago proposed and has maintained arrangements with the colleges and normal schools of the state by which the College of Letters and Science has given credit for the work of freshman and sophomore years in standard college courses equivalent to those of the University. The number of students who enter the University with advanced standing under this arrangement has constantly increased. Throughout these

years the College of Letters and Science has emphasized its belief that it was not to the advantage of the student, or of the University, to transfer at the opening of the senior year, or, in general, later than the opening of the junior year. The faculty desires to give as much as two years of teaching to persons who are to receive the bachelor's degree in courses which normally require four years, and it believes that in all but exceptional cases such a degree should mean at least two years of work at the institution granting it. On the other hand, the faculty fully recognizes the wisdom of the principle involved in giving credit for junior college work, and is glad to accept students of suitable preparation as sophomores or juniors.

While, therefore, the minimum number of credits to be obtained *in residence* for the Bachelor of Arts degree still remains at 30 (see p. 111), students who desire to enter as undergraduates are strongly advised to do so not later than the beginning of the junior year. Students who apply for credit in excess of two years must expect to have their records closely scrutinized, and only in very exceptional cases will so much as three years of credit be given for three years of work elsewhere. Beginning with the academic year, 1917–18, the minimum requirement for the degree of Bachelor of Arts degree will be 45 credits. This will ordinarily mean attendance for one and one-half years or one year and two summer sessions at this University.

By arrangement with Beloit College, Lawrence College, Ripon College, Carroll College, Milwaukee Downer College, the Milwaukee German-American Seminary, (provided the candidate majors in German), Marquette University, and St. Clara's College, students of these institutions who have satisfactorily completed the work of the sophomore year will be admitted to the junior rank in the College of Letters and Science. In case of migration at an earlier period than the end of the sophomore year, proportional credit will be given. Students who complete two years of work at Beloit, Lawrence, Ripon, Carroll, Marquette will be admitted to the College of Engineering of The University of Wisconsin on the same conditions as students who transfer to that college from the College of Letters and Science of The University of Wisconsin. Students of senior rank from Lawrence and Ripon who enter the Law School will receive credit for their law studies toward graduation in the institution from which they come, to amounts to be determined by those institutions.

Students of other colleges of good standing who have not taken standard courses, but who have studied at least one year in the college proper, may be admitted to the University provisionally. In such cases the amount of credit will be determined by the Committed on Advanced Standing. The University reserves the right to test by examination the records presented.

No person will be admitted to the University later than November 1 of the year in which he expects to graduate.

Admission of Adult Special Students

Persons twenty-one years of age, who do not possess all of the requirements for admission and are not candidates for a degree, are permitted to enter the College of Letters and Science and the College of Agriculture upon giving satisfactory evidence that they are prepared to take advantageously the studies which they desire. Such students are generally prepared to select their studies only from courses open to freshmen. If they desire to take studies to which only advanced students of these colleges are regularly admitted, they must show special preparation or special necessity for such courses. This privilege of admission is granted in the College of Engineering only to such students as are able, on examination, to meet all the entrance requirements in mathematics. The privilege of admission on the adult basis is not granted in the Law School.

Candidates applying for admission on the above basis are required to present a detailed statement of their preparatory studies at the time of their admission.

Adult special students who desire subsequently to become candidates for a degree must satisfy the regular entrance requirements.

DEGREES

First Degrees

The following baccalaureate degrees are conferred upon those who have successfully completed the prescribed courses of study and who have complied with all other requirements of the University:—

Academic

Bachelor of Arts, upon the graduates in the College of Letters and Science, except those from the course for normal school graduates, and from the courses in Chemistry, Pharmacy, and Medical Science.

Bachelor of Philosophy, upon the graduates from the course for normal school graduates.

Professional and Technical

Bachelor of Laws.

Bachelor of Science (Agriculture).

Bachelor of Science, Home Economics Course.

Bachelor of Science, Civil Engineering Course.

Bachelor of Science, Mechanical Engineering Course.

Bachelor of Science, Electrical Engineering Course.

Bachelor of Science, Chemical Engineering Course.

Bachelor of Science, Mining Engineering Course.

Bachelor of Science, Chemistry Course.

Bachelor of Science, Pharmacy Course, upon graduates from the four-year course in Pharmacy.

Bachelor of Science, Medical Science Course.

Graduate in Pharmacy, upon graduates from the two-year course in Pharmacy.

Graduate in Music, upon graduates from the four-year course in Music.

GRADUATE IN AGRICULTURE, upon graduates from the two-year course in Agriculture.

A graduate of any of the courses may receive the baccalaureate degree of any other course by completing the additional studies taken in one year, and for a second bachelor's degree in the College of Letters and Science there are required one year's additional study and a special thesis.

The conditions on which the bachelor's degrees are given will be found stated under the appropriate colleges and courses on subsequent pages.

Higher Degrees

The University confers in course the degrees of *Doctor of Philosophy* and *Doctor of Public Health*. The degree of *Master of Arts* is conferred as a second degree upon candidates who have received the degree of *Bachelor of Arts* or an equivalent, and the degree of *Master of Science* upon candidates who have received the corresponding baccalaureate degrees. The degree of *Master of Philosophy* is conferred only upon candidates who have received the degree of *Bachelor of Philosophy* at The University of Wisconsin. Such candidates may receive the degree of *Bachelor of Arts* or *Bachelor of Science* by doing supplementary work. Candidates who have taken the degree of *Bachelor of Science* in one of the engineering courses, may receive the degree of *Civil Engineer*, *Mechanical Engineer*, *Electrical Engineer*, *Chemical Engineer*, or *Mining Engineer*. The degree of *Master of Pharmacy* is conferred as a second degree upon *Graduates in Pharmacy*.

The conditions on which these higher degrees are granted will be found stated under the Graduate School, and also under the various colleges.

THE COLLEGE OF LETTERS AND SCIENCE

EDWARD A. BIRGE, Dean.

Requirements for the Degree of Bachelor of Arts

1. General Conditions*

The *credit* is the unit for computing the amount of work required for graduation. This is equal to one hour of recitation or lecture per week for one semester. Students are expected to secure 15 credits per semester in recitations, lectures, and laboratory work, making 30 credits per year, and 120 for the course. In addition men are required to take 2 hours per week of physical training during the first two years and secure a total of 4 credits. They are also required to drill 2 hours per week during the first two years, giving 4 credits. (For details see Department of Military Science and Tactics.) Women are required to take 4 hours of physical training per week during the first two years and secure 8 credits. The total requirements for class-room work, military drill, and physical training are, therefore, 128 credits.

Each student is required to take recitation and laboratory work to an amount which will give 14–16 credits per semester, besides military drill and physical training in the case of students from whom these exercises are required. A student who desires to secure fewer than 14 credits must apply for permission through his adviser to the dean. In case a student has received grades of *good* in all studies of the preceding semester, he may take extra studies to an amount not exceeding 18 credits. No student will be permitted to receive more than 18 credits toward graduation in one semester in class-room work except by permission of the faculty, obtained in advance.

* These requirements do not apply to candidates for the degree of Bachelor of Arts in the Course in Commerce or the Medical School. For the special requirements in such cases see the announcements of these departments.

For the special requirements of candidates for the degree of Bachelor of Arts in the Commerce Course or the Medical Course see announcement under the appropriate heads.

Students transferring from the courses in Commerce or Medicine, or from another college of the University, will receive no more than 15 credits a semester toward graduation for work already done, except in semesters in which all standings are 85 or above. They will not receive credit for technical studies of another college, except to the amount and under the conditions stated under Election of Studies in Other Colleges, p. 115.

2. Required Studies

a. English, 6 credits (3 credits per semester for two semesters); to be taken in the first year of residence.*

b. Language: 16 credits for those who offer 4 units or more of foreign language at entrance; 24 credits for those who offer 2 or 3 units of language at entrance. Those who offer less than 2 units must also make up deficiency in preparation by extra work, see p. 89. The work shall be in year courses in two languages; and not less than 2 credits per semester must be taken in any language. Ordinarily the two must be chosen from the following groups: Greek (classical), Latin, French, German; but advanced work in another foreign language, to an amount not exceeding eight credits, may constitute one of the two languages, on the following conditions:

(1) The student must study the language more than one year. (2) Only the work beyond the first year ("advanced work") can be substituted. The first year's work will be accepted toward the credits required for graduation, though not as part of the required credits of language.

c. Two of the following: natural science, 10 credits; mathematics, 6 credits; history, 6 credits, which must be a three credit course extending through two semesters.

Under natural science are included botany, zoology (or a combined course, Biology 1), chemistry, physics, and geology. All are five credit courses with laboratory work, or field work in geology.

* On the completion of course 1, a provisional pass mark is given; if at any time later in his course a student is reported as deficient or careless in English composition he may be required to take additional work in that subject.

3. Major Study and Thesis

Major Study.—At the beginning of the sophomore or the junior year every candidate for the degree of Bachelor of Arts shall select as his major subject the work of some one department in the College of Letters and Science. This department will determine the manner in which the work of the major shall be completed; the work required in the major (including thesis and required work) shall not be less than 20 credits, nor more than 40 credits; the thesis receiving 4 credits.

Thesis.—All candidates for a baccalaureate degree are required to present a graduating thesis, except as provided below. The subject of the thesis shall be approved by the student's adviser and filed with the chairman of the department in which the candidate is taking his major. It shall represent some phase of the student's work in the major study and shall be of a scholarly character. It shall be typewritten and bound according to specifications furnished by the Librarian of the University; and before it is accepted it shall be approved by the instructor under whom the work has been done. It shall be deposited in the University Library by the Thursday before Commencement.

One of the following substitutes for the thesis may be allowed when, in the judgment of the department, it is advisable:

1. A course restricted to seniors and graduates, in groups of not more than ten, with written reports of independent work done in connection with the course under the supervision of the instructor.

2. An individual reading or research course, with frequent conferences between student and instructor and with written reports of independent work.

These substitutes shall involve work equivalent to at least 4 credits, and shall be so certified by the instructor on the report card of each student taking either substitute. The several papers of each student shall deal with correlated subjects, and shall be prepared with due attention to expression and to logical form. Before any student's papers shall be finally accepted as a whole, they shall be typewritten and bound together according to specifications obtaining in the case of the thesis. They shall be deposited in the University Library by the Thursday before Commencement.

4. Electives

All work not included in 2 and 3 is elective, but there shall not be taken in any one department more than 40 credits, including re-

quired work in excess of 6 credits, major, and electives. High school work for which University credit is given shall not count as a part of these 40 credits.

5. Studies of the Freshman Year

In this year one study only is absolutely required: English 1, three times per week. All other studies of the year must be chosen from the following groups:

GROUP I. At least one subject must be taken from this group and not more than 10 credits may be chosen from any one subject.

Greek: 3–5 credits; two semesters.
Latin: 4–5 credits; two semesters.
German: 4 credits; two semesters.
French: 4 credits; two semesters.
Spanish: 4 credits; two semesters (only in the Course in Commerce).

GROUP II. At least one subject must be chosen from this group. Not more than 10 credits may be taken in any one subject.

Mathematics:
Algebra: 3 credits; one semester.
Trigonometry: 3 credits; one semester.
These courses in mathematics are repeated each semester.

Science:
Botany: 5 credits; 2 semesters; 2 lectures; 4 laboratory periods, 1 recitation.
Zoology: 5 credits; 2 semesters; 2 lectures, 4 laboratory periods, 1 recitation.
Biology: A year's course arranged by combining Botany 1 (first semester) and Zoology 1b (second semester),
Chemistry: 5 credits; 2 semesters; 3 lectures, 3 laboratory periods, 1 recitation.
Physics: 5 credits; 2 semesters; 3 lectures, 2 laboratory periods, 2 recitations; or 2 lectures, 1 laboratory period, 3 recitations.
Geology: 5 or 3 credits; 2 semesters.
Astronomy: 3 credits; 1 semester. (This course can not be offered as part of required science).

History:
Ancient History: 3 credits; 2 semesters.
English History: 3 credits; 2 semesters.
Medieval History: 3 credits; 2 semesters.

Students may secure 5 credits in history by taking two courses. In this case they will do the full work of one course, receiving 3 credits; in the other course they will omit much of the collateral reading, reports, etc., and will receive 2 credits.

Drawing: 3 credits; 1 or 2 semesters.

The student may take 14, 15, or 16 credits from these studies. The combination may be made by adding to English (3 credits) two foreign languages from Group I (6 to 10 credits), with one subject from Group II (3 to 5 credits); or by taking but one foreign language (3 to 5 credits) with two subjects from Group II (6 to 10 credits). Students are advised to carry on the language, or languages, which they have had in preparatory schools. Those who come with only two years of language preparation will be expected to continue this preparatory language during the freshman year.

The following courses open to freshmen will be found described under Departments of Instruction on the following pages. The figures following the name of the department refer to the number of the course as given under the proper heading under Departments of Instruction. Advanced courses in language are open only to students of suitable preparation.

English 1, Greek 5a, 5b, 7, 10, and 11, Latin B, A, and 6, German 1a to 3, and 14, French 1, 2, 10, 11, 13, 14, and 15, Mathematics 1, 2, 3 or 4, 7, 8, and 51, 52, Biology 1, Botany 2, Zoology 1b, Chemistry 1, Physics 1, and 1Sc., Geology 2 and 4, Astronomy 1, History 1, 5, and 10, Drawing 1, 2 (Freehand or Mechanical), Journalism 1 (no credit). Only the five credit courses in science can be counted toward the science required for graduation.

6. Election of Studies in Other Colleges

Candidates for the degree of Bachelor of Arts are allowed to elect in the College of Mechanics and Engineering, the College of Agriculture (including the Course in Home Economics), the Law School, or State Library School, studies to an amount not exceeding the equivalent of 20 credits. The conditions under which these studies may be elected are as follows:

1. Before electing studies in other colleges the candidate for the degree of Bachelor of Arts must have completed the work of the freshman and sophomore years in the College of Letters and Science, including those studies which come normally in freshman and sophomore years.

2. Studies in other colleges may be elected only by students who spend at least two full years in attendance at the University before receiving the bachelor's degree. They may not be elected by students from other institutions who enter the University with a higher rank than that of junior, or by students who through correspondence study reduce the amount of required attendance at the University below two years.

3. Certain courses primarily intended for students of other colleges (such as Mathematics 51) are listed in the departmental announcements of the College of Letters and Science. Such courses are open to any student of suitable preparation in the same way as the courses primarily intended for the students of the College of Letters and Science.

4. Courses in other colleges and schools which are parallel to courses offered in the College of Letters and Science may not be elected without the consent of the Dean of the College of Letters and Science.

5. Not more than 5 of the 20 credits may be secured in either semester of the junior year.

Requirements for a Degree in the Course in Commerce

Students who have completed the regular four-year course of the Course of Commerce will receive the degree of Bachelor of Arts, (See Index.)

Requirements for the Degree of Bachelor of Science

Students who have completed the regular four-year course of the Course in Pharmacy will receive the degree of Bachelor of Science, Pharmacy Course. (See Index.)

Students who have completed the regular four-year course of the Course in Chemistry will receive the degree of Bachelor of Science, Chemistry Course. (See Index.)

Requirement for a Degree in the Course in Medical Science

Students who have fulfilled the necessary requirements will receive the degree of Bachelor of Science, Medical Science Course. (See Index, under Medical School.)

The departments which constitute the Medical School are at present also constituent departments of the College of Letters and Science. The courses offered in these departments are open for

election to any students in the College of Letters and Science who are prepared to take them. Candidates for the degree of Bachelor of Arts are not permitted to matriculate in the Medical School for more than one year. Candidates for the degree of Bachelor of Science, Medical Science Course may be registered two years in the Medical School. They may, with the consent of their advisers, elect up to 18 credits per semester, and may confine their work to the science and language groups of studies. The language requirements are those required for admission to the Medical School. (See Index.)

Requirements for the Degree of Bachelor of Philosophy

Course for Normal School Graduates

Graduates of the two-year departmental courses of the state normal schools are admitted to advanced standing in the various courses and colleges of the University on conditions given under the heading Admission. (See Index). A special course, leading to the degree of Bachelor of Philosophy, has been arranged by the University to meet the needs of most of those who graduate from the departmental courses of the state normal schools. Such graduates are admitted to junior standing in candidacy for this degree. The course contains a minimum required amount of advanced studies in philosophy and education,—6 credits in each—with the privilege of further elections in those subjects. All courses in philosophy, except course 1 (elementary psychology) are open to election by normal school graduates. In education, no elementary course may be elected by a normal school graduate; the courses which he may elect in fulfillment of requirements are explicitly indicated on p. 132 of the catalogue. Departmental teachers courses in the several departments may *not* be elected in fulfillment of the requirements in philosophy and education.

This course also requires a continuous study of one foreign language (Latin, French, or German) during the two years of the course,—that is, a total of 16 credits. Exceptions to this requirement are made in certain cases.* Any student in this course who

* A normal school graduate who has had altogether five years of experience in teaching will be allowed to substitute for the required work in language sixteen credits in language, literature, history, or philosophy; of which at least twelve credits must be in one of the four fields named. If philosophy is chosen the credit must be in addition to the six credits regularly prescribed.

offers work in foreign language equal in amount to that demanded of candidates for the degree of Bachelor of Arts will not be required to pursue courses in foreign language in the University; and no student will be required to complete more work in foreign language than is demanded for the degree of Bachelor of Arts.

The student must also complete a major in some department on the same conditions as obtain for the B. A. degree. (See p. 113.)

Any advanced courses in the College of Letters and Science for which the student is prepared may be elected by him but the required work, including a minimum of 20 credits in the major study, amounts to at least 48 credits. The student may not take courses that amount to more than 16 credits for the first semester, and he is under the same rules regarding number of hours as the student in the B. A. course. (See p. 111.) It is expected that the normal school graduate will give special attention to preparation for teaching some one branch of instruction, and he may choose his electives so as attain this end. He must on entering select the work of some one department as his major study. His adviser will be assigned from that department, and it will be the duty of the adviser to arrange the student's work so that he may satisfy the requirements, both of the course and of the major study. These may be satisfied in two years, except in a few departments.

Students in the Course for Normal School Graduates may not elect studies from other colleges, except by special permission. This will ordinarily be granted only when the studies desired are necessary for the future work of the student as a teacher. Application for such permission should be made to the Dean, through the Director of the Course for the Training of Teachers.

Military drill and gymnastic exercises are not required of normal school graduates.

A student who completes the course for normal school graduates may secure the University Teachers Certificate by completing the requirements stated on page 261.

In the first semester the student should begin foreign language, take part of the required courses in philosophy and education, and begin his major study. The course of study will be as follows:

JUNIOR YEAR. Foreign language (each semester), 4 or 5 credits;

These sixteen credits shall not be in single semesters of courses regularly running through the year, except by special permission; nor shall they be taken in the department of the major subject.

philosophy or education; major study; electives; total credits first semester, 14–16.

SENIOR YEAR. Continuation of foreign language; completion of required philosophy and education; major study and thesis; electives.

Graduation in Less than Four Years

The attention of students is called to the announcement of the Summer Session of the University, as given on subsequent pages of the catalogue. Work in the Summer Session will be credited in the same way as work in the regular session of the University, and by attendance at one session a total amount of credit may be acquired not exceeding 6 credits.

Candidates for the degree of Bachelor of Arts who desire to graduate in three years may do so by obtaining 17 or 18 credits per semester after the first semester of freshman year, and by attending three summer sessions, thus securing a total of 120 credits. Permission to take work to this amount will be given only to students whose standing in their studies is wholly satisfactory. No credit will be given for repetition in the Summer Session of studies taken in the regular session of the University, or for repeating in the University work done in the summer. Students will need to select carefully their work for the summer with reference to the required and elective studies of the course in which they intend to graduate. The Summer Session offers exceptional opportunities for the preparation of a senior thesis. Any student who expects to shorten his course by means of the Summer Session should consult his adviser in selecting his studies.

Period of Residence

The minimum number of credits which must be secured in residence for a degree in the College of Letters and Science is the number normally taken in two semesters, or 30 credits. Students who desire to graduate with this minimum number must secure them in residence during the regular college year. This will require attendance during two semesters, which need not be consecutive. Attendance on summer sessions may not be substituted for this minimum.

Students who take in residence not less than the equivalent of three semesters' work—45 credits—may secure this by attendance

on summer sessions only or by attendance during summer sessions and the regular University year.

Students must not expect to take work of the major study and the thesis by correspondence. This should normally come at the end of the course, and candidates for degrees should, therefore, expect to take their final work in residence.

Student Advisers

Upon entrance, each student in the College of Letters and Science is assigned to a member of the faculty who acts as his adviser during the freshman and sophomore years. At the beginning of the junior year, when the student has selected his major study, a member of the department in which his major is chosen becomes his adviser. Each semester, the student is required to consult his adviser concerning the choice of studies and the adviser must give his approval before the student is permitted to enter classes.

The University Teachers Certificate

In accordance with the statutes of Wisconsin, certificates are issued to all graduates of a regular collegiate course who complete the course in pedagogical instruction prescribed by the University. This certificate, when presented to the State Superintendent, entitles the holder to receive a license to teach in any public school in Wisconsin for one year, renewable for a second year after one year of successful experience. Graduates who present satisfactory evidence of good moral character and two years of successful teaching in the Wisconsin public schools, after graduation, are entitled to receive from the State Superintendent an unlimited state certificate.

For requirements for teachers certificate, see page 244.

Honors in the College of Letters and Science

Honors are awarded: (1) at the end of the sophomore year, and (2) at graduation.

Sophomore honors are awarded to students recommended by two or more departments from a list of those eligible, compiled by a standing committee on honors, and including all students distinguished by high general standing during the first three semesters.

Graduation honors are of two kinds. (a) Honors will be given for an exceptionally fine or original thesis, without consideration of the

student's record in other work. (b) Senior honors are awarded for independent work done outside the regular courses in the major subject and at least one other department during the junior and senior years. Candidates for honors will arrange for this extra work with the department in which they take their major study and will be examined on it by a special committee of all the departments involved. The names of candidates with a statement of the departments in which honors are sought must be in the hands of the standing committee on honors not later than the beginning of the senior year. To be eligible for senior honors, students must attain a grade of excellent in at least a third of their work, especially in junior and senior years. Candidates entering as juniors must attain a grade of excellent in at least twenty credits.

DEPARTMENTS OF INSTRUCTION

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester, I or II, given each semester; cr., credits, i. e., hours of credit. Unless otherwise stated, the number of credits per semester is given.

ANATOMY

PROFESSOR BARDEEN (chairman); ASSOCIATE PROFESSOR MILLER; INSTRUCTORS DE GARIS, MONROE; ASSISTANT ROBINSON.

For full description of the courses offered in this department, see announcements under Medical School.

For Undergraduates and Graduates

105. Comparative Anatomy. II; 3 cr.
110. Histology and Organology. I; 4 cr.
115. Mammalian Embryology. I; 2 cr.
121. Human Anatomy. Yr.; 6 cr.
122. Topographical Anatomy. II; 3 cr.
123. Special Human Anatomy.
126. Neurology. II; 4 cr.
130. Advanced Anatomy.
131. Historical Seminary.

For Graduates

235. Investigation under Direction.

ASTRONOMY

PROFESSOR COMSTOCK.

For Undergraduates

1. General Astronomy. I; 3 cr. The fundamental concepts of astronomy supplemented by a direct study of the sky. Open to freshmen. No previous mathematical training required.

6. Astronomical Practice. II; 2 or 3 cr. Determinations of time, latitude, longitude, and azimuth with portable instruments. Drill in numerical computations. Planned for juniors and seniors in civil and sanitary engineering.

7. Advanced Field Astronomy. Yr.; cr. to be arranged. Spherical astronomy; the more refined methods for determining time, latitude, and azimuth; elementary applications of the method of least squares. Prerequisite: course 6.

13. Spherical Astronomy. I; cr. to be arranged. Apparent motion of the celestial sphere. Astronomical coordinates and their transformations. Parallax, refraction, time, use of the ephemeris.

14. Practical Astronomy. II; cr. to be arranged. Theory and use of the sextant, theodolite, transit, and equatorial telescope.

For Undergraduates and Graduates

116. Celestial Mechanics. Yr.; cr. to be arranged. Theory of undisturbed motion. Computation of ephemerides. Orbits of double stars and comets. Prerequisites: Mathematics (courses in trigonometry, analytic geometry, and calculus); Astronomy 1.

122. Method of Least Squares. I or II; 2 cr. The theory, with application to numerical computation. Prerequisites: Mathematics (courses in higher algebra, analytic geometry, and calculus); at least one course in either geodesy or observational astronomy.

For Graduates

225. Research. Graduate students desiring to pursue advanced astronomical studies or research may have access to the instruments and library of the Washburn Observatory upon showing that they are qualified to profit by such opportunity.

BIOLOGY

Study in the biological sciences is conducted in the independent, though coordinated, Departments of Botany, Zoology, Anatomy, Physiology, Experimental Breeding, Pathology, Pharmacology and Toxicology, Plant Pathology, and Bacteriology and Hygiene.

1. General Biology. Yr.; 5 cr. An elementary one-year course in general biology may be taken by combining Botany 1 (first semester) and Zoology 1b (second semester), which see. Introductory to botany, zoology, anatomy, bacteriology, and physiology, and a prerequisite for all advanced work in these departments.

BOTANY

PROFESSORS ALLEN (chairman), OVERTON; ASSISTANT PROFESSORS BARTHOLOMEW, DENNISTON, GILBERT; CURATOR DAVIS; INSTRUCTORS BENNETT, BRYAN, SMITH, STEIL, STEWART; ASSISTANTS ARMSTRONG, BAIRD, BROWN, BROWNING, FREY, LEEDY, MILLER, RICHARDS, SMITH, TOOLE.

FELLOW, MR. YOUNG.

For a major in botany, a minimum of thirty credits is required; this should include, besides the thesis, one of the following groups of courses or their equivalents:

a. Biology 1 (Botany 1 and Zoology 1b), and courses 103, 104, 105, and 106; or

b. Biology 1, Botany 2, and two morphological courses (selected from courses 103, 104, 105, and 106).

For Undergraduates

1. General Botany. I; 5 cr. Preliminary to all advanced work. Accepted with Zoology 1b to make up an elementary course in general biology. Beginning with 1916–17, course 1 will be given each semester. Mr. Allen, Mr. Gilbert, and staff.

**2. Advanced General Botany.* II; 5 cr. A continuation of course 1 for those who wish a year course in general botany. Accepted as part of a teacher's minor, or, with course 1, in satisfac-

*See also Forest Products Laboratory for lectures on wood structure given in connection with this course.

tion of the requirement of a year of natural science. Prerequisite: course 1 or its equivalent. Mr. Bryan, Mr. Steil, Miss Miller, Miss Richards.

90. The Teaching of Botany. II; 2 cr. Mr. Gilbert.

Senior Thesis. Yr.; 2 cr. A subject should be selected, whenever possible, before the close of the junior year.

For Undergraduates and Graduates

103. Morphology of Algae. I; 2 cr. The development of the different series and their relationships. Prerequisite: course 1 or its equivalent. Mr. Smith.

104. Morphology of Fungi. I; 3 cr. Parallel to course 103. Types of the various groups. Prerequisite: course 1 or its equivalent. Mr. Gilbert.

105. Morphology of Bryophytes and Pteridophytes. II; 2 cr. Types of mosses, ferns, and related plants. Prerequisite: course 1 or its equivalent. Mr. Allen, Mr. Steil.

106. Morphology of Seed Plants. II; 3 cr. The life history of a few types of gymnosperms and angiosperms. Prerequisite: course 1 or its equivalent. Mr. Smith.

***110. Plant Histology.** I; 3 or 4 cr. The tissues of seed plants and ferns; use of reagents and stains, section cutting and mounting. Prerequisite: course 1 or its equivalent. Mr. Denniston, Mr. Toole.

111. Microscopical Examination of Drugs and Foods. II; 3 cr. Prerequisite: course 110. Mr. Denniston, Mrs. Smith.

***115. Histology of Woods.** I; 2 cr. Mr. Denniston.

116. Pathological Plant Anatomy. II; 3 cr. The changes induced in the tissues of host plants by fungi and other parasites. Demonstrations, discussions, and reviews of the literature. Mr. Stewart.

122. Advanced Morphology and Classification. Cr. to be arranged. Special work on algae, bryophytes, or pteridophytes. Prerequisite: adequate preparation in the morphology of the group studied

129. Classification of Cultivated Plants. I; 2 cr. The structure and relationships of the common crop plants and weeds. Mr. Stewart, Mr. Leedy, Mr. Armstrong, Mr. Toole.

130. Identification and Classification of Seed Plants. II; 4 cr. The floral structures of types of seed plants, with especial

*See also Forest Products Laboratory for other lectures on wood structure.

attention to those of economic importance. Practice in the use of a systematic key. Mr. Denniston, Mr. Stewart.

131. Dendrology. II; 2 cr. The structure and characteristics of forest trees. Lectures, laboratory, and field work. Prerequisite: course 1 or its equivalent. Mr. Denniston.

132. Pharmacognosy. Yr.; 2 cr. Required of all students in pharmacy. Mr. Denniston.

133. Microscopy of Drugs. I; 3 cr. Prerequisite: course 110. Mr. Denniston.

135. Sources and Collection of Crude Drugs. I; 1 cr. Required of first-year students in pharmacy. Mr. Denniston.

146. Plant Physiology. II; 4 cr. The special physiology of seed plants. Prerequisite: course 1 or its equivalent, and a knowledge of physics and chemistry. Mr. Overton, Mr. Bartholomew, and staff.

147. Advanced Plant Physiology. II; 4 cr. Prerequisite: course 146 or its equivalent, and a knowledge of physics and chemistry. Mr. Overton, Mr. Bartholomew.

150. Cytology. Yr.; 5 cr. The structure, growth, reproduction, and irritability of the cell. Prerequisite: courses 103 to 106, or their equivalents. Mr. Allen, Mr. Smith.

154. Evolution and Inheritance in Plants. I; 2 cr. The evolution of sex, special features of fertilization in angiosperms, fundamental principles of plant breeding. Prerequisite: course 1 or its equivalent. Mr. Bryan.

156. Facts and Theories of Heredity. II; 2 cr. Prerequisite: course 1 or its equivalent. Mr. Allen.

For Graduates

214. Seminary in General Botany. Yr. Subject for 1915-16 and 1916-17, the history of botany. Mr. Allen.

215. Seminary in Plant Physiology. Yr. Mr. Overton.

216. Research. Yr. Investigation may be undertaken in any department of botany in which the student's preparation is adequate.

220. Advanced Mycology. Yr. The morphology and classification of the fungi. Prerequisite: course 104 or its equivalent. Mr. Gilbert.

221. Classification of Parasitic Fungi. Yr. Field and laboratory work. Prerequisite: the equivalent of Botany 104 or of Plant Pathology 101. Mr. Davis.

248. Physiology of the Fungi. I. With special reference to parasites which cause diseases of plants. Prerequisite: course 146 or its equivalent, and a knowledge of physics and chemistry. Mr. Overton, Mr. Bennett.

252. Cytology of the Fungi. II. Prerequisite: courses 104 and 150, or their equivalents. Mr. Gilbert.

CHEMISTRY

PROFESSORS FISCHER, KAHLENBERG (chairman), KREMERS, LENHER; ASSOCIATE PROFESSOR WALTON; ASSISTANT PROFESSORS CARLETON, KRAUSKOPF, MATHEWS, MILLER; INSTRUCTORS AUGSPURGER, BARNEBEY, BURCHARD, ELLINGSON, KOENIG, LANGENHAN, NEBEL, SCHUETTE, TAYLOR, WAKEMAN; ASSISTANTS BENGER, BISHOP, BOHNSON, BOUTWELL, BRANN, CRAWFORD, HAMMOND, HOUSEMAN, JONES, MILLER, MORRIS, RITTER, ROESELER.

FELLOW, MR. TITUS; SCHOLAR, MISS FAVILLE.

For Undergraduates

1. General Chemistry. 5 cr. First semester, non-metals; second semester, metals and qualitative analysis. Mr. Kahlenberg, Mr. Walton, Mr. Krauskopf, and staff.

2. General Chemistry. 3 cr. For freshmen in engineering. Mr. Kahlenberg, Mr. Walton, Mr. Krauskopf, and staff.

5. The Teaching of Chemistry. II; 2 cr. Prerequisites: Chemistry 1; 120, first semester; credit or enrollment for five credits in Chemistry 11. Mr. Walton.

11. Quantitative Analysis. 3 to 5 cr. Prerequisite: Chemistry 1. Mr. Lenher, Mr. Carleton, and staff.

11Ag. Quantitative Analysis. 3 cr. For agricultural students. Mr. Fischer, Mr. Carleton, and staff.

26. Inorganic Pharmaceutical Chemistry. I; 4 cr. Required of students in pharmacy. Prerequisite: course 1. Mr. Kremers, Miss Wakeman.

27. Organic Pharmaceutical Chemistry. II; 5 cr. Required of students in pharmacy. Mr. Kremers, Miss Wakeman.

28. Alkaloid Assay. One hour required of students in pharmacy during second semester. Additional work may be elected upon consultation. Mr. Langenhan.

40. Plant Chemistry. 3 cr. Supplementary to Botany 132. Mr. Miller.

Senior Thesis. 2 cr.

For Undergraduates and Graduates

107. History of Chemistry. I; 2 cr. A general survey. Mr. Kremers.

108. Advanced Qualitative Analysis. 2 or more cr. More complex substances; compounds containing rare elements. Prerequisite: course 1. Mr. Krauskopf.

112. Advanced Quantitative Analysis. A continuation of course 11. Mr. Lenher.

113. Water Analysis. I; 1 cr. Prerequisite: Chemistry 11. Mr. Fischer, Mr. Schuette.

114. Gas Analysis. I; 1 cr. Prerequisite: Chemistry 11. Mr. Fischer, Mr. Schuette.

116. Industrial Organic Analysis. II; cr. to be arranged. Mr. Fischer.

117. Chemical Preparations. Preparation of typical inorganic compounds. Mr. Lenher.

118. Iron and Steel Analysis. Analysis of the ores and metallurgical products of the iron industry. Mr. Lenher.

119. Proximate Organic Analysis. I; 3 cr. Mr. Fischer, Mr. Schuette.

120. Organic Chemistry. 2 cr. class; 2 to 3 cr. lab. Prerequisite: Chemistry 1. First semester, mainly aliphatic compounds; second semester, mainly aromatic compounds. Mr. Fischer, Mr. Nebel, Mr. Taylor, Mr. Jones.

121. Advanced Organic Preparations. Cr. to be arranged. Mr. Fischer, Mr. Nebel, Mr. Taylor.

128. Chemistry of Alkaloids. II; 2 cr. (Given 1916–17.) A general survey. Mr. Fischer.

129. Chemistry of the Volatile Oils. Including their botanical relation and assay. Mr. Kremers.

130. Physical Chemistry. 5 cr. Prerequisite: Chemistry 1. Mr. Kahlenberg, Mr. Mathews.

131. Electrochemistry. II; 2 or more cr. (Given 1916–17.) Mr. Mathews.

132. Thermal Chemistry. I; cr. to be arranged. (Given 1916–17.) Mr. Mathews.

133. Photochemistry. I; 2 or more cr. Mr. Mathews.

146. Chemistry of Foods and their Adulterations. II; 5 cr. Prerequisites: One semester's work each in Chemistry 11 and 120. Mr. Fischer, Mr. Schuette.

For Graduates

222. Research in Organic Chemistry. Mr. Fischer or Mr. Kremers.

224. Advanced Organic Chemistry. Hours to be arranged. Mr. Kremers.

234. Chemical Equilibrium. I; 1 hour. 1915-16: The phase rule; 1916-17: Chemical dynamics. Mr. Walton.

235. Advanced Physical Chemistry. Hours to be arranged. (Given 1915-16.) Mr. Mathews.

236. Advanced Electrochemistry. The preparation of chemical compounds by means of electrolysis. Mr. Kahlenberg, Mr. Mathews.

237. Research in General or Physical Chemistry. Especially designed for graduates seeking higher degrees. Mr. Kahlenberg, Mr. Mathews, Mr. Walton.

238. Chemical Seminary. 1 hour. Original articles of importance in the different fields of chemistry will be studied in detail.

241. Advanced Plant Chemistry. Mr. Kremers.

242. Research. Special reference to the chemistry of foods and alkaloids. Mr. Fischer.

243. Research. Volatile oils or other subjects of organic chemistry, with special reference to plant chemistry. Mr. Kremers.

251. Advanced Inorganic Chemistry. 2 hours. Modern theories. Lectures alternate with Chemistry 255. (Omitted 1916-17.) Mr. Lenher.

252. Inorganic Preparations. Prerequisite for research in inorganic chemistry. Mr. Lenher.

253. Research in Inorganic Chemistry. Mr. Lenher.

255. Advanced Inorganic Analysis. 2 hours. Lectures; alternates with Chemistry 251. (Given 1916-17.) Mr. Lenher.

COMPARATIVE LITERATURE

COMMITTEE IN CHARGE: PROFESSORS OLSON, SHOWERMAN; ASSOCIATE PROFESSOR CERF; ASSISTANT PROFESSORS DODGE (chairman), KIND.

The courses in Comparative Literature are designed to meet two main needs: (1) That of undergraduates who have not the command of foreign languages necessary to the fundamental study of international types, movements or relations in literature, but who may wish to secure a general understanding of some of the more important of these. (2) That of graduate students, sufficiently equipped with foreign languages, who may wish to supplement their work in particular literatures with detailed study of special interrelations. It is to be understood that, in any course, graduate credit can be secured only by work in at least one of the foreign languages involved.

There is no undergraduate major in Comparative Literature, but various courses on the list count toward such a major in one or other of the language departments.

Graduate students who are working toward a doctor's degree in one of the language departments may take a first or a second minor in Comparative Literature. The degree of Master of Arts may also be taken in this field.

For Undergraduates

1. Ancient Classical Epic. I; 2 cr. Homer's *Iliad* and *Odyssey* and Virgil's *Aeneid*, in translation. Alternates with Greek 113. (Given 1916-17.) Mr. C. F. Smith.

3. Ancient Classical Drama. I or II; 3 cr. The Greek and Roman dramatists; their influence on the modern drama. In translation. (Omitted 1916-17.) Mr. Showerman.

50. Masterpieces of Romance Literatures in Translation. Yr.; 2 cr. Mr. Cerf.

For Undergraduates and Graduates

102. Renaissance Epic. II; 2 cr. *Orlando Furioso*, *Jerusalem Delivered*, *The Faery Queen*, and *Paradise Lost*. The first two in translation. (Given 1916-17.) Mr. Dodge.

107. Contemporary Drama. Yr.; 2 cr. Foreign plays in translation. (Omitted 1916-17.) Mr. Dickinson.

108. The Contemporary Novel. Yr.; 2 cr. Foreign novels in translation. (Omitted 1916-17.) Mr. Campbell.

110. German Influences in England during the Nineteenth Century. Yr.; 2 cr. (Omitted 1916-17.) Mr. Leonard.

115. Elizabethan Prose Fiction in its Relations with that of the Continent. I; 2 cr. (Omitted 1916-17.) Mr. Dodge.

138. Shakspere in Germany. Yr.; 2 cr. Shakspere's influence on German literature during the eighteenth century and on the Romantic School. Counts for the German major. Alternates with course 242. (Omitted 1916-17.) Mr. Kind.

141. Principles and Practice of Translating. II; 1 or 2 cr. For students with advanced training in German, French, or Italian. Counts for the German major. Mr. Morgan.

146. The Ballad. I; 2 cr. The English and Scottish popular ballads, with their analogues in popular ballad and tale. Counts for the English major. Mr. Beatty.

159. Germanic Mythology and Heroic Legends. II; 2 cr. Counts for the German major. (Given 1916-17.) Mr. Roedder.

For Graduates

250. The Renaissance in Romance Countries. Yr.; 2 hours. First semester, Italian; second semester, French. (Omitted 1916-17.) Mr. Cerf.

219. Elizabethan Poetry in its Relations with France and Italy. Yr.; 2 hours. (Omitted 1916-17.) Mr. Dodge.

242. The Literary Relations of England and Germany in the Eighteenth Century. Yr.; 2 hours. Alternates with course 138. (Given 1916-17.) Mr. Kind.

244. The Medieval Drama. Yr.; 2 hours. First semester, liturgical drama; second semester, English. (Given 1915-16.) Mr. Young.

248. Medieval Literature. Its beginnings in Europe with special reference to the influence of the French and Provençal literatures. (Given 1916-17.) Mr. Reed.

252. Medieval French Drama. Yr.; 2 hours. Origins; relation to the early religious plays of other countries. (Given 1916-17.) Mr. Smith.

EDUCATION

PROFESSORS ELLIOTT* (chairman), O'SHEA, HENMON (chairman); ASSISTANT PROFESSORS MILLER, THOMAS LLOYD JONES, STARCH; INSTRUCTORS SEYBOLT, HOYT; ASSISTANTS BRANDENBURG, HUMPHREYS, PAUL.

FELLOW, MR. GRINSTEAD.

The chief aim of this department is to treat the history, foundations, and practices of education in the spirit of contemporary thought. To this end courses are offered in each of the following groups: (1) History of education; (2) Principles of mental development in the child and the race; (3) Educational psychology; (4) Principles of education; (5) Organization, administration, and methods of supervision of public education; (6) Educational movements of the present day; (7) Educational practice under supervision.

Seminary and research courses in each of the main divisions of education are offered.

Students below the junior class are not admitted to any course in education except upon the written permission of the instructor in charge. This permission will be granted only to mature students and to students properly prepared who are under the necessity of leaving the University, before graduation, to enter teaching.

Courses 1, 6, 11, 41, and A, are regarded as elementary, and as introductory to the advanced courses given in the department. Excepting courses A, and 1, these courses are not open for election by graduates of normal schools. Course 113 is not open to graduates of normal schools.

Major in Education

Undergraduate students selecting education as a major subject are required to obtain credit in approved courses amounting to twenty-two hours, inclusive of credit for thesis. Graduate students selecting education as a major will be expected to show familiarity with the general aspects of each of the divisions of education before they will be admitted to candidacy for either a master's or a doctor's degree.

*Resigned February 1, 1916.
†Appointed February 1, 1916.

Master's Degree—Summer Session and in Absentia Work

Candidates for the degree of Master of Arts or the degree of Master of Philosophy, fulfilling the requirements therefor by study during summer sessions and *in absentia* and presenting education as a major subject, must comply with the following special requirements: (1) All such candidates will be accepted provisionally during the first summer session; and special conditions of their candidacy will be determined on the basis of qualifications exhibited during this first summer session; (2) Candidates who have not already satisfactorily completed courses in psychology and education, equivalent to the existing requirements for the University Teachers Certificate, will be required to devote at least four summer sessions, together with work *in absentia*, in fulfillment of the requirements for the master's degree. This will apply in particular to persons who are graduates of the so-called minor colleges. (3) The amount of work *in absentia* to be accomplished must be equivalent to at least one semester of University study. For persons with usual preparation and qualifications, this will require from twelve to fifteen hours of study and investigation weekly throughout each of the two years. During the first year attention will be given to a course of reading preparatory to the preliminary written examination required. The second year will be devoted to the preparation of a thesis. Written reports on reading and thesis work must be submitted every two weeks; (4) Before taking the oral examination required for all second degrees at the close of the period of summer session and study *in absentia* each candidate must undergo a preliminary written examination in the principal aspects of education, viz.: I. History of Education; II. Principles of Education and Mental Development; III. Educational Psychology; IV. Organization, Administration, and Supervision of Educational Systems.

This preliminary written examination must be taken before June first of the third summer session year.

University Teachers Certificate

The requirements for the University Teachers Certificate will be found on pp. 243–259.

For Undergraduates

A. Educational Practice. I or II; 2 cr. Directed teaching based upon participation in the activities of the Wisconsin High School. Open only to seniors and graduate students qualifying for the University Teachers Certificate. Mr. Miller.

1. History of Modern Education. I or II; 2 or 3 cr. Mr. Seybolt.

6. Public Education. I or II; 2 or 3 cr. Survey and interpretation of the American educational system. Mr. Elliott.

11. Mental Development. I or II; 2 or 3 cr. General principles; theory of recapitulation; mental economy and hygiene. Mr. O'Shea.

41. Educational Psychology. I or II; 2 or 3 cr. Prerequisite: Psychology (Philosophy I). Mr. Henmon, Mr. Starch.

For Undergraduates and Graduates

102. History of Ancient and Medieval Education. I; 2 or 3 cr. Prerequisite: course 1, or equivalent. Mr. Seybolt.

103. History of American Education. II; 2 cr. Prerequisite: course 1, or equivalent. Mr. Seybolt.

104a. State School Systems. I; 2 or 3 cr. Open to students who have completed any elementary course in education. Mr. Elliott.

104b. Municipal School Systems. II; 2 or 3 cr. Open to students who have completed any elementary course in education. Mr. Elliott.

112. Social Education. I; 2 or 3 cr. Open to students who have completed any elementary course in education. Mr. O'Shea.

113. Principles of Education. II; 2 or 3 cr. Open to students who have completed any elementary course in education. Not open to graduates of normal schools. Mr. O'Shea.

115. Social Development. II; 3 cr. Prerequisite: course 11 or 113. Not open to students who have completed course 112. Mr. O'Shea.

116. Educational Classics. I; 2 cr. Critical examination of sources from early Greek writers to the present time. Open to students who have completed any elementary course in education. Mr. Seybolt.

117. Educational Values. I; 3 cr. Mr. O'Shea.

142. Experiments in Educational Psychology. I or II; 2 or 3 cr. Prerequisite: Psychology (Philosophy I). Mr. Starch.

144. Advanced Educational Psychology. Yr.; may be elected by semesters; 2 cr. First semester, individual differences, mental inheritance, and the correlation of mental abilities; second semester, original nature of man, psychology of learning, mental work and fatigue, mental hygiene. Mr. Henmon.

For Graduates

The following courses are open to graduate students and to normal school graduates, of senior standing, majoring in Education.

205. European School Systems. I; 2 hours. Germany. France, and England. Prerequisites: course 1, 6, or equivalents, Mr. Elliott.

214. Genetic Psychology. Yr.; 2 hours. The psychology of development in respect to some of the principal types of educational work. Mr. O'Shea.

216. Contemporary Educational Movements. I; 2 hours. Mr. Seybolt.

218. History of Modern European Education. II; 2 hours. Prerequisite: course 1, or equivalent. Mr. Seybolt.

220. Seminary in Education. Yr.; hours to be arranged. Mr. O'Shea.

232a. Seminary in Administration and Supervision of Education. Yr.; 1 or 2 hours. Prerequisite: course 104a or 104b, or equivalent. Alternates with 232b. Mr. Elliott.

232b. Practicum in Educational Legislation. Yr.; 2 hours. Contemporary legislative movements; legislative procedure and the preparation of measures. Given in alternate years in co-operation with the State Legislative Reference Department. Alternates with 232a. Prerequisites: course 104a and 104b, or equivalent. Mr. Elliott.

233. Supervision of Instruction. II; hours to be arranged. Open only to those with practical teaching experience. Mr. Elliott.

244. Mental Tests. Yr.; 2 hours. Mr. Starch.

246. Experimental Education. I; 2 hours. Mr. Henmon.

248. Seminary in Educational Psychology. Yr.; hours to be arranged. Mr. Henmon, Mr. Starch.

ENGLISH

PROFESSORS HUBBARD, YOUNG (chairman); ASSOCIATE PROFESSORS DICKINSON, LATHROP, PYRE; ASSISTANT PROFESSORS BEATTY, CAIRNS, CAMPBELL, O. J., DODGE, GARDNER, LEONARD, MANCHESTER, PENDLETON, ROE, TAYLOR; INSTRUCTORS ALDERMAN, BONNELL, BROWN, BURD, CAMPBELL, L. B., CARR, HARKNESS, HAWKINS, MOORE, OWEN, RIDENOUR, SCALLON, SCHINDLER, WALES, WANN, WATT, WRIGHT; ASSISTANTS DOOLEY, EMSLEY, HARPER, MARTIN.

General Statement

The courses of the department are intended to serve five main purposes: (1) to train students in the use of English as a means of expression and communication for the ordinary demands of social, commercial, and professional life; (2) to continue that training to suit the special needs of those who intend to take up journalistic or literary work; (3) to develop the literary sympathy and appreciation and to extend the knowledge of those who find in English and American literature the readiest means of obtaining the advantages of a liberal education; (4) to prepare teachers of English for school and college work; (5) to fit students for and assist them in scholarly investigation. Most of the courses will be found to meet all of these ends, directly or indirectly, but some are specially directed to one or two in particular. Every student is encouraged to select the courses most suited to his or her own needs, but certain courses are prescribed as necessary for due equipment in particular lines of work.

Undergraduate Courses

All students in the colleges of Letters and Science, Engineering, and Agriculture are required to take Freshman English (course 1 or its equivalent). The General Survey (course 30) is prerequisite to the other literature courses, and is also recommended for students who desire a general knowledge of English literature, but are unable to carry their study of the subject further.

Students taking English as an elective course outside the major study are advised to select courses mainly from the undergraduate group. Those who make English their major study, after providing for the required courses, may choose at will from this or the following group (for undergraduates and graduates).

Senior Honors in English

Candidates for senior honors in English have a choice between two courses of reading:

(a) Chaucer: *Troilus and Criseyde.*

(b) The Complete Works (including Letters, Journals, etc.) of Lord Byron; Thomas Carlyle: *The French Revolution;* the Works of Sir Thomas Browne.

Candidates who choose (a) will be expected to render at sight normal passages of the text assigned and to answer such questions of metrical, linguistic, and historical significance as might reasonably be dealt with in a brief critical introduction.

Candidates who choose (b) will be expected to show that they possess a sound general knowledge of the substance of the works assigned and such information concerning the history and significance of each as may be necessary to a general understanding of its place in English literature.

Candidates in either course will be tested at the close of the year by a three-hour written examination.

English as a Major Study

Students intending to choose English as their major study are strongly recommended to take General Survey (30) in their sophomore year.

At the beginning of the year in which they decide upon their major subject they should consult the head of the department, who will assign them to an adviser. They are required to take twenty-four credits as a minimum, exclusive of the thesis and of course 1 (required of all students). The twenty-four credits must include course 30 (6 credits) and one course from each of the following groups: (a) 36 or 137; (b) 34, 35, or 40; (c) 31, 157, 158, 159, or 160.

Candidates for the degree of Ph. B. choosing English as their major subject are required to fulfill the same conditions as obtain for the B. A. degree.

For Teachers

The requirements for the teachers certificate for those electing English as their major or minor will be found on p. 250.

Library Work

Students who take the joint course arranged at the University and the State Library School may find it to their advantage to choose English as their major study. Of the twenty hours of library work for which credit is given by the University four may be counted towards an English major if the candidate so desires, reducing the minimum departmental requirement to thirty credits. In addition to courses 1 and 30, which are required of all, library students are recommended to select courses of a more general character from the group primarily for undergraduates, especially 34, 35, 36 or 137, 39, 40. For detailed information in regard to preparation for library work, see Index under Library Training and a special bulletin entitled, "Courses in Library Training."

The M. A. Degree

Candidates for the degree of Master of Arts who intend to take one-half or more of their work in English should consult the chairman of the department as to the courses most suitable to their purpose. They are required to show that they have had sufficient preliminary training in English language and literature to undertake graduate work, or to complete such preliminary training in addition to the graduate work required; if they have not taken an undergraduate course in English language, they will be required to take at least three hours in that subject, but this requirement may be satisfied by an adequate training in Greek and Latin. They are expected to take at least two unit-hours each semester from the courses restricted to graduates.

M. A. in Absentia

The advanced study required for the M. A. *in absentia* in this department consists of two graduate courses taken in each of three consecutive summer sessions, with work done in continuation of one of the two courses each year. Particulars may be obtained from Professor Arthur Beatty, Secretary of the Department.

The Doctor's Degree

Special requirements for the doctor's degree (English major) are:

1. The general history of English literature.
2. Anglo-Saxon and Middle English.
3. Special knowledge of the particular field chosen for study.

4. Reasonable acquaintance with the political and social history of that period.

5. Auxiliary studies, varying according to the particular field chosen. For example: for the sixteenth century, Latin, Italian, German, and French; for the classical period, Latin and French; for the romantic period, and for the nineteenth century, French and German.

6. A thesis and examination as explained above.

RHETORIC AND COMPOSITION

For Undergraduates

A. English Composition. For students who have failed to pass the test prescribed on page 92. Three hours a week; no undergraduate credit. Miss Wales and staff.

1a. Freshman English. I or II; 3 cr. Required of freshmen in the colleges of Letters and Science, Agriculture, and Engineering. Mr. Manchester and staff.

1b. Freshman English. I or II; 3 cr. Continuation of 1a. Required of freshmen in the colleges of Letters and Science, Agriculture, and Engineering. On the completion of this course, a provisional pass mark is given; if subsequently a student is reported deficient or careless in English composition, he may be required to take additional work in that subject. Mr. Manchester and staff.

1E. English Composition. Yr.; 3 cr. For juniors in Engineering who do not take English 1 during the freshman year. Not open to other students. Mr. Watt and staff.

2. Sophomore Composition. Yr.; 2 cr. Open to students who have passed English 1. Mr. Taylor and staff.

3a. Argumentation. I; 3 cr. Elementary practice in the fundamentals of argument. Prerequisite: English 1. Mr. O'Neill.

3b. Argumentative Addresses. II; 2 cr. Continuation of 3a. Mr. O'Neill.

4. Commercial Correspondence. II; 2 cr. Taken for credit only by students in a technical course, and by seniors preparing to teach the subject. Mr. Gardner and staff.

11. Advanced Commercial Composition. I; 2 cr. Prerequisite: good work in English 4. Taken for credit only as part of a technical course. Mr. Gardner.

5. Junior Composition. Yr.; 2 cr. Prerequisite: a grade of 85 or over in English 1, or credit in English 2. Mr. Harkness.

6. Advanced Composition. Yr.; 3 cr. Elective for juniors and seniors. Mr. Dodge.

107. Narration. Yr.; 2 cr. Open to juniors and seniors who have taken one composition course in advance of English 1. Mr. Cairns.

108. Dramatic Writing. Yr.; 2 cr. As a prerequisite to admission, candidates are expected to submit an acceptable scenario. Early conference with the instructor is desirable. (Omitted 1916-17.) Mr. Dickinson.

9. Technical Composition. II; 3 cr. The composition of technical papers. Elective for juniors and seniors in Engineering who have had English 1. Mr. Watt and staff.

For Graduates

217. The Teaching of Freshman English. II; 2 cr. (Omitted, 1916-17.) Mr. Lathrop.

ENGLISH LANGUAGE AND LITERATURE

For Undergraduates

25. The English Language. I; 3 cr. The development of the English language. Open to sophomores, juniors, and seniors. Mr. Hubbard.

30. General Survey. Yr.; 3 cr. (1) Lectures on the history of English literature to the end of the nineteenth century; (2) study in small tutorial groups of the works of representative authors. Prerequisite to all courses in English literature; required of sophomores taking English as their major, and recommended to students desiring a single course in English literature. Mr. Campbell, Mr. Pyre (chairman of conference), Mr. Roe, Mr. Young, and staff.

31. Chaucer. I; 3 cr. Mr. Beatty.

32. The Study of Literature. Yr.; 3 cr. The chief aim of this course is to increase the student's power of literary enjoyment and assimilation. With this end in view, selected masterpieces are studied in detail, together with a limited amount of the theory of literary criticism. Not counted toward the English major. Mr. Pyre.

34. The Romantic Movement. I; 3 cr. A summary review from Thomson to Blake; representative poetical works of Wordsworth, Coleridge, Byron, Shelley, and Keats. Mr. Campbell, Mr. Bonnell.

35. The Victorian Era. II; 3 cr. A continuation of 34. The works for particular study are those of Tennyson, Browning, Rossetti, Arnold, Morris, and Swinburne. Mr. Campbell, Mr. Bonnell.

36. Elizabethan Drama. Yr.; 3 cr. The English drama from the beginning to the year 1642. Mr. Pyre.

38. Prose Style. Yr.; 2 cr. English prose from Dryden to the present day. Mr. Taylor.

39. The Novel. Yr.; 2 cr. Principles of prose fiction; the English novel from Defoe to George Eliot. Mr. Lathrop.

40. American Literature. Yr.; 2 cr. The course should be preceded or accompanied by English 30. Mr. Cairns.

48. The Literary Aspects of the English Bible. I; 3 cr. Mr. Lathrop.

50a. The Teaching of English. II; 2 cr. The work of the first and second years in high school, with special emphasis on the teaching of composition. Mr. Pendleton.

50b. The Teaching of English. I; 2 cr. The work of the third and fourth years, with special emphasis on the teaching of literature. Mr. Pendleton.

Observation of teaching is required in each course. 50a and 50b are required of all candidates for the teachers certificate (English major); an advanced composition course (to be taken in the sophomore or junior year) and 50a are required of all candidates for the minor teachers certificate in English.

54. Carlyle and Ruskin. I; 2 cr. Mr. Roe.

55. Emerson and Arnold. II; 2 cr. Mr. Roe.

100. Senior Thesis Course. Yr.; 2 cr. In accordance with the regulations as to substitutes for the senior thesis (Catalogue, p. 113) the department offers courses (restricted to seniors who have elected English as their major study), in which students meet one hour a week in groups of not more than ten for intensive study of particular authors or subjects, written reports being handed in from time to time on topics assigned by the instructor in charge. A list of the instructors offering such courses and of the subjects is given below.

i. Shakspere. Mr. Campbell.
ii. Wordsworth. Mr. Bonnell.
iii. Shelley. Mr. Gardner.
iv. Arnold. Mr. Manchester.
v. Browning. Miss Campbell.

Students wishing to take any of the above courses should consult Mr. Campbell.

For Undergraduates and Graduates

The insertion of CL. after a course number indicates that the course belongs also to Comparative Literature.

107CL. Contemporary Drama. Yr.; 2 cr. Tendencies in European drama. Plays not English in translation. (Omitted 1916-17.) Mr. Dickinson.

108CL. The Contemporary Novel. Yr.; 2 cr. Recent developments in the European novel. Foreign novels in translation. (Omitted 1916-17.) Mr. Campbell.

110CL. German Influences in England during the Nineteenth Century. Yr.; 2 cr. (Omitted 1916-17.) Mr. Leonard.

102CL. Renaissance Epic. II; 2 cr. *Orlando Furioso, Jerusalem Delivered, The Faery Queen,* and *Paradise Lost.* Mr. Dodge.

115CL. Elizabethan Prose Fiction. I; 2 cr. (Omitted 1916-17.) Mr. Dodge.

120a. Anglo-Saxon. I; 3 cr. Mr. Hubbard, Miss Carr.

120b. Middle English. II; 3 cr. A continuation of course 120a. Miss Carr.

121. Anglo-Saxon Poetry. I; 3 cr. Especial attention is given to the lyric and epic poems least affected by Christianity. (Omitted 1916-17.)

122. Beowulf. II; 3 cr. Open to seniors. Mr. Hubbard.

123. Modern English Grammar. II; 2 cr. The facts of modern English grammar, viewed in the light of the history of the language, and of the general principles of linguistic science. Mr. Hubbard.

137. Shakspere. Yr.; 3 cr. Elizabethan political, social, and literary conditions; a study of selected plays. Mr. Young, Mr. Manchester.

141. Tennyson. II; 2 cr. Mr. Beatty.

142. Versification. II; 2 cr. Mr. Pyre.

143. English Essayists. II; 3 cr. From Bacon to the present day. (Omitted 1916–17.) Mr. Dodge.

144. Wordsworth. II; 3 cr. Mr. Beatty.

145. Browning. I; 2 cr. Mr. Gardner.

146CL. The Ballad. I; 2 cr. English and Scottish popular ballads; analogues in popular ballad and tale. Mr. Beatty.

149a. Studies in the Chief American Poets. I; 2 cr. Mr. Cairns.

149b. Studies in the Chief American Essayists. II; 2 cr. Mr. Cairns.

153. Philosophy in the English Poets. Yr.; 2 cr. From Wordsworth to Meredith. (Omitted 1916-17, I; given 1916-17, II.) Mr. Leonard.

156. Literary Criticism. I; 2 cr. From Samuel Johnson to Matthew Arnold. (Omitted 1916-17.) Mr. Lathrop.

157. Milton. I; 2 cr. (Omitted 1916–17.) Mr. Dodge.

158. The Age of Dryden. I; 3 cr. Mr. Lathrop.

159. The Age of Pope. II; 3 cr. Mr. Lathrop.

160. The Sixteenth Century. I; 3 cr. Non-dramatic literature in poetry and prose from Sir Thomas Moore to Michael Drayton. Mr. Dodge.

161. Rhetoric. II; 2 or 3 cr. The history of the subject; modern theory. Mr. Lathrop.

For Graduates

219CL. Elizabethan Poetry. Yr.; 2 hours. Its relations with France and Italy. (Omitted 1916-17.) Mr. Dodge.

224. English Philology Seminary. Yr.; 2 hours. Subject for 1916-17, Anglo-Saxon Poetry. Mr. Hubbard.

231. Introductory Seminary in English Literature. Yr.; 2 hours. Subject for 1916–17, Shakspere. Mr. Young.

232. Introductory Seminary in English Literature. Yr.; 2 hours. Subject for 1916–17, Milton. Mr. Dodge.

244. Seminary in English Literature. Yr.; 2 hours. Subject for 1916–17, The Predecessors of Shakspere. Mr. Hubbard.

247. Seminary in American Literature. Yr.; 2 hours. (Omitted 1916-17.) Mr. Cairns.

FINE ARTS

PROFESSOR SHOWERMAN.

1. The Fine Arts. I; 3 cr. In alternate years. Illustrated general survey of architecture, sculpture, and painting from classical antiquity to the Renaissance.

FORESTRY*

INSTRUCTOR TIEMANN.

For Undergraduates

1. Forestry and Utilization of Wood. I; 2 cr.

For further information see separate circular No. 761. Also pages 291, 431.

GEOLOGY

PROFESSORS BLACKWELDER, LEITH (chairman), WHITBECK, WINCHELL; ASSOCIATE PROFESSOR MARTIN; ASSISTANT PROFESSORS BEAN, MEAD, STEIDTMANN, WILLIAMS; INSTRUCTOR FINCH; ASSISTANTS BASSETT, DAVIS, GRANGER, SCHWARTZ; CURATOR THWAITES.

FELLOW, MR. HART.

Course 1, General Geology, is the introductory course for all students not taking physiography and geography as a major. It is desirable that students entering this course have some knowledge of physics and chemistry. Students without knowledge of either may enter only by special arrangement with the instructor.

Students entering courses in mineralogy as a training in science should have a general knowledge of chemistry, at least equivalent to that derived from a high school course. No other preliminary courses are required.

Courses 101 to 199 are advanced courses, adapted for students who have had at least one full year in the Department of Geology and for graduates.

For major in geography, twenty-four credits in the Department of Geology, two credits in meteorology, and a thesis in geography (four credits) are required, making thirty credits in all. In addition, part or all of ten credits more are desirable, preferably made up from the geographical courses listed under geology and such courses as Meteorology 1 to 205; Political Economy 7; Astronomy 1; Political Science 19; Agricultural Economics 1; [Soils 1 and 125;

*No professional forestry training is offered.

History 111 and 148; Hydraulic Engineering 110; Topographic Engineering 1, 106, and 109.

The requirements in geography in connection with the University Course for the Training of Teachers are stated on page 255.

For Undergraduates

1. General Geology. Yr.; 5 cr. April and May are devoted entirely to field study of the geology of a small district near Madison. This part includes a two days' trip to Devil's Lake. Prerequisites: elementary chemistry and physics, at least in high school. Mr. Blackwelder.

2. Short Course in Geology. II; 3 cr. Mr. Steidtmann.

3. Laboratory Course in Geography. Yr.; 2 cr. Part of Geology 4. Prerequisite: Geology 1 or 5C. Mr. Martin and staff.

4. Physiography and Geography. Yr.; 5 cr. The lands, the atmosphere, and the oceans, illustrated by regional studies of physiographic provinces of the United States, and by a review of the regions of the world. Mr. Martin and staff.

5C. Physical and Economic Geography. Yr.; 3 cr. First semester, physical geography; second semester, economic geography. For commerce students only except by special permission. Mr. Whitbeck and staff.

6. General Mineralogy. Yr.; 5 cr. Elementary crystallography, physical, chemical, and determinative mineralogy with blowpipe work. Mr. Winchell, Mr. Steidtmann.

7. Short Course in Mineralogy. I; 3 cr. Mr. Steidtmann.

8. Short Course in Petrology. I; 3 cr. Mr. Steidtmann.

For Undergraduates and Graduates

101. Geography of Europe. I; 2 cr. (Given 1915-16 and in alternate years.) Mr. Martin.

102. Geography of South America. II; 2 cr. Mr. Whitbeck.

103. Geography of North America. I; 3 cr. (Given 1916-17 and in alternate years.) Mr. Williams.

104. Geography of Wisconsin. II; 3 cr. (Given 1916-17 and in alternate years.) Mr. Bean.

106. Agricultural Geography. II; 3 cr. Mr. Finch.

107. Influence of Geography on American History. I; 3 cr. Given 1915-16 and in alternate years. Mr. Williams.

108. Petrology. Yr.; 5 cr. The theory of the polarizing microscope; microscopic study of the important minerals and rocks. Prerequisite: course 6. Mr. Winchell.

130. Glaciers and Glaciation. I; 2 cr. Special illustrations from Alaska and Wisconsin. Prerequisite: Geology 4 or 1. (Given 1916-17 and in alternative years.) Followed by second semester course on Advanced Glacial Geology in years when elected by ten students. Mr. Martin.

109. Advanced Physiography. Yr.; 2 cr. Topical and regional study of processes and topographic features. Prerequisite: Geology 4 or 1. Mr. Martin.

110. The Teaching of High School Geography. I; 2 cr. First semester, a review of high school geography; second semester, methods of teaching. First semester not prerequisite to second semester. Prerequisite: Geology 4. Mr. Whitbeck.

111. Economic Geology. Alternates with Geology 115. Yr.; 3 cr. (Given 1916-17 and in alternate years.) Excursions are taken to iron, copper, lead, and zinc districts. Prerequisites: Chemistry 1, Geology 6 or 7, and Geology 1. Mr. Leith, Mr. Mead.

112. Historical Geology. II; 5 cr. The larger facts of the earth's history and the principles involved in its interpretation. (Given 1915-16.) Prerequisites: Geology 1 and 121. Mr. Blackwelder.

113. Oceanography. II; 2 cr. Prerequisite: Geology 4 or 1. (Given 1915–16 and in alternate years.) Mr. Martin,

114. Structural Geology. I; (a) Lectures, 2 cr. Mr. Leith; (b) Map interpretation and laboratory work, 3 cr. Mr. Mead. The two parts are closely related but may be taken independently.

115. Metamorphic Geology. Yr.; 3 cr. A general survey of the field of metamorphism, emphasizing its quantitative treatment. (Given 1915-16 and in alternate years.) Mr. Leith, Mr. Mead.

140. Economic Geology Laboratory. Quantitative study of the processes of ore deposits to be taken with course 111. Mr. Mead.

141. Metamorphic Laboratory. Quantitative study of metamorphism, to be taken with course 115. Mr. Mead.

117. Principles of Pre-Cambrian Geology. II; 2 cr. Alternates with course 118. (Given 1915-16 and in alternate years.) Mr. Leith.

118. Lake Superior Geology. II; 2 cr. A course offered because of the scientific and commercial importance of the Lake Su-

perior region, and the relations of this department to its study. At the close of the course in the spring, an excursion is made to points of geological and economic interest in the Lake Superior country. (Given 1916-17 and in alternate years.) Mr. Leith, Mr. Mead.

119. Petrology of Lake Superior Rocks. Yr.; 3 cr. Prerequisite: course 108. (Given 1916-17 and in alternate years.) Mr. Winchell.

120. Advanced Mineralogy. Prerequisite: course 6. Mr Winchell.

121. Paleontology. I; 3 cr. Mr. Blackwelder.

122. Research. The amount of time allotted is subject to special arrangement.

123. Oil Geology II; 2 cr. Prerequisite: Geology 1. (Given 1915-16 and in alternate years.) Mr. Leith, Mr. Mead.

125. Field Work for Advanced Students. II; 3 cr. Two or three weeks in May are spent in geologic mapping of some selected area in iron or copper districts of Lake Superior or zinc district of Wisconsin. (Given in alternate years with course 118.) Mr. Leith, Mr. Mead.

127. Advanced Economic Geography. I; 3 cr. For intending teachers and advanced students. Prerequisites: course 4, or 5C. Mr. Whitbeck.

128. Lake Superior Iron Ore Exploration. II; 2 cr. Applied geology. Prerequisite: Descriptive Geometry and course 114, 117, or 118. (Given 1915-16 and in alternate years.) Mr. Mead.

129. Petrogeny. Yr.; 1 to 3 cr. Phenomena of magmas; the origin of derived rocks. Prerequisite: course 108. (Given 1915-16 and in alternate years.) Mr. Winchell.

131. Summer Field Course in Physiography and Geology. 4 to 6 cr. During August, 4 weeks. Limited to 15 students (men). Not given for less than 12 students. Field study in the Baraboo district near Devil's Lake, Wisconsin, border of glaciated area and driftless area, drumlins and kettle moraines, older and later drift. Cost, including living expenses and tuition, $55 to $65. Mr. Martin, or Mr. Whitbeck, or Mr. Williams.

132. Geographical Seminary. 2 cr. Mr. Whitbeck or Mr. Martin.

133. Sedimentation. I; 3 cr. (Omitted 1915-16.) Mr. Blackwelder.

134. Regional Geology. II; 3 cr. (Omitted 1915-16.) Mr. Blackwelder.

180. Geologic Seminary. A weekly conference of all advanced and major students in geology.

For Graduates

See graduate catalogue for grouping of courses for graduate work.

GERMAN

PROFESSORS HOHLFELD (chairman), VOSS; ASSOCIATE PROFESSORS FEISE, GOODNIGHT, PURIN, ROEDDER; ASSISTANT PROFESSORS BRUNS, DEIHL, ERNST, HAERTEL, KIND (secretary), MORGAN, STERLING; INSTRUCTORS ARON, CAST, GREUBEL, HAUSSMANN, HOLLANDER, JAMESON, KELLER, LUSSKY, RIEDER, VEERHUSEN; ASSISTANTS BEACH, ELLER, EPPELS, ESSINGER, MARTIN. FELLOW, MR. GIESSING.

The courses in German are organized as follows:

I. The elementary courses represent the work normally done in the first and second year classes, and are so graded as to meet the needs of high school graduates with different degrees of preparation. Students without previous work in German enter course 1a; those who have had one year of high school German enter course 1b, and those who have had two years of high school German enter course 2a; those who have taken three years of German in the high school enter course 2b. Freshmen with four years of high school German are not allowed to enter any of these elementary courses. They should take course 14, if they enter in the first semester, and course 3, if they enter in the second semester, unless their general course of study requires a special class in German, like 3Sc or 3C. Students who possess a thorough, practical knowledge of German considerably in advance of what their high school work indicates, should present themselves for an informal examination with a view to being assigned to more advanced classes. Credit for the omitted lower work will, however, be granted only in exceptional cases, regulated by special rules of the faculty, and never without a formal examination.

II. The advanced practice courses differ much in character and grade of work, but have this in common, that they do not deal chiefly with literature, but are intended for specific practical ends, defi-

nitely stated in each case. None of these courses is required of students wishing to study German solely for its literature. Such students, after completing course 2b, should select their work from Group A, though some of the work in composition and conversation may be advisable in connection with their literary courses.

III. The literary courses are of very different degrees of advancement, those from 233 to 248 not being open to undergraduate students. The less advanced courses are divided into two groups designated A and B. Ordinarily students may not enter Group B unless they have taken at least one course in Group A, or its equivalent. Elections from these groups, therefore, are subject to certain restrictions stated below, before courses 3 and 21. Ordinarily, about twelve credits in Groups A and B will be adequate preparation for the more advanced work in literature, as well as for the more elementary courses in philology. Students intending to specialize in German literature are advised to do related work in English literature, in mediæval and modern history, and in philosophy. They should also pursue, to a fair degree of advancement, the study of at least one other foreign language and literature, ancient or modern. Their attention is also called to the courses mentioned under "Comparative Literature."

IV. The courses from 150 to 159CL, and from 260 to 270 are devoted to work in German philology. While most of these courses are intended for graduate students working for a higher degree in German, some of them are well suited to the needs of advanced undergraduates. This is especially true of courses 150 and 151, which are required of all students expecting to teach German as their principal subject, but also of courses 114b, 152, and 159CL, all of which are so conducted as to be of direct benefit to properly qualified seniors.

Major in German

Students beginning the study of German in the University with course 1a will find it difficult to prepare to teach German as their major subject, unless they show special aptitude for the work. Students taking courses 2a and 2b in their freshman year will have to devote to German at least eight to ten credits a year for the remaining three years, taking thus, including the thesis, a total of at least twenty-four credits in advance of course 2b. Not less than eight of these credits should represent class work in advance of course 30. This amount represents a minimum which will rarely prove sufficient in the case of those preparing to teach German as

their principal subject. Teaching candidates are required to take the following courses: 10 or 112, 114a and 114b, 130 or 131, 150 and 151.

As to the maximum number of credits which students may elect in German, the following rules apply in accordance with the general statement under "electives." Students beginning their University work in German 1a, 1b, or 2a may take up to forty-six credits, those entering 2b up to forty-three credits, those entering higher classes may not exceed forty credits.

Minor in German

Students preparing to teach some other subject as their major, with German as their minor, will be required to complete courses 10 or 112, 92 (for one or two credits), and at least four credits from courses 21 to 28, 130 or 131. Students who have done a considerable amount of work elsewhere or have had successful teaching experience may be excused, by action of the department, from some of the required work. Such excuse will be granted only on the basis of an examination and in no case will students be recommended by the department, unless they have taken at least four credits of work in the department.

Germanistische Gesellschaft

The Germanistische Gesellschaft is an organization of students and instructors interested in the study of the German language and literature and of German life and culture. There are two general meetings each month, on Wednesday evenings, the programs consisting of lectures, recitations, dramatic performances, singing, and social entertainments. All students specializing in German, preparing to teach German, or wishing to keep up their knowledge of German, are urged to become members of the Gesellschaft and to attend regularly these general meetings which are also open to all interested members of the University and residents of the city.

Aside from these general meetings, there are semi-monthly meetings of the Scientific Section (*Wissenschaftliche Abteilung*). These are open to the graduate students of the department and are devoted to reports on original investigations, current publications, and pedagogical problems.

German House

Under the auspices of the Germanistische Gesellschaft a German House was established for the Summer Session of 1914. This has become a permanent institution for the academic year as well as for the summer session. Rooms for women students only; board for both men and women. Information will gladly be furnished by Miss Anna Essinger, German House, 501 N. Henry St., Madison, Wis.

ELEMENTARY COURSES

Mr. Purin is in general charge of courses 1a–2b.
Mr. Haertel is in special charge of the sections arranged for students in agriculture and engineering.

For Undergraduates

1a. Beginners' German. I or II; 4 cr.

1b. Second Semester German. I or II; 4 cr. Continuation of course 1a. Prerequisite: course 1a, or one year of high school German.

2a. Third Semester German. I or II; 4 cr. Modern prose; selected lyrics; grammar review. Prerequisite: course 1b, or two years of high school German.

2b. Fourth Semester German. I or II; 4 cr. Continuation of course 2a; a classical drama. Prerequisite: course 2a, or three years of high school German. Students completing course 2b in the first semester should elect course 3. (See below.)

Special sections of courses 1a to 2b are arranged for students in agriculture, engineering, and natural sciences.
For instructors, hours, and rooms of the various sections, see Time Table.

ADVANCED PRACTICE COURSES

For Undergraduates

Miss Veerhusen is in general charge of courses 6 and 10.
Mr. Morgan is in general charge of courses 40, 41, 42.
Mr. Haussmann is in general charge of courses 3C, 4C, and 5C.

3Sc. Scientific German. Yr.; 2 cr. For students specializing in science. Prerequisite: course 2b. Mr. Kind, Miss Sterling.

3C. Commercial German. Yr.; 2 cr. For sophomores in the Course in Commerce. Prerequisite: course 2b. Mr. Morgan, Mr. Greubel.

4C. Commercial German. Yr.; 2 cr. For juniors in the Course in Commerce. Continuation of course 3C. Prerequisite: course 3C, or equivalent. Mr. Haussmann.

5C. Commercial German. Yr.; 2 cr. For seniors in the Course in Commerce. Continuation of course 4C. Prerequisite: course 4C, or equivalent. (Omitted 1915-16.) Mr. Haussmann.

6. Grammar and Composition. Yr.; 1 cr. Prerequisite: course 2b. Miss Sterling.

16. Modern Prose. Yr.; 2 cr. Rapid reading in history, biography, and description. Suitable in preparation for the language examination for the doctor's degree. Prerequisite: course 2b. Mr. Hollander.

40. Elementary Conversation. Yr.; 1 cr. (2 hrs.) Class practice, with work at home not to exceed one hour per week. Prerequisite: course 2b. Mr. Morgan, Miss Sterling, Mr. Lussky, Mr. Rieder, Miss Essinger.

41. Intermediate Conversation. Yr.; 1 cr. (2 hrs.) Class practice, with work at home not to exceed one hour per week. Prerequisite: four credits in advance of course 2b, or sufficient ability in speaking German. Mr. Bruns.

Courses 6, 40, and 41 may be taken only in connection with some other course in the department, except by special permission.

42. Major Course in Conversation. Yr.; 2 cr. (4 hrs.) For students preparing to teach German, but deficient in the oral use of the language. Mr. Aron.

Students registering for work in conversation should consult Mr. Morgan as to the course to be selected.

8. German Pronunciation and Expressive Reading. II; 1 cr. (2 hrs.) Open, after consultation, to students of fair advancement in German. Not open to freshmen. (Omitted 1915-16.) Mr. Feise.

10. Composition and Conversation. Yr.; 2 cr. Prerequisite: four credits in advance of course 2b. Mr. Bruns, Mr. Morgan, Mr. Cast, Mr. Hollander, Miss Veerhusen.

11. Journalistic German. Yr.; 1 cr. (2 hrs.) Mr. Haertel.

13. Grammar Review. II; 2 cr. For seniors preparing to teach German. Discussion of theoretical German from the standpoint of the high school teacher. Mr. Aron.

92. Teachers Course for Minors. I; 2 cr. (3 hrs.) (a) Conversation, grammar, phonetics; 1 cr. (2 hrs.) (b) Methods and organization of a two-year course; 1 cr. (1 hr.) For seniors. Mr. Purin.

For Undergraduates and Graduates

112. Advanced Practice in Speaking and Writing German. Yr.; 2 cr. For advanced students specializing in German. More advanced than course 10, though ordinarily students should take only one of the two courses. Mr. Feise.

114a. Teachers Course for Majors. I; 2 cr. Methods. For seniors and graduates. Mr. Deihl.

114b. Teachers Course for Majors. II; 2 cr. Phonetics. For seniors and graduates. Mr. Purin.

GERMAN LITERATURE

For Undergraduates

Mr. Kind is in general charge of Groups A and B.

GROUP A

These courses are primarily intended for students who have had course 2b, or its equivalent. Students having had more than four credits in advance of course 2b will be required to do additional work to receive full credit. Course 20 is given in English, 3, 14, and 15 in German, 17 and 18 partly in German.

Not more than two of the courses in this group may regularly be taken for credit.

3. Selected Masterpieces. II; 4 cr. Prerequisite: course 2b, or four years of high school German. Mr. Lussky, Miss Veerhusen, Miss Essinger.

14. Advanced Freshman German. Yr.; 4 cr. Classical and modern writers. Open only to freshmen who enter the University in the first semester with four years of high school German. (See course 3.) Mr. Keller.

15. Classical and Modern Writers. Yr.; 3 cr. Required of sophomores who intend to specialize in German. Not open to students who have had course 3 or 14. Mr. Feise, Mr. Purin, Mr. Kind, Miss Veerhusen.

17. Modern German Drama. Yr.; 3 cr. A rapid reading course. Mr. Cast.

18. Modern German Novel. Yr.; 3 cr. A rapid reading course. Mr. Haussmann.

20. Schiller. Yr.; 2 cr. Introductory study of his life; *Die Braut von Messina, Wallenstein.* Mr. Roedder, Mr. Haertel, Mr. Kind.

To make suitable four or five-hour courses, 15, 17, and 18 should be combined with 6, 40, 41, 42, 16, or 20.

GROUP B

These courses are primarily intended for juniors specializing in German, but are open to all others who have had at least six credits in advance of course 2b.

Not more than 12 credits may regularly be taken in this group for *full* credit.

21. Wagner's Music Dramas. I; 3 cr. **German Poetry.** II; 3 cr. Miss Sterling.

22a. Heine. I; 3 cr. Mr. Bruns.

22b. Hebbel. II; 3 cr. Mr. Bruns.

23. Goethe's Earlier Dramas. Yr.; 2 cr. Alternates with course 24. (Given 1915-16.) Mr. Voss.

24. Lessing's Dramas. Yr.; 2 cr. Alternates with course 23. (Given 1916-17.) Mr. Voss.

25. Goethe's Prose Works. Yr.; 2 cr. Novels and autobiography. Alternates with course 27. (Given 1916-17.) Mr. Feise.

26. Modern Fiction. Yr.; 3 cr. Keller, Storm, Meyer, Raabe. Mr. Goodnight.

27. Contemporary Drama. Yr.; 2 cr. Alternates with course 25. (Given 1915-16 in second semester only.) Mr. Feise.

28. Kleist. I; 2 cr. **Grillparzer.** II; 2 cr. (Given 1916–17.) Mr. Kind.

29. Survey of German Painting and Sculpture of the Nineteenth Century. I; 1 cr. (2 hrs.) Illustrated lectures. Not open to freshmen; does not count towards a major or minor in German. (Given 1916-17.) Miss Sterling.

30. Germany and its Institutions. II; 1 or 2 cr. (2 hrs.) Lectures (partly illustrated). Counts towards minimum requirement for a major, or towards the language requirement, only if taken for two credits. Mr. Haertel.

Courses 21, 29, and 30 are given in English, the others partly in German.

100. Thesis Course. Yr.; 2 cr. In conformity with the faculty regulations concerning thesis courses (see requirements for degrees), the following were offered in 1915-16:

i. Grillparzer. Mr. Kind.

ii. German Life in Modern Fiction. Mr. Haertel.

For Undergraduates and Graduates

Mr. Hohlfeld is in general charge of courses 130–141CL, 233–248.

130. Goethe's Faust. Yr.; 3 cr. Both parts of *Faust*, selected lyrics, and letters. Alternates with course 131. (Given 1916-17.) Mr. Hohlfeld, Mr. Keller.

131. Survey of German Literature. Alternates with course 130. (Given 1915-16.) Mr. Hohlfeld, Mr. Keller.

132. Lessing. I; 2 cr. Life and Works. (Given 1916–17.) Mr. Morgan.

134. Lyric Poetry of the Nineteenth Century. Yr.; 2 cr. Alternates with course 241. (Given 1915-16.) Mr. Bruns.

135. The Novel of the Nineteenth Century. Yr.; 2 cr. Alternates with course 243. (Omitted 1915-16.) Mr. Goodnight.

136. Popular German Literature. Yr.; 2 cr. First semester, *Volkslied, Märchenliteratur,* and *Volksbücher;* second semester, modern dialect literature. Alternates with course 137. (Given 1916-17.) Mr. Roedder.

137. Schiller. Yr.; 2 cr. Dramatic works, philosophical writings, and correspondence. Alternates with course 136. (Given 1915-16.) Mr. Roedder.

138CL. Shakspere in Germany. Yr.; 2 cr. Alternates with course 242CL. (Omitted 1915-16.) Mr. Kind.

139. German Versification. I; 2 cr. (Omitted 1915–16.) Mr. Feise.

140. Modern German Drama since 1870. I; 2 cr. Contemporary movements in France, Scandinavia, and Russia. (Given first semester 1915-16.) Mr. Feise.

141CL. Principles and Practice of Translating. II; 1 or 2 cr. For students with advanced training in German, French, or Italian. Mr. Morgan.

Courses 132, 138CL, and 141CL are given in English, 130 and 131 partly in German, the others in German.

For Graduates

233. The Classical Novel and Its Forerunners. Yr.; 2 hours. (Given 1915–16 in second semester only.) Mr. Feise.

240. Herder. II; 2 hours. (Given first semester 1915-16.) Mr. Haussmann.

241. The Romantic School in Germany. Yr.; 2 hours. Alternates with course 134. (Given first semester 1916–17.) Mr. Bruns.

242CL. The Literary Relations of England and Germany in the Eighteenth Century. Yr.; 2 hours. Alternates with course 138CL. (Given 1916-17.) Mr. Kind.

243. German Literature in America. I; 2 hours. Alternates with course 135. (Omitted 1915–16.) Mr. Goodnight.

244. Middle High German Literature. Yr.; 2 hours. Literary movements; German life and culture. Prerequisite: course 152, or its equivalent. (Omitted 1915–16.) Mr. Morgan.

245. Hebbel. II; 2 hours. His life and works, his position in the modern drama, and his Weltanschauung. (Given 1916–17.) Mr. Bruns.

246. History of the German Drama. Yr.; 2 hours. (Omitted 1915–16.)

247. Pro-seminary in German Literature. Yr.; 2 hours. The drama in theory and practice to the time of Lessing. In alternate years in the following subjects:

A. The seventeenth and first half of the eighteenth century. (Given 1916-17.)

B. The classical period of the eighteenth century. (Given 1915-16.) Mr. Hohlfeld.

247L. Bibliography and Methods. Yr.; 1 hour. A systematic discussion of the materials and aims of the study of German literature. May be combined with course 247, or taken separately by special permission. Mr. Hohlfeld.

248. Seminary in German Literature. Yr.; 2 hours. The general fields from which specific problems are chosen for investigation form a cycle of three years:

A. Interrelations of German and English Literature, chiefly during the last three centuries. (Given 1915-16.)

B. First semester, Goethe; second semester, Goethe's *Faust*. (Given 1916-17.)

C. The German drama of the eighteenth and nineteenth centuries. (Given 1917-18.) Mr. Hohlfeld.

Courses 242CL, 243, and 244 are given in English, the others are given in German.

GERMAN PHILOLOGY

Mr. Voss is in general charge of courses 150–159CL, 260–270.

For Undergraduates and Graduates

150. History of the German Language. I; 2 cr. Mr. Voss.

151. Elementary Middle High German. II; 2 cr. Mr. Voss.

152. Advanced Middle High German. Yr.; 2 cr. The fields of study form a cycle of three years:

A. First semester, Walther von der Vogelweide; second semester, *Kudrun* and *Dietrichepen*. (Given 1916-17.)

B. First semester, Hartmann von Aue; second semester, early Middle High German. (Given 1917-18.)

C. First semester, Wolfram von Eschenbach and Gottfried von Strassburg; second semester, selected epics of the later Middle High German period. (Given 1915-16.) Mr. Voss.

114b. Phonetics. II; 2 cr. See p. 153. Mr. Purin.

154. Gothic. I; 2 cr. Alternates with course 155. (Given 1916-17.) Mr. Roedder.

155. Old High German. I; 2 cr. Alternates with course 154. (Given 1915-16.) Mr. Roedder.

158. Old Saxon. II; 2 cr. Alternates with course 159CL. (Given 1915-16.) Mr. Roedder.

159CL. Germanic Mythology and Heroic Legends. II; 2 cr. Alternates with course 158. (Given 1916-17.) Mr. Roedder.

Courses 114b, 150, and 151 are given partly in German and partly in English, and the others in German.

For Graduates

260. Classical German Philological Literature. Yr.; 1 hour. Alternates with course 261. (Given 1916–17.) Mr. Voss.

261. Historical German Grammar. Yr.; 1 hour. Alternates with course 260. (Given 1915–16.) Mr. Voss.

263. Pre-Germanic Grammar. Yr.; 2 hours. First semester, Germanic phonology; second semester, Germanic morphology and syntax. (Omitted first semester 1915-16.) Mr. Aron.

264. Modern and Middle Low German. Yr.; 1 hour. *Reinke de Vos* and Fritz Reuter's prose writings. (Given 1916-17.) Mr. Voss.

265. Language and Literature of the Sixteenth Century. Yr.; 2 hours. History and development of the Modern High German literary language. Alternates with course 266. (Given 1916-17.) Mr. Voss.

266. Language and Literature of the Fourteenth and Fifteenth Centuries. Yr.; 2 hours. Alternates with course 265. (Given 1915-16.) Mr. Voss.

269. Pro-seminary in German Philology. Yr.; 1 hour. In alternate years in the following subjects:

A. First semester, Old High German poetry; second semester, Old High German prose. (Given 1915-16.)

B. First semester, Gothic; second semester, Old Saxon. (Given 1916-17.) Mr. Roedder.

270. Philological Seminary. Yr.; 2 hours. The fields of investigation form a cycle of three years:

A. Gottfried von Strassburg. (Given 1916-17.)

B. Wolfram von Eschenbach. (Given 1917-18.)

C. Hartmann von Aue; (Given 1915-16.) Mr. Voss.

Courses 260-270 are given in German.

GREEK

Emeritus PROFESSOR KERR; PROFESSORS SHOWERMAN, SMITH* (chairman); ASSOCIATE PROFESSORS FISKE. LAIRD; ASSISTANTS HAULENBEEK, REED.

The requirements for an undergraduate major in Greek are, in addition to the thesis, a minimum of twenty-two semester hours, not including courses 5a, 5b and 7.

For Undergraduates

5a, 5b. Elementary Greek. Yr.; 4 cr. White's *First Greek Book*, Xenophon's *Anabasis*. Mr. Laird, Miss Reed.

5a. Elementary Greek. II; 4 cr. White's *First Greek Book*. Mr. Laird.

7. Second Year Greek. Yr.; 3 cr. Xenophon's *Anabasis* III-IV, Homer's *Iliad* I-III; Greek composition. Prerequisite: course 5a, 5b or equivalent. Mr. Smith.

10. Third Year Greek. Yr.; 3 cr. Herodotus VIII, Plato's *Apology*, Homer's *Odyssey* V-XII. Prerequisite: course 7 or equivalent. Mr. Laird.

11. Prose Composition and Sight-Reading. Yr.; 2 cr. Mr. Smith.

20. Fourth Year Greek. Yr.; 3 cr. Demosthenes' *Philippics*, Thucydides VII, Euripides, two or more plays. Prerequisite: course 10 or equivalent. Mr. Smith.

21. Prose Composition. Yr.; 1 cr. Prerequisite: course 11. Required of those who expect to teach Greek. Mr. Laird.

24. Easy Greek for Sight-Reading. Yr.; 1 cr. Prerequisite: course 10. Mr. Smith.

*On leave of absence for the year 1916-17.

For Undergraduates and Graduates

105a. Greek Lyric Poets. I; 3 cr. Mr. Smith.

105b. Thucydides: Demosthenes. II; 3 cr. Mr Smith.

106. Greek Dramatic Poets. Yr.; 3 cr. Aeschylus, Sophocles, Aristophanes (two plays of each); Aristotle's *Poetics*. Mr. Smith.

108. Plato. Yr.; 2 cr. *The Republic*. Mr. Laird.

110. Advanced Composition. Yr.; 1 cr. Mr. Laird.

112. Life of the Romans. Yr.; 3 cr. Lectures with lantern slides. A knowledge of Greek and Latin is not essential. Mr. Showerman.

***113. Greek Literature in English Translations.** I; 2 cr. Homer. A knowledge of Greek is not required. Mr. Smith.

113b. Greek Literature in English Translations. II; 2 cr. Drama. A knowledge of Greek is not required. Mr. Smith.

114. The Role of the Greeks in Civilization. Yr. 1 cr. Lectures. A knowledge of Greek is not required. Mr. Smith.

122. Greek Art. I; 3 cr. See Fine Arts I. Mr. Showerman.

For Graduates

220. Thucydides. Yr. The works, read privately; seminary exercises mainly in text criticism. Mr. Smith.

221. Sophocles. Yr. The extant plays, read privately; seminary exercises on literary questions. Mr. Smith.

222. Lyric Poetry. Yr. Especial attention is given to Pindar; the extant odes, read privately; seminary exercises on literary questions. Mr. Smith.

223. Homer. Yr. Seminary exercises on the Homeric Question. Mr. Laird.

Courses 220-223 are given at intervals of years; 220 in 1915-16.

224. Greek Literature. Yr.; 2 hours. Lectures and assigned readings in lyric poetry, drama, and history. Mr. Smith.

225. Greek Orators. Yr.; 2 hours. Mr. Laird.

227. Greek Religion. I; 2 hours. Mr. Fiske.

230. Greek Grammar. I; 3 hours. Sounds and Forms. Mr. Laird.

231. Greek Syntax. II; 3 hours. Mr. Laird.

233. Journal Club. Mr. Smith.

*In alternate years this course is given also as Comparative Literature 1, with the addition of Virgil's *Aeneid*.

HISTORY

PROFESSORS DENNIS, FISH, PAXSON, SELLERY (chairman), WESTERMANN; ASSOCIATE PROFESSORS CHASE, MATHEWS, ROOT; ASSISTANT PROFESSORS COFFIN*, SMITH; INSTRUCTORS BYRNE, CURTIS; ASSISTANTS BAUM, BRUNELLE, COULTER, GRONERT, GULLANDER, HOOLEY, MORGAN, WILDE.

FELLOWS, MR. HICKS, MR. RANEY; SCHOLAR, MR. CRAWFORD.

The courses in history are divided into three groups:

A. Introductory courses 1, 2, 4, 5, 6, and 10 are for undergraduates, and may not be counted toward advanced degrees in history. Courses 1, 5, 6, and 10 are the only courses in history open to freshmen. Students may take only one of these freshman courses for full credit (three credits each semester) since each contains introductory training for which credit ought not to be given twice; but they may take others without the supplementary reading and topical report for two credits each semester. Students not registered in the College of Letters and Science may take any of the introductory courses for two credits each semester. Students are advised not to neglect advanced work in the attempt to cover all of the introductory courses.

B. Advanced courses 100 to 149, and 165, continue, in the direction of greater specialization, the work begun in the introductory courses. They may be elected by stuuents who have the necessary preparation.

Courses 150 and 151 are primarily for students who expect to teach history in secondary schools. Seniors completing a major or a teaching minor in history will be regularly admitted to these courses. Other seniors and graduates will be admitted only by special permission.

C. Courses 252 to 262 are open only to graduate students.

The Major in History

Twenty-six credits in history, in addition to the thesis, are required for an undergraduate major in history and must include:

(a) One introductory course in European and one in American history;

(b) At least twelve credits in advanced courses.

*On leave of absence 1915-16.

The Master's Degree in History

Candidates for the master's degree in history who have completed an undergraduate major in history in this University, or its equivalent elsewhere, are required, in their year of work for the degree, to do one-half their work (*e. g.*, a three-hour lecture course and a seminary, both throughout the year), in advanced history, and to write an acceptable thesis. They are permitted to complete their programmes from advanced courses in history or related subjects. Other candidates for the master's degree in history will be required to concentrate their work more fully, or exclusively, upon history. Every candidate for this degree is expected to have had, as undergraduate or graduate, at least one advanced course in European and one in American history.

The Doctor's Degree in History

Candidates for the doctor's degree with major in history are required, *inter alia*, to possess a general knowledge of a broad field of history (ancient history, medieval history, modern history, English history, or American history) and an intimate knowledge of some more limited field, and to submit a scholarly dissertation within the limited field. The other requirements for the degree are given in the Graduate School circular.

For Undergraduates

INTRODUCTORY COURSES OPEN TO FRESHMEN

Freshmen are permitted to choose two of the introductory courses 1, 5 or 6, and 10, for five credits, but are not required to do the special training work (including supplementary reading and topical report) in the second of the two courses.

10. Ancient History. Yr.; 2 or 3 cr. A general survey to the barbarian invasions. Mr. Westermann and staff.

1a, 1b. Medieval History. Yr.; 2 or 3 cr. Europe from the barbarian invasions to the close of the fifteenth century. Mr. Sellery, Mr. Chase, and staff.

1a. Medieval History, 395–1095. II; 2 or 3 cr. Identical with the first semester of History 1. Mrs. Mathews and staff.

5. English History. Yr.; 2 or 3 cr. Outline of political and constitutional history, as a framework for the study of national, economic, and social development. Students who have had both semesters of History 1 may enter this course at the beginning of the

second semester. (Not open to students in the Course in Commerce.) Mr. Dennis, Mr. Smith, and staff.

6. English History. Yr.; 2 or 3 cr. A survey of the history of England with emphasis on social and economic conditions. Open only to students in the Course in Commerce. Mr. Byrne and staff.

INTRODUCTORY COURSES NOT OPEN TO FRESHMEN

2. Modern European History. Yr.; 3 cr. From the close of the fifteenth century to the present day. Mr. Curtis.

4. History of the United States. Yr.; 3 cr. A survey from the revolutionary era to the present, with emphasis upon political history. Prerequisite to all advanced courses in American history. First semester, to the presidency of Jackson; second semester, from the presidency of Jackson to the present. Mr. Fish.

For Undergraduates and Graduates

ANCIENT AND MEDIEVAL HISTORY

125. Greek Civilization and its Expansion. I; 2 cr. (Omitted 1915-16.) Mr. Westermann.

126. The Roman Empire. II; 2 cr. The Empire from the death of Julius Caesar to the era of Diocletian. Mr. Westermann.

123. The Roman Empire in the East. II; 2 cr. The eastern portion of the Empire from the founding of Constantinople to its capture by the Turks. (Omitted 1915-16.) Mr. Westermann.

129. Greek and Roman Institutions. I; 2 cr. To the end of the Roman Republic. Mr. Westermann.

131. Medieval Civilization. I; 3 cr. Designed to supplement course 1 by a special study of the intellectural life of the feudal period and of the organization of society. (Omitted 1915-16.) Mr. Sellery.

133. Medieval Commerce. I; 2 cr. To the formation of the great trading companies. (Omitted 1915-16.) Mr. Byrne.

134. The Renaissance. I; 3 cr. The development of civilization in the period from Dante to Luther, conventionally known as the Renaissance. Mr. Sellery.

MODERN HISTORY

137. Modern Civilization. I; 3 cr. European institutional development from the Peace of Westphalia to the end of the nineteenth century. (Omitted 1915-16.) Mr. Coffin.

140. The Reformation. II; 3 cr. The Protestant Revolt and the Catholic Reformation. Mr. Sellery.

148. Expansion of Europe Since the Fifteenth Century. Yr.; cr. to be arranged. (Omitted 1915-16.) Mr. Dennis.

142. England Under the Tudors and Stuarts. Yr.; 2 cr. (Omitted 1915-16.) Mr. Dennis.

136. The British Empire, 1688–1815. I; 2 cr. (Omitted 1915-16.) Mr. Dennis.

143. The British Empire since 1815. Yr.; 2 cr. Mr. Dennis.

144. The Development of Modern Russia. I; 2 cr. (Omitted 1915-16.) Mr. Coffin.

145. The Development of Prussian Leadership in Germany, 1640–1900. (Omitted 1915-16.) Mr. Coffin.

138. The French Revolution and the Napoleonic Empire, 1789–1815. I; 3 cr. (Omitted 1915-16.) Mr. Coffin.

139. The Nineteenth Century. I; 3 cr. An advanced course (Omitted 1915-16.) Mr. Coffin.

AMERICAN HISTORY

116. English Colonies in America, 1583–1783. Yr.; may be elected by semesters; 3 cr. Mr. Root.

119. French and Spanish Colonies in America, 1492–1823. Yr.; 2 cr. Mr. Root.

113. History of New England. II; 2 cr. Transfer of population from Europe to New England, the forces, social, economic, political, that acted upon it there, and its expansion westward. (Omitted 1915-16.) Mr. Fish.

114. History of the South. Yr.; may be elected by semesters; 3 cr. (Not open to sophomores.) Mrs. Mathews.

111. History of the West, 1763–1890. Yr.; may be elected by semesters.; 3 cr. Mr. Paxson.

109. History of Wisconsin. II; 2 cr. A survey since the creation of the territory in 1836. (Omitted 1915-16.) Mr. Paxson.

112. Representative Men. II; 3 cr. A study of American leaders of thought and action. Those of each generation will be

grouped together, and their environment, problems, and achievements discussed. (Omitted 1915-16.) Mr. Fish.

115. Diplomatic History of the United States. Yr.; 2 cr. Mr. Fish.

120. History of American Neutrality, 1783–1916. II; 3 cr. Mr. Fish.

117. Constitutional History of the United States, 1750–1830. Yr.; 2 cr. (Omitted 1915-16.) Mr. Root.

118. Civil War and Reconstruction. I; 3 cr. Mr. Fish.

110. History of the Public Lands of the United States. I; 2 cr. Origin, management, distribution, and social consequences. (Omitted 1915-16.) Mr. Paxson.

124. Recent History of the United States, 1873–1915. Yr.; may be elected by semesters; 2 cr. Mr. Paxson.

121. Studies in Colonial History. Yr.; 2 cr. Mr. Root.

150. The Teaching of History in the High School. I or II; 2 cr. Required of seniors for the teachers' major; elective for the teachers' minor. Mr. Chase.

151. Supplementary Reading for Teachers of History. II; 2 cr. Required for the teachers' minor; elective for the teachers' major. Mr. Chase.

165. Seminary in the Relations of History and Geography. (Omitted 1915-16.) Mr. Fish, Mr. Whitbeck.

For Graduates

252. Historical Method. Yr.; 2 hours. Graduate students in their first year are expected to take this course. Mr. Sellery, Mr. Fish, Mr. Dennis, Mr. Root.

254. Seminary in Ancient History. Yr.; 2 hours. First semester, organization and administration of Egypt under the Ptolemies; second semester, economic conditions under the Roman Empire. Mr. Westermann.

255. Seminary in Latin and Ancient History. Yr.; 2 hours. See Latin 233. The sources upon the principate of Augustus Caesar, especially the Monument of Ancyra. (Omitted 1915-16.) Mr. Slaughter, Mr. Westermann.

256. Seminary in Medieval History. Yr.; 2 hours. Pierre Dubois. A knowledge of Latin, French, and German is required. Mr. Sellery.

257. Seminary in Modern European History. Yr.; 2 hours. Material selected in the field of Napoleonic institutions. (Omitted 1915-16.) Mr. Coffin.

259. Seminary in History of the British Empire. Yr.; 2 hours. Modern economic and political history. Mr. Dennis.

261. Seminary in American History. Yr.; 2 hours, A study of the factors underlying some limited period of American history. Mr. Fish.

262. Seminary in American History. Yr.; 2 hours. The Hayes Administration. Mr. Paxson.

INDO-EUROPEAN COMPARATIVE PHILOLOGY

Associate Professor Laird (chairman); Instructor Aron.

For Undergraduates and Graduates

101. Introduction to Comparative Philology. I; 2 cr. Mr. Aron.

102. Elements of Comparative Grammar. II; 2 cr. Mr. Aron.

103. Elementary Sanskrit. Yr.; 3 cr. Mr. Laird.

104. Advanced Sanskrit. Yr.; 1 cr. Mr. Laird.

105. Latin Grammar. Sounds and Forms. I; 3 cr. Mr. Laird.

106. Greek Grammar. Sounds and Forms. I; 3 cr. Mr. Laird.

For Graduates

209. Pre-Germanic Grammar. Yr.; 2 hours. Mr. Aron.

JOURNALISM

ASSOCIATE PROFESSOR BLEYER (chairman); INSTRUCTOR ASBURY, HYDE.

The courses in journalism are designed to give the student instruction and practice in newspaper writing and editing, in some kinds of magazine writing, and in advertising, as well as to present present-day problems of journalism in the light of their origin and development. The department has a large laboratory equipped like the city room of a newspaper office, with typewriters, reference books, maps, a "morgue," and similar material. Adjoining this is a reading room with current files of representative American newspapers and journalistic periodicals, and a lecture room equipped with a lantern for projecting slides and opaque objects. A large collection of foreign newspapers from various parts of the world furnishes material for the study of comparative journalism. A series of special lectures by editors and writers in active service is given annually for the students in journalism classes.

Besides the instruction given by the Department of Journalism, several other departments offer courses especially for journalism students. The Department of Political Science gives a course in the law of the press, including the law of copyright, libel, and similar topics. The Department of Manual Arts has special classes in drawing for students of journalism and advertising, which include cartooning, illustrating, sketching, and artistic printing. A course in French journalism is offered by the Romance Language Department, and a course in the reading of German newspapers is included in the German Department. The principles of advertising form the subject of a course in the Philosophy Department, and newspaper advertising of one in the business administration section of the Department of Political Economy. Courses in commercial correspondence and the writing of advertising booklets given by the English Department and those in agricultural journalism and advertising in the College of Agriculture are open to students of journalism and advertising.

Major in Journalism

For an undergraduate major in journalism are required, in addition to a thesis, not less than 20 credits in which may be included, in addition to journalism courses, the course in the law of

the press (Political Science 25), newspaper advertising (Political Economy 15 and 16), French journalism (French 18, 1 credit), and agricultural journalism.

Graduate Study

Provision is made for directing research of graduate students in historical and contemporary phases of newspapers and magazines, as well as for giving special training in any kind of journalistic work. The master's degree is granted in journalism. University graduate scholarships are open annually to students in journalism.

For Undergraduates

1. Elements of Newspaper Work. Yr.; no cr. Required of freshmen in the Course in Journalism. Mr. Hyde.

2. Newspaper Reporting and Correspondence. Yr. 3 cr. Primarily for sophomores. Mr. Hyde, Mr. Asbury.

3. Newspaper Editing. Yr.; 2 cr. Prerequisite: Journalism 2 or equivalent practical experience. Mr. Hyde.

15. Newspaper Advertising (Political Economy 15). I; 2 cr. For juniors and seniors. Mr. Butler.

11. Journalistic German (German 11) Yr.; 1 cr. Prerequisite: German 2 or equivalent. Mr. Haertel.

18. French Journalism (French 18). Yr.; 2 cr., 1 in French, 1 in Journalism. Prerequisite: French 1a and 1b or equivalent. Mr. Ernst.

25. The Law of the Press (Political Science 25). II; 2 cr. Mr. Carpenter.

32. Current Political Topics (Political Science 32). I; 2 cr. Mr. Carpenter.

51. Free Hand and Applied Drawing (Manual Arts 51). Yr.; 3 cr. Special section for journalism students, with cartooning, illustrating, sketching, and artistic printing. Mr. Varnum.

For Undergraduates and Graduates

104. Editorial Writing. Yr.; 2 cr. Primarily for seniors and graduates. Mr. Bleyer.

105. Special Feature and Magazine Writing. Yr.; 2 cr. Mr. Bleyer.

110. History and Principles of Journalism. Yr.; 2 cr. Open only to seniors and graduates. Required for undergraduate and graduate major in journalism. Mr. Bleyer.

119. Principles of Advertising (Philosophy 119). II; 2 cr. Mr. Starch.

AGRICULTURAL JOURNALISM.

1. Agricultural Journalism. I; 2 cr. Mr. Hopkins.
2. Agricultural Advertising. II; 2 cr. Mr. Hopkins.

LATIN

PROFESSORS SHOWERMAN, SLAUGHTER (chairman); ASSOCIATE PROFESSORS FISKE, LAIRD; ASSISTANT PROFESSORS ALLEN, SABIN; ASSISTANT HUTCHINSON.
FELLOW, MISS ROBERTS.

The courses in Latin are divided into three groups:
I. Introductory courses (B - 10) are for undergraduates and may not be counted for advanced degrees in Latin. B counts toward the bachelor's degree and the language requirement in the University, but will not be accepted as part of a Latin major.
II. 107-123 are open to students who have completed 6 and 7, or an equivalent, and may be counted toward the master's degree. 107 is required of all students who desire the University Teachers Certificate with Latin as a major.
III. 225-233 are for graduate students, but are not open to those who have completed less than twenty-four semester hours of undergraduate Latin.

Latin Major

The requirements for a major in Latin are twenty-four credits as a minimum. At least six credits, in addition to the thesis, should be chosen from courses 107 to 123, but no specific requirement of courses is made. Courses 10 and 122 may not be counted toward a Latin major. Greek 20, 105a and 105b, and 106 to the extent of six credits, may be counted toward a Latin major. See page 253 for requirements for Teachers Certificate.

For Undergraduates

B. Elementary Latin. Yr.; 5 cr. The elements of Latin and Caesar's *Bellum Gallicum*, Bks. I-III. Miss Roberts, Mr. Hutchinson.

A. Cicero and Virgil. Yr.; 4 cr. An additional hour for those who desire prose composition. Miss Allen.

6. Livy, Cicero, and Terence. Yr.; 4 cr. Livy I and XXI; Cicero, *De Senectute;* Terence, *Phormio.* Miss Allen, Mr. Fiske, Mr. Showerman.

7. Horace, Catullus, and Martial. Yr. 3 cr. Mr. Slaughter.

9. Pliny's Letters and Tacitus' Agricola. II; 2 cr. Emphasis upon the life of the period. Miss Allen.

10. Classical Mythology. I; 2 cr. Assigned readings in English. Lectures with lantern slides. Latin not essential. Miss Allen.

For Undergraduates and Graduates

107. Prose Composition. Yr.; 1 cr. An additional elective hour of lectures on syntax. Mr. Fiske.

108. Cicero's Letters and Orations. I; 3 cr. Emphasis on the personality of Cicero. Mr. Showerman.

109. Roman Drama. I; 3 cr. Plautus, Terence, and Seneca. Mr. Showerman.

110. Lucretius. II; 3 cr. *De Rerum Natura* I, III, and V. Mr. Slaughter.

111. Virgil. I; 3 cr. *Aeneid* VII-XII. Mr. Slaughter.

112. Rome and Roman Life. II; 3 cr. Lectures with lantern slides. Latin not essential. Mr. Showerman.

114. Roman Philosophy. II; 2 cr. Cicero and Seneca. Miss Allen.

116. The Teaching of Latin in Secondary Schools. Yr.; 2 cr. Miss Sabin.

118. Roman Satire. Yr.; 2 cr. Ennius, Lucilius, Varro, Horace, Seneca, Persius, Petronius, and Juvenal. Mr. Fiske.

119. Roman Historians to Tacitus. Yr.; 2 cr. Mr. Fiske.

122. Classical Art. See Fine Arts 1.

123. Roman Monuments. II; 2 cr. Lectures with lantern slides. Latin not essential. Mr. Showerman.

For Graduates

225. Latin Grammar. I; 3 hours. The sounds and forms of the Latin language. Mr. Laird.

226. Latin Syntax. II; 3 hours. Illustrative of the historical method. Mr. Laird.

227. Religion of the Greeks and Romans. Yr.; 2 hours. Mr. Fiske,

228. Roman Archaeology. II; 3 hours. 123 with an additional hour for reports. Mr. Showerman.

229. Palaeography and Epigraphy. Yr.; 2 hours. Mr. Slaughter.

231. Latin Literature. Yr.; 3 hours. Lectures and assigned readings. Miss Allen.

232. Literary Criticism. Yr.; 2 hours. Based on the writings of Cicero, Horace, and Quintilian. Miss Allen.

233. Latin Seminary. Yr.; 2 hours. In 1916-17 the subject will be *Horace*. Mr. Slaughter.

MANUAL ARTS

PROFESSORS CRAWSHAW (chairman), PHILLIPS; ASSISTANT PROFESSORS GODDARD, VARNUM; INSTRUCTORS ANDERSON, DORRANS, NELSON, WILSON.

The Department of Manual Arts, in cooperation with allied departments, aims to reach three principal classes of students: first, those for whom the teaching of manual arts is a major subject; second, those who desire to make the teaching of some aspect of the work a minor; third, students for whom such courses as those announced may constitute part of a program of liberal study.

The department conducts courses in the several lines of shop work, drawing, and design taught in public high schools and in related matters such as organization and maintenance, history and literature, and supplies and equipment. The department is the center in the University for the study of vocational and industrial education. Cooperation with several allied departments is maintained.

Adequate facilities for all laboratory courses are made possible by the use of the full equipment of the College of Engineering shops, laboratories, and drawing rooms. In addition, the department has a large room fitted up especially for wood working classes and for the study of supplies and equipment. Through the kindness of manufacturers a large number of exhibits are housed in this room

and form an adequate museum of the manual arts. The room is both a laboratory and a lecture room with facilities for demonstration work and investigation. The Wisconsin High School through its Department of Manual Arts furnishes a laboratory for observation and directed teaching. University students specializing in manual arts act as assistant instructors in the high school department.

The Applied Arts Laboratory is conveniently equipped for lower grade construction work, design, and applied design in clay and art metals. A large and well lighted room on the first floor of the Biology Building is used for work in freehand drawing.

Courses announced, with usual privileges for minor and major work, are open to election by all students subject to the general University and special college regulations governing elections.

The Major in Manual Arts

Courses listed below, except Nos. 1, 2, 50, and 51 may be elected in fulfillment of the requirements for an undergraduate major in manual arts. The minimum requirement for a major in manual arts is thirty credits, in addition to the thesis.

For Undergraduates

1. Elements of Mechanical Drawing. I or II; 3 cr. Mr. Phillips, Mr. Orth, Mr. Thomas, Mr. Grenoble.

2. Elements of Mechanical Drawing. I or II; 3 cr. Mr. Phillips, Mr. Orth, Mr. Thomas, Mr. Grenoble.

***4. Elementary Bench Woodwork.** I; 3 or more cr. Bench work appropriate for the upper grammar grades and the first year of high school. Mr. Crawshaw, Mr. Dorrans.

15. Applied Design; Wood. I; 3 or more cr. Woodworking from the Arts and Crafts standpoint. Mr. Dorrans.

†**5. Furniture and Cabinet Design and Construction.** II; 3 or more cr. An advanced course including the design of furniture; furniture and cabinet making. Mr. Crawshaw, Mr. Dorrans.

***10. Wood Finishing.** II; 2 cr. Intensive study and practice in the mixing and applying of finishing materials for interior woodwork and furniture. Mr. Dorrans.

11. The Installation and Care of Woodworking Machines. I; 2 cr. Laboratory practice with lectures upon equipment, its manufacture, meritorious points, installation, etc. Mr. Dorrans.

*See also Forest Products Laboratory for lectures on wood structure.
†See also Forest Products Laboratory for lectures on kiln drying.

6. Wood Turning. I or II; 2 or more cr. A study of the geometrical principles involved and their application in the several wood turning cuts. Mr. Chisholm.

16. Elementary Pattern Making. I or II; 3 cr. Principles involved in patterns for machine parts. Core making and moulding practice. Prerequisite: courses 1 and 4. Mr. Chisholm.

17. Advanced Pattern Making. I or II; cr. to be arranged. Commercial pattern shop work. Prerequisite: course 16, and credit or registration in course 7. Mr. Chisholm.

7. Foundry Work. I or II; 2 or more cr. Bench and machine work; cupola practice. Mr. Payton, Mr. Chisholm.

8. Forge Work. I or II; 2 or more cr. Forging, welding, tempering, and annealing. Mr. Goddard, Mr. Schumann.

9. Machine Shop Work. I or II; 2 or more cr. (a) Bench work and operation of machine tools. (b) Advanced course: Toolmaking and machine construction. Mr. Goddard, Mr. Dabney, Mr. Sansom.

12. Lower Grade Craftwork. I or II; 2 to 3 cr. Expressional and technique work in the elementary school. Miss Wilson.

13. Applied Design. I or II; 2 to 3 cr. The making of projects in clay, textiles, paper, and cardboard for those interested as craftsmen. Miss Wilson.

14. Lower Grade Woodwork. II; 2 to 3 cr. The making of projects in wood for the intermediate grade period. Miss Wilson.

DRAWING AND DESIGN

50. Freehand Drawing and Perspective. I; 3 cr. Open to freshmen. Elementary course to develop principles of freehand drawing, mechanical perspective, and cast shadows in pencil, pen, and blackboard crayon. Mr. Varnum, Miss Anderson, Miss Wilson.

51. Cast Drawing and Water Color Rendering. II; 3 cr. Advanced course. Cast drawing from the antique figure, historic ornament, and sketching from life. Pen and wash drawing for students with special interests such as: landscape designing, architectural sketching, newspaper illustration. Prerequisite: Manual Arts 50 or equivalent. Mr. Varnum, Miss Wilson.

52. The Teaching and Supervision of Public School Drawing and Design. II; 3 cr. Correlation with school and community activities. Laboratory practice; courses of study. Prerequisite: Manual Arts 50. Mr. Varnum, Miss Anderson.

60. History and Appreciation of Design. I; 3 cr. Architectural composition and history. An illustrated lecture course.

A statement of the broad fundamental bases of design governing the products of the industrial arts. Analysis of historic design. Mr. Varnum.

61. History and Appreciation of Design. II; 2 cr. Municipal art and architecture. An illustrated lecture course. Architectural composition applied to city and town blocks and to planning of civic centers. Mr. Varnum.

62. Constructive and Applied Design. I; 3 cr. Principles of design applied to the different materials of the industrial crafts. Prerequisite: credit or registration in Manual Arts 1 and 50 or their equivalents. Mr. Varnum.

63. Applied and Constructive Design Seminary. Yr.; 1 cr. Preparation for the working drawings developed in laboratory courses. Mr. Varnum.

APPLIED DESIGN

70. Applied Design in Metal (copper, brass, silver, gold, iron). I or II; 3 cr. Design and construction in sheet and rod metal. Raised and beaten copper forms; jewelry. II: Jewelry in silver and gold. Large industrial projects combining copper, brass, and clay Miss Anderson.

***71. Applied Design in Clay,** (pottery). Design and construction; glazing and firing. Miss Wilson.

For Undergraduates and Graduates

The lectures in shop laboratory courses each require two hours of preparation. This may be laboratory or outside time depending upon conditions. Those who elect manual arts laboratory courses with a view to teaching should devote as much time as possible to laboratory work.

A fee of $2.00 per credit is required for all shop laboratory courses.

110. History and Literature of Manual Arts. I; 2 cr. Open to juniors and adult specials. The manual training and industrial education movement. Mr. Crawshaw.

111. Organization. I; 2 cr. Open to juniors and adult specials. Detailed study of courses, equipment, and supplies; devices in teaching and administration. Mr. Crawshaw.

113. Vocational Education and Guidance. II; 2 cr. Open to juniors and adult specials. Laws governing vocational education. The problem of industrial education. Mr. Crawshaw.

*For related course see Mining and Metallurgy 126.

112. The Teaching and Supervision of Manual Arts. Yr.; 2 cr. Open to seniors and adult specials. The manual and industrial arts in regular and special schools. Mr. Crawshaw.

115. Manual Arts Seminary. Yr.: 1 cr. A study of the larger problems of manual training and vocational education. Mr. Crawshaw.

MATHEMATICS

Professors Slichter (chairman), Van Vleck; Associate Professors Dowling, Skinner; Assistant Professors Burgess, Dresden, Hart, March, Wolff; Instructors Allen, Clements, Fry, Keffer, Paine, Simpson, Taylor; Assistant Wood.

Fellow, Mr. Hollcroft.

The courses in mathematics are divided into three groups, as follows:

A. Courses 1 to 8 are planned to give a working knowledge of elementary mathematics. All courses are elective except courses 1 and 7, required of students in the Course in Commerce.

Students who elect the minimum amount of mathematics in fulfillment of requirement "c" (see requirement for degree of Bachelor of Arts), may choose six hours from any of the first eight courses, provided courses 3 and 4 are not both chosen.

Students electing mathematics with a view to teaching the subject in the high schools are referred to the section on mathematics in the course for the training of teachers. Course 5 is strongly recommended in preparation for teaching.

It will be advantageous for all students expecting to elect mathematics to present at least one and one-half units of algebra for entrance.

B. Courses 111 to 125 are designed for students who desire to continue mathematical study, and who have completed the requisite courses in group A.

C. Courses 241 to 269 are intended primarily for graduate students.

Major and Minor in Mathematics

The requirements for an undergraduate major in mathematics consist of a thesis, courses 5 and 6, and a minimum of 11 credits

from courses for undergraduates and graduates, inclusive of course 112 or 113. The requirements for mathematics as a major or minor subject in the Course for the Training of Teachers are given on page 253.

For Undergraduates

1. Algebra. I or II; 3 cr. For students presenting one unit of algebra for entrance. Prerequisite to all other courses except 2 and 8. Mr. Skinner, Miss Allen, Mr. Clements, Mr. Dresden, Mr. Hollcroft, Mr. Simpson.

2. Trigonometry. I or II; 3 cr. Plane trigonometry and logarithms. Prerequisite to all other courses except 1, 7, 8, and 124. Mr. Dowling, Mr. Skinner, Miss Allen, Mr. Clements, Mr. Dresden, Mr. Simpson.

3. Analytic Geometry. II; 3 cr. Recommended to students presenting one and one-half units of algebra for admission and who have taken or are taking course 2. Mr. Dowling, Miss Allen, Mr. Dresden.

4. Analytic Geometry. Yr.; 2 cr. Prerequisite: course 2. Mr. Clements, Mr. Van Vleck.

5. Calculus. Yr.; 3 cr. Students who intend to specialize in mathematics or who desire calculus for applications in science are advised to take course 5 in the sophomore year. Course 4 must be taken simultaneously by students who have not had analytic geometry. Mr. Dowling, Mr. Van Vleck.

6. Determinants and Analytic Geometry of Three Dimensions. I; 3 cr. Prerequisite: course 3 or 4. Mr. Dresden.

7. Commercial Algebra. I or II; 3 cr. Required of students in the Course in Commerce. Miss Allen, Mr. Clements, Mr. Dresden, Mr. Hollcroft, Mr. Simpson.

8. Solid Geometry. I; 3 cr. Mr. Hart, Mr. Simpson.

10. The Teaching of Mathematics. I or II; 2 cr. Open to seniors who are preparing to teach mathematics either as major or minor subject. Mr. Hart.

11. The Content of Secondary Mathematics. II; 2 cr. Admission to course restricted to students enrolled in the Course for the Training of Teachers. Mr. Hart.

100. Thesis Course. 2 cr. 1915-16. Mr. Van Vleck.

For Undergraduates, College of Engineering

50. Sub-freshman Algebra. I; no cr. For students who fail to pass the examination given to all engineering freshmen for admission to course 51. Mr. Fry, Mr. Paine.

51. Elementary Mathematical Analysis. I or II; 5 cr. Required of freshmen in engineering. Mr. Slichter, Mr. Simpson, Mr. Fry, Mr. Keffer, Mr. March, Mr. Paine, Mr. Wolff, Mr. Taylor.

52. Elementary Mathematical Analysis. I or II; 5 cr. A continuation of 51. Required of freshmen in engineering. Mr. Slichter, Mr. Simpson, Mr. Fry, Mr. Keffer, Mr. March, Mr. Paine, Mr. Wolff, Mr. Taylor.

***53. Elementary Mathematical Analysis.** I; 5 cr. A special course in the technical parts of 51 and 52 for students who have had trigonometry and analytic geometry. Mr. Burgess.

54. Differential and Integral Calculus. I or II; 4 cr; For all courses. Required of all sophomores in engineering. Mr. Slichter, Mr. March, Mr. Wolff, Mr. Paine.

55. Calculus. I or II; 4 cr. Continuation of 54; for all courses. Elementary work in differential equations. Required of sophomores in engineering. Mr. Slichter, Mr. Wolff, Mr. March, Mr. Fry, Mr. Paine, Mr. Keffer, Mr. Taylor.

110. Higher Mathematics. Yr.; 3 cr. Differential Equations. Definite Integrals, Fourier Series, and other subjects. Electives for juniors, seniors, and graduate students. Mr. Wolff.

For Undergraduates, College of Agriculture

71. Mathematics for Agricultural Students. I or II; 5 cr. Mr. Wolff, Mr. Fry, Mr. Keffer, Mr. Wood.

For Undergraduates and Graduates

Course 5 is prerequisite to all courses in this group except 115, 124, and 125.

111. Advanced Calculus. I; 3 cr. Mr. Skinner.

112. Differential Equations. II; 3 cr. With applications to geometry and mechanics. Primarily a working course for students in mathematics and physics. Mr. Van Vleck.

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*On account of the large amount of special work in courses 51 and 52, a special course is organized for students who have had trigonometry, and analytic geometry in colleges of pure science.

113. Theoretical Mechanics. Yr.; 3 cr. May be taken by those who have had analytic geometry and calculus. Mr. Slichter.

115. Projective Geometry. Yr.; 2 cr. Synthetic treatment. Mr. Dowling.

125. Theory of Equations and Introduction to Higher Algebra. II; 3 cr. Mr. Dresden.

114. Modern Analytic Geometry. II; 3 cr. In alternate years. (Omitted 1915-16.)

119. Differential Geometry. II; 3 cr. In alternate years. The application of the differential calculus to the geometry of twisted curves and surfaces.

116. Introduction to Higher Mathematics. Yr.; 3 cr. A course for students majoring in physics. Prerequisite: Course 112. (Omitted 1915-16.) Mr. March.

117. Vector Analysis. II; 3 cr. Applications to physics and geometry. (Omitted 1915-16.)

118. Theory of Probabilities and Method of Least Squares. II; 2 cr. For students of science and economics. Mr. Slichter.

120. Theory of Analytic Functions. Yr.; 3 cr. In alternate years. (Omitted 1915-16.) Mr. Van Vleck.

121. Theory of Functions of a Real Variable. Yr.; 3 cr. In alternate years. Critical study of infinitesimal analysis. Mr. Dresden.

124. Theory of Life Insurance. Yr.; 2 cr. Prerequisite: course 7 or its equivalent. Mr. Dowling.

For Graduates

These courses are varied from year to year according to the needs of the students, other subjects being introduced in addition to those here announced.

241. Elliptic Functions. Yr.; 2 cr. In alternate years. Mr. Dowling.

243. Modern Theory of Differential Equations. Yr.; 3 cr. (Omitted 1915-16.) Mr. Van Vleck.

244. Higher Geometry. Yr.; 3 cr. In alternate years. (Omitted 1915-16.) Mr. Dowling.

250. Theoretical Hydrodynamics. Yr.; 3 cr. (Omitted 1916-17.) Mr. Slichter.

251. Theory of Potential. Yr.; 3 cr. Mr. Slichter.

263. Higher Algebra. I; 3 cr. (Omitted 1915-16.) Mr. Skinner.

266. Theory of Numbers. Yr.; 3 cr. Mr. Skinner.

268. Partial Differential Equations. Yr.; 3 cr. Introductory course with applications to physical problems. Mr. March.

269. Integral Equations. Yr.; 3 cr. Mr. Van Vleck.

Mathematical Club—For instructors, graduates, and seniors making mathematics their major. Twice monthly. The object of the club will be to follow important recent developments in mathematics.

METEOROLOGY

MR. ERIC R. MILLER, of the U. S. Weather Bureau.

Courses 1 and 2 are intended to afford a general survey of atmospheric processes and their effects upon life on the earth. Courses 103 and 106 are planned to prepare students of agriculture, commerce, engineering, journalism, medicine, physical geography, etc., for the treatment of meteorological and climatological questions of importance in their professions, and to fit students for the investigation of special problems in meteorology. Further opportunity to pursue original research under supervision will be provided if desired.

For Undergraduates

1. Weather and Climate. I; 2 cr. Mr. Miller.

2. Climate and Man. II; 2 cr. Mr. Miller.

For Undergraduates and Graduates

103. Meteorology. I; 3 cr. Prerequisites: Mathematics 111 and 112, and Physics 2, or equivalents. Mr. Miller.

106. Climatology. II; 3 cr. Prerequisites: Geology 109, 113, and Political Economy 130, or equivalents. Mr. Miller.

MUSIC

Emeritus PROFESSOR PARKER; PROFESSORS DYKEMA, HENMON, MILLS (chairman); ASSISTANT PROFESSOR REGAN; INSTRUCTORS BERGMAN, CHAMBERLAIN, CONLON, EASTMAN, VON GELTCH, JONES, MANN, SANDERS, SAUGSTAD, TOWNSEND.

The courses in music, except course 1a, are open as electives to all students, freshmen excepted, in any department of the University who show sufficient musical ability to pursue them with profit, and receive the same credit as similar courses in other departments of the University, except when otherwise specifically stated in the following explanatory statements.

Course 1a is open to election in the freshman year by candidates for the degree of Bachelor of Arts, in addition to a minimum of fourteen hours, but does not count as part of the required 120 credits.

Students may be admitted to advanced courses on examination.

Students may elect one or more studies in applied music* on examination, and upon the recommendation of the Director of the School of Music, but without credit toward graduation except as specified under course 81.

See the statement of the School of Music. (See Index.)

For Undergraduates

1a. Elementary Harmony. Yr.; no. cr. Miss Eastman.

1. Harmony. Yr.; 3 cr. Prerequisite: course 1a. Miss Eastman.

11. Harmony. Yr.; 2 cr. Prerequisite: course 1. Miss Eastman, Mr. Mills, Mr. Townsend.

21. Counterpoint. Yr.; 2 cr. Prerequisite: course 11. Mr. Mills.

31. History. Yr.; 2 cr. Lectures on the development of the art. Mr. Mills.

41. Methods. Public School Music. Yr.; 3 cr. Miss Conlon.

42. Practice. Public School Music. Yr.; 1 cr. Miss Conlon.

* By the term applied music is meant individual instruction in voice culture or some instrument.

44. Education. Yr.; 1 cr. For supervisors. Mr. Henmon, Mr. Jones.

45. Public School Music. Yr.; 2 cr. For grade and high school teachers.

51. Methods. Public School Music. Yr.; 2 cr. Miss Conlon, Mr. Jones.

52. Practice. Public School Music. Yr.; 2 cr. Mr. Jones.

61. Appreciation of Music. Yr.; 2 cr. Lectures with practical illustrations; music students only. Mr. Dykema.

65. Appreciation of Music. Yr.; 1 cr. Lectures with practical illustrations; open to student body. Mr. Chamberlain.

71. Sight Singing and Ear Training. Yr.; 2 cr. Mr. Jones.

75. Sight Singing and Ear Training. Yr.; 1 cr. Miss Conlon.

78. Community Music. I.; 2 cr. Mr. Dykema.

79. Selection and Interpretation of Music Material. II; 2 cr. Mr. Dykema.

81a. Applied Music. No college credit.

81. Piano. Yr.; cr. to be arranged. Miss Regan, Mr. Townsend.

82. Voice. Yr.; cr. to be arranged. Miss Bergman, Mr. Chamberlain, Mrs. Sanders.

83. String and Orchestral Instruments. Yr.; cr. to be arranged. Mr. von Geltch, Mr. Mann, Mr. Saugstad.

84. Organ. Yr.; cr. to be arranged. Mr. Mills, Miss Eastman.

85. Ensemble. Yr.; 2 cr. Miss Regan, Miss Bergman.

86. Ensemble. Yr.; 2 cr. Miss Regan, Miss Bergman,

87. 1, 2, 3, 4, Second Subject in Applied Music. Yr.; 1 cr.

88. 1, 2, 3, 4, Second Subject in Applied Music. Yr.; 1 cr.

89. Elements of Practical Instrumentation. Yr.; 1 cr. Mr. von Geltch, Mr. Saugstad.

76. Orchestra. Yr.; 1 cr. Prerequisite: the ability to play some instrument. Mr. Mann.

77. Choral Music. Yr.; ½ cr. Mr. Dykema.

Thesis. Yr.; 2 cr.

For Graduates and Undergraduates

102. Harmony. Yr.; cr. to be arranged. Prerequisite: course 11. Mr. Mills.

112. Counterpoint. Yr.; cr. to be arranged. Mr. Mills.

***122. Double Counterpoint, Canon and Fugue.** Yr.; 2 cr. Mr. Mills.

***152. Instrumentation.** Yr.; 2 cr. Mr. Mills.
***162. Composition.** Yr.; 2 cr. Small forms, etc. Mr. Mills.

For Graduates

***211. Modern Orchestration.** Yr.; hours to be arranged. Prerequisite: course 11. Mr. Mills.
***265. Free Composition.** Yr.; hours to be arranged. Prerequisite: course 162. Mr. Mills.

PATHOLOGY AND MEDICAL BACTERIOLOGY

Professor Bunting (chairman); Associate Professor Clark; Instructors Lange, Neuman; Assistant McKittrick.

For full description of courses in Pathology, see announcement under Medical School.

For Undergraduates and Graduates

101. General and Special Pathology. I; 6 cr.
102. Medical Bacteriology. I; 5 cr.
103. Experimental Pathology. II; 4 cr. Class limited to 9 members.
106. Oncology. A study of tumors. II; 2 cr. Prerequisite: course 101.
104. Immunity. II; 3 cr. Prerequisite: course 102.
107. Sources and Modes of Infection. II; 3 cr. Given in conjunction with Hygiene 126.

For Graduates

204. Advanced Pathology.
205. Journal Club. Yr.; 1 cr.
206. Advanced Bacteriology.

* Alternate years.

PHARMACOLOGY AND TOXICOLOGY

PROFESSOR LOEVENHART (chairman); INSTRUCTOR GASSER.

For full description of courses in Pharmacology and Toxicology, see announcement under Medical School.

101. General Toxicology. II; 1 cr. Lectures. Mr. Loevenhart, Mr. Gasser.

102. General Toxicology. II; 1 cr. Laboratory. Mr. Loevenhart, Mr. Gasser.

104. General Pharmacology. I; 2 cr. Lectures. Mr. Loevenhart, Mr. Gasser.

105. General Pharmacology. I; 2 cr. Laboratory. Mr. Loevenhart, Mr. Gasser.

108. Advanced Work. Mr. Loevenhart.

112. Independent Investigation. Mr. Loevenhart.

116. Journal Club. Yr.

PHARMACY

PROFESSOR KREMERS (chairman); INSTRUCTORS LANGENHAN, WAKEMAN.

For Undergraduates

1. Pharmaceutical Technique. Yr.; 3 cr. Miss Wakeman.

20. Elementary Prescription Practice. 3 cr. Mr. Langenhan.

30. Pharmaceutical Technology. I; 2 cr. An elementary course in the preparation of first materials. Mr. Langenhan.

40. Drug Store Practice. Yr.; 1 cr. Mr. Kremers and special lecturers.

50. History of Pharmacy. Yr.; 1 cr. (Given 1915-16.) Mr. Kremers, Miss Wakeman.

121. Advanced Prescription Practice. II; 4 cr. Mr. Langenhan.

Thesis. Mr. Kremers.

For Graduates

221. Advanced Pharmaceutical Technology. (Given 1916-17.) Mr. Kremers.

PHILOSOPHY

PROFESSORS JASTROW, MCGILVARY (chairman), SHARP; ASSOCIATE PROFESSOR OTTO; ASSISTANT PROFESSOR STARCH; INSTRUCTOR KALLEN; ASSISTANTS HOBART, HULL.

The student is at liberty to begin his work in philosophy with any of the courses designated as for undergraduates. But beginners who desire to take three hours of work throughout the year in the department, whether they wish to continue with the subject or not, will ordinarily find it most profitable to select course 1 or 31 in the first semester, and either 11, 21, 32, or 41 in the second semester.

The requirements for an undergraduate major in philosophy are a minimum of twenty credits including the thesis. Of these, at least eight credits must be obtained in the courses "for undergraduates and graduates."

For Undergraduates

1. Psychology. I or II; 3 cr.
Section 1. I. Mr. Jastrow, Mr. Starch.
Section 2. I. Mr. Sharp, Mr. Otto.
Section 3. II. Mr. Starch.

These sections are equivalent for credit and record, but the content and scope differ considerably.

11. Elementary Logic. I or II; 3 cr. Mr. Kallen, Mr. Otto.

21. Introduction to Philosophy. II; 3 cr. Mr. McGilvary.

23. The Philosophic Thought of the Nineteenth Century as Reflected in English Literature. II; 2 or 3 cr. (Omitted 1915-16.)

25. The Relation of Man to Nature. I; 2 or 3 cr. Mr. Otto.

31. History of Ancient and Medieval Philosophy. I; 3 cr. Mr. Kallen.

32. History of Modern Philosophy. II; 3 cr. Mr. Otto.

34. The Philosophy of Nietzsche. II; 1 cr. Mr. McGilvary.

41. Ethics. II; 3 cr. Introductory course. Mr. Sharp.

42. Social and Political Ethics. II; 2 cr. Moral rights; especially personal liberty, freedom of contract, national independence, suffrage; the moral authority of the state; international morality. Mr. Sharp.

43. Business Ethics. I; 2 cr. With special reference to fair competition. Mr. Sharp.

Courses 42 and 43 may be taken independently of one another. For neither is 41 a prerequisite.

44. History of Morality. I; 2 or 3 cr. Primitive and ancient moral practices and ideals. Mr. McGilvary.

49. Moral Education. II; 2 cr. With special reference to the high school. Mr. Sharp.

51. Aesthetics. I; 2 cr. Including practical applications to art. Mr. Jastrow.

For Undergraduates and Graduates

103. Experimental Psychology. Part I. I; 3 cr. Lectures and laboratory, dealing with sensation, perception, movement, reactions, and the simpler functions of the mental life. Mr. Jastrow, Mr. Hull.

104. Experimental Psychology. Part II. II; 3 cr. Lectures and laboratory, dealing with memory, association, attention, imagination, reasoning, the emotions, and the more complex manifestations of the mental life. Mr. Jastrow, Mr. Hull.

Either course 103 or 104 may be taken in advance of the other, or separately. Course 1 or its equivalent is a desirable prerequisite.

105. Research in Psychology. Cr. to be arranged. Mr. Jastrow. Mr. Hull.

106. Comparative Psychology. I; 2 cr. (Omitted 1916-17.) Mr. Jastrow.

107. Abnormal Psychology. I; 2 cr. Mr. Jastrow.

108. Psychology of the Emotions. II; 2 cr. (Omitted 1916-17.) Mr. Jastrow.

109. Seminary in Racial Psychology. II; 2 cr. The psychology of groups in natural and artificial circumstances. (Omitted 1915-16.) Mr. Jastrow.

110. Experimental Psychology for Premedical Students. II; 2 cr. (Omitted 1915-16.) Mr. Jastrow, Mr. Hull.

119. Psychological Principles of Advertising. II; 2 cr. Mr. Starch.

134. Contemporary Philosophy. 3 cr. Prerequisite: courses 21, 25, 31, or 32. Mc. McGilvary.

135. Descartes, Spinoza and Leibniz. I; 3 cr. Prerequisite: courses 21, 25, 31, or 32. (Omitted 1915-16.) Mr. Kallen.

136. Locke, Berkeley, Hume. I; 3 cr. Prerequisite: courses 21, 25, 31, or 32. (Omitted 1916-17.) Mr. Kallen.

137. Kant. II; 3 cr. *The Critique of Pure Reason.* Prerequisite: courses 21, 25, 31, or 32. (Omitted 1916-17.) Mr. Kallen.

138. Typical Theories of Life. 3 cr. Historic definitions of the ideals of Happiness, Duty, Salvation, and Progress. The Life of Reason. Mr. Kallen.

139. American Philosophy. II; 2 cr. Special reference to Jonathan Edwards, Ralph Waldo Emerson, and William James. Prerequisite: courses 21, 31, or 32. Mr. Otto.

154. The Philosophy of Art. II; 3 cr. Historic conceptions; basis and material; character and value of art. Place of art in civilization. Mr. Kallen.

155. Metaphysics. II; 3 cr. Historical solutions of the metaphysical problems. Contemporary metaphysics—Buddhism, neo-Aristotelianism, Idealism, Pragmatism, neo-Realism. (Omitted 1915-16.) Mr. Kallen.

For Graduates

210. Psychological Seminary. Mr. Jastrow.
213. Logical Seminary. Mr. Otto.
240. Metaphysical Seminary. Mr. McGilvary.
247. Ethical Seminary. Mr. Sharp.

PHYSICAL EDUCATION

PROFESSORS EHLER (chairman), HETHERINGTON; ASSISTANT PROFESSORS MEANWELL, DIRECTOR MEN'S GYMNASIUM, TRILLING DIRECTOR WOMEN'S GYMNASIUM; ELSOM, JOHNSON, JONES, JUNEAU; INSTRUCTORS BROWN, BROWNELL, DRIVER, FORBES, HINDMAN, H'DOUBLER, MCCHESNEY, PORTER, STEVENSON, VAIL; ASSISTANTS AYER, BUTLER, STEINAUER, WILSON; STUDENT ASSISTANTS BENEDICT, KNOTT, LEE, LOVEQUEST, SANDS.

For further information see Departmental Circular. Also Department of Physical Education, page 415.

Courses are planned to meet the needs of four classes of students: first, students desiring to major in physical education and become responsible instructors or directors; second, students desiring to minor in physical education in preparation for combining leadership of physical training activities with some academic subject in high schools; third, students desiring a general familiarity with the problems of physical education as a part of their equipment for positions as principals or superintendents in the public schools or

for positions as social centre directors; fourth, students desiring academic courses in physical education as a part of a liberal education.

Major

The requirements for a major are designed to prepare students for the responsible direction of physical training activities in all their developmental, hygienic, and social relationships.

These responsibilities require a training in all phases of the work with a preliminary training in biology, chemistry, anatomy and physiology. Students desiring to major in physical education should declare their intentions at the time of entrance to the University.

Students desiring to specialize as instructors in certain physical training activities may do so by taking the required practice courses in course 20 and the required special technique in courses 21 to 50.

No University credit will be given in the special technique courses except to students majoring or minoring in physical education.

Students regularly entered in the College of Letters and Science electing their major in physical education are required to take courses 20 for four years, 56, 107, 108, 59, 62, 114, 63, 67, courses 21–50 (at least four credits) and thesis (4 credits) a total of 32 credits; Zoology 104a, Education A and 1 or 6 or 11 or 41 and Physiology 114, 115, and 116; and satisfy prerequisites in biology, chemistry, and philosophy, or their equivalents. Additional credit may be secured in courses 107, 66, 68, and 21-50.

Minor

Students electing physical education as a minor subject must take courses 20 for four years, 59, 60-61, and 21-50 for four credits, a minimum of 10 credits. Additional credits may be secured in courses 56, 66, and 21-50. Prerequisites are Philosophy 1, Education A, and 1 or 6 or 11 or 41, Zoology 1b.

State Teachers Certificate

Graduates majoring in physical education will be entitled to receive the state teachers certificate by compliance with the requirements of the Course for the Training of Teachers, page 255.

Courses of Instruction

1. Developmental Exercises. 1 or 2 cr. Prescribed for all freshmen and such sophomores as have not attained the requisite development. Men, two hours; women, four hours, weekly.

2. Advanced Exercises. 1 to 4 cr. Systematic courses in athletics—track and field events, cross country running, baseball, basketball, football (intercollegiate, soccer), tennis, field hockey, etc.; aquatics—swimming, rowing, water polo, diving, life saving; gymnastics—advanced apparatus exercises, gymnastic, folk and esthetic dancing, tumbling; wrestling, fencing and boxing. The work of the various class and varsity teams is included in this course. Open to all students who have attained the required degree of organic power and bodily skill. Prescribed for sophomores who have completed course 1. Prerequisite: course 1 or its equivalent.

3. Special Corrective Exercises. 1 or 2 cr. Required of all freshmen and sophomores unfitted to take courses 1 and 2.

4. Efficient Living. The laws of personal and general hygiene. Given with course 1.

19. Practice Teaching. Cr. to be arranged.

20. General Technique. a. Men. b. Women. For professional students. The practice course for students majoring or minoring in physical education. Parallel to courses 1 and 2, including in addition instruction in nomenclature, elementary organization of materials, methods of leading sections and squads, and practice leading in courses 1 and 2. The course covers four years for major or minor students.

16. First Aid to the Injured. I; 1 cr. Mr. Elsom.

55. History of Physical Education. II; 2 cr. Mr. Elsom.

56. Kinesiology. II; 3 cr. Prerequisites: courses 20 and Zoology 104a. Mr. Hetherington.

107. Physiology of Exercise (Physiology 116.) I; 3 cr. Prerequisites: course 56 and Physiology 105 or 115 (see Department of Physical Education, p. 415.) Mr. Eyster, Mr. Dawson, Mr. Meek.

108. The Principles of Physical Education. II; 3 cr. Prerequisites: Zoology 1a and 1b, Physiology 1 and 2 or 105 or 115, and Philosophy 1. Mr. Hetherington.

59. Nature, Function, and Organization of Play. I; 3 cr. Prerequisites: Zoology 1a and 1b, Philosophy 1. Mr. Hetherington.

60–61. Physical Education of Children and Adolescents. II; 3 cr. Primarily for students minoring in physical education. Prerequisites: Physiology 1 and 2 and course 59 Mr. Ehler

62. Growth and Development. I; 3 cr. Growth and development of tissues and organs in relation to organic and neuro-muscular education. Prerequisite: Zoology 1a and 1b, Philosophy 1. Mr. Hetherington.

114. Medical Examinations. II; 3 cr. (Clinical Medicine 101.) Prerequisite: Physiology 105 or 115. Mr. Evans.

63. Physical Examinations and Gymnastic Therapeutics. Yr.; 2 cr. Prerequisites: courses 56, 107, 62, and 114. Mr. Elsom.

66. The Management or Practical Conduct of the Playground. II; 1 cr. Prerequisite: course 59. Must be accompanied by course 22 or 42. Mr. Meanwell.

67. Principles of Adaptation and Teaching. I; 2 cr. Adaptation of motor activities to individuals and groups, differentiated by sex and age; coaching; practice teaching. Prerequisites: courses 20, 56, 59, and 62. Mr. Hetherington.

68. Organization and Administration. I; 3 cr. Prerequisites: courses 20, 108, 59, and 67. Mr. Ehler.

21–50. Special Organization and Methods. Cr. to be arranged. Special studies of the more complex activities used in physical education, from the standpoint of leadership, instruction, training, and special management. Each activity includes lectures, demonstrations, practice and practice teaching as may be assigned. Prerequisite: Personal skill in the performance of each activity acquired in course 20 or its equivalent.

Men.

21. Gymnastics (tactics, calisthenics, apparatus, tumbling). 22. Plays and games including tennis and handball. 23. Basketball. 24. Track and field. 25. Swimming and boating. 26. Dancing (men and boys). 27. Baseball. 29. Football—American. 30, Soccer, field hockey, and ice hockey. 34. Boxing, fencing, and wrestling.

21, 22, 23, 24 required for major or certificate.

Women.

41. Gymnastics (tactics, calisthenics, apparatus). 42. Plays and games. 43. Folk dancing. 44. Basketball and field hockey. 45. Swimming and boating. 46. Advanced folk and esthetic dancing. 47. Baseball and track and field. 48. Rowing. 50. Fencing, archery, and tennis.

41. 42, 43, 44 required for major or certificate.

PHYSICS

PROFESSORS MASON, MENDENHALL, SNOW (chairman); ASSOCIATE PROFESSOR INGERSOLL; ASSISTANT PROFESSORS GAGE, ROEBUCK, STEVE, TERRY; INSTRUCTOR FULCHER; ASSISTANTS ANDERSON, BARR, BROWN, BUTLER, CARPENTER, COMBS, COOK, FREHAFER, GRAY, GREENSLADE, HAGBERG, HOOVER, MORGAN, PETERSEN, PIETENPOL, PRINE, STRONG, SZLUPAS, TAYLOR, TE SELLE, WANNER, WILLIAMSON.

In order to adapt the instruction in physics to students of different degrees of preparation, the introductory course in this study is given in two sections. Course 1 is planned for those who have only a high-school training in mathematics, while course 1Sc. is designed for those who have had or are taking the mathematics of the freshman year. Following these general courses, seven other elementary courses are given for those who desire a further knowledge of the subjects treated in courses 1 and 1Sc. and for those who are preparing to teach. Courses 110-120 are more advanced in nature and lead to courses 210-220, which are strictly graduate in character, and are arranged with reference to those who are making a special study of the higher branches of physics.

For Undergraduates

1. General Physics. Yr.; 5 cr. Lectures, recitations, and laboratory practice. Open to all students. Mathematical preparation is not a prerequisite. Mr. Snow, Mr. Gage, Mr. Roebuck, Mr. Steve, Mr. Gray, Mr. Hagberg.

1Sc. General Physics. Yr.; 5 cr. Lectures, recitations, text, and laboratory are fully coordinated. Especially designed for those interested in the various sciences. Students who have had or are taking freshman mathematics are advised to elect this course in preference to course 1. Mr. Snow, Mr. Mendenhall, Mr. Mason, Mr. Ingersoll, Mr. Gage, Mr. Roebuck, Mr. Fulcher.

2. Light and Heat. I; 3 cr. Intended to follow course 1 or 1Sc. and leads to course 117. Mr. Ingersoll.

3. Laboratory in Light and Heat. I; 2 cr. Designed to accompany course 2. Mr. Mendenhall, Mr. Fulcher.

4. Electricity and Magnetism. II; 3 cr. Advanced lectures. Introductory to course 116. Mr. Terry.

5. Laboratory Practice in Electricity and Magnetism. II; 2 cr. Designed to accompany course 4. Mr. Terry, Mr. Greenslade.

7. Photography. II; 2 cr. Designed to give practical knowledge in the various lines of scientific work. Mr. Roebuck.

8. The Teaching of Physics. II; 2 cr. A training course for teachers. Mr. Steve.

Thesis. Yr.; 2 cr. Mr. Mendenhall, Mr. Ingersoll, Mr. Terry.

ENGINEERING COURSES

51. Mechanics, Sound, and Light. I; 5 cr.

51. Mechanics, Sound, and Light. II, 5 cr. Mr. Fulcher Laboratory, Mr. Gage and staff.

52. Heat, Electricity, and Magnetism. II; 5 cr. These courses are similar to courses 1 and 1Sc, but more technical. Mr. Terry, Mr. Ingersoll, Mr. Gage, Mr. Fulcher, Mr. Williamson.

54. Electrical Measurements. I; 2 cr. Required of juniors in electrical engineering, and elective for students in other engineering courses. Mr. Terry, Mr. Greenslade.

AGRICULTURAL COURSES

61. Mechanics and Heat, Electricity and Magnetism. Yr.; 3 cr. Prerequisite: Mathematics, 71. Mr. Gage and staff, Mr. Pietenpol.

65. Elementary Physics. Yr.; 3 cr. Required of sophomores in the course in Home Economics. Mr. Snow, Mr. Gage, and staff.

For Undergraduates and Graduates

110. Laboratory Arts. I; 1 cr. A course in technique. Mr. Mendenhall, Mr. Ingersoll, Mr. Roebuck, Mr. Fulcher, Mr. Foerst.

111. Advanced Photography. I; 2 cr. Practice in the reproduction of color values. Mr. Brown.

112. High and Low Temperature Measurements. I; 2 cr. Mr. Ingersoll.

113. Modern Optical Instruments. II; 1 cr. An advanced laboratory course, designed to follow courses 2 and 3, which are prerequisites, or to accompany course 117. Mr. Ingersoll.

114. Advanced Electrical and Magnetic Measurements. II; 2 cr. Prerequisites: course 4 or 54. Mr. Terry, Mr. Greenslade.

115. Radioactivity and Discharge Through Gases. I; 3 cr. Prerequisites: courses 2 and 3, or 4 and 5. Mr. Fulcher.

116. Introduction to the Theory of Electricity. I; 3 cr. The more important methods and concepts are treated mathematically. Mr. Mason.

117. Physical Optics. II; 3 cr. Special topics in physical optics. Mr. Mendenhall.

118. Elements of Theoretical Physics. Yr.; 3 hours. The potential function, the conduction of heat, and the kinetic theory of gases. Mr. Ingersoll.

120. Colloquium. Yr.; 2 cr. Mr. Mendenhall.

For Graduates

211. Advanced Dynamics. Yr.; 3 hours. The mechanics of rigid, fluid, and elastic bodies; wave motion; sound. Prerequisite: a course in analytical mechanics. (Omitted 1916-17.) Mr. Mason.

212. Applications of the Electron Theory. I; 2 hours. Mr. Mendenhall.

213. Statistical Mechanics. II; 2 hours. Mr. Mason.

214. Thermodynamics. Yr.; 3 hours. An advanced course with special application to problems of radiation. (Omitted 1916-17.) Mr. Mendenhall.

215. Theory of Electricity. Yr.; 3 hours. A mathematical treatment of the Maxwell theory and its later developments, based on the electron hypothesis. Mr. Mason.

216. The Electromagnetic Theory of Light. Yr.; 3 hours. Mr. Mendenhall.

217. Electron Theory. Yr.; 2 hours. Mr. Mason.

220. Graduate Research. Yr.; hours to be arranged. Mr. Mason, Mr. Mendenhall, Mr. Ingersoll.

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR EYSTER (chairman); ASSOCIATE PROFESSORS, BRADLEY, MEEK; ASSISTANT PROFESSOR DAWSON; ASSISTANTS HODGES, KERR, TAYLOR.

For Undergraduates

1. Elements of Physiology. I; 3 cr. Lectures, demonstrations, and recitations. Especially adapted to teachers of elementary physiology and hygiene. Required of sophomores in home economics (2 cr.); open to other students, who should have had some chemistry. Mr. Meek, Mr. Dawson, Mr. Hodges.

2. Elements of Physiology. I; 1 cr. Laboratory. Required of sophomores in home economics, open to others as an elective. Mr. Meek, Mr. Dawson, Mr. Hodges.

For Undergraduates and Graduates

104. Physiological Chemistry. I; 4 cr. Lectures, conferences, and laboratory. Required of juniors in medicine and open to others as an elective. Prerequisite: general and organic chemistry, physics, and biology. Mr. Bradley, Mr. Taylor.

114. Physiological Chemistry. I; 3 cr. Lectures, conferences, and laboratory. Required of juniors in physical education and open to others as an elective. Prerequisite: general and organic chemistry, physics, and biology. Mr. Bradley, Mr. Taylor.

105. Physiology. II; 9 cr. Lectures, recitations, demonstrations, and laboratory. Required of juniors in medicine and open to others as an elective. Prerequisite: comparative or human anatomy, histology, neurology, and physiological chemistry. Mr. Eyster, Mr. Meek, Mr. Dawson, Mr. Kerr.

115. Physiology. II; 7 cr. Lectures, recitations, demonstrations, and laboratory. Required of juniors in physical education and open to others as an elective. Prerequisites: comparative anatomy and physiological chemistry. Mr. Eyster, Mr. Meek, Mr. Dawson, Mr. Kerr.

116. Physiology of Exercise. I; 3 cr. Lectures and laboratory. Required of seniors in physical education; open to others as an elective. Prerequisite: Physiology 105 or 115. Mr. Eyster, Mr. Meek, Mr. Dawson.

117. Advanced Physiological Chemistry and Research. Yr.; credit according to work done. Mr. Bradley.

118. Advanced Physiology and Research. Yr.; credit according to work done. Mr. Eyster, Mr. Meek.

120. Journal Club. Yr.; 1 cr. Reports on recent physiological and biochemical literature. Mr. Eyster.

For Graduates

208. Advanced Laboratory Course in Physiology. Designed for teachers of animal physiology as well as for physicians and students of medicine who desire a wider experience in experimental physiology than can be gained in course 105. Mr. Eyster.

210. Advanced Laboratory Course in Physiological Chemistry. Corresponds to course 208.

POLITICAL ECONOMY

PROFESSORS COMMONS, ELY, GILLIN, GILMAN, HIBBARD, ROSS, SCOTT, TAYLOR, URDAHL (chairman); ASSOCIATE PROFESSORS BUTLER, ELWELL, HESS; ASSISTANT PROFESSORS KIEKHOEFER, KING, TRUMBOWER; LECTURER L. A. ANDERSON; INSTRUCTORS BRUMM, JEROME, SIMPSON; ASSISTANTS EBERLE, HANSEN, MCKAY.

Aims

The studies offered by the department are elective in all the colleges of the University. The graduate work of the department may lead to the master's degree in not less than one year, and to the doctor's degree in not less than three years.

The work of this department has the following distinct but related aims:

1. To provide instruction in economics and sociology for undergraduates in all the colleges of the University.
2. To provide advanced and graduate work in the studies falling within its field.
3. To assist and encourage the development of economic studies.
4. To provide special training for business pursuits.
5. With the cooperation of other departments to provide special training courses for various practical pursuits.
6. To supplement the work of the Law School.

Attention is here called to the fact that graduates who are pursuing the law course may prepare to take their master's degree at

the same time with the degree in law by completing the equivalent of two full studies during one year's work. Graduates of the Law School are encouraged to devote an additional year to broadening out their training in economics, politics, and jurisprudence.

Especial attention is called to the large number of related courses in philosophy and ethics and also to the considerable number of similar courses in journalism.

Political Economy as an Undergraduate Major

The requirements for an undergraduate major, in addition to the thesis, are twenty-four credits as a minimum, selected in part from the advanced courses.

Political Economy as a Graduate Major

Candidates for the degree of Doctor of Philosophy in this department are required to present in their principal subject the equivalent of at least two full graduate courses during two years; in their first subordinate the equivalent of at least one such course during two years; and in their second subordinate the equivalent of at least one such course during one year.

All such candidates will be expected to be familiar with the history of economic thought, the elements of statistics, and the principles of political economy as presented in advanced modern treatises.

Each candidate must have also made an intensive study of at least one of the following special fields: economic theory and institutions; sociology; labor; public finance; money and banking, and corporation and trust control; agricultural economics; transportation. In the special field or fields selected, the candidates will be expected to exhibit not only thorough knowledge of the literature, methods of study, the social bearings of the subjects included, but also ability to prosecute research.

Candidates for the master's degree must present in their principal subject the equivalent of at least two full graduate courses during one year, and in their subordinate subject the equivalent of at least one such course.

Political Economy as a Graduate Minor

For a minor, candidates whose major falls in another department may present either the general subjects required of all candidates with a major in economics, or any one of the special groups men-

tioned above. Candidates for the degree of Doctor of Philosophy may select their major and one of their minors in this department.

Prerequisites for Graduate Work

Ordinarily no student will be admitted to courses designated. "for graduates," unless he has had a satisfactory undergraduate course including at least one year's work in the principles of economics and the elementary work in the field covered by the graduate course.

For Undergraduates

1a. Elements of Economics. I or II; 4 cr. Repeated every semester. Mr. Urdahl, Mr. King, Mr. Jerome, Mr. Simpson, Mr. Hansen, Mr. McKay.

1b. Elements of Economics. II; 4 cr. Economic problems. Prerequisite: 3 cr. in elementary political economy. Mr. Urdahl, Mr. King, Mr. Jerome, Mr. Simpson, Mr. Hansen, Mr. McKay.

1C. Elements of Economics. I; 3 cr. For Commerce Course students. Mr. Kiekhoefer, Mr. Trumbower.

1Ag. Principles of Agricultural Economics. I; 5 cr. Mr. Hibbard, Mr. Taylor.

1E. Elements of Economics. II; 3 cr. For engineers. Mr. Trumbower.

2a. Social Evolution. I; 1 cr. May be taken by seniors for 2 cr. Illustrated. Mr. Ross.

2b. Social Problems. II; 3 cr. Contemporary questions relating to the family, the race, and the social order. Mr. Ross.

46. Social Origins. Yr.; 2 cr. The origin of man and his institutions. Mr. Gillin.

3. Elements of Public Finance. I; 3 cr. Prerequisite: 3 cr. in elementary political economy. Mr. Simpson.

5. The Elements of Money and Banking. I or II; 3 cr. Prerequisite: 3 cr. in elementary political economy. Mr. Scott and Mr. Trumbower.

7. Industry and Commerce of the U. S. I; 3 cr. Mr. Trumbower.

***8a, 8b. The Elements of Accounting.** Yr.; 2 cr. Mr. Elwell and staff.

*In the College of Letters and Science these courses may not be counted as a part of the 120 credits required for graduation, except by students in the Course in Commerce.

*11. **Factory and Office Administration.** I; 2 cr. Plant location and structure, and the organization and management of industrial forces. Prerequisite: junior standing. Mr. Butler.

*12. **Buying and Credits.** II; 2 cr. Prerequisite: Political Economy 11. Mr. Butler.

*13. **Marketing Methods.** I; 2 cr. Distribution of manufactured goods, with especial attention to problems involved in relations of manufacturers, middlemen, and consumers. Prerequisite: junior standing. Mr. Butler.

*14. **Sales Administration.** II; 2 cr. Organization of sales departments and technique of selling. Prerequisite: Political Economy. 13. Mr. Butler.

15. **Retail Advertising. I; 2 cr. Prerequisite: Philosophy 119 and English 4. Mr. Butler.

*16. **General Advertising.** II; 2 cr. Analysis and construction of typical manufacturers' advertising campaigns. Prerequisites: Political Economy 13 and 15. Mr. Butler.

30. **Commercial Statistics.** II; 3 cr. Laboratory course in those parts of statistical method most useful to the business man. Course 130 designed for needs of independent investigator or statistician. Prerequisite: 3 cr. in elementary political economy. Mr. King, Mr. Hansen.

For Undergraduates and Graduates

181. **The Theory and Practice of Accounting.** I; 2 cr. Prerequisite: Political Economy 8a, 8b. Mr. Elwell and staff.

182. **Cost Accounting.** II; 2 cr. Prerequisite: Political Economy 181. Mr. Elwell and staff.

183. **Advanced Accounting Problems.** I; 2 cr. Prerequisite: Political Economy 181. Mr. Elwell.

184. **Auditing.** Yr.; 2 cr. Prerequisite: Political Economy 181. Mr. Elwell.

185. **Analysis of Financial Reports.** Yr.; 1 cr. Prerequisites: 3 cr. in elementary political economy, Political Economy 8a, 8b, 181, senior standing, and consent of instructor. Mr. Gilman.

109a. **Commercial Law—(Elements).** I; 4 cr. Prerequisites: senior standing or consent of instructor. Mr. Gilman.

**In the College of Letters and Science this course may not be counted as a part of the 120 credits required for graduation, except by students in the Course in Commerce and the Course in Journalism.

*In the College of Letters and Science, these courses may not be counted as a part of the 120 credits required for graduation, except by students in the Course in Commerce.

109b. Commercial Law—(Corporations). II; 4 cr. Prerequisite: Political Economy 109a. Mr. Gilman.

110. Investments. II; 2 cr. Prerequisites: 3 cr. in elementary political economy, Political Economy 8a, 8b, and 181 or equivalents, senior standing, and consent of instructor. Mr. Gilman.

120. Industrial Evolution and Modern Economic Problems. II; 2 cr. Prerequisite: 3 cr. in elementary political economy or senior standing. Mr. Kiekhoefer.

123a. Labor Problems. I; 3 cr. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1916-17.) Mr. Commons.

123b. Labor Legislation and Administration. I; 3 cr. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1916-17). Mr. Commons.

124. Taxation. II; 3 cr. A study of the general principles of taxation and of tariff, internal revenue, general property, corporation, income, and inheritance taxes in the United States. Prerequisite: 3 cr. in elementary political economy. Mr. Simpson.

125. International Commercial Policies. II; 2 cr. Theory of protection and free trade; tariff history of the United States; ship subsidies; commercial treaties. Prerequisite: 3 cr. in elementary political economy. Mr. Trumbower.

127. Economic History of Agriculture. II; 2 cr. Prerequisite: 3 cr. in elementary political economy. Mr. Hibbard.

128. Cooperation and Marketing. II; 3 cr. Prerequisite: 3 cr. in elementary political economy. Mr. Hibbard.

130. Elementary Statistics. Yr.; 4 cr., by permission, 3 cr. Laboratory course in method, followed by lectures and research in economic statistics. Adapted to needs of statisticians and investigators in all fields. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. Mr. King, Mr. Hansen.

131. Prices and Cost of Living. I; 2 cr. Price movements and contributing causes. The effects of price changes upon social and economic conditions. Prerequisite: 3 cr. in elementary political economy. Mr. Hess.

190. Teachers Course. II; 2 cr. Mr. Urdahl.

133. Financial History of the United States. II; 3 cr. Prerequisite: Political Economy 5. Mr. Scott.

134a. The Money Market. II; 3 cr. Operation of the financial machinery of the United States, England, France, and Ger-

many, including currency movements and fluctuations in discount and exchange rates. Prerequisite: Political Economy 5. (Omitted 1916-17.) Mr. Scott.

135. Railway Transportation. I or II; 3 cr. Prerequisite: 3 cr. in elementary political economy. Mr. Hess, Mr. Eberle.

136. Railway Rate and Traffic Problems. I or II; 3 cr. Prerequisite: Political Economy 135, or Political Economy 142a. Mr. Hess, Mr. Eberle.

137. Corporation Finance. I; 3 cr. A study of corporations, corporate securities, and methods of the stock market. Prerequisite: 3 cr. in elementary political economy. Mr. Urdahl.

138. Insurance Economics. II; 3 cr. This course should precede Mathematics 124. Prerequisite: 3 cr. in elementary political economy. Mr. Anderson.

139. Social Psychology. I; 3 cr. The social mind and its reaction upon the individual mind. The laws of mob-mind, craze, fashion, conventionality, custom, public opinion, leadership, and innovation. Prerequisite: junior standing. Mr. Ross, Mr. Kiekhoefer.

140. General Sociology. II; 4 cr. Growth and shifting of population; genesis and life history of groups; social processes and products; ultimate tests of social policies. Prerequisite: 3 cr. in elementary political economy or senior standing. Mr. Ross, Mr. Kiekhoefer.

141. Poverty and Relief. I; 3 cr. Extent, causes, and social treatment of poverty and allied problems. Prerequisite: 3 cr. in elementary political economy or senior standing. (Omitted 1916-17.) Mr. Gillin.

141a. Criminology and Penology. I; 3 cr. Extent and causes of crime; theory of punishment; treatment and prevention of crime. Prerequisite: 3 cr. in elementary political economy or junior standing. Mr. Gillin.

142a. Public Utilities. II; 2 cr. Economic and legal aspects of public service enterprise. Emphasis upon municipal utilities. Prerequisite: 3 cr. in elementary political economy. Mr. Hess, Mr. Eberle.

142b. Public Utilities. I; 2 cr. Contemporary problems of regulation. Emphasis upon valuation and sphere of public authority. Prerequisite: Political Economy 142a or 135. Mr. Hess, Mr. Dudgeon, Mr. Eberle.

143. Research in Public Utilities. Yr.; 2 cr. Personally directed study of special utility and transportation problems. For

graduate research students and senior thesis students. Prerequisites: Political Economy 135 and 136; or 142a and 142b or equivalents. Mr. Hess.

145a. Labor History and Socialism Prior to 1860. II; 3 cr. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. Mr. Commons.

145b. Labor History and Socialism Since 1860. II; 3 cr. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1916-17.) Mr. Commons.

147. Methods of Social Service. II; 2 cr. A course for those looking forward to social work. Prerequisites: senior standing, 3 cr. in elementary political economy and Political Economy 141 or equivalent. (Omitted 1916-17.) Mr. Gillin.

150. Senior Seminary. Yr.; 2 cr. Prerequisites: Political Economy 133 and 134a and senior standing. Mr. Scott.

154a. Trust Movements. I; 3 cr. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1915-16.) Mr. Urdahl.

154b. Trust Control. 3 cr. This course alternates with course 154a. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. Mr. Urdahl.

For Graduates

238. Seminary in Insurance. Yr.; 2 hours. Open to graduates and seniors who are writing theses on insurance. Prerequisite: 3 cr. in elementary political economy. Mr. Anderson.

240. Industrial Insurance. Yr.; 2 hours. (Omitted 1916-17.) Mr. Anderson.

251a. The Classical Economists. I; 3 hours. Economic environment and doctrines of the mercantilists, physiocrats, Adam Smith, David Ricardo, and John Stuart Mill. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. Mr. Scott.

251b. Critics of the Classical Economists. I; 3 hours. Economic environment and doctrines of the nationalists, the older historical school, the optimists, and the scientific socialists. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1916-17.) Mr. Scott.

251c. The Austrian School and Recent Developments. I; 3 hours. Prerequisites: 3 cr. in elementary political economy and Political Economy 1b or equivalent. (Omitted 1916-17.) Mr. Scott.

252a. Distribution of Wealth. II; 3 hours. Property and contract; vested rights and personal conditions. (Omitted 1916-17.) Mr. Ely.

252b. Distribution of Wealth. II; 3 hours. Custom and competition. (Omitted 1916-17.) Mr. Ely.

252c. Distribution of Wealth. II; 3 hours. Monopolies and trusts. A course intended to lay a foundation for the complete study of "big business." (Omitted 1916-17.) Mr. Ely.

252d. Distribution of Wealth. Yr.; 2 hours. Land problems. Research course. Mr. Ely, Mr. Taylor.

252e. Distribution of Wealth. II; 3 hours. Land property and the rent of land. Mr. Ely.

255. American Public Finance, Part I. II; 2 hours. The finances of the federal government. (Omitted 1916-17.)

256. American Public Finance, Part II. II; 2 hours. The finances of the American commonwealths and local political units. (Omitted 1916-17.)

257. Principles of Taxation. Yr.; 2 hours. Prerequisite: training in public finance. Mr. Urdahl, Mr. Simpson.

258. Degeneracy and Society. II; 2 hours. Extent and cost of degeneracy and its bearing on social problems; causes and social treatment. Mr. Gillin.

260. Seminary on the Demography and Sociology of Cities. I; 2 hours. (Omitted 1916-17.) Mr. Ross.

261. Research Seminary. II; 2 hours. The field of investigation selected for 1917 is The Relative Shares of the Sexes in the Shaping of our Inherited Culture. Mr. Ross.

262. Seminary on the American Family. I; 2 hours. (Omitted 1916-17.) Mr. Ross.

263. Seminary on the Dynamics of Population. I; 2 hours. Factors affecting the quantity and quality of population. Natural, social, and artificial selection. Outlines of eugenics. Mr. Ross.

264a. Value and Valuation. Legal theories. Yr.; 2 hours. (Omitted first semester, 1916-17.) Mr. Commons.

264b. Value and Valuation. Economic theories. Yr.; 2 hours. (Omitted 1916-17.) Mr. Commons.

264c. Value and Valuation. Administration. Yr.; 2 hours. (Omitted 1916-17.) Mr. Commons.

265. Seminary in Labor and Industry. Yr.; 2 hours. Mr. Commons.

266. General Economic Seminary. Yr.; 2 hours. Prerequisite: one year of graduate work. Mr. Ely, and staff.

267. Round Table in Economic Theory. Yr.; 2 hours. Prerequisite: one year of graduate work. Mr. Ely.

270. Economic Conference. No credit.

POLITICAL SCIENCE

Emeritus PROFESSOR PARKINSON; ASSOCIATE PROFESSORS HALL, LLOYD JONES (chairman), OGG; ASSISTANT PROFESSOR HORNBECK; LECTURERS DUDGEON, MCCARTHY, MACGREGOR; INSTRUCTOR CARPENTER; ASSISTANTS ARNESON, MCKINLEY, PARK. FELLOW, MR. QUIGLEY.

The work in the Department of Political Science is designed to give a scientific account of the varied activities of the state, and of the methods of determining state action through the electorate and legislative bodies. Some of the courses are designed primarily to give an understanding of public affairs, and of the rights and duties of citizenship, such as should be comprehended in any liberal education; others are planned to involve more specialized study of methods and problems in the different branches of administration, legislation, and judicial procedure. A number of the courses have practical ends directly in view, in that they aim to provide training in technique or method in certain fields of political action. It is the aim of the department to provide the broadest inductive basis, to train the powers of observation and reason, to develop correct methods of research, and to bring to bear upon the solution of practical problems in the life of the commonwealth and nation the information and facility thus acquired. A principal purpose is to afford equipment for the various branches of public service. A series of courses is arranged with reference to the needs of pre-legal students.

Candidates for the degree of Doctor of Philosophy who are taking their major in the department will be expected to be familiar with the entire field of political science, as treated in the general courses. They, moreover, should have an intensive knowledge of two of the following general divisions of the subject: public administration, international and constitutional law, dynamic politics, political philosophy, jurisprudence. Every candidate should be thoroughly familiar with American state and federal government, and with the

organization and workings of the principal governments of Europe. Graduates taking political science as a first minor complete a minimum of six semester courses; for second minor, three semester courses.

The courses primarily for undergraduates are open for election in the sophomore and junior and senior years. Courses 1, 2, 7, and 29 may be taken only for undergraduate credit. Course 7 is repeated each semester and must be taken either precedent to, or along with, any of the following more specialized courses in American government, politics, and law: 112, 29, 108, 111, 13, 114, 116, 117, 122, 126, 127, 130. The minimum requirement for an undergraduate major in political science, in addition to the thesis, is twenty-one semester hours.

For Undergraduates

1. General Political Science. I or II; 3 cr. An introductory course in comparative and historical politics. Mr. Hornbeck.

2. Elementary Law. I; 3 cr. A general elective, recommended especially to pre-legal students and others interested in the legal phases of social science. Mr. Hall.

7. Government and Politics in the United States. I or II; 4 cr. An introductory course for beginning students of political science. Prerequisite for certain courses as indicated above. Mr. Hall, Mr. Carpenter and staff.

13. Municipal Government. II; 3 cr. A general course covering European and American aspects of the subject. Mr. Ogg.

19. Contemporary International Politics. 1 cr. May be elected in successive years. Mr. Lloyd Jones, Mr. Hornbeck.

23. American Foreign Service. I; 2 cr. Mr. Lloyd Jones.

25. The Law of the Press. II; 2 cr. Mr. Carpenter.

29. Teachers Course. II; 2 cr. (Omitted 1915-16.)

32. Contemporary Political Topics. II; 2 cr. Designed for students preparing for journalism. Mr. Carpenter.

For Undergraduates and Graduates

108. Administrative Problems. II; 2 cr. (Omitted 1915-16.)

109. Roman Law. I; 3 cr. A knowledge of Latin is not required. Mr. Carpenter.

110. History of English and American Law. II; 2 cr.

111. Jurisprudence. II; 3 cr. Open to students who have had an elementary course in law. Mr. Hall.

112. American Constitutional Law. II; 3 cr. Mr. Hall.

114. Municipal Functions. II; 2 cr. A comparative study of the leading activities of European and American cities. Lectures, with lantern slides. Mr. MacGregor.

115. Municipal Problems. II; 2 cr. An advanced course, the questions studied varying from year to year. Mr. Ogg.

116. State Administration. II; 3 cr. Includes a brief survey of local government in the United States. Mr. Ogg.

117. Federal Administration. I; 3 cr. Mr. Ogg.

118. International Law. I; 3 cr. A general survey of the legal relations between states in times of peace and of war. Mr. Hornbeck.

120. Oriental Politics and Civilization. II; 3 cr. The relations of the Occidental powers to China and Japan; the principal factors in the social and political life of Japan, China, and India. Mr. Hornbeck.

121. Colonial Politics. II; 3 cr. An historical and comparative survey. Mr. Ogg.

122. American Party Government. I; 3 cr. Mr. Lloyd Jones.

124. British Self-governing Colonies. I; 3 cr. Mr. Carpenter.

126. The Theory and Practice of Legislation. Yr.; 2 cr. A study of the methods of procedure of legislative bodies and the preparation of the subject matter and form of bills. Mr. Lloyd Jones.

127. European Governments. I; 3 cr. Includes a survey of political parties and of recent political questions. Mr. Ogg.

130. Judicial Administration. I; 2 cr. (Omitted 1915-16.) Mr. Hall.

131. Latin-American Political Institutions. II; 2 cr. A comparative study of the constitutional and administrative systems of the Latin-American Republics. Mr. Carpenter.

136. American Diplomacy. II; 3 cr. A study of the principal contemporary problems of the United States in foreign affairs: the participation of the United States in the development of International Law. Mr. Lloyd Jones.

137. Modern Internationalism. II; 2 cr. The causes of war and the means of preserving peace; world organization through international law, international arbitration, and international administration; projects of world federation; international economic and social solidarity; nationalism and cosmopolitanism. (Omitted 1915-16.) Mr. Hornbeck.

138. Contemporary International Relations. II; 2 cr. Mr. Hornbeck, Mr. Lloyd Jones.

142. Public Utilities. Yr.; 2 cr. A comparison of public regulation and public and private ownership of municipal utilities in American states and foreign countries. Mr. Dudgeon, Mr. Hess.

144. The Legal and Political Status of Women. II; 2 cr. (Omitted 1915-16.)

145. History of Political Thought. I; 3 cr. (Omitted 1915-16.) Mr. Ogg.

For Graduates

201. Administrative Law I. I; 2 hours. Officers and elections. A study of the legal nature of public office. Prerequisite: courses 7, 112. (Omitted 1915-16.) Mr. Hall.

202. Administrative Law II. The special law governing administrative authority affecting private rights. Prerequisite: courses 7, 112. (Omitted 1915-16.) Mr. Hall.

203. Administrative Law III. I; 2 hours. The law of taxation. Goodnow's Cases. Prerequisite: courses 7, 112. Mr. Hall.

204. Administrative Law IV. II; 2 hours. Municipal corporations. Beale's Cases. Prerequisite: courses 7, 112. Mr. Hall.

218. International Law as Administered by the Courts. II; 2 hours. A study of international law cases. Mr. Hornbeck.

252. Seminary in Comparative Legislation. Yr.; 2 hours; may be elected by semesters. Prerequisite: courses 7, 112. Mr. Lloyd Jones.

256. Philosophy of the State. II; 2 hours. A critical study of contemporary political thought and terminology. (Omitted 1915-16.) Mr. Hornbeck.

257. Readings in Roman Law Texts. II; 2 hours. The Institutes of Gaius, first two books; reading and commentary. Prerequisite: course 109. (Omitted 1915-16.)

258. Seminary in Administration. II; 2 hours. Prerequisite: courses 116, 117. Mr. Ogg.

259. Seminary in Municipal Problems. I; 2 hours. Prerequisite: course 13. Mr. Ogg.

260. Seminary in International Law and Politics. Yr.; 2 hours. (Omitted 1915-16.) Mr. Hornbeck.

261. Seminary in American Constitutional Law. II; 2 hours. Prerequisite: courses 7, 112. Mr. Hall.

For information concerning groups of studies arranged as special training courses students are invited to consult or correspond with the chairman or the individual professors of the Department of Political Science.

PUBLIC SPEAKING

PROFESSOR O'NEILL (chairman); ASSISTANT PROFESSORS BLANTON, JOHNSON; INSTRUCTOR HOUGHTON; ASSISTANTS MATTHEWS, TANNER, BALLARD.

The courses in public speaking are designed to give preparation in three general lines of work: (a) in argumentation and debate, and the composition and delivery of all kinds of public speeches, (b) in interpretative reading, and dramatic presentation, (c) in voice training and the correction of speech defects. The courses are so arranged as to make possible systematic and progressive study during the sophomore, junior, and senior years. No courses in public speaking are open to freshmen.

Attention is called to the system of prerequisites in this department. Four courses only are open to beginners—3a, 12a, 15, and 21.

The University of Wisconsin participates in several intercollegiate contests in oratory and debate, and further opportunity for practice outside of regular courses is to be found in local student activities in drama, oratory, and debate. Students interested in these activities should take the following courses in preparation: for dramatic work, 12, 16, 17; for oratory 15, 5a, 5b, 13; for debate 3a, 11, 15, 8.

Courses 3a, 3b, 5a, 5b, and 11 may be counted toward the English major. Not more than 16 hours of public speaking may be counted toward the bachelor's degree, except as permitted by the provisions of the teaching major. Courses 3a and 3b, listed also as courses in English, are part of the work of this department.

A major can be obtained in public speaking only as permitted by the provisions of the teaching major. A minor in public speaking is sixteen credits in selected courses approved by the chairman of the department.

A teaching major in public speaking may be obtained under the following conditions:

1. It is open only to candidates for the B. A. degree and the University Teachers Certificate who are intending to become

teachers of public speaking, and who are definitely accepted by this department as satisfactory candidates for this major.

2. The department requirement is not less than 20 nor more than 24 credits in public speaking, excluding thesis and departmental teachers courses.

For Undergraduates

COMPOSITION COURSES

3a. Argumentation. I; 3 cr. Lectures, text book, practice exercises. Open to all students except freshmen. Mr. O'Neill.

3b. Argumentative Addresses. II; 2 cr. Continuation of 3a. Written argument. Prerequisite: course 3a. Mr. O'Neill.

5a. The Composition of Public Addresses. I; 2 cr. Text books, models, writing of original speeches of various types. Prerequisites: courses 3b or 11, or one year in English composition after freshman year. Mr. O'Neill.

5b. Advanced Composition and the History of Oratory. II; 2 cr. Practice in the preparation of formal platform lectures, eulogies, commemorative addresses, etc., based on a survey of the history of oratory. Prerequisite: course 5a. Mr. O'Neill.

COURSES INCLUDING DELIVERY

15. Practical Public Speaking. I; 2 cr. Text book, daily practice in speaking. Attention to voice, pronunciation, gesture, general effectiveness. Open to all students except freshmen. Mr. Houghton.

8. Extempore Speaking. II; 2 cr. Preparation and delivery. Prerequisite: course 15. Mr. Houghton.

11. Debating. II; 2 cr. Continuation of 3a. Oral argument. Practical work in analysis, evidence, brief drawing, and debating. Prerequisite: course 3a. Mr. O'Neill.

13. Formal Oratory. I; 2 cr. Open only to those who receive the previous assent of the instructor. Prerequisite: course 8 or 11 or 5a. Mr. O'Neill.

INTERPRETATION

12a. Fundamentals of Vocal Expression. I; 3 cr. Theory and practice. Essentials of voice, and coordination of mind, voice, and body. Recommended to those intending to teach literature and reading. Open to all students except freshmen. Miss Johnson.

12b. Continuation of 12a. II; 3 cr. Prerequisite: course 12a. Miss Johnson.

16a. Interpretative Reading. I; 2 cr. Review of 12a and 12b. Study and presentation of various forms of standard literature. Prerequisite: course 12b, or permission of instructor. Miss Johnson.

16b. Continuation of 16a. II; 2 cr. Prerequisite: course 16a. Miss Johnson.

17. Dramatic Personation. II; 2 cr. Designed for those who show marked dramatic ability, and who wish to specialize in dramatic platform work. Prerequisite: course 16b and permission of instructor. Miss Johnson.

VOICE TRAINING AND CORRECTION OF SPEECH DEFECTS

21. Voice Training and Phonetics. II; 2 cr. Designed for teachers, especially those majoring in public speaking or English. Open to others by permission of the instructor. Mr. Blanton.

25. Correction of Speech Defects. II; 2 cr. Training in diagnosis and correction of such disorders of speech as occur in school children. Prerequisite: course 21. Mr. Blanton.

Speech Clinic. Throughout the University year. Free to all students. Expert guidance and assistance in the eradication of voice and speech defects of all kinds. Open fifteen to eighteen hours a week, so arranged as to make it possible for any student to get whatever treatment is needed. Mr. Blanton.

For Undergraduates and Graduates

118a. Teachers Problems in Reading and Dramatics. I; 2 cr. Open only to graduates and undergraduate majors and minors in public speaking in their senior year. Miss Johnson.

118b. Teachers Problems in Speech-making and Debate. II; 2 cr. Open only to graduates and undergraduate majors and minors in public speaking in their senior year. Mr. O'Neill.

125. Correction in Speech Defects. II; 3 cr. Mr. Blanton.

For Graduates

201. Seminary in Voice and Speech. Yr.; 2 hours. Mr. Blanton.

205. Seminary in Rhetoric and Oratory. Yr.; 2 hours. Mr. O'Neill.

ROMANCE LANGUAGES

Emeritus Professor Owen; Professor Smith (chairman); Associate Professors Cerf, Giese; Assistant Professors Cool, Gay, Michell, Miller, Reed, Schlatter, Zdanowicz; Instructors Cousins, Ernst, Galland, Greenleaf, Lebert, Lyon, Silvercruys; Assistants Bradley, Cantu, Greenleaf, Kinne, Plunkett, Wallace.

Fellow, Miss Conrad.

Scholar, Mr. Millner.

French courses numbered below 10 are for students who have had no French, or who have had less than two years in the high school. Students with only one year of high school French, or its equivalent, should enter course 1.

Courses 10-18 are for students who have had one year of college French, or two years of high school French. Students who have had more than two years of high school French should consult with the department concerning the course to enter.

All courses above 19 require at least French 10, or an equivalent course as prerequisite. Students entering these courses with the minimum prerequisite are advised to begin, if possible, with 21, 23, 37, or 39. For such students, other suitable courses which may be taken in addition to the above, or alone, are 20, 124, 126, and 127.

Students with the minimum prerequisite should consult the instructor before entering 122, 128, 131, 132, or 136. These are intended primarily for students who have already taken one course above French 19.

Graduates who take 21, 23, 37 or 39 are required to do additional work to receive full credit.

All courses in the 200 group are for graduates, but some may be taken by unusually well prepared undergraduates.

Courses marked C and E are intended for commerce and engineering students. Similar courses are given for students of the College of Letters and Science, who will not be allowed to take

commerce and engineering courses except by special permission of the chairman of the department.

The insertion of CL. after a course number indicates that the course belongs also to Comparative Literature.

Major and Minor

Students are allowed to major in French, Spanish, or Italian, or in a combination of these subjects. In French the student must take at least twenty-four credits in advance of first-year French; in Spanish twenty-two credits in advance of first-year Spanish.

Students desiring to major in Italian, or in a combination of the Romance languages, should consult the department for complete details. In combining these languages the first and second year courses of more than one will not count toward the major, nor are they counted in the maximum forty hours allowed in one subject.

For the requirements for the teachers major and minor in Romance Languages see p. 257.

FRENCH

I. LANGUAGE

For Undergraduates

1a. Beginning French. I or II; 4 cr. Mr. Cerf and staff, Mr. Zdanowicz and staff.

1b. Second Semester French. I or II; 4 cr. Prerequisite: one semester of college French or its equivalent. Mr. Cerf and staff; Mr. Zdanowicz and staff.

2. Elementary French. Yr.; 4 cr. For students who have had four years of Latin or German. Miss Gay.

10. Second Year French. Yr.; 3 cr. Prerequisite: one year of college or two years of high school French. Mr. Zdanowicz and staff.

To secure four or five credits French 10 should be combined with French 13, 14, 15, or 16.

11. Second Year French. Yr.; 3 cr. Especially devoted to translation from French into English. Mr. Kinne.

12. Third Semester French. II; 4 cr. Prerequisite: French 1b. Mr. Zdanowicz and staff.

13. Rapid Sight-reading. Yr.; 1 cr. Except by special permission to be taken only with some other French course. Miss Gay, Mr. Cousins.

14. French Composition. Yr.; 1 cr. Supplementary to French 10 or 11; and except by special permission, to be taken only with some other French course. Mr. Cerf.

15. French Conversation. Yr.; 1 cr. Except by special permission, to be taken only with some other French course. Mr. Cerf and staff.

16. Conversation and Reading. Yr.; 1 or 2 cr. Prerequisite: French 15 or its equivalent. Mr. Silvercruys.

18. French Journalism. Yr.; 1 cr. in French and 1 cr. in Journalism. For students in Course in Journalism who have had French 1a and 1b or its equivalent. Mr. Ernst.

20. Advanced Reading. Yr.; 2 cr. Continuation of French 11. Mr. Schlatter.

90a. Teachers Course. I; 2 cr. Methods. French pronunciation. Elementary phonetics with special attention to needs of teachers. Mr. Cerf.

90b. Theory and Practice of Teaching of French and Spanish. II; 2 cr. Miss Gay.

6C. Elementary French. Yr.; 4 cr. For students in commerce. Mr. Cousins.

17C. Second Year French. Yr.; 3 cr. For students in commerce. Mr. Cousins.

29C. Third Year French. Yr.; 2 cr. For students in commerce. Mr. Cousins.

30C. Fourth Year French. Yr.; 2 cr. For students in commerce. Mr. Cousins.

For Undergraduates and Graduates

124. Advanced Composition. Yr.; 2 cr. Conducted in French. Based on nineteenth century prose authors. Miss Gay.

127. Advanced Conversation. Yr.; 1 cr. Open to students who have had two or more years of French, upon consultation with instructor. Mr. Silvercruys.

II. LITERATURE

For Undergraduates

21. Elementary Survey. Yr.; 3 cr. Seventeenth, eighteenth, and nineteenth centuries. Class reading and lectures. Mr. Giese, Mr. Michell.

23. Modern French Drama. Yr.; 3 cr. Beginning with the Romantic movement. Class reading and lectures. Mr. Smith.

37. Molière. I; 3 cr. Mr. Zdanowicz.

39. French Drama of the Seventeenth Century. I; 3 cr. (Omitted 1916-17.) Mr. Zdanowicz.

50CL. Masterpieces of Romance Literature in Translation. Yr.; 2 cr. Mr. Cerf. See Comparative Literature 50.

For Undergraduates and Graduates

122. French Literature of the Nineteenth Century. Yr.; 2 cr. Conducted mainly in French. Mr. Giese.

125. Contemporary French Literature. Yr.; 3 cr. First semester, novel and short story; second semester, the drama. Conducted in French. (Omitted 1916-17.) Mr. Ernst.

126. French Poetry. II; 3 cr. From the sixteenth century to the present day. Follows French 133. Conducted in French. Mr. Silvercruys.

128. French Prose Writers of the Seventeenth Century. I; 3 cr. Mr. Cerf.

131. General Survey of French Literature. Yr.; 3 cr. Mr. Reed.

132. French Literature of the Eighteenth Century. II; 3 cr. Mr. Cerf.

133. Victor Hugo. I; 3 cr. Dramas, novels, poems. Followed by French 126. Conducted in French. Mr. Ernst.

136. The French Novel. Yr.; 2 cr. Mr. Giese.

100. Thesis Course. Yr.; 2 cr. Open only to seniors and graduates. Mr. Giese.

For Graduates

I. LANGUAGE

240. Old French. Yr.; 2 hours. An introductory course. Mr. Schlatter.

244. Old Provençal. Yr.; 2 hours. Language and literature of the troubadours. (Omitted 1916-17.) Mr. Reed.

249. Chretien de Troyes. Yr.; 2 hours. Prerequisite: French 240 or its equivalent. Miss Gay.

II. LITERATURE

242. Old French Epic Poetry. Yr.; 2 hours. (Omitted 1916-17.) Mr. Smith.

243. Seminar in Old French Literature. Yr.; 2 hours. A general survey of the Brittany Cycle; *Tristan*, Marie de France, and the Arthurian Romances, including only cursory treatment of Chrétien de Troyes. (Omitted 1916-17.) Mr. Smith.

247. French Literature from Froissart to Rabelais. Yr.; 2 hours. Miss Gay.

248CL. Medieval Literature. Yr.; 2 hours. Beginnings of the influence of the French and Provençal literatures. Mr. Reed.

250CL. The Renaissance in Romance Countries. Yr.; 2 hours. (Omitted 1916-17.) Mr. Cerf. See Comparative Literature 250.

252CL. Seminar in Ancient French Drama. Yr.; 2 hours. Religious and secular drama from the origins to the middle of the sixteenth century. Mr. Smith.

253. Seminar in French Literature. Yr.; 2 hours. Classicism. (Omitted 1916-17.) Mr. Giese.

254. Seminar in French Literature. Yr.; 2 hours. Romanticism. Mr. Cerf.

ITALIAN

I. LANGUAGE

For Undergraduates and Graduates

1. Elementary Italian. Yr.; 3 cr. Mr. Schlatter.

105. Italian Conversation. Yr.; 2 cr. Open to students who have had some work in Italian. Mr. Schlatter.

II. LITERATURE

For Undergraduates and Graduates

102. Italian Literature. Yr.; 3 cr. Mr. Schlatter.

160. Dante. Yr.; 3 cr. The *Divine Comedy*. (Omitted 1916-17.) Mr. Schlatter.

PORTUGUESE

271. Portuguese Language and Literature. II; 2 hours. (Omitted 1916-17.) Mr. Reed.

SPANISH

First and second semester courses in Spanish are numbered below 10. The prerequisite for courses 3-20 is one year of college Spanish or its equivalent. For courses above 20 the prerequisite is two years unless otherwise stated in the course.

Students majoring in Spanish may count commerce courses toward the major only where permission has been given to take such courses.

The teachers course in French (French 90b) is accepted for the Spanish major, separate review, observation, and practice work being required.

I. LANGUAGE

For Undergraduates

1a. Beginning Spanish. I or II; 4 cr. Mr. Cool and staff.

1b. Second Semester Spanish. I or II; 4 cr. Mr. Cool and staff.

10. Third Semester Spanish. II; 4 cr. Prerequisite: Spanish 1b or its equivalent. Mr. Reed.

3. Modern Spanish. Yr.; 3 cr. Prerequisite: Spanish 1b or its equivalent. Mr. Cool.

15. Elementary Conversation. Yr.; 1 cr. Supplementary to Spanish 3 or 6C. To be taken only in connection with some other Spanish course, except by consent of the instructor. Mr. Lyon.

16. Composition and Conversation. Yr.; 2 cr. To be taken only in connection with some other Spanish course, except by consent of the instructor. Mr. Lyon.

11. Latin-American Countries. Yr.; 2 cr. An information and language course conducted in Spanish. Prerequisite: Spanish 3 or 6C or equivalent. Mr. Cool.

2EC. Elementary Spanish. Yr.; 4 cr. For students in commerce and engineering. Mr. Cool and staff.

6C. Second Year Commerce. Yr.; 4 cr. Open to other than commerce students only by special permission. Mr. Cool and staff.

7C. Third Year Commerce. Yr.; 2 cr. Mr. Cool.

8C. Fourth Year Commerce. Yr.; 2 cr. Mr. Cool.

II. LITERATURE

For Undergraduates and Graduates

104. Don Quijote. Yr.; 3 cr. Prerequisite: two years of Spanish, except by permission of the instructor. Mr. Reed.

105. Nineteenth Century Spanish. Yr.; 2 cr. Prerequisite: Spanish 3 or 6C or equivalent. Mr. Cool.

For Graduates

270. General Survey. Yr.; 2 hours. From the origins to the death of Calderón. Mr. Reed.

VULGAR LATIN

272. Origins of the Lingua Vulgaris. Yr.; 2 hours. Mr. Reed.

273. Romance Philology. Yr.; 2 hours. The differentiation of the *Lingua Vulgaris* into Spanish, Provençal, and Italian. (Omitted 1916-17.) Mr. Reed.

SCANDINAVIAN LANGUAGES

Professor Olson (chairman); Instructor Hollander.

This department offers instruction in all of the Scandinavian languages (Norwegian, Danish, Swedish, and Old Norse.) From one year's instruction in Modern Norse the student is expected to be able to read both Norwegian and Danish authors. The principal courses are devoted mainly to Norwegian authors, but additional instruction in Danish and Swedish literature is offered to students desiring to pursue these branches beyond the limits of the prescribed courses.

(See Index under Required Studies for linguistic credit.)

For Undergraduates

1. Beginners' Norse. Yr.; 3 cr. Olson's *Norwegian Grammar and Reader*, Björnson's stories; selections from Rolfsen's *Boken om Norge* and Hagene's *Sange*.

2. Modern Norse. Yr.; 3 cr. Review of grammar, Holvik's *Second Book in Norse*, Dorrum's *Jonas Lie; Stories and Poems*, and

Haereid's *Norges Historie*. For students having a speaking knowledge of the language.

21. Composition and Conversation. Yr.; 2 cr. Selections from *Boken om Norge;* Aars and Hofgaard's *Retskrivnings-regler.*

3. Dramas and Novels. Yr.; 2 cr. Ibsen's *Samfundets Stötter, Et Dukkehjem* and *Kongsemnerne;* Kielland's *Skipper Worse;* Lie's *Den Fremsynte.* Selection from Björnson, Lie, and Aanrud.

4. Ibsen's Brand and Peer Gynt. Yr.; 2 cr.

5. History of Dano-Norwegian Literature. Yr.; 2 cr. Broch and Seip's *Norsk Litteraturhistorie* and Prestgard's *Norske Kvad.*

60. Swedish. Yr.; 2 cr. Elmquist's *Swedish Grammar,* Selma Lagerlöf's *En herregardssägen* and *Nils Holgerssons underbara resa* (Elmquist ed.) and *Valda Berättelser* (Mauritzon ed.).

61. Swedish Literature. Yr.; 2 cr. Tegner's *Frithiofs Saga,* Runeberg's *Fänrik Stals Sägner,* Warburg's *Svensk Litteratur historia.* Selma Lagerlöf's *Gösta Berlings Saga* or *Jerusalem* are assigned for outside reading. Designed primarily for students who read Modern Norse.

70. Norse Mythology and the Volsunga Saga. I; 1 cr. Lectures; including the relations to the *Niebelungenlied* and Wagner's *Ring des Nibelungen.*

71. Early Scandinavian Literature and Life. I; 1 cr. Lectures, with readings in translation.

Courses 70 and 71 are given in alternate years; the former will be given in 1916.

72. Scandinavian Classics. I; 1 cr. Lectures; Saxo, *The King's Mirror,* Holberg, Oehlenschläger, Tegner, Runeberg, Wergeland.

73. Modern Norse Literature. II; 1 cr. Lectures with readings in translation, with special reference to Ibsen's social dramas.

74. Ibsen's Brand and Peer Gynt. II; 1 cr. Lectures, with readings in translation.

A knowledge of the Scandinavian languages is not required for courses 70, 71, 72, 73, and 74.

For Undergraduates and Graduates

108. Old Norse. Yr.; 2 cr. Norreen's *Abriss der Altisländischen Grammatik;* Holthausen's *Altisländisches Lesebuch.* Mr. Hollander.

118. Advanced Old Norse. Njal's Saga; the Edda, selected poems. Mr. Hollander.

102. Modern Norse. Yr.; 2 cr. A rapid reading course for graduates who have a good knowledge of other modern languages.

109. Modern Norwegian Novels and Dramas. Yr.; 2 cr. Ibsen, Björnson, Lie, and Kielland.

110. Modern Norwegian Poetry. I; 1 cr. Wergeland, Welhaven, Munch, Moe, Björnson, and Ibsen.

111. Norwegian Dialect Writers. II; 1 cr. Aasen, Vinje, Garborg, and Sivle; the language reform movement.

112. Scandinavian Literature. Yr.; 2 cr. A general survey.

SEMITIC LANGUAGES AND HELLENISTIC GREEK

Emeritus PROFESSOR WILLIAMS; ASSISTANT PROFESSORS KELLY, WOLFENSON (acting chairman).

The general student may gain an acquaintance with the nature of the Semitic peoples and genius from the courses given in English, for which no knowledge of foreign language is necessary, viz., courses 23 and 24 Hebrew History, 26 Geography and Archaeology of Palestine, and 28 Survey of Hebrew Literature.

In addition to instruction in Hebrew and Hellenistic Greek (the original languages of the Bible), courses are offered in Arabic, Aramaic, Assyrian, and Syriac; and should occasion arise, opportunity will be given properly qualified students to prosecute studies in post-Biblical Hebrew, Ethiopic, Old Egyptian, and Coptic.

The language work of the department may be begun with Hebrew, Hellenistic Greek, or Arabic.

The various courses of this department are adapted to the needs of:

1. The general student desiring to extend his culture or with a view to teaching, by becoming acquainted with this non-Indo-European family of languages giving a view of a little known domain of intellectual development which is of great importance for liberal culture.

2. The intending theological student, or those already in the ministry, since the Semitic peoples furnish materials of the highest importance for theology.

3. The student of comparative religion and of comparative literature.

4. The student of ancient history desiring to come into contact with the earliest monuments and records.

5. The student of linguistics desiring a view of a most important family of languages, a knowledge of which is essential to a thorough understanding of language processes.

6. The student of Semitic languages, literatures, and history for their own sake.

Language Requirments and Fresnman

Freshmen and other students are permitted to elect elementary Hebrew in lieu of one of the two foreign languages which they may ordinarily choose, or in lieu of the one which they must take in that year. Permission to make this substitution is granted by the chairman of the executive committee of student advisers, as authorized by the Faculty of the College of Letters and Science.

Freshmen may begin Hellenistic Greek, likewise; but the elementary course counts only toward the bachelor's degree (see Requirements for the Degree of Bachelor of Arts: 2. *Required Studies, b. Language*). Courses in advance of the first-year may be substituted to the extent of eight credits.

Students, therefore, may substitute any of the language courses of this department, except 16 and 17, to the extent of 8 credits in part fulfillment of the language requirement of 16 to 24 credits. Freshmen who are not prepared to take advanced work may take the elementary (first-year) courses in Hellenistic Greek (courses 16 and 17), on condition that they continue with the advanced work thus begun.

Major in Semetic Language and Hellenistic Greek

The requirements for a major in this department are a minimum of 20 credits, including thesis, made up from any of the courses offered, excepting 1 and 2, 16 and 17, in one or more languages. Elementary work in a second language, however, will not be counted as a part of the 40 credits allowed as a maximum in any one department; and the amount of work required will be subject to increase and variation, depending upon the progress and needs of the individual student.

SYNOPTIC COURSES (IN ENGLISH)

For Undergraduates

(A knowledge of the original languages not required.)

23. Hebrew History to Solomon. I; 2 cr. Recitations and illustrated lectures. Mr. Wolfenson.

24. Hebrew and Jewish History. II; 2 cr. Recitations and illustrated lectures; from the division of the kingdom to the Maccabeean period. Mr. Wolfenson.

26. Historical Geography and Archaeology of Palestine. Yr.; 1 or 2 cr. Illustrated lectures. Mr. Kelly.

28. Survey of Hebrew Literature. II; 2 cr. Mr. Wolfenson.

SEMITIC LANGUAGES

For Undergraduates

1. Elementary Hebrew. Yr.; 4 cr. Mr. Wolfenson.

2. Elementary Hebrew. Yr.; beginning II; 2 cr. Mr. Kelly.

3. Second Year Hebrew. Yr.; 2 cr. Reading course in Hebrew historical literature. Mr. Kelly.

Course 3, with work assigned by the instructor, may be given graduate credit.

7. Prose Composition and Conversation. Yr.; 1 cr. Mr. Kelly.

For Undergraduates and Graduates

104. Advanced Hebrew. Yr.; 2 cr. Includes modern Hebrew literature. Mr. Wolfenson.

105. The Minor Prophets. Yr.; 2 cr. An advanced course. Mr. Kelly.

106. The Book of Job. Yr.; 2 cr. The text; philosophical and ethical problems. Mr. Kelly.

108. Hebrew Syntax. Yr.; 2 cr. Mr. Wolfenson.

112. Elementary Arabic. Yr.; 2 cr. Mr. Wolfenson.

112a. Elementary Arabic. II; 3 cr. For those desiring an opportunity to begin Arabic the second semester. Mr. Wolfenson.

115. Talmud. 2 cr. The Aramaic of the Babylonian Talmud. Historical and literary introduction. Mr. Wolfenson.

127. The Psalms—Books I and II. Yr.; 2 cr. Hebrew poetry; theories of Hebrew metre. Mr. Kelly.

For Graduates

209. Advanced Hebrew Syntax. I; 2 hours. Mr. Wolfenson.

210. Advanced Hebrew Etymology. II; 2 hours. Mr. Wolfenson.

211. Hebrew Seminary. Hours to be arranged. A knowledge of Hellenistic Greek, Latin, German, and French is necessary for the most effective work, but a knowledge of all the languages specified is not indispensable. Mr. Kelly.

213. Advanced Arabic. Yr.; 2 hours. The Qur'ân and early history of Islam. Mr. Wolfenson.

214. Elementary Assyrian. Yr.; 2 hours. Mr. Kelly.

229. Biblical Aramaic; Syriac. Yr.; 2 hours. Mr. Kelly.

230. Semitic Epigraphy. Yr.; 2 hours. A study of the north Semitic inscriptions. Mr. Kelly.

HELLENISTIC GREEK

For Undergraduates

16. Elementary Hellenistic Greek. Yr.; 4 cr. For those who have not studied classical Greek. Mr. Kelly.

17. Elementary Hellenistic Greek. Yr.; beginning II; 2 cr. This course covers the same ground as 16. Mr. Kelly.

18. Second Year Hellenistic Greek. Yr.; 2 cr. Mr. Kelly.

For Undergraduates and Graduates

119. Advanced Hellenistic Greek. Yr.; 2 cr. Reading and introduction to critical and literary problems. Mr. Wolfenson.

120. The Book of John. Yr.; 2 cr. Textual criticism.

For Graduates

221. Hellenistic Greek Seminary. Yr.; hours to be arranged. The Synoptic problem and linguistic characteristics of the Gospels formed the subject in 1915-16. French, German, Latin, and Syriac are necessary for the most effective work. Mr. Wolfenson.

222. Advanced Hellenistic Greek Grammar. Yr.; 2 hours.

ZOOLOGY

PROFESSOR GUYER (chairman); ASSOCIATE PROFESSORS MARSHALL, PEARSE; ASSISTANT PROFESSOR WAGNER; LECTURER JUDAY; INSTRUCTORS LOWE, MAVOR, SMITH; ASSISTANTS NELSON, BISHOP, CAHN, MALONE, MUTTKOWSKI, WHITE.

A minimum of thirty credits is required for a major; besides the thesis this should include:

Zoology 1a and 1b, or Biology 1; Zoology 9, 102a, 104a, and 105. One elementary course in botany is required of those who have not taken Biology 1.

For the advanced courses training in chemistry and ability to read French and German is desirable.

Medical students will find courses 6, 11, 19, 104a, and 105 of special interest.

Agricultural students will find courses 6, 9, 19, 21, 110 to 113, 114, and 115 of special interest.

The new biology building is within easy reach of the various Madison lakes, which are, scientifically, among the best known bodies of fresh water in the world. For years they have been under careful investigation by the State Geological and Biological Survey as well as by various of the biological departments in the University. The whole body of knowledge accumulated during this time, including carefully prepared charts and maps, is at the service of all who can use it. A zoological substation is located on the shore of Lake Mendota and a launch capable of carrying thirty people is available for out-door work. With its special laboratories, research rooms, vivaria, and out-door breeding pools, and its unusually complete equipment and library, the Department of Zoology affords unsurpassed opportunity for laboratory and research.

For Undergraduates

1a. General Zoology. I; 5 cr. Lectures and laboratory. Courses 1a and 1b, combined, will satisfy the natural science requirement. Mr. Pearse and staff.

1b. Animal Biology. II; 5 cr. The second semester of Biology 1 and of Zoology 1a. Mr. Guyer and staff.

3. Elementary Zoology. II; 3 cr. For agricultural students. Mr. Wagner and staff.

4. Elementary Embryology. I; 2 cr. For students of home economics. Miss. Smith.

6. Heredity and Eugenics. I; 2 cr. Mr. Guyer.

9. Elementary Entomology. II; 3 cr. Mr. Marshall.

11. Microscopic Anatomy and Micro-technique. I; 3 cr. Miss Smith.

19. Animal Parasites. II; 3 cr. For medical and agricultural students and those interested in the problems of public health. Veterinary students may take the laboratory work alone for two credits. Mr. Pearse.

20. The Teaching of Zoology. II; 2 cr. Mr. Pearse.

21. Ornithology. II; 2 cr. Mr. Wagner.

For Undergraduates and Graduates

102a. Invertebrate Zoology. I; 5 cr. Mr. Wagner.

102b. Protozoology. II; 2 cr. The structure, life histories, and pathogenic relations of the protozoa. Mr. Mavor.

104a. Comparative Anatomy of Vertebrates. I; 5 cr. Mr. Wagner.

104b. Vertebrate Zoology. II; 3 cr. Mr. Wagner.

105. Elements of Vertebrate Embryology. I; 4 cr. Mr. Mavor.

107. Evolution Problems. II; 2 cr. Mr. Guyer.

108. Physiological Zoology. II; 4 cr. Prerequisites: course 1 or course 3; Chemistry 1. Mr. Guyer, Mr. Lowe.

110. Entomology: Anatomy and Embryology. II; 3 cr. Mr. Marshall.

112. Economic Entomology. I; 2 cr. Mr. Marshall.

113. Forest Entomology. II; 2 cr. The principal insects injurious to forest and shade trees. Mr. Marshall.

123. Advanced Entomology. For students who desire to continue some special line of work. Mr. Marshall.

114. Anatomy and Physiology of the Cell: Non-Developmental Phenomena. I; 2 cr. Mr. Guyer.

115. The Cell in Development and Inheritance. II; 2 cr. Mr. Guyer.

116. Cytology. A laboratory course. 3 cr. Mr. Guyer.

117. Animal Ecology and Natural History. II; 2 cr. Mr. Pearse.

122. Animal Behavior. I; 3 cr. Mr. Pearse.

124a. Limnology. I; 2 cr. Lectures on the geology, physics, chemistry, and biology of lakes, with special reference to Wisconsin. Mr. Juday.

124b. Plankton Organisms. II; 2 cr. A continuation of course 124a, with field work. Mr. Juday.

For Graduates

220. Seminary. 2 cr. Mr. Guyer.
228. Research.

THE COURSE IN CHEMISTRY

Louis Kahlenberg, Director, Professor of Chemistry.

The Purpose of the Course

The primary purpose of this course is to train competent chemists. More good teachers of chemistry in schools and colleges are needed, and in the arts, industries, and public services expert chemists are now required, so that it has become imperative to meet these ever increasing demands. The protection of the public against disease and fraud requires a chemical examination of water, foodstuffs, and the materials that enter into clothing, buildings, and other structures. Both the raw materials and the finished products need careful inspection, and in many cases the various steps in the processes of modern manufacture require the guidance of a chemist to insure economy.

It is not the purpose of this course to prepare chemists for each individual industry, for no educational preparation can take the place of the special practical experience required to become proficient in any particular line of work. The aim is rather to give the student training in the fundamental principles of chemistry and the cognate sciences, which, of course, also necessitates a proper grounding in French and German. With this preparation a chemist will readily be able to adapt himself to any special industry with which he may later be connected.

In all fields the demand for chemists still exceeds the supply. Furthermore, not only in teaching chemistry in high schools and colleges, but also in lines like analytical, physiological, sanitary, and food chemistry, there is a growing field for women as well as for men.

Requirements for Admission.

Students will be admitted to this course on compliance with the conditions imposed for entrance to the College of Letters and Science. See Index under Admission.

Persons twenty-one years of age, who are not candidates for a degree, and who wish to take special studies, are permitted to enter as adult special students upon giving satisfactory evidence that they are prepared to profit by the course desired.

Students who have satisfied all the requirements for entrance, but do not wish to be candidates for a degree, will be admitted to any of the studies of this course for which they are properly prepared.

Plan of the Course of Study

Six courses of study have been outlined: a general course, a course for industrial chemist, a course for agricultural chemist, a course for soil chemist, a course for physiological chemist, and a course for food chemist. The last course is also well adapted for those fitting themselves for sanitary work in hygienic laboratories. The first two courses are almost free from biological work, containing only a short course in bacteriology, which it is extremely desirable that every chemist should have. The general course is intended for those desiring to become analytical chemists, and those who prefer a course relatively free from biological studies and work which is strictly applied in character. The other four courses are primarily distinguished from the first two in that they contain a considerable amount of biology and consequently present a more limited opportunity for further work in other lines.

It will be observed that differentiation in the various lines begins in the second year of the general course. In all the courses, general inorganic, analytical, organic, and physical chemistry are required, and also physics, trigonometry, and analytical geometry or a short course in mechanical drawing. The English is the regular course required of all freshmen in the College of Letters and Science. Both German and French are required. These languages must be pursued in not less than one-year courses. A student coming prepared in but one of these languages would naturally continue work in that language during the freshman year. The equivalent of at least courses 2a and 2b in German and course 1a and 1b in French is required for graduation. The special courses required in connection

with each of the six courses are selected because they are of a nature to fit the student for the definite end in view. Each course contains a certain number of free electives, and while freedom of election is not restricted, the student is strongly urged to choose his electives from subjects outside of the natural sciences.

In each of the courses, 130 unit-hours are required for graduation. As the work outlined is necessarily difficult in character, students would often find it advantageous to absolve a part of the required studies during one or more summer sessions.

Requirement for Graduation

Students who have successfully completed any of the courses of study will be admitted to graduation from the University, and will receive the degree of Bachelor of Science.

Course of Study

All Courses

First year: *Both semesters.* General Chemistry, 5; Mathematics, 3; German or French, 4; English, 3. *Second semester.* Mechanical Drawing, 3 may be substituted for Analytical Geometry, 3.

General Course

Second year: *First semester.* Quantitative Analysis, 5; German or French, 4; Physics, 5; Calculus or Mineralogy, 3. *Second semester.* Calculus or Bacteriology, 3.

Third year: Organic Chemistry, 5; Physical Chemistry, 5 (*first semester*); German or French, 4; Electives 4 to 9.

Students who took calculus in the second year must take Mineralogy 3 in the first semester and Bacteriology 3 in the second semester, which leaves for them but one hour as elective for each semester.

Fourth year: *First semester.* Chemistry Thesis, 2; Water and Gas Analysis, 2; Proximate Organic Analysis, 3; History of Chemistry, 2; Electives, 3. *Second semester.* Chemistry Thesis, 2; Chemistry (elective), 5; Fire Assay, 2; Electives, 9.

Course for Industrial Chemist

Second year: *First semester.* Quantitative Analysis, 5; German or French, 4; Physics, 5; Calculus or Mineralogy, 3. *Second semester.* Calculus or Bacteriology, 3.

Third year: Organic Chemistry, 5; Physical Chemistry, 5; German or French, 4. *First semester.* Technical Fuel and Gas Analysis 2; Electives, 2. *Second semester.* Chemical Machinery, 2.

Fourth year: *First semester.* Chemistry Thesis, 2; Water Analysis, 1; Proximate Organic Analysis, 3; Industrial Chemistry, 2; History of Chemistry, 2; Chemical Manufactures, 4; Electives, 4. *Second semester.* Chemistry Thesis, 2; Chemical Machinery, 2; Fire Assay, 2; Bacteriology, 3; Electives, 4.

Course for Agricultural Chemist

Second year: Quantitative Analysis, 4; German or French, 4; Biology, 5; Physics, 5.

Third year: *First semester.* German or French, 4; Organic Chemistry, 5; Bacteriology, 3; Electives, 6. *Second semester.* German or French, 4; Organic Chemistry, 5; Agricultural Chemistry, 5; Agricultural Bacteriology, 3 or 5; or Electives, 4.

Fourth year: *First semester.* Physical Chemistry, 5; Agricultural Chemistry, 5; Agricultural Chemistry Thesis, 2; Electives, 6. *Second semester.* Soils, 5; Agricultural Chemistry Thesis, 2; Dairy Chemistry, 3; Electives, 8.

Course for Soil Chemist

Second year: *First semester.* Quantitative Analysis, 5; German or French, 4; Physics, 5; Bacteriology, 3. *Second semester.* Quantitative Analysis, 5; Soils, 5; Physics, 5; Agricultural Bacteriology, 3.

Third year: *First semester.* German or French, 4; Organic Chemistry, 5; Soil Chemistry, 4; Systematic Botany, 2; Electives, 3. *Second semester.* German or French, 4; Organic Chemistry, 5; Soil Chemistry, 4; Mineralogy, 3; Electives, 2.

Fourth year. *First semester.* Soils Thesis, 2; Physical Chemistry, 5; History of Chemistry, 2; Geology, 5; Electives, 4. *Second semester.* Soils Thesis, 2; Soils Physics, 2; Agricultural Chemistry, 5; Electives, 9.

Course for Physiological Chemist

Second year: Same as for agricultural chemist.

Third year: *First semester.* German or French, 4; Organic Chemistry, 6; Physiology, 3; Physical Chemistry, 5. *Second semester.* German or French, 4; Organic Chemistry, 5; Physiological Chemistry, 4; Electives, 5.

Fourth year: *First semester.* Bacteriology, 5; Advanced Physiological Chemistry, 4; Toxicology, 3; Physiological Chemistry Thesis, 2; Electives, 4. *Second semester.* Bacteriology, 5; Seminary Physiological Chemistry, 1; Histology of Foods, 2; Chemistry of Foods, 5; Physiological Chemistry Thesis, 2; Electives, 3.

Course for Sanitary Chemist or Food Chemist

Second year: Same as for agricultural chemist, except that in the second semester Biology, 5 is replaced by Bacteriology, 3, and Biology of Water Supplies, 3.

Third year: *First semester.* German or French, 4; Organic Chemistry, 6; Vegetable Histology, 3; Physical Chemistry, 5. *Second semester.* German or French, 4; Organic Chemistry, 6; Microscopic Examination of Foods and Drugs, 3; Food Chemistry, 5.

Fourth year: *First semester.* Thesis in Food or Sanitary Chemistry, 2; Water and Gas Analysis, 2; Proximate Organic Analysis, 3; Toxicology, 3; History of Chemistry, 2; Electives, 6. *Second semester.* Thesis in Food or Sanitary Chemistry, 2; Physical Chemistry, 5; Physiological Chemistry, 4; Electives, 7.

Departments of Instruction

For detailed information regarding the preceding courses, see the announcements of the several departments of the College of Letters and Science; except bacteriology and soils, College of Agriculture; mechanical drawing, College of Engineering; toxicology, Medical School.

Laboratories

A description of the various scientific laboratories of the University may be found by referring to the index.

Libraries

For detailed information concerning general library facilities see Libraries. The various scientific departments have reference libraries in connection with the laboratories. These departmental libraries contain those books and periodicals which are most frequently used. In chemistry and allied sciences the University offers excellent library facilities.

Charges and Fees

For the fees to be paid in this course and in the various scientific laboratories see Chapter on General Information under Fees, and the announcements of the several departments.

THE COURSE IN COMMERCE

W. A. Scott, Director, Professor of Political Economy.

Requirements for Admission

Students will be admitted to this course on compliance with the conditions imposed for entrance to the College of Letters and Science. (See Index under Entrance Requirements.)

Students not candidates for degrees will be admitted to special courses, provided they have had, or first pursue, the studies prescribed as preliminary for such courses. In most cases the work prescribed for the freshman year, with one or two modifications, will be included in such preliminary studies.

General Requirements

A total of 132 credits, exclusive of those required in Physical Education and Drill, is required for graduation in this course. The prescribed distribution of these by semesters is indicated under the head "Arrangement of Studies." Without special permission of the Dean no student may take courses aggregating fewer than 14 credits per semester. In case a student has received grades of good in all studies of the preceding semester, he may take extra studies to an amount not exceeding 18 credits. No student will be permitted to receive more than 18 credits towards graduation in one semester in class room work except by permission of the faculty, obtained in advance.

Plan of the Course of Study

The studies of the course may be classified under the following heads:

Preliminary Studies

To this group belong the studies which are regarded as essential in a liberal education and as a necessary foundation for more specialized subjects to be pursued later on. They comprise courses in natural science, mathematics, English, foreign languages, history, and economics. In natural science, physical geography and the physiography of the United States are required as a basis for economic geography, upon which in turn are built several specialized courses in applied economics. In addition students elect a year's laboratory course in either physics or chemistry. The course in English is the general training course required of all freshmen in the University. Two foreign languages are required, choice being given of French, German, or Spanish. In these courses special attention is devoted to the acquisition of a speaking and writing command of the language for commercial purposes. Economics and history reveal the forces which produce changes in commercial conditions and institutions and the laws of such changes. The courses prescribed along these lines are the economic and social history of England, the elements of political economy, money and banking, and transportation.

Professional Studies

The aim of these is to teach students to understand and actually to perform the various processes common to all branches of commerce. They comprise business correspondence, business forms and documents, accounting, auditing, salesmanship, advertising, credits and collections, and the management of factories and other business concerns. In these courses the study of general principles is always accompanied by practice work in a well equipped laboratory.

This group of studies is distributed throughout the course, beginning with the sophomore year. It is so correlated with the other lines of work as to receive re-enforcement from them and to furnish constant tests of their efficiency.

Elective Studies

Besides the two classes of studies described above, which are with few exceptions prescribed, each student is obliged to elect a group of related courses and a sufficient number of other courses to complete the minimum prescribed for a bachelor's degree. These

groups must be arranged at the beginning of the junior year on consultation with the Director, and are designed to give the student an opportunity to study intensively a particular field and to learn how to collect and to utilize data bearing upon the problems of commerce and industry. His attainments in this direction are tested by a thesis prepared during the senior year. Among the fields available for group work and thesis writing are banking, transportation, accountancy, organization, insurance, corporation finance, foreign commerce, commercial law, and agricultural problems.

Approximately one-half of the student's time in the junior and senior years is available for free election from the great variety of courses offered in the various colleges and departments of the University. The opportunity here presented may be utilized to broaden the student's outlook into fields of knowledge not covered by the requirements of his course or to supplement the studies already pursued.

Arrangement of Studies

Freshman Year

Physical Geography, 3, (first semester); Economic Geography, 3, (second semester); German, French, or Spanish, 4; English, 3; Mathematics, 3; History, 3; Gymnastics and Drill.

Sophomore Year

Economic Geography, 3 (first semester); Foreign language (continued) 2; or second language, 4; Chemistry or Physics, 5; Elementary Economics, 4, (first semester); Money and Banking, 3; (second semester); Elements of Accounting, 2; Free Electives, 2 or 0; Gymnastics and Drill.

Junior Year

Foreign language (continued), 2, or second language (if not taken in sophomore year), 4; Transportation, 3; Theory and Practice of Accounting and Cost Accounting, 2; Elective Group, 3 or 5; Free Electives, 3 or 9.

Senior Year

Foreign language (continued), 2; Commercial Law, 4; Advanced Accounting and Auditing, 2; or Business Organization and Management, 2; Elective Group and Thesis, 4 or 6; Free Electives, 4 or 6.

For detailed information with regard to the foregoing courses of instruction see the announcements of the several departments of the College of Letters and Science.

Requirements for Graduation

Students who have successfully completed the above course of study will be admitted to graduation and will receive the degree of *Bachelor of Arts.*

Graduate Students

Graduates of this or other colleges and universities of good standing will be admitted to this course, and arrangements will be made so that they may take its peculiar studies in two years or in less time, provided they have already pursued some of them in their undergraduate courses.

Preparation for Teachers

Students who wish to prepare themselves to teach commercial subjects in secondary schools will be aided in so arranging their elective work as to attain this end. Special facilities for pedagogical practice will be given such students in connection with the courses in business administration, and work in addition to that prescribed may be arranged in subjects of especial importance to teachers.

Special Lectures

Special lectures are provided from time to time for the purpose of acquainting students with present business conditions and opportunities. So far as possible men representing the chief business enterprises of the United States are secured for this purpose.

THE COURSE IN JOURNALISM

Willard G. Bleyer, Chairman, Associate Professor of Journalism.

Purpose and Plan of the Course

The studies included in the Course in Journalism are of three kinds: (1), those designed to familiarize the student with present social, political, and economic conditions in the light of their origin and development, as well as with the literature of his own and other languages; (2), those designed to develop the student's power of expressing his ideas effectively in writing; (3), those intended to give the necessary technical instruction in the methods of journalism and advertising. The course of study has been arranged in the belief that the greater part of the time should be devoted to a study of the subjects of the first group, such as history, political science, economics, sociology, philosophy, psychology, language, and literature, which are fundamental to journalistic work. Instruction in the principles of effective written expression and practice in writing are given by the courses in English composition.

The technical work includes courses in newspaper writing of the several kinds and in newspaper editing, with a consideration of the methods of practical journalism, the history of the American press, and a study of the organization and the management of a modern newspaper. Courses are offered in the psychological principles of advertising and in the principles and the methods of newspaper advertising. Representative German and French newspapers are studied in special courses for journalism students, given by the German and Romance Language departments.

Instruction is also given in the law of the press, including the law of copyright, literary property, libel, privileged publications, and other topics relating to the publication of books and newspapers. In connection with the courses in newspaper work special lectures on various phases of journalistic work are given by newspaper men in active service.

Additional information is given in the bulletin, "Course in Journalism, 1916–17," which may be had on application to the chairman.

Technical and Trade Journalism

Although the course in journalism has been arranged primarily for those preparing for newspaper and magazine work, provision has also been made for those interested in technical and class journalism. The courses in newspaper and magazine work may be elected by students in the professional schools and courses. Students in the Course in Journalism may elect courses in the College of Mechanics and Engineering, the Law School, and the College of Agriculture, as well as in the Course in Pharmacy and the Course in Commerce in the College of Letters and Science. By combining studies in commerce, agriculture, engineering and other technical subjects with those outlined in the Course in Journalism, students can obtain the necessary preparation for practically all lines of technical and trade journalism.

Courses in agricultural journalism are given in the College of Agriculture for those who desire special training of that kind.

Laboratory Equipment

A newspaper office with typewriters, files, indexes, and reference books is maintained as a laboratory for the students of journalism. Index and filing cases show methods of preserving photographs, illustrations, clippings, and biographical and statistical material. Several thousand well written newspaper "stories," taken from well edited papers, and over a thousand special features and magazine articles are classified according to subject matter and treatment so that they may be used readily by the students. A large collection of typical foreign newspapers including many representative ones from the countries of Europe as well as some from India, China, Japan, Ceylon, Burma, South Africa, Central America, Mexico, Cuba, and the Philippines, serves as a basis for the study of comparative journalism.

A reading room and a seminary room are also provided with files of the leading newspapers of the couutry, as well as of important American and English journalistic periodicals.

Practical Experience

Students in the Course in Journalism obtain practical experience on the two Madison daily newspapers and on the various student publications. Places on the editorial and the business staffs of

student publications are awarded for the most part on a basis of literary and executive ability, and are open to all students. The *Daily Cardinal*, published as a morning newspaper, is edited by a staff organized from the students interested in journalism, who thus get practice in all the details of newspaper making. The *Wisconsin Magazine*, a monthly devoted to short stories, verse, and essays; the *Awk*, a humorous monthly; and the *Badger*, the University annual edited and published by the members of the junior class, all give opportunity for a variety of experience in journalism. The *Wisconsin Engineer*, a quarterly edited and published by the students of the College of Engineering, and the *Wisconsin Country Magazine*, a bi-monthly edited and managed by the agricultural students, furnish practice for those interested in technical and trade journalism.

General Requirements

Students will be admitted to these courses on compliance with the conditions imposed for entrance to the College of Letters and Science. (See Index under Requirements for Entrance.)

Persons over twenty-one years of age, who are not candidates for a degree, and who wish to take special studies, are permitted to enter as adult special students upon giving satisfactory evidence that they are prepared to profit by the courses desired.

Students who have satisfied all the requirements for entrance but do not wish to be candidates for a degree, will be admitted to any of the courses for which they are poperly prepared.

For the requirements of the degree of Bachelor of Arts, see Index.

Arrangement of Courses

The Course in Journalism consists partly of required courses and partly of elective ones. The required courses include three groups: (1) those studies required of all students in the College of Letters and Science who are candidates for the degree of bachelor of arts, such as Freshman English, history, foreign languages, and science or mathematics; (2) those that are prerequisite for advanced work in the fields with which journalism is especially concerned, such as the general survey of English literature, American history, elementary political economy, elementary law, and government and politics in the United States; (3) those that give the necessary technical instruction and practice in journalism, including those in

advertising and the law of the press. The elective studies include those courses in history, political science, political economy, literature, and philosophy that are essential for the best type of journalism.

The following list contains the required and elective courses arranged under the four years in the order in which they should normally be taken. The numbers in parenthesis are the number of the course in the department; Arabic figures following the parenthesis indicate the credits; Roman numerals show the semester in which the course is given.

Freshman Year

Elements of Newspaper Work (Journalism 1), 1; Freshman English (1a and 1b), 3; Foreign Language, 4; English History (5), 3; Medieval History (1a and 1b), 3; Mathematics, 3, or Science, 5.

Sophomore Year

Newspaper Reporting and Correspondence (Journalism 2), 3; Journalistic German (11), 1; Psychology of Advertising (119), 2, II; 3; General Survey of English Literature (30), 3; History of the United States (4), 3; Elements of Economics (1), 4, I, II; Elements of Money and Banking (5), 3; General Political Science (1), 3, I; Foreign Language, 4, Free Hand and Applied Drawing (Manual Arts 50, 51a) 3.

Junior Year

Newspaper Editing (Journalism 3), 2; Special Feature and Magazine Writing (Journalism 105), 2; Journalistic French (18), 2; Newspaper Advertising (Political Economy 15), 2, I; Law of the Press (Political Science 25), 2, II; American Literature (40), 2; Argumentation (Public Speaking 3a,) 3, I; Modern European History (2), 3; The British Empire Since 1688 (136), 2; Elementary Law (2), 3, I; Government and Politics in the United States (7), 2, II; International Law (118), 2; Party Government (122), 3; I; Poverty and Relief (141), 3, II; Labor Problems (123), 2, II; Social Psychology (139), 3, I; Elements of Public Finance (3), 3, I; Problems of Taxation (124), 2, II; History of New England (113), 3, II; Psychology (1), 3, I; Ethics (41), 3, II; History of Modern Philosophy (32), 3, II; Logic (11), 2, II.

Senior Year

Editorial Writing (Journalism 104), 2; History and Principles of Journalism (Journalism 110), 2; Thesis, 2, I; II; History of the West (111), 3; Nineteenth Century Europe (139), 3, II; Diplomatic History of the United States (115), 2; History of Europe and Asia (148), 2; Social and Economic Statistics (130), 3; Transportation and Communication (135), 3, II; Financial History of the United States (133), 3, I; The Money Market (134a), 3, I; Industrial Evolution and Its Problems (120), 2, I; Administrative Problems (108), 2, I; 1, II; Theory and Practice of Legislation (126), 3; Oriental Politics and Civilization (120), 3, II; Municipal Government in Europe and the United States (115), 3, II; Contemporary International Politics (19), 1; Social, Political, and Business Ethics (42), 2, Philosophic Thought in Nineteenth Century English Literature (153), 2, II; Abnormal Psychology (107), 2, II; Modern Drama (107CL.), 2; Modern Novel (108CL.) 2; Victorian Prose Writers (54), 2; The Victorian Era (35), 3; Current Political Topics (32), 2.

THE COURSE IN PHARMACY

EDWARD KREMERS, Director, Professor of Pharmaceutical Chemistry.

The Object of the Course

The prime object of the Course in Pharmacy is to furnish a thoroughly scientific foundation for the pursuit of the profession of pharmacy. The elements of the fundamental natural sciences, chemistry, botany, and physics must first be studied before their application to pharmacy can rationally be considered. This is as true for pharmacy as for any other applied science or art. In pursuing these general studies the pharmacy students have the advantage of close association with students from other courses. This implies that in these studies they must be able to keep abreast of students who are graduates of accredited high schools. The best preparation for college, therefore, which the prospective pharmacy student should seek is not that of the shops, but that of a good high school or academy of like rank. The University does not demand practical experience for admission to the courses in pharmacy, but

desires such preparation as will best fit for college or university work.

The general study of these fundamental sciences is followed by more or less specialized courses. General chemistry, inorganic and organic, qualitative and quantitative analysis are followed by pharmaceutical chemistry, and applied chemical analysis; general botany by vegetable histology and anatomy of drugs; general physics by pharmaceutical technique. These somewhat specialized studies, in turn, not only lay the foundation for the study of the more strictly applied courses in practical pharmacy and pharmacognosy, but also prepare the student for thesis work.

The student who can spend only two years at the University is compelled to take up the more technical studies of his course before he has laid a satisfactory foundation. Such a compromise is outlined under the caption, Courses of Study. The three-year student, as a rule, finds time to pursue other studies besides those outlined above, e. g., German, physiology, or bacteriology, etc. The four-year student has the great advantage of supplementing his high school preparation during the freshman and sophomore years by acquiring a reading knowledge of German and French, and by the study of university mathematics, all of which studies are of the greatest importance when the more advanced work of the natural sciences is taken up during the junior and senior years.

Special attention is called to the four-year course offered to graduates of accredited high schools. This course was created in order to accommodate those students who desire to obtain a general scientific education and to include in their course the pharmaceutical studies, and with the hope of stimulating a broader pharmaceutical education. For the more applied courses special laboratories have been equipped.

Like the sister profession, medicine, pharmacy is in need, not only of the general practitioner, but also of the specialist. For the preparation necessary to equip such specialists the University offers graduate courses. Graduates who desire to prepare themselves as chemists for manufacturing establishments, as analytical, food, or sanitary chemists, or as bacteriologists, will find that the graduate work in the Course in Pharmacy, as well as the other departments of the University, offers excellent opportunities for advanced and more specialized study. Special lines of research can also be pursued in various departments by those who desire to work for a higher degree. The attention of advanced students is especially called to the graduate work. (See Index.)

Laboratories

The pharmaceutical laboratories are located on the third and fourth floors of the new wing of the Chemistry Building. They consist of a dispensary, a laboratory for analytical purposes, and a laboratory for general pharmaceutical chemistry on the third floor. On the fourth floor there are a milling room and laboratories for extraction and distilling purposes equipped with steam and vacuum apparatus. The work of these laboratories is carefully coordinated and culminates in the prescription work of the dispensary.

Collections

The collections of the University, including the drug cabinet, are described elsewhere. See Index under Collections.

Libraries

For a statement as to general library facilities at the University and in the city of Madison, see Index under Library. The department library for ready reference is now housed in the library of the new Chemistry Building, a large, well lighted and equipped room on the third floor, unusually well supplied with reference works and the best periodicals. The other department libraries, as well as the general library, are all on the same campus and, therefore, easy of access.

Adam Conrath Memorial Fund

In 1912 the Wisconsin graduates of the Philadelphia College of Pharmacy gave $75 to the University to establish the Adam Conrath Memorial Fund. This sum is to be added to from time to time until the amount reaches $250. The income is then to be used to maintain a set of the *American Journal of Pharmacy* in the University.

Terms of Admission

The requirements for admission to the several colleges of the University are described on previous pages. See Index under Admission.

The special requirements for admission to the two-year pharmacy course are herewith repeated.

I. Graduates from high schools are admitted without examination and without practical experience in a drug store.

II. Non-graduates are admitted if they comply with the following requirements:—

1. They must be at least eighteen years of age.

2. They must present satisfactory certificates of *at least* one year's attendance from some standard high school, or its equivalent from a similar educational institution.

3. The time intervening between the secondary education and the college course should have been spent in a drug store where physicians' prescriptions are regularly compounded.

Degrees

The first degrees given in pharmacy are those of *Graduate in Pharmacy*, upon completion of the two-year course, and of *Bachelor of Science, Pharmacy Course*, conferred upon candidates who have successfully met the requirements of the four-year course.

The degree of *Master of Pharmacy* is conferred as a second degree upon graduates in pharmacy.

The degrees of *Master of Science* and *Doctor of Philosophy*, are conferred as higher degrees upon candidates who have a baccalaureate degree.

Fees and Expenses

The tuition and laboratory fees and an estimate of expenses for board and lodging are given on previous pages. (See Index.)

Courses of Study

Two-Year Course

First year. *First semester:* Chemistry 1 (5 cr.); Botany 1 (5 cr.), and 135 (1 cr.); Pharmacy 1 (3 cr.), 20 (3 cr.) and 40 (1 cr.). *Second semester:* Chemistry 1 (5 cr.), 11 (3 cr.), and 117 (3 cr.); Botany 130 (4 cr.); Pharmacy 1 (3 cr.) and 40 (1 cr.).

Second year. *First semester:* Chemistry 120 (2 to 3 cr.), 26 (4 cr.), and 40 (3 cr.); Botany 110 (3 or 4 cr.) and 132 (2 cr.); Pharmacy 30 (1 cr.), 60 (2 cr.), and 50 (1 cr.) *Second semester:* Chemistry 27 (5 cr.) and 40 (3 cr.); Botany 111 (3 cr.), and 132 (2 cr.); Pharmacy 121 (4 cr.), 30 (1 cr.), and 50 (1 cr.). Thesis.

For detailed information as to the foregoing courses see the announcements of the several departments of the College of Letters and Science.

Students who desire to include pharmaceutical studies as a part of their general college education elect the prerequisite studies enumerated below. Such a course, if to lead to the degree of *Bachelor of Science, Pharmacy Course,* must include courses 1, 10, 20, 11, 40, 50, and 121, in Pharmacy, and course 132 in Botany.

Basal sciences: Chemistry 1, 11, 117 or their equivalents. Botany and 130 or its equivalent. Physics 1. These should be taken during the first and second years.

Advanced sciences. Chemistry 26 and 27. Botany 110 and 111. These courses should be taken during the third year in order that the courses in pharmacy and pharmacognosy mentioned above may be taken during the fourth year.

The language requirements of this course are English, 1a and 1b, French 1a and 1b, and German 2a and 2b, or their equivalents, which should be taken during the first and second years.

The major study and thesis may be taken in chemistry, botany, pharmacy, or any department in which the student is sufficiently prepared to do such work. For the rules governing the major study and thesis see Index under Major Study.

Additional electives sufficient to make 120 unit-hours may be chosen upon consultation with the adviser for pharmacy students.

THE LIBRARY SCHOOL

MATTHEW S. DUDGEON, Director; MARY EMOGENE HAZELTINE, Preceptor; CLARENCE B. LESTER, In Charge of Special Course.

Purpose of the School

The purpose of the course in general library science is to train well rounded library workers. Though the educational and literary features of the profession are strongly emphasized, the course deals mainly with the fundamental principles of bibliographical, technical, and administrative library work necessary to meet the demands of the library world. The students have exceptional opportunities to come into contact with actual rather than theoretical problems, and to work these problems out to practical solution. The instruction in general library science may be taken

(a) As an independent library course of one year, by all who meet the entrance requirements of the school. The certificate of

the Library School is given to those who successfully complete this course.

(b) As a joint course by senior students in the College of Letters and Science, who qualify for entrance. Students who take the joint course may not begin the work of the Library School until they have obtained at least 96 credits in the College of Letters and Science and passed the entrance examinations of the Library School. Of the twenty credits of Library School work accepted by the University, four may be counted toward an English major, if the candidate chooses that subject. This joint course leads to the degree of Bachelor of Arts from the University, and to the certificate of the Library School.

Entrance Requirements

Each candidate for admission to the course in general library science must fill out an application blank, copies of which can be obtained from the Preceptor, Miss Mary Emogene Hazeltine, Library School, Madison, Wisconsin.

Without exception, all such applicants are required to take the entrance examinations, which are held on the second Friday in June of each year. These examinations are competitive, and can be taken only at the time specified. They cover history, general literature, current events, and German or French. Only those who by personal interview or otherwise demonstrate a personal fitness for the work will be considered eligible.

Applicants for the joint course take these examinations at the end of their junior year. Experts are agreed that the best foundation for success in library work is a sound general education, and the ideal plan of preparation is a four-year college course, followed by one or more years of technical training. It is for those who are not able to afford so much time that the joint course has been arranged. Applicants for the independent course of one year should bear in mind the importance of a college course as an educational equipment for library work. *Students will be admitted only at the beginning of the first semester.*

Accepted candidates for the course in general library science must meet several extra entrance requirements before joining the classes in the fall. All who have not had experience in library work must spend at least one month in actual work in a designated library *before the school opens in September.* Candidates *must be skillful* with the typewriter before entering, as the school requires

its use in the preparation of many of the lessons, and no instruction in this is given in the school. It is also required that the standard "library handwriting" be mastered. Accompanying the application blank is a required list of books, to be read in preparation for the first recitation of the school year in book selection. These requirements apply both to students in the independent course and in the joint course.

The Special Course

In cooperation with the Legislative Reference Department of the Wisconsin Free Library Commission, the Library School also offers a special course of training for legislative and municipal reference work and the various sociological phases of library service. The course is intended for college graduates with special aptitude and personal qualifications for this type of library service, who have a definite preparation in political science, economics, and sociology. Application blanks may be obtained by applying to C. B. Lester, Legislative Reference Library, Madison, Wisconsin.

Tuition and Expenses

For students taking the one year of instruction in general library science the fee is $50 for the course for residents of Wisconsin, $25 being payable at the opening of each semester. For nonresidents, the fee is $100 for the course, $50 being payable at the opening of each semester. The average cost of text-books and supplies for each student is estimated to be $25 for the year.

For students taking the joint course or the legislative reference course, the fee is that required by the University as incidental and tution fees. If, however, these are less than the stated Library School fees, the student will be required to make up the difference.

Course of Study and Credits

First Semester. Cataloguing (5 credits), Classification (3), Reference (3), Evaluation and selection of books (1), Trade bibliography and publishing houses (1), Library economy (1), Administration (1).

Second Semester. Reference (3 credits), Library economy (3), Subject bibliography (2), Evaluation and selection of books (1), Children's literature (1), Administration (1), Documents (1),

Field practice (3). The thesis for joint course students will be under the direction of the University department in which they choose their major subject, and the bibliography included in it will be accepted by the Library School in satisfaction of its thesis requirements.

Candidates for the degree of Bachelor of Arts who secure, as part of the 120 credits required for the degree, twenty credits in the Library School, will be awarded the certificate of the Library School upon the completion of the full number of credits in the school as given above. The satisfaction of the requirements for both the degree and the certificate, under this plan, will normally involve residence at the University for four years and one summer session.

The instruction in legislative reference work is made up of three elements which together constitute a single unitary course.

I. Bibliographic and Technical Library Studies.

These include fundamental studies from the general course.

II. Elective Work at The University of Wisconsin.

To each student there is assigned work in courses given at the University, especially in political science and economics.

III. Special Instruction and Research.

The regular library school work is supplemented by special instruction as to the methods and materials of special libraries, combined with actual practice in the legislative reference library and elsewhere. The research work is upon actual problems arising in the various departments of state and municipal government.

Special Catalogue

Detailed information regarding the Library School is given in the special catalogue of the school. A copy of this can be obtained from the Preceptor, Miss Mary Emogene Hazeltine, Library School, Madison, Wisconsin.

For any more specific information as to the legislative reference course, apply to C. B. Lester, Legislative Reference Library, Madison, Wisconsin.

THE COURSE FOR THE TRAINING OF TEACHERS

EDWARD C. ELLIOTT,* Director, Professor of Education.
V. A. C. HENMON, Acting Director,† Professor of Education.

General Statement

The Course for the Training of Teachers is intended to prepare students for teaching and for supervising instruction, particularly in the public high schools of the state. This preparation rests upon the basis of a sound general education, and consists, in addition, of the following principal parts: (1) special academic instruction in the subjects to be taught; (2) professional training by means of, (a) departmental teachers courses, (b) courses in education and psychology, (c) educational practice, including observation of teaching, under supervision, in the Wisconsin High School and in the Madison Public Schools, and the activities involved in the work of directed teaching as carried on in the Wisconsin High School.

The demands made upon teachers under modern educational conditions render it highly desirable that preparation for teaching should include one year of graduate study in addition to the four years of college work. Practical, as well as professional considerations, do not make this high standard of qualification generally feasible. As at present organized the Course for the Training of Teachers includes provision for:

I. A course to be completed during four years of undergraduate work, supplemented by additional study during one summer session, designated as the Undergraduate Course, and leading to the University Teachers Certificate.

II. A graduate course to be completed during two summer sessions or one semester of study, designated as the Advanced Course, and leading to a special certificate of professional fitness.

Undergraduate Course for the Training of Teachers

Admission and Registration

The completion of the first two years of college work is necessary for admission to the professional work preparatory to teaching.

1. To become a candidate for the University Teachers Certificate, a student must, before December first of the junior year, in addition

*Resigned February 1, 1916.
†Appointed February 1, 1916.

to the usual registration, register in the Course for the Training of Teachers.

2. Each registrant must indicate for the joint approval of the instructor in charge of the departmental teachers course, and the director of the course, the subject or subjects, preparation for the teaching of which is contemplated. In no case will more than three related subjects be approved. (A major subject; a major and one minor subject; a major and two minor subjects.)

Requirements for Completion

The recommendation to receive the University Teachers Certificate is based upon:

1. The satisfactory fulfillment of the requirements of preparation for teaching of either:

(a) A major subject; or

(b) A major subject and one minor subject; or

(c) A major subject and two minor subjects.

To fulfill the requirements of preparation for the teaching of the selected major, a student must present credits in amount and kind as prescribed by the department of such major subject. This departmental prescription must, in all cases, include at least twenty credits; and, in addition, credit for the departmental teachers course (See departmental professional requirements (pp. 249-258), for the credit requirements prescribed by the different departments.)

To fulfill the requirements of preparation for the teaching of the selected minor subject or subjects, a student must present credits in amount and kind as prescribed by the department of such minor subjects. This departmental prescription must contain ten credits, exclusive of the departmental teachers course. (See departmental professional requirements (pp. 249-258), for the credit requirements prescribed by the different departments.)

2. The recommendation of the departments of the major and minor subjects as to general fitness for teaching.

3. The presentation of a certificate of physical health and fitness from the University Medical Examiner.

4. The completion of the special requirements indicated in the following sections.

University Teachers Certificate

A. General Requirements. (1) The requirements for the University Teachers Certificate shall consist, in addition to the work done in the major and minor subjects, of the following credits:

	Maximum	*Minimum*
Psychology (Philosophy 1)	3 cr.	3 cr.
Education	12 cr.	12 cr.
Departmental Teachers Course (Major)	4 cr.	2 cr.
Departmental Teachers Course (Minor)	2 cr.	.....
Total	21 cr.	17 cr.

(2) The maximum requirements of four credits for the departmental teachers course in the major subject, and of two credits for the departmental teachers course in the minor subject are at the option of the department. The minimum of two credits in the departmental teachers course of the major must be secured by *all* students.

(3) Only two of the credits earned in departmental teachers courses of the major subject need to be included in the maximum of forty credits allowed for a major toward a bachelor's degree.

B. Education Requirements. The requirement in education is subject to the following conditions:

(1) A minimum of *twelve* credits in education is required.*

(2) These twelve required credits are to be distributed as follows:
   (a) Educational Practice (Education A) ..... 2 credits
   (b) Elementary courses (see note 4 below) ..... 8 credits
   (c) Advanced course (see note 5 below) ..... 2 credits

(3) The course in Educational Practice (Education A) is required of all students. Graduates of state normal schools and teachers of experience may, however, upon the presentation of satisfactory evidence of teaching ability be permitted, by special action of the Department of Education, to substitute therefor two credits from advanced courses in education.

(4) The eight credits in elementary courses in education must be acquired from courses 1, 6, 11, 41. This requirement may be fulfilled by taking each of the elementary courses for two credits, or by taking two of the courses for three credits each, and one course for two credits. Normal school graduates do not fulfill this requirement (see note 6).

(5) The two credits in an advanced course in education must be acquired from one of the following courses: 102, 103, 104a, 104b, 112, 113, 144.

*Except for normal school graduates; see following notes 3, 4, and 6.

(6) Graduates of state normal schools fulfilling the requirements for the University Teachers Certificate must present a minimum of six credits from advanced University courses in education.

C. Additional Requirements; Summer Session. (1) Candidates for the University Teachers Certificate must secure *eight* credits in addition to the one hundred and twenty credits required for the bachelor's degree; and for such certificate the residence requirement is one Summer Session in addition to the regular residence requirement. This additional Summer Session may not be taken earlier than the close of the sophomore year.

(2) Students of ability, allowed under the general regulations to take more than the regular amount of work, may be permitted by the Committee on the Training of Teachers to acquire the eight extra credits without attendance upon the additional Summer Session.

(3) All exemptions from the Summer Session requirement must be under the following special conditions, adopted by the Committee on the Training of Teachers (January 20, 1915):

(a) The privilege of receiving the University Teachers Certificate in four years without a Summer Session will be granted only to students of approved ability. Such students may apply to the Director of the Course for the Training of Teachers for this privilege during the second semester of the junior year.

(b) No extra credits (that is, credits above fifteen a semester) gained during the freshman year may be counted toward the eight additional credits required for the University Teachers Certificate.

(c) At least *five* of the eight additional credits required for the University Teachers Certificate shall be earned during *two consecutive* semesters of the junior and senior years; provided that in these two semesters, and in the semester immediately preceding, a record of *good* or above in all subjects is obtained.

D. Order and Arrangement. The following order and arrangement in the fulfillment of the above special requirements as approved by the Committee on the Training of Teachers are to be regarded as normal and are recommended to the attention of students and advisers.

(1) Before the end of the second semester of the junior year credit in Psychology (Philosophy I), *three credits*, and not less than *four* credits in elementary courses in education should be acquired.

(2) The six credits to be earned by Summer Session attendance should be divided between the major subject, and education (elementary or advanced).

(3) During the senior year credit in the departmental teachers course of the major should be acquired.

(4) During the second semester of the senior year credit in the departmental teachers course of the selected minor or minors should be acquired.

(5) Credit for Education A (Educational Practice) may be acquired during the first or the second semester of the senior year.

E. Agriculture and Home Economics. (1) Graduates of the Long Course in Agriculture, and graduates receiving the B. S. degree in Home Economics, who have complied with the regulations relative to registration, and to approval of major and minor subjects, will be entitled to receive the certificate upon completion of the special professional requirements indicated (see Agriculture, p. 249; Home Economics, p. 252).

State Teachers License

Upon the fulfillment of the foregoing requirements a student will be recommended by the Director of the Course to the President of the University, to receive the certified statement prescribed by section 458b—2 of the Laws of Wisconsin as amended by chapter 514, Laws of 1913. This certified statement, indicating the subject, or subjects, the requirements for the teaching of which have been fulfilled, when presented to the state superintendent, entitles the holder to receive a license to teach for one year in any public school in Wisconsin. Graduates who have received this University certificate and present satisfactory evidence of good moral character, and two years of successful teaching after graduation, are entitled to receive from the state superintendent an unlimited state certificate.

It may be noted that the requirements for the University Teachers Certificate are in advance of the minimum fixed by law for a license to teach. Students desirous of informing themselves as to the provisions of the law may ascertain them from the office of the State Superintendent of Public Instruction.

The Wisconsin High School

General Statement

The Wisconsin High School, a six-year secondary school, was opened in September, 1911, and is maintained by the University as an integral part of the Course for the Training of Teachers. The primary purposes of this school are, (a) the exemplification of sound educational theory and organization, with special reference to secondary education, and (b) the provision of appropriate facilities for observation and directed teaching. The new building, costing $150,000 was occupied September, 1914. All of the activities of the school are being developed in this building.

The details of the organization, program of studies, etc., of the Wisconsin High School will be found in the annual announcement of the school.

Government of the School

In its relation to the University, the school is under the general oversight of the Director of the Course for the Training of Teachers. The principal is charged with immediate responsibility for the administration of the affairs of the school and for the proper direction of the work of pupils and teachers. The members of the Department of Education of the University constitute a supervisory council for the general supervision of the methods of teaching. Each department of instruction is under the general supervision of a representative of the corresponding University department.

Departments of Instruction

Only such departments and courses of instruction are here indicated as are immediately related to the professional work mentioned in the Undergraduate Course for the Training of Teachers. The announcements of the several departments and colleges of the University should be referred to for more extended and detailed information regarding the courses of instruction open to those students intending to teach. The director of the course and the chairmen of the departments concerned should be consulted with reference to the fulfillment of the requirements for the Advanced Course for the Training of Teachers.

Agriculture

Major. Graduates of the Long Course in Agriculture, properly registered in the Course for the Training of Teachers, will be entitled to receive the University Teachers Certificate, upon the recommendation of fitness by the professor of agricultural education, and upon completing as a part of their elective work, courses in psychology and education equivalent to six to eight credits in addition to special courses for teachers given in the College of Agriculture. A minimum of fifteen credits of professional work is required.

Graduates of the Middle Course in Agriculture, properly registered in the Course for the Training of Teachers at the beginning of the second year, will be entitled to a recommendation to teach agriculture in the schools of Wisconsin, upon exhibiting evidence of personal fitness for teaching and upon the satisfactory completion of the following special work: Agronomy 120, Agricultural Engigineering 2, Dairy Husbandry 2, Economic Entomology 101, Education 1 or 6 or 11 or 41, Agricultural Education 1, Horticulture 3, Poultry 2, Soils 2, and Veterinary Science 2 or 3.

Departmental Teachers Course. Agricultural Education 1. 4 cr. Mr. Hatch, Mr. James.

Botany

Students preparing to teach botany, either as a major or minor subject, are advised to elect courses in both structural and physiological botany, and also those that involve field work.

Major. A minimum of twenty credits from the following courses: Botany 1, 90, 103, 104, 105, 106, 110, 129, 130, 146, 147, 150.

Minor. A minimum of ten credits, in addition to course 90, selected from the following courses: Botany 1, 2, 103, 104, 105, 106, 110, 129, 130, 146. Attention is called to courses 1 and 2, which together constitute a year's work and are especially adapted to the needs of those taking a teachers minor in botany.

Departmental Teachers Course. Botany 90. The Teaching of Botany. II; 2 cr. Mr. Gilbert.

Chemistry

Major. A minimum of twenty credits, including courses 1, 120 (first semester), and 11 (at least five credits).

Minor. A minimum of ten credits.

Departmental Teachers Course. Chemistry 5. The Teaching of Chemistry. Prerequisite, major requirements above indicated. Course 11 may be taken simultaneously. II; 2 cr. Mr. Walton.

Commerce

The Course in Commerce affords certain facilities for those students who wish to prepare themselves to teach commercial subjects in secondary schools. Such students are advised to consult with the director of the Course in Commerce in the arrangement of elective work. Special facilities for pedagogical practice will be given such students in connection with the courses in business administration, and work in addition to that prescribed may be arranged in subjects of especial importance to teachers.

Drawing

See under Manual Arts.

Economics

See under Political Economy.

Education

For general information concerning the equipment, and the courses offered in education, see index under Education. For detailed information relative to the special requirements of courses in education for the University Teachers Certificate see pp. 244-247.

English

Major. A minimum of twenty-eight credits, in addition to the thesis, and exclusive of courses 1a and 1b (required of all students). The twenty-eight credits must exclude courses 30, 50a, 50b, 120a, and one course from each of the following groups: 36 or 137; 34, 35, or 40. A total of thirty-six credits, in addition to the thesis and courses 1a and 1b, may be taken. Students who have had an adequate training in Latin or Greek (usually six years of Latin or four of Greek) may substitute some other English course for 120a; and any student may substitute courser 123 and 25 for 120a with the approval of his adviser.

Minor. A minimum, in addition to courses 1a and 1b (required of all students), including course 30; 50a, and an advanced composition course in the sophomore or junior year (2, 3a, 3b, 5, or

6); and one of the following groups: (a) 34 and 35; (b) 36 or 137; (c) 40.

Departmental Teachers Courses. English 50a. The Teaching of English. I; 2 cr. Mr. ————.

English 50b. The Teaching of English. II; 2 cr. Mr. ————.

French

See under Romance Languages.

Geology

See under Physiography and Geography.

German

Major. Students beginning the study of German in the University with course 1a will find it difficult to prepare to teach German as a major subject, unless they show special aptitude for the work. Students taking courses 2a and 2b in the freshman year will as a minimum have to devote to German from eight to ten semester hours a year for the remaining three years, taking thus, including the thesis, a total of at least twenty-four credits in advance of course 2b. For the maximum number of credits that may be elected (see p. 150). The following courses are required: courses 10 or 112, 114a, 114b, 130 or 131, 150 and 151.

Minor. Courses 10 or 112, 92 (for one or two credits), and at least four credits from courses 21 to 28, 130 or 131. Students who have done a considerable amount of work elsewhere or have had successful teaching experience may be excused, by action of the department, from some of the required work. Such excuse will be granted only on the basis of an examination and in no case will students be recommended by the department, unless they have taken at least four credits of work in the department.

Departmental Teachers Courses. German 92. Teachers Course for Minors. I; 2 cr. (3 hours.) Conversation, grammar, phonetics; 1 cr. (2 hrs.); Methods and organization of a two-year course; 1 cr. For seniors. Mr. Purin.

German 114a. Teachers Course for Majors. I; 2 cr. Methods, For seniors and graduates. Mr. Deihl.

German 114b. Teachers Course for Majors. II; 2 cr. Phonetics. For seniors, and graduates. Mr. Purin.

Government

See under Political Science.

Greek

Major. A minimum of eighteen credits in courses 10, 11, 20, 21, and either 105a and 105b or 106.

Minor. A minimum of courses 10, 11, 20, and 21.

Departmental Teachers Course. The department of Greek does not offer a regular departmental teachers course. For those preparing to teach Greek, opportunity is provided to study the methods and aims of the instruction through the University classes in elementary Greek.

History

Major. A minimum of thirty credits, of which at least sixteen must be in advanced courses and thesis, and in addition course 150.

Minor. A minimum of sixteen credits in addition to course 151. These sixteen credits must include at least four in advanced courses.

Departmental Teachers Courses. History 150. The Teaching of History. I or II; 2 cr. Mr. Chase.

History 151. Supplementary Reading for High School Teachers of History. II; 2 cr. Mr. Chase.

Home Economics

Major. A minimum credit of courses 2, 3, 5, and such other home economics credits as to make thirty-six to forty. A major may be taken in the general course, in Food and in Textiles. Graduates in the Course in Home Economics who have fulfilled this minimum credit, and who have been properly registered in the Course for the Training of Teachers will be entitled to receive the University Teachers Certificate, upon the recommendation of fitness by the Department of Home Economics and upon completing courses in psychology and education equivalent to six to eight credits in addition to the departmental teachers courses. A minimum of ten credits and a maximum of fifteen credits of professional work is required.

Minor. A minimum of fifteen to twenty credits. A minor may be taken in foods, textiles, or housing problems.

(1) A minor in foods must include Home Economics 1, 3, 4, and other related courses to make fifteen to twenty credits.

(2) The minor in textiles must include courses 2, 5, 11, and other related courses to make fifteen to twenty credits.

(3) The minor in housing problems is intended to be taken with a major or minor in sociology so that those intending to do the work of sanitary inspector or other social settlement work will have a broad foundation knowledge of the fundamental problems in housing conditions. This minor includes Home Economics 2, 7, 8, 10, for which the prerequisites are Physics 1, Bacteriology 4.

Departmental Teachers Course. Home Economics 121. The Teaching of Home Economics. Prerequisite: a major or minor in home economics. II; 2 cr. Miss Marlatt, Miss Schmit.

Latin

Major. A minimum of twenty-four credits, including 107, 116, and one advanced reading course for one year.

Minor. A minimum of twenty credits, including one advanced reading course for one year.

Departmental Teachers Course. Latin 116. The Teaching of Latin. I (required) 2 cr.; II (elective) 2 cr. Miss Sabin.

Manual Arts

Major. A minimum of thirty credits in selected courses. A major may be taken in courses in drawing, design, and crafts work.

Minor. Teachers of Elements of Drawing and Shopwork. A minimum of seventeen credits, including courses 1, 4, 5, one semester of 112, and either 50 or 62 or a selected substitute.

Minor. Teachers of Freehand Drawing and Design. A minimum of seventeen credits, including courses 1 (first semester), 50 and 51, 62, one semester of 112, and either 70 or 71 or a selected substitute.

Departmental Teachers Course. Manual Arts 112. The Teaching and Supervision of Manual Arts. Yr.; 4 cr. (Two credits may be elected either semester). Mr. Crawshaw.

Mathematics

Major. (a) A minimum of courses 5 and 6, and 112, or 113, or 115, and the courses that necessarily precede them; (b) course 11 is open to those who offer mathematics as a major. At the discretion of the department it may be required of individual students:

(c) a knowledge of solid geometry obtained in the secondary school or elsewhere.

Minor. (a) A minimum of twelve credits from courses 1 to 7, 51, 52, 71, 115 in mathematics and course 3 (Descriptive Geometry) in drawing. Six of these credits must be earned in residence at The University of Wisconsin, with a grade of at least "fair"; (b) course 10 is required of all who offer mathematics as their principal minor; course 11 is open to such students and, in individual cases, may be required at the discretion of the department; (c) a knowledge of solid geometry obtained in the secondary school or elsewhere.

Departmental Teachers Courses. Mathematics 10. The Teaching of Mathematics. I or II; 2 cr. Mr. Hart.

Mathematics 11. The Content of Secondary Mathematics. II; 2 cr. Mr. Hart.

Music

The School of Music has adequate facilities for the training of teachers of public school music. This training includes courses both for those who expect to combine the teaching of other branches with the subject of music in the grades or in the high school; and for those who desire to fit themselves for the special work of supervision of music in the public schools (see in particular, courses announced in public school music). A particularly valuable feature of the work is the actual teaching by students for an entire year, of about a thousand children, distributed throughout all grades, in certain Madison schools. Opportunity is also offered for cultural studies in appreciation of music, history of music, etc.

Attention is called to the special advantages offered in the School of Music for the private study of voice culture, pianoforte, organ, violin and other orchestral instruments, at moderate expense. There is also opportunity for choral practice in the large Choral Union and orchestral practice in the University Orchestra, both of which rehearse weekly throughout the academic year.

Students satisfactorily completing the Two Year Course for Supervisors of Music will be entitled to a recommendation to the State Board of Examiners to receive a special state license to teach music in the public schools of the state. This recommendation will be issued by the Director of the Course for the Training of Teachers, providing,—(a) That the student registers in the Course for the Training of Teachers not later than December first, of the first year of residence; (b) That the student has earned special cred-

its as follows: Psychology (Philosophy 1), 3 cr.; Education, 1 or 6 or 11 or 41, 3 cr.; (c) That the student presents a statement from the Chairman of the Department of Public School Music as to general fitness for teaching.

Philosophy

The following course must be completed by all students fulfilling the requirements of the Undergraduate Course for the Training of Teachers.

Philosophy 1. (Psychology): Introductory course. I; 3 cr. Mr. Jastrow, Mr. Sharp, Mr. Otto, Mr. Starch, Mr. Hull. II; Mr. Starch.

Physical Education

Major. Course 20 for four years, courses 56, 59, 62, 63, 67, 107, 108, 114; courses 21-50 (at least four credits), and thesis (four credits)—a total of thirty-two credits. Prerequisites in biology, chemistry, anatomy, physiology, and psychology must be satisfied.

Minor. Course 20 for four years, courses 59, 60-61, courses 21-50 (four credits), Zoology 1a and Physiology 1 and 2.

Departmental Teachers Courses. Major. I; 2 cr. Physical Education 67. Principles of Adaptation and Teaching. Mr. Hetherington.

Physical Education 60-61. Minor. II; 2 cr. The Physical Education of Children and Adolescents. Mr. Ehler.

Physics

Major. A minimum of twenty credits in approved courses.

Minor. A minimum of ten credits in approved courses.

Departmental Teachers Course. Physics 8. The Teaching of Physics. II; 2 cr. Mr. Steve.

Physiography and Geography

Major. A minimum of twenty credits in approved courses in the Department of Geology including course 110.

Minor. A minimum of twelve credits in approved courses in the Department of Geology including course 110.

Departmental Teachers Course. Geology 110. The Teaching of Physical Geography. I; 2 cr. Mr. Whitbeck.

Physiology

The departments of anatomy, physiology, bacteriology and hygiene, acting conjointly, have outlined the following as a preparation for teaching human physiology.

Major. A minimum of twenty-three credits in the following courses: Physiological Chemistry 104 (prerequisite: organic chemistry), 4 cr.; Anatomy 105 (prerequisite: Biology 1), 3 cr.; Anatomy 115, 2 cr.; Physiology 105, 9 cr.; Bacteriology 102, 5 cr.

In order to fulfill these requirements, Physics 1 or 1 Sc., Chemistry 1, and Biology 1, should be completed before the beginning of the junior year.

Minor. A minimum of eleven credits in the following courses; Physiology 1 and 2, 4 cr.; Hygiene 1, 2 cr.; either Bacteriology 1 or 4, 5 cr.; General Chemistry is strongly advised before taking physiology or bacteriology.

Minor. Special requirements for Home Economics students: physiology, 3 cr.; hygiene, 2 cr.; bacteriology, 5 cr.

Political Economy

Major. A minimum of twenty selected credits.

Minor. A minimum of ten selected credits.

Departmental Teachers Course. Political Economy 190. The Teaching of Economics. II; 2 cr. Mr. Urdahl.

Political Science

Major. A minimum of twenty-one credits, in addition to the thesis, in approved courses, and including course 29.

Minor. A minimum of sixteen credits in approved courses.

Departmental Teachers Course. Political Science 29. The Teaching of Government. II; 2 cr. Mr. Hall.

Public Speaking

Major. A minimum of twenty credits in addition to thesis and courses 118 (a and b).

Minor. A minimum of sixteen credits in selected courses.

Departmental Teachers Courses. Public Speaking 118a, Teachers Problems in Reading and Dramatics. (Open only to graduates and senior major and minor students in public speaking). I; 2 cr. Miss Johnson.

Public Speaking 118b. Teachers Problems in Speech-Making and Debate. (Open only to graduates and senior major and minor students in public speaking). II; 2 cr. Mr. O'Neill.

Romance Languages

FRENCH

Major. A minimum of twenty credits in advance of second year French. The following courses are required: course 90b and one two-credit composition or conversation course, or two one-credit courses in such work. At least one of the three-credit courses dealing with an extensive period of French literature and course 90a in French pronunciation should be taken. For those taking more than the minimum, course 240 is recommended.

Minor. A minimum of ten credits in advance of second-year French. At least one course in conversation or composition, and one course in some extensive period of French literature, should be taken. The requirements for preparation to teach French as a minor will vary greatly, depending upon the acquirements of the student in first and second year work. All such students are advised to consult with the chairman of the Department of Romance Languages during their second year's work in French.

ITALIAN

Students preparing to teach Italian should consult with the chairman of the Department of Romance Languages.

SPANISH

Major. A minimum of twenty-two credits in advance of Spanish 1. French 90b, and at least one course in composition or conversation must be taken. Commerce courses may be counted toward a major in Spanish only by special permission.

Minor. A minimum of eight credits in advance of second year Spanish. At least one course in conversation or composition and one course in some period of Spanish literature should be taken.

Departmental Teachers Course. French 90b. The Teaching of French and Spanish. Yr.; 2 cr. Miss Gay.

Spanish

See under Romance Languages.

Zoology

Major. A minimum of twenty credits from the following courses Zoology 1a, 1b, 11, 9, 102a, 104a, 105. In special cases other courses may be substituted by permission of chairman of department.

Minor. A minimum of ten credits from the following courses: Zoology 1a, 1b, 9, 102a, 104a. Attention is called to courses 1a and 1b, which together constitute a year's work and are especially adapted to the needs of those taking a minor in zoology.

Departmental Teachers Course. Zoology 20. The Teaching of Zoology. II; 2 cr. Mr. Pearse.

Advanced Course for the Training of Teachers

The Advanced Course for the Training of Teachers is designed to meet the needs of those students who desire a more intensive preparation for teaching than that provided for by the Undergraduate Course. As planned at the present time, the special advanced study may be accomplished during one semester of *resident* graduate work or through graduate work during two summer sessions.

Admission and Registration

1. Any student eligible to graduate standing in the University may, upon the recommendation of the departments concerned, be permitted to register in the Advanced Course for the Training of Teachers; provided, that the previous preparation of the student contains an amount of professional study equivalent to that specified in the requirements indicated for the completion of the Undergraduate Course for the Training of Teachers (page 245).

2. Any student eligible for entrance to graduate standing in the University, whose previous preparation does not contain an amount of professional study equivalent to that specified in the requirements indicated for the completion of the Undergraduate Course for the Training of Teachers, may, upon the recommendation of the departments concerned, be permitted to register in the Advanced Course for the Training of Teachers, provided, that such student must complete, in addition to the indicated requirements of the Advanced Course, an equivalent of such deficiency.

Requirements for Completion

1. The satisfactory completion of an amount of work equal to at least twelve credits, in addition to the requirements prescribed for the bachelor's degree and for the Undergraduate Course for the Training of Teachers.

2. For those students making special preparation for high school teaching, the twelve credits shall be divided as follows:

Academic subject or subjects.....8 credits
Education .....4 credits

3. For those students making special preparation for the work of school superintendents and principals, the twelve unit hours shall be divided as follows:

Education .....8 credits
Academic subject .....4 credits

4. In connection with the requirements in education noted under 2 and 3 the student must fulfill such special requirements regarding the observation of teaching, visitation of schools, and directed teaching as may be indicated by the Department of Education.

5. For those students making special preparation for the work of critic teachers in normal schools, or of instructors in education in normal schools or universities, the entire twelve credits may be taken within the Department of Education.

Special Certificate

Upon the fulfillment of the requirements indicated above, and upon the joint recommendation of "fitness" by the Department of Education and the other departments concerned, the student shall be recommended by the Director of the course to the President of the University, to receive *The Certificate in the Advanced Course for the Training of Teachers.*

University Summer Session

The announcement of the summer session should be referred to for detailed information regarding the courses open to students in the Advanced Course for the Training of Teachers.

Teaching Fellowships

In accordance with the policy of encouraging graduate study, and for the purpose of providing more thorough and extended preparation for teaching and supervisory positions in the public schools of the state, the Regents of the University have established six special fellowships, known as "Teaching Fellowships." These are open only to graduates of The University of Wisconsin. Appointments are made upon the recommendation of the Committee on the Training of Teachers and are for a period of one academic year. Each fellowship has an annual value of two hundred and seventy-five dollars ($275). The holders of these fellowships devote one-half year to special graduate study within the University, and one-half year to apprenticeship teaching, under supervision in one of the so-called "cooperating high schools." A further payment of approximately one hundred and thirty-five dollars ($135) is made for the service rendered by each fellow in the cooperating high school.

Further details concerning the fellowships may be obtained from the Director of the Course for the Training of Teachers.

Industrial Teaching Scholarships

For the purpose of encouraging, on the part of skilled craftsmen, special professional preparation for teaching in industrial vocational schools, the Regents established, in 1912, one resident industrial scholarship having an annual value of four hundred dollars ($400). Two of these scholarships were provided for 1915-1916. Appointment is for one year, and is made upon the joint recommendation of the Professor of Manual Arts and the Director of the Course for the Training of Teachers.

Special Industrial Scholarships

Each year the Department of Manual Arts conducts what is known as the Mechanics Institute. This Institute is composed of the holders of special industrial scholarships. The Regents of the University have established twelve of these scholarships for the purpose of encouraging skilled craftsmen to prepare to teach industrial arts in public schools, especially public continuation schools. Each scholarship entitles the holder to an honorarium of sixty dollars, paid at the conclusion of the Institute which is held for eight

weeks, usually during the months of April and May. Detailed information relative to the requirements for appointment to the special industrial scholarships and to the work of the Mechanics Institute will be furnished upon request to Professor F. D. Crawshaw.

Graduates of Normal Schools

Graduates of the advanced course of the normal schools of the state, admitted to the University, may obtain the University Teachers Certificate, or the certificate in the Advanced Course for the Training of Teachers, by fulfilling in their University course the specified requirements. Such normal school graduates, when candidates for the Bachelor of Arts degree, must present a minimum of six University credits in education.

Special Lectures

In order that the Course for the Training of Teachers may be maintained and developed in close relation with the practical educational interests of the state, the University aims each year to enlist the cooperation of presidents and professors of the normal schools, superintendents, principals, and others engaged in educational work as special lecturers.

Relations With Madison Public Schools

By the terms of formal agreement entered into by the Regents of the University and the Board of Education of the city of Madison the classes of designated teachers in the Madison High School and specified elementary schools are open to students in the Course for the Training of Teachers for the observational study of teaching.

THE COLLEGE OF ENGINEERING

FREDERICK E. TURNEAURE, DEAN, PROFESSOR OF ENGINEERING.

Organization of the College

It is the endeavor of the College of Engineering to combine a reasonable amount of specialization, during the later years of its courses, with a thorough grounding in the fundamentals during the earlier portions; and in carrying out this plan, it endeavors to make the mathematical and theoretical courses strong in the earlier years, while the drawing and shop courses continue progressively from the beginning to the end. It also introduces sufficient foreign language to enable its graduates to read professional German and French literature, and aims to give a sufficient command of the English language to enable its graduates to present professional subjects with effectiveness.

Requirements for Admission to the Courses Leading to the B. S. Degree

Students are admitted either upon examination at the University or upon certificates from accredited schools, except that students from other colleges and universities and adult special students are admitted in accordance with the provisions stated on pages 106 to 108.

The requirements for the admission of regular freshmen are stated fully on page 90; of advanced students on page 373; of adult special students on page 108.

The College of Engineering Circular, giving detailed information concerning the college, may be obtained upon application to the Registrar of the University.

Preparation in Algebra for Engineering

All students entering the College of Engineering will be tested in algebra by class work and by an examination given shortly after the beginning of the first semester. It is essential that students in the engineering courses shall possess a good working knowledge of algebra *at the beginning of their course*, and it is the purpose of the test to secure this by requiring a review of the subject shortly before entering the University. Students failing in the test are not permitted to continue with regular freshman mathematics, but are required to take a review of preparatory algebra during the first semester. A special course is provided for this purpose.

In performing the fundamental operations of algebra, such as multiplication and division, the use of parentheses, the solving of numerical and literal equations of the first and second degrees, the simplification of fractions and radicals, and the putting of problems into equations, it is of the first importance that the student should have distinct notions of the meaning and reasons for all that he does, and be able to state them clearly in his own language. He should be able to perform all these operations, even though somewhat complex, with rapidity, accuracy, and neatness. In his preparatory studies the student is advised to solve a great many practical problems and to describe fully the reason for the steps taken.

Student Advisers

In the selection and arrangement of studies, all students are under the supervision of advisers. It is the duty of the advisers to issue class cards at the opening of each semester, admitting students to their classes, to receive the regular semester reports from instructors, and special reports on deficient students, and to report to the faculty all cases requiring special action.

Reports to parents or guardians on the work of students are sent from the Registrar's office at the end of each semester.

Fees and Expenses

Tuition for residents of the State of Wisconsin	Free
Tuition for nonresident students—per semester	$62 00
General fee per semester	12 00
General fee for four weeks summer term, shop or field work	7 00
Assaying fee (Mining 121)	15 00

For general information as to fees, expenses, etc., see page 66.

The fees for graduate students are the same as for undergraduate students.

A laboratory fee of $2 per unit-hour (two hours per week of actual work) per semester is charged in all the engineering laboratories, except in assaying as above noted, and for the use of surveying instruments in the field. Students taking laboratory theses are charged a fee of $5.

Students working in any of the other laboratories of the University are also required to pay a fee or to make a deposit to cover the cost of the materials and repairs to instruments used by them.

At the beginning of the freshman year, students must be prepared to meet an expenditure of about $70, for laboratory fees, drawing instruments, textbooks, and military uniform. For the second semester these expenses will not exceed $10. For subsequent years the fees and textbooks will amount to from $15 to $20 per semester.

Rooms, furnished and unfurnished, can be obtained in the city at reasonable rates. The cost of board in clubs is from $3.50 to $4.00 a week; in private families from $4.00 to $5.00 a week.

Equipment

Buildings

The main building of the College of Mechanics and Engineering contains the offices, recitation and drawing rooms, the engineering library, and laboratories for work in mechanical engineering, steam, and the testing of materials. A second building contains the electrical laboratories and the various departments for shop instruction; a third the laboratories for chemical engineering; a fourth the hydraulics laboratory; and a fifth, the mining building, the ore dressing and assaying laboratories.

For chemistry the engineering students go to the Chemistry Building, for physics and other natural sciences to Science Hall, and for language, mathematics, and other similar work, to the literary halls of the University. In this way the students of engineering come into daily contact with the students in the other courses.

Libraries

For a general account of the library facilities of the University, see page 64. The engineering library is housed in the main engineer-

ing building, where reading-room facilities are provided for about one hundred students. The collection of technical books is very complete and includes files and current numbers of about two hundred and fifty periodicals.

Laboratories and Apparatus

The Bridge Engineering Department owns several autographic extensometers and a deflectometer for determining bridge stresses under moving train loads. The department also possesses a large number of photographs, drawings, and lantern slides illustrating detail, erection methods, and complete structures of a great variety of design.

The Chemical Engineering and Applied Electrochemistry Laboratories are equipped for technical gas and fuel examinations, the equipment comprising all standard forms of analytical apparatus, gas and fuel calorimeters. Steam stills, evaporators, centrifugals, vacuum dryers, digesters, vacuum and pressure pumps, melting, roasting, and calcining furnaces, and other similar apparatus are installed for the study of chemical manufacture.

In the crushing and grinding room are various commercial types of coarse and fine crushers and disintegrators for treatment of ores and other raw materials. Magnetic, electrostatic, and other forms of separators are included in the equipment.

The applied electrochemistry equipment comprises a great variety of electrochemical appliances, a complete electroplating and refining room, an electric furnace room with various types of furnaces and sources of power, both alternating and direct, aggregating over 250 horse-power.

A complete equipment of base metal and platinum thermocouples, resistance thermometers, radiation and optical pyrometers, millivoltmeters, potentiometers, and furnaces are available for the testing of steels, refractory materials, ores, etc.

Metallographic microscopes of various types, furnaces, pyrometers, grinding and polishing machines, and photographic rooms are installed for the study of the structure and effects of heat and mechanical treatment of metals and alloys.

The Electrical Laboratories comprise a dynamo laboratory, a high potential laboratory, a photometry laboratory, and a standards laboratory.

These are all housed in the same building, and have recently been extensively remodeled. Their equipment is unusually complete and every facility is offered for efficient work. The Department of Electrical Engineering cooperates with the Wisconsin Railroad Commission in the use of its laboratories for standardizing work.

The Hydraulic Laboratory, which occupies its own building, is located on the shore of Lake Mendota. The facilities, therefore, are especially good for studying problems where large quantities of water under low heads are required. The University water works pumping station and pressure storage tank house, which immediately adjoin the hydraulic laboratory, provide a water supply under heads up to about 170 feet. The laboratory is unusually well equipped. It has a thirty-inch centrifugal pump furnishing up to 35,000 gallons per minute, five concrete measuring chambers with a total capacity of about 10,000 cubic feet, various weir boxes and weirs, pipes of different materials and sizes, Venturi, and meters of disc and piston type, turbines, overshot and tangential wheels, pumps of various types, including two air lift pumps, hydraulic rams, and a full supply of apparatus designed for experimental purposes.

The Machine Shop affords excellent facilities for mechanical practice. It embraces a main machine room properly equipped; a carpenter shop supplied with wood-working machines; a forge room provided with forges and their equipment with blast and exhaust fan and annealing and case-hardening furnace; a foundry room whose equipment consists of a cupola, brass furnace, and core oven with the necessary small tools; a woodwork room supplied with benches, carpenter tools, and wood turning lathes; and a pattern room furnished with the requisite tools.

The Mining and Metallurgical Building contains about ten thousand square feet of floor space. The assay laboratories include a furnace room, a chemical laboratory, and a balance room equipped with all the important types of fire assay apparatus. The ore dressing laboratories include crushing, grinding, sizing, classifying, concentrating, and amalgamating equipment. The metallurgical equipment comprises special types of furnaces and kilns, clay moulding and testing apparatus, cyanide plant, pyrometers, and other accessories. Special facilities are offered for research.

The Steam and Gas Engineering Laboratory is well equipped with a variety of steam and gas engines, specially arranged for experimental work, and for demonstration of the principles discussed in the class room. One of the most important of these is a fifty

horse-power cross compound steam engine specially arranged for testing with either superheated or saturated steam. This laboratory contains also a fifteen-ton refrigerating plant, consisting of a Corliss engine direct-connected to a horizontal double-acting ammonia compressor. With the above compressor there are installed double pipe condensers and brine coolers, brine tanks, and brine coils.

This laboratory also contains a twenty-five kilowatt steam turbine, a fifty horse-power two-stage air compressor directly connected to a compound condensing engine equipped with the Meyer valve gear; also various other types of steam, gas, gasoline, hot air engines, automobile engines, and gas producers, and a small vertical boiler and engine. Special equipment has recently been completed for the measurement of air by a number of different methods. A very complete apparatus for testing the efficiency of shaft bearings of various types has been built in the college shops and is now used by students in regular laboratory courses. The equipment of the University Heating Plant, the Capitol Heating Plant, and the plant of the Madison Gas and Electric Company are available and are used by the students as part of their regular laboratory work.

Transmission dynamometers, belt testing machines, gear transmission, friction testing machines, etc., are provided for experimental work in the transmission of power.

Excellent facilities are also provided for carrying on engineering research. Special facilities are available to graduate students who wish to pursue advanced research.

The Surveying Laboratory contains all the portable astronomical, and field instruments needed for extensive triangulation, topographic, hydrographic, and railroad surveys, including theodolites, altazimuth, tidal gauge, heliotropes, Kern precise-level and new U. S. C. & G. S. precise-level outfits, sounding apparatus, base-line apparatus, including a new "invar" tape, current meters, transits, compasses, levels, planetables, telemeters, and such special instruments as planimeters, pantographs, sextants, computing machines, aneroid barometers, etc. By an agreement with the director of Washburn Observatory, the surveying laboratory shares in the free use of the extensive apparatus belonging to that observatory, including, in addition to the large equatorial telescope and the meridian circle collimators, transit micrometers, chronograph, sidereal and meantime clocks, zenith telescopes, a transit instrument of the broken type, chronometers, an altazimuth, a universal

instrument of the German type, spherometer calipers, and a complete set of meteorological instruments.

The Road Material Testing Laboratory contains a standard N. B. M. brick rattler of the latest type, a four-cylinder Deval abrasion machine, a Page impact machine for testing the toughness of rock, a ball machine, diamond drill, and saw and the standard machine for testing cementing power of rocks, and an impact machine for testing the cementing value of rocks.

Arrangements have been made with the chemical engineering department whereby special instruction is given to highway engineers on the chemistry of bituminous materials and excellent opportunities are offered for learning the usual laboratory tests on asphalts, tars, and oils. See Roads and Pavements 104.

The Testing Laboratory is supplied with a 600,000 pound hydraulic universal testing machine (designed in the laboratory) taking tension and compression specimens 10 feet and beams 20 feet long; a Riehlé torsion machine taking shafts 15 feet long and 3 inches in diameter; a 100,000 pound Johnson beam machine taking beams 18 feet long; six Olson and Riehlé universal machines from 10,000 to 100,000 pounds capacity; a Thurston torsion machine; a Russell impact machine; a Deval abrasion machine; a Dory abrasion machine; a standard brick rattler; a Brinell hardness tester; several small beam and wire machines; a refrigerator and a gas furnace for freezing and heating tests; a Smith concrete mixer; and a good equipment for tests of cement and plain and reinforced concrete.

The Cement Laboratory contains a full supply of necessary apparatus for making standard tests; baths, self-recording thermometers, Boehme hammer, complete one-thousand-pound Riehlé and Fairbanks testing machines, etc.

The Forest Products Laboratory is conducted in cooperation with the work of the University, and offers especially valuable opportunities for engineering students to carry on advanced study and research pertaining to the utilization of forest products. The equipment of this laboratory is described on p. 431.

The investigative work and equipment of the laboratory include the following divisions of work: (1) Timber Physics, (2) Timber Tests, (3) Wood Preservation, (4) Wood Distillation, (5) Wood Pulp, (6) Chemistry of Wood, and (7) Engineering. The equipment is complete in all respects and is such that it is possible

to approximate commercial conditions much more closely than is done in the ordinary laboratory work.

The Paving Material Museum includes an excellent exhibit of paving supplies and samples of both old and new pavements, both foreign and domestic, for use in the courses in Roads and Pavements.

The Engineering Museum contains a collection of models illustrating problems in descriptive geometry, stereotomy, and kinematics, besides many models of bridges and hydraulic structures. There are also numerous industrial exhibitions of engineering interest and value.

A further description of the engineering laboratories and museums may be found in the separate bulletin issued by the College of Engineering.

Courses of Study and Degrees

Courses Leading to the B. S. Degree

The College of Engineering offers five systematic four-year courses leading to the B. S. degree.

Civil Engineering.
Mechanical Engineering.
Electrical Engineering.
Chemical Engineering.
Mining Engineering.

Students who complete any of the above four-year courses are graduated with the degree of Bachelor of Science, the diploma containing a specific designation of the course taken.

The above courses may also be taken as five-year courses leading to the B. S. degree. The additional year will make it possible to include a large amount of work in the College of Letters and Science.

Graduate Work

The graduate work in the College of Engineering is a part of the Graduate School of the University, and is in charge of an administrative committee. Excellent opportunities are offered in the various departments for advanced theoretical work and

for research. A special fund is available to be devoted exclusively to experimental work in the engineering laboratories.

The degrees of Civil Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, and Engineer of Mines are conferred as second degrees (a) upon graduates of approved institutions who have completed suitable undergraduate courses and who pursue advanced professional study at the University for one year or more and present a satisfactory thesis; (b) upon graduates of the College of Engineering of The University of Wisconsin who have spent three years in professional work, at least one of which must have been in a position of responsibility, and who present satisfactory theses.

The degrees of Master of Science and Doctor of Philosophy are conferred upon graduates of the engineering courses under the same requirements as apply to graduates of the College of Letters and Science. For a statement of these requirements see Index under Degrees.

Six Year Courses Leading to the B. A. Degree and an Engineering Degree

By properly arranging their elective studies, students in the College of Letters and Science secure the B. A. degree at the end of four years, and the B. S. degree in engineering in two additional years. These students will register in the College of Letters and Science during the first four years of residence. They will elect during their collegiate course the studies of the first two years of the engineering course which they plan to pursue later, with the exception of shop work. This may be taken as an extra study, or may be taken during vacation time. Upon receiving the B. A. degree they will be admitted as juniors in the College of Engineering.

By utilizing the opportunities offered in the Summer Session students may in most cases secure the professional degree at the end of the sixth year.

Modern Language Requirements in all Engineering Courses

When two years of French or German is presented for entrance an additional year of foreign language is required. The foreign language offered for entrance should preferably be continued in the University.

When three years of one foreign language or four years of two or more foreign languages is accepted for entrance no additional foreign language is required.

Students who present the required number of units for entrance and who are graduates of accredited schools will be admitted without a preparation in foreign language, but subject to a condition in the same. In this case there are required sixteen semester hours in French, German, or Spanish. If French be taken and an average mark of 85 or over be made for the first eight credits, then the remaining eight credits may be taken in another foreign language.

Summer Vacation Work

All engineering students are required to take summer vacation work in addition to the work of the four academic years. For civil engineering students this work consists of four weeks of field work, following either the sophomore or the junior year. For mechanical engineers the equivalent of four credits of industrial practice is required. The electrical engineers are required to take four weeks of approved summer work in an engineering or industrial organization. The summer work for chemical engineers consists of a course in chemical manufacture, Chemical Engineering 114a, 114b. The mining engineers are required to take six weeks of surveying, following either the freshman or sophomore year, and at least one month of mining work following the junior or senior years.

Inspection Trips

Inspection trips, for visiting industrial plants, are required of all engineering students during the junior or senior year. They are arranged and conducted by members of the faculty of the various departments and are designed to illustrate the work of the several courses.

The electrical and mechanical engineers take the trip in the autumn of the senior year. The student has the choice between the eastern trip, including usually Chicago, Niagara Falls, Buffalo, Pittsburgh, Cleveland, and Gary, and the western trip, including Milwaukee, Chicago, and cities in the near vicinity. Each of these trips lasts a week.

The civil engineers visit the cities of Chicago and Milwaukee, one in the spring of the junior year, the other in the autumn of the senior year. Each of these trips takes three to four days.

The chemical engineers make a week's visit to Milwaukee, Chicago, and points near by in the autumn of the senior year.

The mining engineers make their inspection trip in connection with their required summer course (see Mining and Metallurgy 110).

Thesis

According to the University rule every candidate for a bachelor's degree must present a thesis or its equivalent. In the College of Engineering wide latitude is allowed both in the choice of subject and method of treatment. The thesis may take the form of library work, laboratory research, design or special problems.

Special Lecturers

It is the practice of the college to provide each year a number of lectures on various phases of engineering practice. These lectures are for the most part given by prominent nonresident engineers and professors; some are given by Wisconsin professors. Their purpose is to enliven the interest of the student, and to broaden his horizon rather than to give specific instruction. The following lectures were given in the academic year 1914-15:

Life of John Ericsson—Professor J. G. D. Mack, The University of Wisconsin.

Some Personal Experiences with Patents—C. F. Burgess, Consulting Chemical Engineer, Madison, Wis.

Steel—Bradley Stoughton, Secretary, American Institute of Mining Engineers.

Development of Large Gas Engines in America—E. T. Adams, Consulting Mechanical Engineer, Detroit, Mich.

Raising the Maine—Major A. B. Ferguson, U. S. Engineer, Milwaukee, Wis.

Experiences in China—Professor D. W. Mead, The University of Wisconsin.

Evolution of Steam Tables—Professor G. A. Goodenough, University of Illinois.

Archimedes as an Engineer—Professor C. S. Slichter, The University of Wisconsin.

Electrical Equipment of the Locks of the Panama Canal—Edward Schildauer, formerly Chief Mechanical Engineer, Panama Canal Commission.

Possibility of Fire from Locomotive Sparks—Professor L. W. Wallace, Purdue University.

Water Supply Engineering—Allen Hazen, Consulting Engineer, New York City.

Modern Excavating Machinery—G. A. Morrison, Designing Engineer, Bucyrus Co., Milwaukee, Wis.

Future of the Central Station—Samuel Insull, President, Commonwealth Edison Co., Chicago, Ill.

OUTLINE OF ENGINEERING COURSES

CIVIL ENGINEERING COURSE

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester		Credits
*Foreign Language	German, French, or Spanish	4
Mathematics 51	Algebra	5
Drawing 1	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Topographical Engr. 1	Elements of Surveying and Mapping	2
Physical Education		1
Military Science		1
Freshman lectures		0
	Total	19

Second Semester		
*Foreign Language	German, French, or Spanish	4
Mathematics 52	Trigonometry and Analytical Geometry	5
Drawing 2	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Topographical Engr. 2	Elementary Surveying and Mapping	2
Physical Education		1
Military Science		1
Freshman lectures		0
	Total	19

SOPHOMORE YEAR

First Semester		Credits
Mathematics 54	Calculus	4
Physics 51	General Lectures and Laboratory Practice	5
Drawing 3	Descriptive Geometry	3
Topographical Engr. 3	Land Surveying and Mapping	3
Railway Engr. 1	Railway Curves	2
Physical Education		1
Military Science		1
	Total	19

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 52	General Lectures and Laboratory Practice	5
Mechanics 1, 2	Statics, Mechanics of Materials	5
Topographical Engr. 4	Advanced Surveying and Mapping	4
Physical Education		1
Military Science		1
	Total	20

Summer Work, 4 weeks.

*Students entering with advanced language preparation (three years of one foreign language or four years of two or more foreign languages) have completed the foreign language requirements. These students will substitute (a) English in the freshman year for foreign language, (b) an elective for English in the junior year, and (c) take two credits additional elective.

A total of 154 credits exclusive of summer work is required for graduation.

JUNIOR YEAR

First Semester		Credits
Mechanics 3	Mechanics of Materials	5
Mechanics 51	Materials of Construction	2
Hydraulic Engr. 1	Hydraulics	4
Railway Engr. 2	Railway Location and Construction	2
Railway Engr. 22	Practice in Field and Office Work	3
*English 1 E		3
	Total	19

Second Semester		Credits
Mechanics 51	Materials of Construction	2
Hydraulic Engr. 110	Hydrology	2
Railway Engr. 103	Maintenance of Way	2
Railway Engr. 110	Masonry Construction	2
Structural Engr. 2	Bridge Stresses, Simple Structures	4
Steam & Gas Engr. 7	Engines and Boilers	2
*English 1 E		3
Elective		3
	Total	20

SENIOR YEAR

First Semester		Credits
Structural Engr. 3	Steel Structures. Roof Truss and Plate Girder Design	4
Structural Engr. 105	Concrete Structures. Analysis of Stresses	2
Steam and Gas 127	Calibration of Instruments	2
Hydraulic Engr. 111	Water Supply	3
Electrical Engr. 131a	Direct Current Machinery	2
Electrical Engr. 130	Direct Current Laboratory	1
Electives		5
	Total	19

Second Semester		Credits
Structural Engr. 4	Steel Structures. Railway Bridge. Truss Design	3
Railway Engr. 111	Substructures	1
Structural Engr. 111	Concrete Structures. Analysis of Stresses	2
Engr. Contracts	Contracts and Specifications	2
Hydraulic Engr. 114	Rivers and Canals	1
Electrical Engr. 131b	Alternating Current Machinery	1
Electrical Engr. 130	Direct Current Laboratory	2
Thesis and Electives		7
	Total	19

Highway Engineering Group of Electives

Junior Year—Geology, 1, 2a Roads and Pavements 102.
Senior Year—Roads and Pavements 103, 104.
Structural Engineering 112.

Sanitary Engineering Group of Electives

Junior Year—Water Analysis.
Senior Year—Bacteriology.
Hydraulic Engineering 112, 113a and 113b.

*See footnote, page 274.

MECHANICAL ENGINEERING COURSE

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester		Credits
*Foreign Language	German, French, or Spanish	4
Mathematics 51	Algebra	5
Drawing 1	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work, 1, 2, 3	Pattern Making, Bench and Forge Work	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Second Semester		
*Foreign Language	German, French, or Spanish	4
Mathematics 52	Trigonometry and Analytical Geometry	5
Drawing 2	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work 4, 5	Lathe Work in Metals. Planing and Milling	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

SOPHOMORE YEAR

First Semester		Credits
Mathematics 54	Differential and Integral Calculus	4
Physics 51	General Lectures and Laboratory Practice	5
Machine Design 1	Mechanism	4
Shopwork 6, 13	Tool Making and Foundry Practice	3
Physical Education		1
Military Science		1
	Total	18

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 52	General Lectures and Laboratory Practice	5
Drawing 3	Descriptive Geometry	3
Machine Design 2	Valve Gears	1
Mechanics 1, 2	Statics, Mechanics of Materials	5
Physical Education		1
Military Science		1
	Total	20

The equivalent of four credits of Industrial Practice. See Shop Work, Course 10.

*Students entering with advanced language preparation (three years of one foreign language or four years of two or more foreign languages) have completed the foreign language requirements. These students will substitute (a) English in the freshman year for foreign language, (b) an elective for English in the junior year, and (c) take two credits additional elective.

A total of 154 credits exclusive of Industrial Practice is required for graduation.

JUNIOR YEAR

First Semester		Credits
Mechanics 3	Mechanics of Materials	5
Mechanics 53	Materials of Construction	2
Steam and Gas 1	Elementary Thermodynamics	4
Machine Design 3	Machine Elements	4
Machine Design 11	Testing Machines and Machine Elements	1
Shop Work 7	General Shop Work	2
*English 1 E		3
	Total	21

Second Semester		
Steam and Gas 22	Heat Engine Testing	2
Steam and Gas 2	Elementary Thermodynamics	4
Hydraulic Engr. 1	Hydraulics	3
Machine Design 4	Advanced Machine Design	4
Machine Design 12	Testing Machines and Machine Elements	1
Electrical Engr. 103	Electrotechnics	3
*English 1 E		3
	Total	20

SENIOR YEAR

First Semester		Credits
Steam and Gas 105	Steam and Gas Engine Calculations	2
Steam and Gas 23	Testing of Heat Engines	2
Comm. Mech. Engr. 101	Commercial Mechanical Engineering	3
Electrical Engr. 103a	Direct Current Machinery	3
Electrical Engr. 130	Direct Current Laboratory	2
Shop Work 12	Manufacturing Methods	1
†Electives		6
	Total	19

Second Semester		
Comm. Mech. Engr. 102	Power Plant Design	2
Steam and Gas 124	Advanced Heat Engine Testing	1
Electrical Engr. 132	Alternating Current Laboratory	2
Shopwork 8, 9	Heat Treatment of Steels and Pattern Work	2
Machine Design 109	Advanced Machine Design	2
Thesis and Electives		9
	Total	18

*See footnote, page 276.

†Must include Water Power, 3 credits, first semester, or Hydraulic Machinery, 2 credits, second semester.

ELECTRICAL ENGINEERING COURSE

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester		Credits
*Foreign Language	German, French, or Spanish	4
Mathematics 51	Algebra	5
Drawing 1	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work 1, 2, 3	Pattern Making, Bench and Forge Work	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Second Semester		
*Foreign Language	German, French, or Spanish	4
Mathematics 52	Trigonometry and Analytical Geometry	5
Drawing 2	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work 4, 5	Lathe Work in Metals. Planing and Milling	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Four weeks of approved summer experience in an engineering or industrial organization.

SOPHOMORE YEAR

First Semester		Credit
Mathematics 54	Differential and Integral Calculus	4
Physics 51	General Lectures and Laboratory Practice	5
Topog. Engr. 108	General Surveying	3
Drawing 3	Descriptive Geometry	3
Shopwork 6	Tool Making	2
Physical Education		1
Military Science		1
	Total	19

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 52	General Lectures and Laboratory Practice	5
Mechanics 1, 2	Statics and Mechanics of Materials	5
Machine Design 1	Mechanism	4
Physical Education		1
Military Science		1
	Total	20

*Students entering with advanced language preparation (three years of one foreign language or four years of two or more foreign languages) have completed the foreign language requirements. These students will substitute (a) English in the freshman year for foreign language. (b) an elective for English in the junior year, and (c) take two credits additional elective.

A total of 154 credits exclusive of summer work is required for graduation.

JUNIOR YEAR

First Semester		Credits
Mechanics 3	Mechanics of Materials	5
Steam and Gas 3a	Elementary Thermodynamics	3
Machine Design 2	Machine Elements	3
Elec. Engr. 101a	Direct Currents	4
Physics 54	Laboratory Course in Elect. and Magnetic Measurements	3
*English 1 E		
	Total	20

Second Semester		
Mechanics 53	Materials of Construction	2
Steam and Gas 3b	Elementary Thermodynamics	3
Steam and Gas 28	Laboratory	2
Elec. Engr. 101b	Direct Currents	2
Elec. Engr. 111	Alternating Currents	3
Elec. Engr. 102	Dynamo Laboratory	2
Hydraulic Engr. 1	Hydraulics	3
*English 1 E		3
	Total	20

SENIOR YEAR

First Semester		Credits
Elec. Engr. 113a	Alternating Current Machinery	3
Elec. Engr. 112a	Dynamo Laboratory	2
Elec. Engr. 125	Conference	2
Electives		12
	Total	19

Second Semester		
Elec. Engr. 113b	Alternating Current Machinery	2
Elec. Engr. 112b	Dynamo Laboratory	2
†Contracts	Contracts and Specifications	2
Thesis and Electives		12
	Total	18

*See footnote, page 278.

†Commercial Law or Commercial Mechanical Engineering may be substituted.

Of the elective credits ten must be chosen from the following group of electrical applications:

Central Stations and Industrial Applications	3
Photometry and Illumination	2
Electric Railways	2
Transmission and Insulation	3
Dynamo Design	2
Electrochemistry	3
Electric Testing	2
Transient Phenomena	3
Telephony	2

CHEMICAL ENGINEERING COURSE

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester		Credits
*Foreign Language	German, French, or Spanish	4
Mathematics 51	Algebra	5
Drawing 1	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work 1, 2, 3	Pattern Making. Bench Work and Forge Work	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Second Semester		
*Foreign Language	German, French, or Spanish	4
Mathematics 52	Trigonometry and Analytical Geometry	5
Drawing 2	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
Shop Work 4, 5	Lathe Work in Metals, Planing and Milling	2
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

SOPHOMORE YEAR

First Semester		Credits
Mathematics 54	Differential and Integral Calculus	4
Physics 51	General Lectures and Laboratory Practice	5
Chemistry 11	Quantitative Analysis	5
Machine Design 1	Mechanism	4
Physical Education		1
Military Science		1
	Total	20

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 52	General Lectures and Laboratory Practice	5
Drawing 3	Descriptive Geometry	3
Mechanics 1, 2	Statics, Dynamics	5
Physical Education		1
Military Science		1
	Total	19

*Students entering with advanced language preparation (three years of one foreign language or four years of two or more foreign languages) have completed the foreign language requirements. These students will substitute (a) English in the freshman year for foreign language, (b) an elective for English in the junior year, and (c) take two credits additional elective.

A total of 154 credits exclusive of summer work is required for graduation.

JUNIOR YEAR

First Semester		Credits
Mechanics 3	Mechanics of Materials	5
Steam and Gas 3a	Elementary Thermodynamics	3
Chemistry 120	Organic Chemistry	5
Chemistry 130	Physical Chemistry	5
*English 1 E		3
	Total	21

Second Semester		
Steam and Gas 25	Engineering Testing	2
Steam and Gas 3b	Elementary Thermodynamics	3
Electrical Engr. 131a	Elements of Electrical Engineering	2
Chemical Engr. 12a	Fuel Gas and Oil Analysis	2
Mechanics 53	Materials of Construction	2
Machine Design 5	Machine Elements	3
*English 1 E		3
Electives		2
	Total	19

Summer Work, Chemical Engineering 114 (Chemical Manufacture), the equivalent of 4 credits.

SENIOR YEAR

First Semester		Credits
Electrical Engr. 131b	Elements of Electrical Engineering	2
Electrical Engr. 130	Testing Direct Current Machinery	2
Steam and Gas 26	Testing of Heat Engines	1
Electives		14
	Total	19

Second Semester		
Contracts	Contracts and Specifications	2
Thesis and Electives		16
	Total	18

At least 20 credits of the elective work must be taken from the following list:

Applied Electrochemistry	106, Batteries	2
" "	101a, Applied Electrochemistry	5
" "	102, Electric Furnaces	3
Chemical Technology	111, Chemical Machinery and Appliances	2
" "	15, Industrial Chemistry	3
" "	113, Gas Manufacture	3
" "	116, Applied Thermal Chemistry	4
" "	117a, Technical Pyrometry	2
" "	118, Iron and Steel	2
" "	119a, Metallography	3

This arrangement affords the student an opportunity to specialize in Applied Electrochemistry, Metallurgy, Gas and Fuel Engineering, or Chemical Manufacture.

*See foot note, page 280.

COURSES IN MINING, METALLURGY, AND GEOLOGY

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester		Credits
*Foreign Language	German, French, or Spanish	4
Mathematics 51	Algebra	5
Drawing 1	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
{Shop Work 1, 2, 3 or	Pattern Making, Bench and Forge Work}	2
{Topographical Engr. 2	General Surveying}	
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Second Semester		
*Foreign Language	German, French, or Spanish	4
Mathematics 52	Trigonometry and Analytical Geometry	5
Drawing 2	Elements of Drawing	3
Chemistry 2	General Chemistry and Qualitative Analysis	3
{Shop Work 4, 5 or	Lathe Work in Metals, Planing and Milling}	2
{Topographical Engr. 2	General Surveying}	
Physical Education		1
Military Science		1
Freshman Lectures		0
	Total	19

Summer School Surveying, 6 weeks.

SOPHOMORE YEAR

First Semester		Credits
Mathematics 54	Differential and Integral Calculus	4
Physics 51	General Lectures and Laboratory Practice	4
Geology 6	General Mineralogy	5
Chemistry 11	Quantitative Analysis	5
Physical Education		1
Military Science		1
	Total	20

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 52	General Lectures and Laboratory Practice	4
Mechanics 1, 2	Statics, Mechanics of Materials	5
Drawing 3	Descriptive Geometry	3
Physical Education		1
Military Science		1
	Total	18

*Students entering with advanced language preparation (three years of one foreign language or four years of two or more foreign languages) have completed the foreign language requirements. These students will substitute (a) English in the freshman year for foreign language, (b) an elective for English in the junior year, and (c) take two credits additional elective.

A total of 154 credits exclusive of summer work is required for graduation.

JUNIOR YEAR

First Semester		Credits
Geology 1	General Geology	5
Mining 101	Excavation	3
Mechanics 3	Mechanics of Materials	5
{Steam and Gas 3a or	Elementary Thermodynamics	3
{†Geology 111	Economic Geology	
*English 1 E		3
	Total	19

Second Semester		Credits
Mining 102	Tunneling and Shaft Sinking	3
Mechanics 53	Materials of Construction	2
Steam and Gas, 127	Short Course in Testing	2
{†Geology 111 or	Economic Geology	3
{Hydraulic Engr. 1	Hydraulics	
*English 1 E		3
Electives		6
	Total	19

Summer Western Mining Trip. See Mining 110.

SENIOR YEAR

First Semester		Credits
Mining 103, 105	Exploitation and Mine Engineering	5
Mining 122	General Metallurgy	3
{Steam and Gas 3a or	Elementary Thermodynamics	3
{†Geology 111	Economic Geology	
Electives		9
	Total	20

Second Semester		Credits
Mining 105, 107	Ore Dressing and Mine Engineering	6
Mining 123	Metallurgy of Copper and Lead	3
{Hyd. Engr. 1 or	Economic Geology	3
{Geology 111	Hydraulics	
Contracts	Contracts and Specifications	2
Thesis and Electives		6
	Total	20

Of the 21 credits elective, 15 must be taken from one of the following groups:

Mining Group

Railway Engr. 104	2
Structural Engr. 10	2
Electrical Engr	6
Steam and Gas Engr	2
Mining Engr	3

Metallurgical Group

Metallurgy	6 or 9
Chemical Engr	6 or 9

Geological Group

Geology, Mineralogy, Petrology } 15 credits

*See footnote, page 282.
†Given 1914-15 and alternating yearly with Steam & Gas or Hydraulic courses.

Combination Engineering and Commerce Course

By electing the following group of studies in economics, students pursuing the five-year course may get all the essential studies of the Course in Commerce, together with a full engineering course.

First Year: Physiography and Physical Geography, 3 credits.

Second Year: Elementary Economics, 3 credits; Commercial Geography, 3 credits for each of two semesters.

Third year: Money and Banking and Transportation, 3 credits; Commercial Law, 4 credits.

Fourth Year: Elective Group, 3 credits; Business Administration, 2 credits,

Fifth Year: Business Administration, 2 credits; Group and Thesis, 4 credits (if the thesis is taken in Commerce).

Elective for Students in the College of Letters and Science

Students who plan to graduate in engineering, after taking a degree in the College of Letters and Science, should aim to make the following elections during the undergraduate course, in order that the engineering course may be completed in two additional years:

Mathematics 51 to 55; Physics 1 or 51 and 52; Chemistry 1 or 2; Mechanical Drawing, 1, 2, and 3; Topographical Engineering 2, 3, and 4, or Machine Design 1; Applied Mechanics 1 and 2.

It is well also to elect some or all of the freshman and sophomore shop work, as an extra study.

Graduation in More than One of the Engineering Courses

Graduates in any of the engineering courses may graduate in any other engineering course after one year of additional study. Students who contemplate doing this should, however, make their elections, especially in the senior year, with this end in view.

DEPARTMENTS OF INSTRUCTION

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester; I or II, given each semester; cr., credits, i.e., hours of credit. Unless otherwise stated, the number of credits, per semester is given.

The unit of reckoning the credit is one hour of class-room work per week. Two hours of drawing, laboratory, field, or shop work (which require no outside preparation) count as one hour of class-room work.

COURSES GIVEN IN THE COLLEGE OF LETTERS AND SCIENCE

For detailed description of courses given in the College of Letters and Science see Index under Astronomy, Chemistry, English, French, Geology, German, Mathematics, Meteorology, Physics, Political Economy, and Spanish.

COURSES GIVEN IN THE COLLEGE OF ENGINEERING

CHEMICAL ENGINEERING

ASSOCIATE PROFESSOR KOWALKE; ASSISTANT PROFESSOR WATTS; INSTRUCTORS ARMSTRONG, MANN, PRITZ.

For Undergraduates

4. Applied Electrochemistry. I; 3 cr. Short course for juniors and seniors; not open to chemical engineers. Mr. Watts.

12a. Fuel and Gas Analysis. I or II; 2 cr. Gas, coal, and oil. Prerequisites: Chemistry 2, 11. Mr. Pritz.

12b. Advanced Analysis. I or II; cr. to be arranged. Continuation of 12a. Mr. Mann, Mr. Pritz.

12c. Elementary Fuel Analysis. I or II; 1 cr. For mechanical and electrical engineers. Mr. Pritz.

15. Industrial Chemistry. I; 3 cr. Technology of important chemical industries. Prerequisites: Chemistry 2, 11. Mr. Kowalke.

For Undergraduates and Graduates

101a. Applied Electrochemistry. I; 5 cr. Principles and applications to electroplating and manufacture. Mr. Watts, Mr. Mann.

101b. Advanced Electrochemistry. II; 1 or more cr. Mr. Watts.

102. Electric Furnace. II; 3 cr. Construction, operation, applications. Mr. Watts, Mr. Mann.

106. Batteries. II; 2 cr. Principles, construction, testing. Mr. Watts.

111. Chemical Machinery. II; 2 cr. Principles of construction and operation. Mr. Kowalke.

113. Gas Manufacture and Distribution. II; 3 cr. Coal, carburetted water, oil, and producer gas, by-products. Mr. Mann.

114a. Chemical Manufacture. I; 4 cr. Manufacture of products; tests of machinery. Prerequisites: Chemistry 2, 11, course 111. Required of chemical engineers as summer work, elective for others. Mr. Kowalke, Mr. Mann.

114b. Advanced Chemical Manufacture. II; 2 or more cr. Special problems. Mr. Kowalke.

116. Applied Thermal Chemistry. Yr.; 4 cr. Combustion, chemical and metallurgical processes. Mr. Kowalke.

117a. Technical Pyrometry. I; 2 cr. Calibration and use of pyrometers; thermal analysis of steel and compounds. Prerequisites: Chemistry 2, Physics 51, 52. Mr. Kowalke, Mr. Armstrong.

117b. Advanced Pyrometry. II; 1 or more cr. Continuation of 117a. Mr. Kowalke, Mr. Armstrong.

118. Metallurgy of Iron and Steel. I; 2 cr. Blast furnace practice and manufacture of steel; special and tool steels. Prerequisite: Chemistry 2. Mr. Armstrong.

119a. Metallography. I or II; 3 cr. Constitution of metals and alloys and their microscopic examination; tool and alloy steels. Prerequisites: Chemistry 2, Physics 1, 2, or 51. Mr. Armstrong, Mr. Mann.

119b. Advanced Metallography. I or II; cr. to be arranged. Special problems. Mr. Armstrong, Mr. Mann.

121. Analysis of Highway Bitumens. II; 2 cr. Oils, asphalts, asphaltic petroleums, tars. Mr. Mann.

For Graduates

230. Chemical Engineering Research. Hours and credit by arrangement. Individual problems, conferences, and reports. Mr. Kowalke, Mr. Watts.

231. Seminar. Presentation and discussion of technical papers. Mr. Kowalke.

CITY PLANNING

ASSOCIATE PROFESSOR L. S. SMITH.

For Undergraduates and Graduates

101. City Planning. I; 2 cr. Housing questions; garden and industrial towns; planning and replanning of American cities. Mr. Smith.

102. City Planning. II; 2 cr. Continuation of 101. Mr. Smith.

COMMERCIAL MECHANICAL ENGINEERING

PROFESSORS MACK*, CALLAN; ASSISTANT PROFESSOR GODDARD; INSTRUCTOR HYLAND.

For Undergraduates and Graduates

101. Commercial Problems. I; 3 cr. Patent practice, patent records; inventories, valuations, and shop costs. Mr. Callan, Mr. Goddard.

102. Power Plant Design. II; 2 cr. Lectures on design; individual design of complete plant. Mr. Callan, Mr. Hyland.

103. Industrial Engineering. II; 2 cr. Organization and management. Mr. Goddard, Mr. Mack and special lecturers.

*On leave of absence 1915-16.

DRAWING

PROFESSOR PHILLIPS; ASSISTANT PROFESSOR MILLAR; INSTRUCTORS GRENOBLE, MARKWARDT, ORTH, THOMAS.

For Undergraduates

1. Elements of Drawing. I or II; 3 cr. Third angle projection; lettering, tracing, blueprinting; working drawings. Mr. Phillips, Mr. Orth, Mr. Thomas, Mr. Grenoble.

2. Elements of Drawing. I or II; 3 cr. Lettering, sketching; isometric and cabinet drawing; working drawings. Prerequisite: course 1. Mr. Phillips, Mr. Orth, Mr. Thomas, Mr. Grenoble.

3. Descriptive Geometry. I or II; 3 cr. Generation and classification of lines and surfaces; tangent planes; sections, intersections and developments. Prerequisites: courses 1, 2. Mr. Millar, Mr. Markwardt.

4. Freehand Lettering. I or II; 1 cr. Prerequisites: courses 1, 2. Mr. Orth, Mr. Thomas.

ELECTRICAL ENGINEERING

PROFESSORS BEEBE, BENNETT; ASSISTANT PROFESSORS DISQUE, PRICE, SHUSTER, WATSON; INSTRUCTORS CROTHERS, GRAY, KARTAK, KELSO, MILLER.

101a. Direct Current Machinery. I; 4 cr. Laws of the electric and magnetic circuits; construction and operation of direct current machinery. Prerequisites: Mathematics 55, Physics 52. Mr. Watson.

101b. Direct Current Machinery. II; 2 cr. Continuation of 101a. Mr. Watson.

102. Dynamo Laboratory. Tests of direct current dynamos and appliances. Prerequisite: course 101a. Mr. Price and laboratory instructors.

103a. Direct Current Machinery. II; 3 cr. Similar in scope to 101a. Primarily for mechanical engineers. Prerequisite: Physics 52. Mr. Disque.

103b. Alternating Current Machinery. I; 3 cr. Continuation of 103a. Mr. Beebe.

103c. Alternating Current Machinery. II; 3 cr. Continuation of 103b. Mr. Disque.

104. Dynamo Design. I; 2 cr. Individual design of a direct current dynamo. Prerequisite: course 101a. Mr. Watson.

111. Alternating Current Theory. II; 3 cr. Fundamental laws. Mr. Watson.

112a. Alternating Current Laboratory. I; 2 cr. Tests of generators, motors, transformers, meters, and appliances. Prerequisite: course 111. Mr. Price and laboratory instructors.

112b. Advanced Laboratory. II; 2 cr. Continuation of 112a.

113a. Alternating Current Machinery. I; 3 cr. Generator, synchronous motor, and synchronous converter. Prerequisite: course 111. Mr. Disque.

113b. Alternating Current Machinery. II; 2 cr. Transformers, induction motors, commutator motors. Mr. Beebe.

116. Electric Circuits. I; 3 cr. Starting currents of transformers and transmission lines, short circuit currents of alternators, high frequency condenser discharges, current and voltage in loaded and unloaded telephone lines. Prerequisite: course 111. Mr. Bennett, Mr. Gray.

122. Electric Testing. II; 1 or 2 cr. Calibration of instruments by engineering methods in connection with University Standards Laboratory. Prerequisites: courses 103a, 103b, 111, 131a, 131b. Mr. Bennett, Mr. Kartak.

123. Illumination and Wiring. II; 2 cr. Commercial illuminants; design of lighting installations; methods of wiring. Open to students having one semester of electrical work. Additional credit for supplementary laboratory work. Mr. Kartak.

125. Conference. I or II; 2 cr. Preparation and presentation of technical papers. Open to engineering seniors and graduates. Mr. Bennett, Mr. Disque.

127. Electric Central Stations. I; 3 cr. Design, operation, and management of central stations; application of electricity to industries. Class work and design. Open to engineering seniors and graduates. Mr. Shuster.

129. Electric Railways. II; 2 cr. Traffic conditions, location schedules, equipment. Open to seniors. Mr. Shuster.

130. Direct Current Laboratory. I; 2 cr. (for mechanical and chemical engineers); also I (last half); 1 cr. and II (first half); 1 cr. for civil and mining engineers. Should be accompanied by course 103a or 131a. Mr. Price and laboratory instructors.

131a. Direct Current Machinery. I or II; 2 cr. Similar in scope to course 101a. For civil, chemical, and mining engineers. Prerequisite: Physics 52. Mr. Beebe, Mr. Shuster.

131b. Alternating Current Machinery. I or II; 2 cr. Principles in generation, transformation, and applications of alternating currents. Prerequisite: course 131a or 103a. Mr. Beebe, Mr. Shuster.

132. Alternating Current Laboratory. II; 2 cr. Primarily for mechanical engineers. Prerequisite: course 130. Mr. Price and laboratory instructors.

133. Illumination and Photometry. I; 2 cr. Commercial illuminants and their application to lighting. Design of illuminating systems. Lectures and laboratory work. Mr. Kartak.

135. Telephony. I; 2 cr. Operation of telephone equipment. Mr. Bennett, Mr. Gray.

137. Power Distribution and Insulation. II; 3 cr. Design of distributing systems for buildings and municipalities; problems in high voltage insulation. Mr. Bennett, Mr. Gray.

For Graduates

214. Advanced Dynamo Laboratory. I or II; 2 cr. Prerequisites: courses 112a, 112b, 113a. Mr. Price.

231. Transmission and Distribution. Yr.; Mr. Bennett.

232. Alternating Current Theory. Yr.; 3 cr. Transient phenomena, traveling and stationary waves, electromagnetic radiation and related subjects. Analytical and experimental work. Mr. Bennett.

ENGINEERING CONTRACTS AND SPECIFICATIONS

PROFESSOR MEAD; INSTRUCTORS HOPKINS, GARNER.

1. Contracts and Specifications. II; 2 cr. Engineering relations, legal, contractual, and personal; preparation of contracts, specifications, and other engineering papers.

FORESTRY

LECTURERS NEWLIN, TEESDALE, TIEMANN,

101. Forestry and Utilization of Wood. I; 2 cr. Relation of forestry and utilization to conservation. Open to all engineering students. Mr. Tiemann.

For Juniors, Seniors, and Graduates

102. Wood Technology. II; 2 cr. Structure and identification of wood; physical and mechanical properties; kiln drying, preservation, utilization. Primarily for engineering students. Mr. Tiemann, Mr. Newlin, Mr. Teesdale.

HYDRAULIC AND SANITARY ENGINEERING

PROFESSOR MEAD; ASSOCIATE PROFESSOR CORP; INSTRUCTORS WEIDNER, GARNER.

For Undergraduates

1. Elementary Hydraulics. I or II; 4 cr. Mechanics of fluids; theory, calibration and use of instruments. Prerequisites: Mechanics 1, 2. Mr. Corp, Mr. Weidner.

2. Elementary Hydraulics. I or II; 4 cr. Similar to course 1 with additional recitation and laboratory work. Prerequisite: Mechanics 1, 2. Mr. Corp, Mr. Weidner.

For Undergraduates and Graduates

102. Testing of Hydraulic Machines. I; 2 cr. Impulse and turbine wheels, pumps, and rams. Prerequisite: course 1. Mr. Corp.

103. Experimental Hydraulics. I or II; 1 to 5 cr. Tests on hydraulic machinery; experiments on flow of water. A special field may be selected by the student with the approval of the instructor. Prerequisite: course 1. Mr. Mead, Mr. Corp, Mr. Weidner.

104. Water Power Engineering. I; 3 cr. Investigation and development of water powers. Prerequisite: course 1. Mr. Mead, Mr. Garner.

105. Hydraulic Machinery. II; 2 cr. Theory; selection and installation. Prerequisite: course 1. Mr. Mead, Mr. Garner.

110. Hydrology. II; 2 cr. Physical, geological, and meteorological relations of water to power, supply, irrigation, and sanitation. Mr. Mead, Mr. Garner.

111. Water Supply. I; 3 cr. Domestic supply, commercial and fire service. Prerequisite: course 1. Mr. Mead, Mr. Garner.

112. Sewerage, Drainage, and Irrigation. II; 3 cr. Prerequisite: course 1. Mr. Mead, Mr. Corp, Mr. Garner.

113a. Hydraulic Design. I; 2 cr. Investigation of supply for power, irrigation, or municipal purposes. Prerequisite: courses 1, 110. Mr. Mead, Mr. Garner.

113b. Hydraulic Design. II. Continuation of 113a. Individual design of some part of an hydraulic work. Prerequisites: courses 1, 110, 113a. Mr. Mead, Mr. Garner.

114. Rivers and Canals. II; 1 cr. Improvement of internal waterways and harbors. Prerequisite: course 1. Mr. Mead, Mr. Garner.

MACHINE DESIGN

Professor Mack*; Assistant Professor Keown; Instructors Hyland, MacLean, Morrison.

For Undergraduates

1. Mechanism. I or II; 4 cr. Linkages, cams, toothed gears, belting, chains, and ratchets. Prerequisites: Mechanical Drawing 1, 2. Mr. Keown, Mr. MacLean, Mr. Morrison.

2. Valve Gears. I or II; 1 cr. Simple slide valve, automatic valves, reversing valves; application of Bilgram, Reuleaux and Zeuner diagrams. Prerequisite: course 1. Mr. Keown, Mr. MacLean, Mr. Morrison.

3. Machine Elements. I or II; 4 cr. Application of mechanics and empirical methods to design of machine elements; commercial drafting practice. Primarily for mechanical engineers. Prerequisite: course 1, Mechanics 1, 2. Mr. Hyland.

4. Advanced Machine Design. I or II; 4 cr. Design of complete machines. Prerequisite: course 3. Mr. Hyland.

* On leave of absence 1915-16.

5. Machine Elements. I or II; 3 cr. Similar in scope to course 3. For electrical and chemical engineers. Prerequisites: course 1, Mechanics 1, 2. Mr. MacLean, Mr. Morrison.

6. Advanced Machine Design. I or II; 2 cr. Similar in scope to course 4. For electrical engineers. Prerequisite: course 5. Mr. MacLean.

7. Chemical Machine Design. II; 2 cr. Pumping and filtration machinery; sugar, oil, and other chemical machinery. For chemical engineers. Prerequisite: course 5. Mr. MacLean.

8. Patent Office Drawing. I or II; 1 cr. Requirements of U. S. Patent Office. Prerequisites: Mechanical Drawing 1, 2. Mr. Keown.

11. Machine Testing. I or II; 1 cr. Experimental determination of strength and efficiency of machine elements. Mr. Hyland, Mr. MacLean, Mr. Morrison.

12. Advanced Machine Testing. II; 1 cr. Continuation of 11. Mr. Hyland, Mr. MacLean.

Industrial Seminary. II; 1 cr. Preparation and presentation of technical papers. Open to engineering seniors. Mr. Callan, Mr. Keown.

For Undergraduates and Graduates

109. Design of Special Machines. II; 2 cr. Jigs, fixtures, and automatic machines. Prerequisite: course 4 or 6. Mr. Keown.

110. Logging and Wood Working Machinery. II; 2 cr. Prerequisite: course 3 or 5. Mr. Keown.

MECHANICS

Professor Maurer; Associate Professor Withey; Assistant Professor Kommers; Instructors Elmendorf, Roark, Scudder.

For Undergraduates

1. Statics. I or II, first ten weeks; 3 cr. Prerequisite: Physics 51, and enrollment in or completion of Mathematics 55.

2. Dynamics. I or II, last eight weeks; 2 cr. Prerequisite: course 1.

3. Mechanics of Materials. I or II; 5 cr. Prerequisite: course 1.

51. Materials of Construction. I or II; 2 cr. Laboratory work; assigned readings and reports; preparation of materials. Prerequisite: enrollment in or completion of course 3. For civil engineers.

52. Materials of Construction. I or II; 2 cr. Continuation of 51.

53. Materials of Construction. I or II; 2 cr. For all except civil engineers. Prerequisite: enrollment in or completion of course 3.

For Undergraduates and Graduates

105. Aeronautics. II; 2 cr. Theory of aeroplane; study of published laboratory research. Mr. Maurer.

106. Advanced Mechanics of Materials. I; 2 cr. Inertia circle and ellipse; kern; beams of unsymmetrical section; curved beams; flat plates and thick cylinders. Prerequisites: courses 2, 3. Mr. Maurer.

107. Advanced Technical Mechanics. II; 2 cr. Periodic motion, whirling shafts and rotating discs; vibration; balancing; dynamical stability. Prerequisites: courses 1, 2. Mr. Maurer.

108. Advanced Materials Laboratory. I or II; 2 or more cr. Prerequisite: course 51 or 53. Mr. Withey.

109. Graphics. II; 2 cr. Application to engineering problems; representation of experimental data. Prerequisites: courses 1, 2, 3. Mr. Kommers.

MINING AND METALLURGY

Professors Holden, McCaffery; Instructor Kennedy.

101. Excavation. I; 3 cr. Earth, rock, sub-marine; methods and costs. Mr. Holden.

102. Tunneling, Boring, and Shaft Sinking. II; 3 cr. Mr. Holden.

103. Prospecting, Developing, and Exploitation. I; 3 cr. Mr. Holden.

105. Mine Engineering. Yr.; 2 cr. Drainage, ventilation, and lighting of mines; haulage and hoisting; surface plant; prevention of accidents; sampling; valuation and reporting. Mr. Holden, Mr. Kennedy.

107. Ore Dressing. II; 3 or 4 cr. Principles and design of concentrating plants, coal breakers, and washers. Prerequisite: Geology 6. Mr. Holden, Mr. Kennedy.

109. Mine and Smelter Accounts. I; 1 cr. Mr. McCaffery.

110. Summer Mining Trip. Study of important western mining districts, including at least one month of paid underground work. Taken in 1915 and alternate years.

121. Assaying. I or II; 2 or 3 cr. Ores, matte, bullion, slag, metallurgical by-products. Lectures and laboratory work. Prerequisite: Chemistry 2. Mr. Kennedy.

122. General Metallurgy. I; 3 cr. Theory and practice. Lectures. Prerequisite: Chemistry 1. Mr. McCaffery.

123. Metallurgy of Copper and Lead. II; 3 cr. Prerequisite: course 122 or equivalent course in chemistry. Mr. McCaffery.

124. Metallurgy of Iron and Steel. I or II; 2 or 3 cr. Prerequisite: course 122 or equivalent course in chemistry. Mr. McCaffery.

125. Metallurgy of Minor Metals. I; 2 cr. Prerequisite: course 122 or equivalent course in chemistry. Mr. McCaffery.

126. Clay Testing and Manufacture. I; 2 cr. Lectures and laboratory work. Mr. McCaffery, Mr. Kennedy.

For other courses in ceramics see Manual Arts, p. 170.

For Graduates

208. Gold and Silver Milling and Cyanidation. II; 2 cr. Mr. Holden.

225. Metallurgical Laboratory. I or II; 2 or more cr. Mr. McCaffery.

RAILWAY ENGINEERING

Associate Professor Van Hagan; Instructors Boon, Hopkins.

1. Railway Curves. I or II; 2 cr. Computation and field location of simple, compound, and spiral curves. Prerequisites: elementary surveying, trigonometry. Mr. Hopkins.

2. Theory of Railway Location and Construction. I; 2 cr. Prerequisite: course 1. Mr. Van Hagan, Mr. Boon.

22. Practice in Railway Location and Construction. I; 3 cr. To be taken only in connection with 2. Mr. Van Hagan, Mr. Boon, Mr. Hopkins.

For Undergraduates and Graduates

103. Maintenance of Way and Structures. II; 2 cr. Prerequisites: courses 1, 2, 22. Mr. Van Hagan, Mr. Hopkins.

104. Railway Location and Construction. I; 2 cr. For electrical and mining engineers. Prerequisite: trigonometry. Mr. Boon.

105. Economics of Railway Engineering. I or II; 2 cr. Prerequisites: courses 1, 2, 22. Mr. Van Hagan.

106. Railway Design. II; 2 cr. Frogs, switches, yard layouts, minor structures, and yard resurveys. Prerequisites: courses 1, 2, 22. Mr. Boon.

107. Advanced Railway Design. I or II; 2 cr. Special problems in construction and maintenance. Open to seniors and graduates. Mr. Van. Hagan.

108. Signal Engineering. II; 1 cr. Theory and design. Mr. Van Hagan.

110. Masonry Construction. II; 2 cr. Theory of design. Prerequisite: Mechanics 3. Mr. Boon.

111. Substructures. II; 1 cr. Ordinary and deep foundations. Prerequisite: course 110. Mr. Van Hagan.

112. Estimates and Valuations. I or II; 2 or more cr. In connection with engineering staff of the Wisconsin Railroad and Tax Commission. Mr. Boon.

ROADS AND PAVEMENTS

ASSOCIATE PROFESSOR SMITH; INSTRUCTOR MANN.

For Undergraduates and Graduates

As a preparation for the special courses in Roads and Pavements civil engineers are advised to take a course in general and economic geology with as much field work as possible.

101. Country Roads. II; 1 cr. Designed especially for students in agriculture. Mr. Smith.

102. Introduction to Construction and Maintenance. I or II; 3 cr. Library work and reports. Mr. Smith.

103. Advanced Economics. I or II; 3 cr. Designs, estimates, inspection trips. Prerequisite: course 102. Mr. Smith.

104. Testing Road Materials. II; 3 cr. Work in chemical and pavement laboratories. Mr. Smith, Mr. Mann. For course in highway bridges see Structural Engineering 112.

SHOP WORK

ASSISTANT PROFESSOR GODDARD; INSTRUCTORS BRUNSELL, CHISHOLM, DABNEY, SCHUMANN, SANSOM; ASSISTANT ZURIAN.

1. Elementary Pattern Making. I or II; 1 cr. Mr. Chisholm.

2. Bench Work in Iron and Steel. I or II; ½ cr. Mr. Dabney, Mr. Sansom.

3. Elementary Forge Work. I or II; ½ cr. Mr. Schumann, Mr. Zurian.

4. Lathe Work in Metals. I or II; 1 cr. Turning, boring, thread cutting. Mr. Dabney, Mr. Sansom.

5. Planing and Milling. I or II; 1 cr. Surfacing, slotting, and gear cutting. Mr. Dabney, Mr. Sansom.

6. Tool Making. I or II; 2 cr. Taps, reamers, counterbores, milling cutters. Prerequisites: courses 4, 5. Mr. Dabney, Mr. Sansom.

7. General Shop Work. I or II; 3 cr. Building complete machines. Prerequisites: courses 4, 5. Mr. Dabney, Mr. Sansom.

8. Heat Treatment of Steel. II; 1 cr. Annealing, hardening, tempering, and case hardening of various kinds of steel. Prerequisite: course 3. Regularly for seniors only. Mr. Goddard, Mr. Schumann.

9. Advanced Pattern Making and Foundry Practice. II; 1 cr. Prerequisite: course 1. Regularly for seniors only. Mr. Chisholm, Mr. Payton.

10. Industrial Practice. 4 cr. Not less than seven weeks of work, done outside the University, preferably under a well-developed system of methods and discipline. In exceptional cases credit may be secured by four weeks of vacation work in the University Shops.

12. Manufacturing Methods. I; 1 cr. Lectures on shop methods, operations, and tools. Regularly for seniors only. Mr. Goddard.

13. Elementary Foundry Practice. I or II; 1 cr. Iron, brass, white metal alloys. Mr. Payton.

STEAM AND GAS ENGINEERING

PROFESSOR CALLAN; ASSOCIATE PROFESSOR LARSON; ASSISTANT PROFESSOR BLACK; INSTRUCTORS AAGAARD, MCMILLAN, ROMIG.

For Undergraduates

1. Elementary Thermodynamics. I; 4 cr. Application of principles to prime movers. Prerequisites: Physics 51, 52, Mathematics 54, 55. Mr. Larson.

2. Elementary Thermodynamics. II; 4 cr. Economics of prime movers, boilers, power plant auxiliaries, refrigerating machines. Mr. Larson.

3a. Elementary Thermodynamics. I; 3 cr. For electrical, chemical, and mining engineers. Prerequisites: Physics 51, 52; Mathematics 54, 55. Mr. Callan, Mr. Larson, Mr. McMillan.

3b. Elementary Thermodynamics. II; 3 cr. Continuation of 3a. Mr. Callan, Mr. Larson, Mr. McMillan.

7. Survey of Steam Engineering. II; 2 cr. Principles of thermodynamics; steam engines, gas engines, boilers. For civil engineers. Prerequisites: Physics 51, 52; Mathematics 54, 55. Mr. Black.

Laboratory Courses

22. Elementary Testing. II; 2 cr. Calibration of instruments; tests of engines, analysis of fuels for junior mechanical engineers. Mr. Black and laboratory instructors.

23. Advanced Testing. I; 2 cr. Continuation of 22. Complex engines, air compressors, refrigerating machinery, gas producers and engines, turbines, boilers, and complete plants. Mr. Black and laboratory instructors.

25. Elementary Testing. II; 2 cr. Calibration of instruments; adjustment and testing of simple engines. For chemical engineers. Mr. Black and laboratory instructors.

26. Advanced Testing. I; 1 cr. Continuation of 25. Adjustment and testing of engines and boilers. For chemical engineers. Mr. Black and laboratory instructors.

28. Elementary Testing. II; 2 cr. Calibration of instruments, testing of simple steam engines and turbines, and gas engines. For electrical engineers. Mr. Black and laboratory instructors.

29. Advanced Testing. I; 2 cr. Continuation of 28. Steam engines, air compressors, refrigerating machinery, gas producers and engines, boilers, complete plants; gas and fuel analysis. Mr. Black and laboratory instructors.

30. Gas Engine Testing. I or II; 2 cr. No prerequisite. Open to all but freshmen in the College of Engineering and to juniors and seniors in other colleges.

For Undergraduates and Graduates

105. Steam and Gas Engine Calculations. I; 2 cr. Solution and discussion of problems of design in drafting room. Prerequisites: courses 1, 2 or 3a, 3b. Mr. Callan.

108. Heating, Ventilating, and Refrigerating. I; 3 cr. Principles and commercial design problems. Prerequisites: courses 1, 2 or 3a, 3b or 7. Mr. Black.

109. Internal Combustion Engines. II; 2 cr. Theory and design of engines and accessories. Mr. Callan.

111. Compressed Air. II; 2 cr. Theory and applications. Prerequisites: courses 1, 2 or 3a, 3b or 7. Mr. Larson.

112. Steam Turbines. I; 2 cr. Theory and design. Prerequisites: courses 1, 2 or 3a, 3b. Mr. Callan.

Laboratory Courses

124. Advanced Commercial Testing. II; 1 cr. Special tests on engines, transmission machinery, heating and ventilating apparatus and power plants. Mr. Black and laboratory instructors.

127. Short Course in Testing. I; 2 cr. Calibration of instruments, tests on engines, turbines and power plants. Mr. Black and laboratory instructors.

130. Research. Yr.; credit according to work done. Open to graduates and others by consultation. Mr. Black and laboratory instructors.

STRUCTURAL ENGINEERING

PROFESSOR TURNEAURE; ASSOCIATE PROFESSOR KINNE; INSTRUCTORS GLAETTLI, SCHWADA.

For Undergraduates

2. Stresses in Simple Structures. II; 4 cr. Algebraic and graphical analysis. Prerequisites: Mechanics 1, 2. Mr. Kinne, Mr. Glaettli.

3. Design of Roof Trusses and Plate Girders. I; 4 cr. Detailed drawings, estimates of cost and weight. Prerequisite: course 2. Mr. Kinne, Mr. Glaettli, Mr. Schwada.

4. Design of Railway Bridge Trusses. II; 3 cr. General drawings, estimates of weight and cost of riveted and pin connected bridge trusses. Prerequisites: courses 2, 3. Mr. Kinne, Mr. Glaettli, Mr. Schwada.

10. Structural Design. II; 2 cr. General course in roofs and buildings. For mechanical, electrical, and mining engineers. Prerequisites: Mechanics 1, 2. Mr. Kinne, Mr. Schwada.

For Undergraduates and Graduates

105. Principles of Reinforced Concrete. I; 2 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Turneaure, Mr. Glaettli, Mr. Schwada.

106. Concrete Arches. I; 2 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Glaettli, Mr. Schwada.

107. Statically Indeterminate Structures. I; 2 cr. Analysis of swing, cantilever, arch, and suspension bridges. Open to seniors and graduates in civil engineering. Prerequisite: course 2. Mr. Kinne.

108. Statically Indeterminate Structures and Secondary Stresses. II; 2 cr. Prerequisites: courses 2, 107. Mr. Turneaure.

109. Design of Swing Bridges. II; 2 cr. Prerequisites: courses 2, 3, 4, 107. Mr. Kinne.

111. Principles of Reinforced Concrete. II; 2 cr. Continuation of 105. Mr. Turneaure, Mr. Glaettli, Mr. Schwada.

112. Highway Bridges and Culverts. II; 2 cr. Design and analysis. Prerequisites: courses 2, 3, 4, 105. Mr. Kinne.

TOPOGRAPHIC AND GEODETIC ENGINEERING

ASSOCIATE PROFESSOR SMITH; INSTRUCTORS BRAGG, CORNISH, CRUMP, HENNY, MORRIS, OWEN.

For Undergraduates

1. Elementary Surveying. I; 2 cr. Use of chain, tape, and level; platting of field notes. Mr. Owen, Mr. Morris.

2. Elementary Surveying. II; 2 cr. Continuation of 1, use of level, compass, and transit. Mr. Owen, Mr. Morris.

3. Land Surveying. I; 3 cr. Use of transit, solar attachment, sextant, and plane table; methods of computation; practice in lettering and mapping. Mr. Owen, Mr. Morris.

For Undergraduates and Graduates

104. Advanced Land Surveying. II; 4 cr. Continuation of 3. Use of instruments of precision in topographic, municipal, hydrographic, and mining work; making plats and maps from field notes. Mr. Owen, Mr. Morris.

105. Elementary Geodesy. II; 2 or 3 cr. Use of theodolite and precise level; base line triangulation and astronomy. Mr. Smith.

106. Summer School of Surveying. Field work illustrating courses 104 and 105. Accurate triangulation, topographic and hydrographic survey of region near Devil's Lake, Wisconsin. Four weeks from Thursday of examination week, second semester. Prerequisites: courses 3, 104. Mr. Smith, Mr. Bragg, Mr. Cornish, Mr. Henny, Mr. Crump.

107. Advanced Geodesy. I; 2 cr. Continuation of 105. Mr. Smith.

108. Short Course in Surveying. I or II; 3 cr. Adjustment and use of transit and level. For mechanical and electrical engineers. Mr. Morris, Mr. Owen.

109. Rapid Topography. II; 2 cr. Use of plane table and aneroid barometer. Adapted for training topographers for the Geological Survey. Mr. Morris.

110. Mining Surveying. I or II; 2 cr. Underground survey of University tunnels; mining problems. Mr. Owen.

THE COLLEGE OF AGRICULTURE

H. L. Russell, Dean

General Information

The College of Agriculture is one of the general divisions of the University. Instruction in the general sciences, languages, and mathematics is given to agricultural students in the other colleges of the University; but for the purely agricultural subjects, separate buildings, equipment, and staff of instructors are maintained. Agricultural students enter the University with the same standing as students in other colleges and have the advantages incident to a large university, such as the general laboratories, libraries, and student organizations. Aside from the purely instructional work of the College the facilities for research in agriculture afford special opportunities for both regular and advanced students to secure a knowledge of the best methods of agricultural science.

Buildings

The buildings occupied by the College of Agriculture are located at the west end of Observatory Hill. They have been erected and equipped with particular attention to the special needs of the work in the various departments.

The administration offices of the College and Experiment Station, Farmers' Institutes, lecture rooms, laboratories, and offices for several of the departments, are located in Agricultural Hall. At the rear of the main building is a large wing which furnishes quarters for the library and reading room in the basement. The second and third floors are occupied by an auditorium, which has a seating capacity of 750, and is used for general assemblies and class work.

West of the main building is a group comprised of Hiram Smith Hall, the Dairy Laboratory, and the Dairy Machinery Laboratory.

The Soils Building, with greenhouses adjoining, provides lecture rooms and laboratories for the instructional and research work of the department, as well as offices for the State Soil Survey.

The Horticulture and Plant Pathology departments are located in the Horticulture Building, which, with the adjoining greenhouses, is provided with every modern equipment for instruction and research in these subjects.

The Agronomy Building contains the offices of the department, a large grain udging room, laboratories for seed testing and inspection, grain curing, cleaning, and storage of seed grains.

The Agricultural Engineering Building provides offices, lecture and drafting rooms, power and farm machinery laboratories, also a laboratory for smaller farm tools and implements and a concrete construction laboratory.

The Agricultural Chemistry Building furnishes excellent facilities for teaching and research. It contains a large laboratory, an assembly room with seating capacity of 400, in addition to special laboratories for advanced students and the chemistry laboratories of the Experiment Station, including those of the Feed and Fertilizer inspection service.

The Live Stock Pavilion provides a large arena, which is used for stock judging work and exhibition purposes. The pavilion has seating arrangements for 2500 people. Beneath the amphitheatre seats there are stalls for the housing of the horses belonging to the University Farm. In addition to this there are offices, operating room, and dispensary.

The Poultry Building provides offices and class rooms. Pens of all of the important breeds are provided and practical instruction is given in all lines of poultry raising. A separate research poultry plant is maintained on an outlying portion of the University Farm.

The Economic Entomology Department has a building by itself. Beekeeping, including special work in queen rearing, has been added recently to this department.

The University Farm Buildings include barns for the horses, cattle, sheep, and swine as well as two large stock judging rooms. Other buildings are provided for storing farm machinery, silage, manure, and tobacco.

A group of buildings devoted exclusively to the manufacture of hog cholera serum has been erected within the last few years, on one portion of the University Farm. The State Legislature of 1915 provided for the erection of a serum laboratory which is now

being constructed of concrete and steel and will provide excellent facilities for the handling of hog cholera serum.

Farm Lands

The College of Agriculture is provided with three farms, the "University Farm," the "Hill Farm" and the "Eagle Heights Farm," including about 746 acres of tillable land. These farms are operated to facilitate both instruction and research in agriculture.

Live Stock

The University herds and flocks, represent the principal breeds of dairy and beef cattle, draft horses, swine, sheep, and poultry, including many individuals that are well-known prize winners.

Library

The Agricultural College Library includes about 15,188 bound volumes and 14,500 pamphlets distinctly agricultural in character. This library is a part of the general University Library, but is kept in special quarters in Agricultural Hall so as to be readily available to students in this college. It is especially strong in the files of scientific agricultural journals, both American and foreign, and the record books of pure bred animals. A trained librarian is in attendance to assist students.

Organizations

Several societies, maintained by the agricultural students, meet weekly to discuss questions related to their special interests. These organizations are for drill in parliamentary practice, training in declamation, debate, and essay writing, as well as for the discussion of scientific and practical questions. The Agricultural Literary Society holds weekly meetings to discuss general questions in agriculture. The following list shows the nature of the various clubs and societies:

The Grafters' Club—Students interested in horticulture; Agricultural Engineers' Club—Students interested in studying agricultural machinery; Live Stock Club—Students interested in various

breeds of live stock; Country Life Club—Students interested in the social phases of rural life.

A chapter of the national honorary agricultural fraternity, Alpha Zeta, is maintained by faculty and student members.

An Agricultural Experiment Association with a paid membership of 1500, is maintained by students of the College of Agriculture, both past and present, for the purpose of cooperating with the College and Experiment Station in advancing the agriculture of the commonwealth. By means of this organization, the members of which are located in all sections of the state, the Col ege is in close touch with the great body of Wisconsin farmers.

Special Facilities for Study

In the various departments of the College of Agriculture special lines of esearch are continually in progress, affording properly qualified students excellent opportunities to secure training of pecial character.

By statute, the licensing of feeding stuffs is p aced under the Department of Chemistry, the inspection of seeds under the Agronomy Department, and the enrollment of stallions under the Department of Horse Breeding.

The Accredited Farm System

The College of Agriculture has established a system of accredited farms on which advanced students may have an opportunity to secure practical training and experience with successful progressive farmers. Certain departments of the college offer courses of study which may be carried on *in absentia* on such farms. For undergraduate courses of this character the student is referred to the announcements of the several departments of the college. Graduate students wishing to take advantage of this opportunity may do so under the general conditions applying to work done *in absentia* in candidacy for the master's degree. Further information may be secured from Prof. D. H. Otis, Chairman of the Committee on Accredited Farms.

Plan of the College Activities

The work of the College of Agriculture is conducted on a threefold basis. Each department is directly concerned:

First, to develop agricultural science through investigation and experiment.

Second, to give instruction to students at the University.

Third, to disseminate agricultural information among the farmers of the state by means of publications, farmers' courses, institutes, and the agricultural extension service.

Fees and Expenses

For tuition and fees, see page 66.

The expenses of resident students in the graduate and long courses are practically the same as for those pursuing other University courses.

The expenses of resident Short Course and Dairy students will vary from $100 to $125 for the terms for room, board, washing, and necessary books.

Courses of Instruction

The following courses have been arranged to meet the needs of students of various classes.

The Graduate Courses offer to advanced students opportunities for professional training and original investigation, made possible through an active Experiment Station, associated with numerous scientific laboratories. The special lines of study will be left largely to the selection of the student, subject to the approval of the agricultural faculty. Students may participate in experiments in progress, and after suitable experience, conduct independent investigations. When contributions to knowledge of permanent value are made they may be published through the bulletins of the Experiment Station with proper credit to the contributor.

The Long Course offers scientific training in agricultural bacteriology, agricultural chemistry, agricultural economics, agricultural education, agricultural engineering, agricultural journalism, agronomy, animal husbandry, dairying, economic entomology, experimental breeding, forestry, horticulture, plant pathology, poultry husbandry, soils, and veterinary science.

This course also embraces general training in chemistry, physics, biology, bacteriology, and other branches which have an application in agriculture. The field is so broad, however, that it is impossible for the student in four years to pursue all the courses offered in addition to acquiring the necessary fundamental studies, and hence much liberty of selection is allowed.

The Middle Course consists of two full college years. The first year embraces essentially the work of the first year of the Long Course, with the exception of foreign language. In the second year the time is devoted very largely to elective work. Before a student may enter the second year of this course, he must have had at least one full year of practical farm experience. Considerable work in the basal sciences is required to lay a foundation for the distinctively agricultural work. Practical subjects may be elected during the second year.

Courses for the Training of Teachers. Graduates of the Long and Middle Courses in Agriculture, fulfilling the several special requirements of the Course for the Training of Teachers, will be entitled to receive a license to teach agriculture. (see pp. 249 and 317 of this catalogue; also the Long and Middle Course Circular.)

The Summer Session Courses include work in agricultural bacteriology, agricultural chemistry, agricultural economics, agricultural education, agricultural engineering, agronomy, animal husbandry, dairying, economic entomology and plant pathology, farm management, home economics, horticulture, poultry husbandry, and soils. For details see Index under Summer Session.

The Short Course for two terms of fourteen weeks each is provided for those who can devote only a limited time to study, and who, therefore, desire the greatest amount of directly useful knowledge that can be acquired in the brief time allowed. This course begins early in December and closes in March. An illustrated circular describing this course may be had on request to Prof. D. H. Otis, College of Agriculture, Madison, Wis.

The Winter Dairy Course. This course is open to persons who have had at lest six months' experience in a creamery or cheese factory and covers one term of twelve weeks, beginning about November 1. The course is designed to train creamery buttermakers and factory cheesemakers in the science and practice of their respective lines. Certificates are given to those who satisfactorily complete the full course and have worked in a creamery or cheese factory for two seasons of not less than seven months each,

one before and the other after the period spent in the dairy course. An illustrated circular describing this course in detail will be sent upon application to Prof. E. H. Farrington, College of Agriculture, Madison, Wis.

The Summer Dairy Course. This course is intended for beginners or those having little practical knowledge of creamery or dairy work. Students are admitted at any time during the spring and summer after March 1. They are expected to remain at least ten weeks, although they may continue the work longer, if desirable. Laboratory exercises and theoretical instruction are given as required.

Extension Courses Given at the University

The Farmers' Week. This is a popular course of addresses, demonstrations, and exercises, covering a period of one week, designed to give busy farmers the most useful instruction and practice in the science of agriculture in the shortest possible time at a season when they can be away from home for a brief period. This course, beginning February 7, is given by the staff of the College of Agriculture assisted by other speakers. Programs may be had upon application to Prof. K. L. Hatch, College of Agriculture, Madison, Wis.

The Woman's Week in Home Economics. This course for one week is designed to give women practical and helpful instruction in the various phases of home economics. The plan of instruction includes lectures, demonstrations, and laboratory work on such subjects as cooking, serving, and nursing. The course is held at the same time as the Farmers' Course to afford an opportunity for farmers' wives and daughters to attend. Detailed information will be furnished upon request to Prof. Abby L. Marlatt, Madison, Wis.

The Special Dairy Course. This is a week's course of lectures, conferences, and demonstrations designed to meet the needs of creamery and cheese factory operators and managers, and to give them advanced instruction in connection with problems of management of their establishments as well as to inform them on recent advances in the science of dairying. The course is held at the time of the Farmers' Course. A special course for Cow Testing Association men is held at the same time. Detailed programs may be secured upon application to Prof. E. H. Farrington, College of Agriculture, Madison, Wis.

The Young People's Week. A week's course of lectures, demonstrations, and exercises in grain growing and judging, selection and testing of seeds, and other subjects relating to farm life which are of interest to farm boys and girls. Those who have won scholarships in grain growing contests conducted by local fair authorities and the Agronomy Department pursue this course. Each day, special classes for the girls in attendance will be held at the Department of Home Economics. For further information address Prof. R. A. Moore, College of Agriculture, Madison, Wis.

Terms of Admission

Graduate Courses in Agriculture. Graduates of this University and other colleges and universities in good standing are admitted to this course without examination.

Long Course in Agriculture. The requirements for admission to this course are given under Admission to the University (see Index).

Adult Special Students in Agriculture. For terms of admission for adult special students, see Index under Admission.

The Middle Course in Agriculture. Requirements for admission are the same as for the Long Course.

Short Course in Agriculture. Students in this course must be at least sixteen years of age and have a good common school education. No entrance examinations are required.

Dairy Courses. The requirements for admission to the Winter Dairy Course are the same as for the Short Course with the exception that the candidates must have had not less than six months' experience in a creamery or cheese factory before entering the course. For admission to the summer and special courses no previous experience is required.

Farmer's and Women's Weeks. No examinations are required for admission to these courses, but the candidate must be at least twenty-five years of age to be admitted to the Farmer's Course.

Fellowships and Scholarships

Two fellowships of $400 per year each and two scholarships of $225 per year each are offered graduate students in this college. Applications for these honors must be made to the Registrar of the University on proper forms by March 1.

The A. J. Horlick Scholarship

In 1915 Regent A. J. Horlick gave a scholarship of $225. This is awarded in the College of Agriculture and provides for special research on some phase of inheritance of disease resistance in plants.

Loan Fund

There is a loan fund of $1,100 which is available to students in the College of Agriculture. This is to be lent to needy students in small amounts, at 5 per cent interest.

Degrees

The degree of Bachelor of Science (Agriculture) is conferred upon students who successfully complete the Long Course in Agriculture.

The degree of Bachelor of Science (Home Economics) is conferred upon those completing the long course in Home Economics.

The title of Graduate in Agriculture will be conferred upon students who complete the Middle Course in a satisfactory manner.

The degree of Master of Science is conferred upon agricultural graduates who complete at least one year of advanced study at the University and present an acceptable thesis on a topic approved by the agricultural faculty.

Certificates

Students who complete in a satisfactory manner the Short Course or Dairy Course, will be granted appropriate certificates.

Outlines for the Long Course in Agriculture

A. A student entering with three years of any one classical or modern language, or with four years of any two foreign languages, is absolved from further language requirements in the College of Agriculture. (See outline.)

B. Students who do not present credits for college language may take either French or German. (See outline.)

In calculating the hours per week for the various studies, two hours of laboratory, field, or barn practice count as one hour of class-room work, which is the equivalent of one credit in this outline. Required subjects outside the College of Agriculture (marked L. & S.) will be found catalogued under the College of Letters and Science.

A. OUTLINE FOR STUDENTS WITH SUFFICIENT ENTRANCE CREDITS TO SATISFY LANGUAGE REQUIREMENTS

Freshman Year

First Semester

Subject	Credits
English 1a (L. & S.)	3
Mathematics 71 (Engineering)	5
Chemistry 1 (L. & S.)	5
Agronomy 1 or Agricultural Engineering 1, first half of first semester	2½
Animal Husbandry 1, last half of first semester	2½
Total	18
Military Drill	1
Physical Education	1

Second Semester

English 1b (L. & S.)	3
Agricultural Bacteriology 1	5
Chemistry 1 (L. & S.)	5
Agricultural Engineering 1 or Agronomy 1, last half of second semester	2½
Dairy Husbandry 1, first half of second semester	2½
Total	18
Military drill	1
Physical Education	1

Sophomore Year

First Semester

Chemistry 11 Ag. (L. & S.)	3
Chemistry 120 (L. & S.)	2
Physics 61 (L. & S.)	3
Botany 1 (L. & S.)	5
Horticulture 1	3
Electives	2
Total	18
Military Drill	1
Physical Education	1

SECOND SEMESTER

	Credits
Agricultural Chemistry 1 and 2	5
Physics 61 (L. & S.)	3
Soils 1	5
Zoology 3 (L. & S.)	3
Electives	2
Total	18
Military Drill	1
Physical Education	1

Junior Year

FIRST SEMESTER

Botany 129 (L. & S.)	2
Animal Husbandry 2	2
Agricultural Economics 1	5
Electives	8
Total	17

SECOND SEMESTER

Botany 146 (L. & S.)	4
Electives	13
Total	17

Senior Year

FIRST SEMESTER

Major, including Thesis	5
Minor, assigned	5
Electives	5
Total	15

SECOND SEMESTER

Major, including Thesis	5
Minor, assigned	5
Electives	4
Total	14

B. OUTLINE FOR STUDENTS REQUIRED TO TAKE FOREIGN LANGUAGE

Freshman Year

First Semester

Subject	Credits
English 1a (L. & S.)	3
German 2a or French 10† (L. & S.)	4
Chemistry 1 (L. & S.)	5
Agronomy 1 or Agricultural Engineering 1, first half of first semester	2½
Animal Husbandry 1, last half of first semester	2½
Total	17
Military Drill	1
Physical Education	1

Second Semester

English 1b (L. & S.)	3
German 2b or French 10† (L. & S.)	4
Chemistry 1 (L. & S.)	5
Agronomy 1 or Agricultural Engineering 1, last half of second semester	2½
Dairy Husbandry 1, first half of second semester	2½
Total	17
Military Drill	1
Physical Education	1

Sophomore Year

First Semester

Chemistry 11Ag. (L. & S.)	3
Organic Chemistry 120 (L. & S.)	2
Agricultural Bacteriology 1	5
Botany 1 (L. & S.)	5
Horticulture 1	3
Total	18
Military Drill	1
Physical Education	1

†When French 10 is elected it should be taken in combination with French 13, 14, or 15 in order to obtain 4 fifths credit each semester.

SECOND SEMESTER

	Credits
Agricultural Chemistry 1 and 2	5
Mathematics 71 (Engineering)	5
Soils 1	5
Zoology 3 (L. & S.)	3
Total	18
Military Drill	1
Physical Education	1

Junior Year

FIRST SEMESTER

Botany 129 (L. & S.)	2
Animal Husbandry 2	2
Agricultural Economics 1	5
Physics 61 (L. & S.)	3
Electives	5
Total	17

SECOND SEMESTER

Botany 146 (L. & S.)	4
Physics 61 (L. & S.)	3
Electives	10
Total	17

Senior Year

FIRST SEMESTER

Major, including Thesis	5
Minor, assigned	5
Electives	6
Total	16

SECOND SEMESTER

Major including Thesis	5
Minor, assigned	5
Electives	5
Total	15

The total requirements for graduation are 135 credits in addition to military drill and physical education.

Electives to the amount of fourteen credits may be taken outside the College of Agriculture, in addition to the minor study which may be taken outside the college with the approval of the major adviser.

Students of the Long and Middle Courses may take sixteen to eighteen credits each semester, exclusive of drill and physical education. Electives may be added to make a total of twenty credits provided the student has received a standing of at least 85 per cent in each subject for the preceding semester.

The thesis, or a substitute approved by the adviser, must represent some phase of the student's work in his major study, four credits being given. The instructor in charge of the major subject will act as the student's adviser and will assist in the selection of his minor subject. For farm experience requirement see p. 305.

Outline of Middle Course in Agriculture

Freshman Year

FIRST SEMESTER

Subject	Credits
English 1a (L. & S.)	3
Chemistry 1 (L. & S.)	5
Agronomy 1, first half semester	2½
Animal Husbandry 1, last half semester	2½
Horticulture 1	3
Animal Husbandry 2	2
Total	18
Military Drill	1
Physical Education	1

SECOND SEMESTER

Subject	Credits
English 1b (L. & S.)	3
Chemistry 1 (L. & S.)	5
Dairy Husbandry 1, first half semester	2½
Agricultural Engineering 1, last half semester	2½
Soils 3	3
Electives in College of Agriculture	2
Total	18
Military Drill	1
Physical Education	1

Sophomore Year

FIRST SEMESTER

Agricultural Bacteriology 1	5
Electives	11
Total	16
Military Drill	1
Physical Education	1

SECOND SEMESTER

Agricultural Chemistry 1	3
Electives	13
Total	16
Military Drill	1
Physical Education	1

The student shall select his major subject by the beginning of the second year and shall consult the chairman of the department for assignment to an adviser. Before entering this year, a student must have had at least one year of practical farm experience satisfactory to the executive office of the College of Agriculture. (See p. 305.) Six elective credits may be taken outside the College of Agriculture.

Students taking the Middle Course and desiring to transfer to the Long Course must be prepared to spend more than the usual four years, in order to complete the requirements.

Special Adaptations of the Courses in Agriculture for the Preparation of Teachers

Middle Course

Graduates of the Middle Course who complete the following groups of subjects during the second year will be recommended by the Director of the Course for the Training of Teachers to receive a special license to teach agriculture in the schools of Wisconsin.

First Semester Group	Credits	Second Semester Group	Credits
Agronomy 120	3	Agricultural Education 1	2
Agricultural Engineering 2	2	Horticulture 3	3
Dairy Husbandry 2	3	*Poultry 2	2
Economic Entomology 101	3	Soils 2	3
Veterinary Science 3	2	Veterinary Science 2	2
Education 1, 6, 11, or 41	2	Teachers Course in Agriculture	4

*Given in second semester of first year.

Long Course

Graduates of the Long Course presenting credit in the following special work will be entitled to receive the University Teachers Certificate: Philosophy (1), three credits; Education (1, 6, 11, 41, or 113) two credits; Education practice A, two credits; Agricultural Education 1, four credits; Teacners Courses in College of Agriculture, 4 credits. Students expecting to become candidates for the University Teachers Certificate are advised to elect not less than fifteen credits during the junior and senior years from the following groups:

First Semester Group	Credits	Second Semester Group	Credits
Agronomy 120	3	Horticulture 3	3
Agricultural Engineering 2	3	Poultry 2	3
Dairy Husbandry 2	3	Soils 2	2
Economic Entomology 101	3	Veterinary Science 2	2
Plant Pathology 101	3	Soils 120	3
Poultry 1	2	Agricultural Econom 10	3
Veterinary Science 3	2		

DEPARTMENTS OF INSTRUCTION

THE LONG AND MIDDLE COURSES IN AGRICULTURE

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester; I or II, given each semester; cr., credits, i. e., hours of credit. Unless otherwise stated, the number of credits per semester is given.

AGRICULTURAL BACTERIOLOGY

PROFESSOR HASTINGS (chairman); ASSOCIATE PROFESSORS FRED, FROST; INSTRUCTORS, BACHMANN, FULMER, WRIGHT; ASSISTANTS, ARMSTRONG, HUNTER, ROEHM.

SCHOLAR, MR. GIBBS.

The courses are planned to meet the needs (1) of students who desire to obtain an idea of the general relations of micro-organisms to natural processes; (2) of students intending to devote themselves to the study of dairy husbandry, soils, veterinary medicine, or foods; (3) of students wishing to prepare themselves for instructional or research work in general or applied bacteriology.

For Undergraduates

1. General Survey. I or II; 5 cr. The relation of micro-organisms to soil fertility, to disease, and to foods. Mr. Hastings, Mr. Fulmer, and staff.

4. Household Bacteriology. II; 5 cr. Survey of bacteriology with special emphasis on the relation of micro-organisms to foods and domestic sanitation. Mr. Frost, Miss Bachmann, and staff.

Thesis. Yr.; 2 cr. Prerequisites: courses 1 or 4 and 124 and either 121, 123, or 125. Mr. Fred, Mr. Frost, Mr. Hastings.

For Undergraduates and Graduates

121. Dairy Bacteriology. II; 3 cr. Prerequisite: course 1 or 4. Mr. Hastings.

123. Soil Bacteriology. I; 3 or 5 cr. Prerequisite: course 1 or 4. Mr. Fred.

124. Technique. I; 2 or more cr. Prerequisite: course 1 or 4. Mr. Frost.

125. Food Bacteriology. Yr.; 2 or more cr. Prerequisite: course 1 or 4. Mr. Frost, Miss Bachmann.

For Graduates

230. Research. Yr.; 2 or more cr. Prerequisites: course 1 or 4, 124, and either 121, 123, or 125.

231. Seminar. Yr.; 1 cr.

AGRICULTURAL CHEMISTRY

Emeritus Professor Babcock; Professors Hart (chairman), McCollum; Assistant Professors Tottingham, Peterson; Instructors Drescher, Nelson, Steenbock, Strowd; Assistants Bentley, Jurrjens, Pitz, Schaal, Williams.

The courses offered in this department are intended to give a broad view of farm chemistry, useful to the general agricultural student, and to develop men fitted for instructional or experimental work in the various fields of chemical activity applied to agriculture. Courses 1 and 2 must precede all other courses in the department. Courses 120 to 122 are for students desiring a more detailed knowledge of the special subjects treated and are preliminary to greater specialization. These courses should be preceded or accompanied by work in biology and organic chemistry. Physiology is a desired prerequisite. All other advanced courses in this department are open to undergraduates and graduates who have had the necessary preliminary training.

For Undergraduates

1. Agricultural Chemistry. II; 3 cr. Mr. Hart.

2. Agricultural Analysis. II; 2 cr. Mr. Tottingham, Mr. Drescher.

3. Household Chemistry. I; 5 cr. Composition and physical properties of foods and their nutritive value. Mr. Peterson.

Thesis. Yr.; 2 cr. May be taken in plant or animal chemistry or in dairy chemistry. Mr. Hart, Mr. McCollum, Mr. Peterson, Mr. Tottingham.

For Undergraduates and Graduates

120. Plant Chemistry. II; 2 or 5 cr. Select methods in the analysis of plant materials and studies of processes of growth. Mr. Tottingham.

121. Dairy Chemistry. I; 2 or 5 cr. Chemistry of milk and its products including the chemistry of fermentation. Mr. Hart, Mr. Drescher.

122. Animal Chemistry. I; 2 or 5 cr. Chemistry of feeds, processes of digestion, metabolic changes involved in nutrition of animals. Mr. McCollum.

123. Advanced Household Chemistry. II; 3 cr. Composition and fuel value of prepared cereals; proprietary infant foods; soaps and washing powders. Mr. Peterson.

124. Advanced Bio-Chemistry. I or II; Examination of plant and animal products. Mr. Hart, Mr. McCollum.

125. Sugar Beet Analysis. I; 2 cr. Mr. Strowd.

126. Chemistry of Fungicides and Insecticides. I; cr. to be arranged. A course designed for students in plant pathology, horticulture, and entomology. Mr. Steenbock.

For Graduates

230. Plant Nutrition. Yr.; hours to be arranged. The influence of various fertilizers on the development and composition of plants. Mr. Hart, Mr. Tottingham.

231. Animal Nutrition. Hours to be arranged. Composition and digestibility of foods and their influence on growth, production of milk, etc. Mr. Hart, Mr. McCollum.

232. Advanced Dairy Chemistry. Yr.; hours to be arranged. The proximate analysis of milk and its products. Changes occurring in manufacture of dairy products. Mr. Hart.

233. Seminar. Yr.; 1 hour. Mr. Hart, Mr. McCollum.

AGRICULTURAL ECONOMICS

PROFESSORS HIBBARD, OTIS, TAYLOR (chairman); ASSISTANT PROFESSOR GALPIN; INSTRUCTORS JUVE, WATRUD; ASSISTANTS BECKER, GUNN, HOLMES, SAWTELLE, STINE.

The courses in agricultural economics are intended to give the student a knowledge of the economic principles which relate to the production and marketing of farm products, and to the economic condition of the agricultural classes.

Students who wish to prepare themselves for practical work as farm managers and as citizens interested in agriculture will find courses 1, 8, 10, 12, and 128 adapted to their needs.

Students who wish to prepare for positions as teachers and research workers in the field of agricultural economics will find it desirable to elect courses 224 to 240. Such students should elect courses in the Department of Political Economy to round out their work. Courses 5, 8a, 8b, 130, 135, 251. 260, and 266 are available for this purpose. See also summer session catalogue.

For Undergraduates

1. Principles of Agricultural Economics. I; 5 cr. Mr. Taylor and staff.

8. Farm Records and Accounts. I or II; 2 cr. Mr. Juve.

10. Methods of Farm Management. II; 3 cr. Visits to farms are made the basis of laboratory work. Mr. Otis.

12. Rural Life. II; 2 cr. A study of the country life movement and of the social problems of farm and village. Mr. Galpin.

Thesis. Yr.; 2 cr. Mr. Galpin, Mr. Hibbard, Mr. Juve, Mr. Otis, Mr. Taylor.

For Undergraduates and Graduates

106. Agricultural Geography. II; 3 cr. Mr. Finch.

128. Cooperation and Marketing. II; 3 cr. Mr. Hibbard.

135. Cost Accounting on Farms. II; 2 cr. Mr. Juve.

For Graduates

224. The Premises of Agricultural Economics. I; 2 hours. Mr. Taylor.

225. Rural Social Development. I; 2 hours. The theory and practice or rural social development; units of rural populations; rural relations of minor cities; rural social surveys. Mr. Galpin.

226. Land Tenure. Yr.; 2 hours. An historical and comparative study of the economic status of the agricultural classes. Mr. Ely, Mr. Taylor.

227. Economic History of Agriculture. II; 2 hours. A study of historical changes and geographical differences in methods of farming. Mr. Hibbard.

240. Research. Opportunity to do research under personal supervision as follows:

On country life. Mr. Galpin.

On credits, cooperation, and makerting. Mr. Hibbard.

On cost accounting and its relation to farm management. Mr. Juve.

On farm surveys and financial accounts in their relation to farm management. Mr. Otis.

On the history of agricultural production. Mr. Taylor.

AGRICULTURAL EDUCATION

PROFESSOR HATCH (chairman); ASSISTANT PROFESSOR JAMES.

The course in agricultural education is required of students in the College of Letters and Science who take the Course for the Training of Teachers and minor in agriculture and of those in the College of Agriculture who take the courses for the training of teachers in agriculture.

For Undergraduates

1. Agricultural Education. First half of II; 2 cr. Origin and development with special reference to the teaching of agriculture in elementary and secondary schools. Mr. Hatch. **Methods of Teaching Secondary Agricultural Subjects.** Second half of II; 2 cr. Mr. James.

For Undergraduates and Graduates

103. Research. Yr.; cr. to be arranged. Mr. Hatch.

AGRICULTURAL ENGINEERING

ASSISTANT PROFESSOR WHITE (acting chairman); INSTRUCTORS LIVINGSTON, SAUVE, SCHINDLER, TENNANT; ASSISTANTS GRIFFITH, JONES.

The courses in agricultural engineering are planned to meet the needs of (1) the students desiring a general knowledge of the use of farm machinery, planning farm buildings, and concrete construction; (2) students intending to become agricultural implement experts; (3) students preparing for instructional or investigational work.

For Undergraduates

1. General Agricultural Engineering. First half of I, second half of II; 2½ cr. Required of freshman agricultural students. Mr. White and staff.

2. Farm Structures. I; 2 or 3 cr. Prerequisite: course 1 or its equivalent. Mr. Schindler, Mr. Griffith.

3. Power Machinery. I or II; 3 cr. Prerequisite: course 1. Mr. White, Mr. Sauvé.

4. Concrete Construction. II; 2 cr. Prerequisite: course 1 or its equivalent. Mr. Tennant, Mr. Griffith.

5. Farm Machinery. I; 3 cr. Prerequiste: course 1. Mr. White, Mr. Jones.

6. Farm Machinery. II; 3 cr. To prepare field experts. Prerequisite: courses 3 and 5 and 14 or equivalents. Mr. White, Mr. Jones.

Thesis. Yr.; 2 cr. Mr. White.

Electives in the College of Agriculture given in the College of Engineering.

7. Country Roads. I; 1 cr. Mr. Smith.

13. General Carpentry. I or II; 1, 1½, or 2 cr. Special attention to farm needs. Mr. Brunsell.

14. General Forge and Bench Work. I or II; 1, 1 ½, or 2 cr. Special attention to farm tools. Mr. Dabney, Mr. Fladky, Mr. Zurian.

For Undergraduates and Graduates

120. Research. Credits to be arranged. Prerequisites: courses 2, 3, 4, 5, 6. Mr. White.

AGRICULTURAL JOURNALISM

PROFESSOR HOPKINS (chairman); INSTRUCTOR SUMNER; ASSISTANT MCINTYRE.

The courses offered by the Department of Agricultural Journalism are intended to be of special service to students who will engage in farming, or who expect to be employed in station work or in some form of demonstration or extension service; and who, therefore, may have occasion to write for publication and certainly will have farm produce and products to sell. To these ends the work is very largely confined to studies in agricultural writing.

For Undergraduates

1. Agricultural Journalism. I; 2 cr. Mr. Hopkins.

2. Agricultural Editing. Yr.; 1 cr. Mr. McIntyre.

4. Advanced Agricultural Journalism. II; 2 cr. Prerequisite: course 1. Mr. Hopkins.

Thesis. Yr.; 2 cr. Mr. Hopkins.

For Undergraduates and Graduates

140. Methods and Problems. II; cr. to be arranged. Mr. Hopkins.

AGRONOMY

PROFESSOR R. A. MOORE (chairman); ASSOCIATE PROFESSOR DELWICHE; ASSISTANT PROFESSOR STONE; INSTRUCTORS GARLAND, GRABER, LEITH, LUNZ, MORTIMER, WRIGHT; ASSISTANT ETHERIDGE.

The courses in agronomy are designed to give a thorough understanding of the general and scientific principles which underlie the production of farm crops; to fit students to classify, judge, and grade cereals and forage plants commercially and in competitive displays; to inspect farm seeds, identify noxious weeds, and to prepare students for instructional and research work in agronomy.

For Undergraduates

1. Description, Classification, and Judging of Cereals. First half of I and second half of II; 2½ cr. Mr. Moore and staff.

2. Forage Crops. II; 3 or 5 cr. Uses, distribution, culture, composition, and improvement. Mr. Moore, Mr. Graber.

3. Sugar, Fiber, and Canning Crops. I; 3 cr. Variety, type, cultural methods, and distribution. Mr. Etheridge.

Thesis. Yr.; 2 cr. Mr. Moore and staff.

For Undergraduates and Graduates

101. Research. Credit to be arranged. Offered at Madison and the branch experiment stations. Permission of instructor required. Mr. Moore and staff.

102. Grasses. I; 2 cr. Varieties, culture, distribution, and uses. Prerequisite: course 1. Mr. Mortimer.

104. Cereals. I; 3 or 4 cr. A detailed study of the uses, distribution, culture, composition, and improvement of grain crops. Prerequisite: course 1. Mr. Leith.

120. Seed Inspection and Weed Control. I; 3 cr. Prerequisite: course 1. Mr. Stone, Mr. Lunz.

121. Advanced Cereal Judging. II; 2 cr. Prerequisites: courses 1 and 120. Mr. Stone, Mr. Mortimer.

130. Plant Breeding. II; 3 cr. Methods and principles involved in the improvement of farm crops. Prerequisites: Botany 1 and Agronomy 1. Mr. Leith.

131. Agronomic Problems. Yr.; 1 cr. Permission of instructor required. Mr. Moore.

140. The Teaching of Agronomy. First half of II; 2 cr. Organization and presentation of subject matter. Prerequisites: courses 1 and 120. Mr. Mortimer.

ANIMAL HUSBANDRY

Emeritus PROFESSOR HENRY; PROFESSOR HUMPHREY (chairman); ASSOCIATE PROFESSOR FULLER; ASSISTANT PROFESSORS MORRISON, OOSTERHUIS, TORMEY; INSTRUCTORS HARRIS, KLEINHEINZ, KUHLMAN; ASSISTANTS BOHSTEDT, MARKEY.

For Undergraduates

1. Elementary Live Stock Judging. Last half of I; 2½ cr. Mr. Kuhlman, Mr. Tormey, Mr. Oosterhuis.

2. Live Stock Management. I; 2 cr. Mr. Oosterhuis.

Thesis. Yr.; 2 cr. Mr. Fuller, Mr. Harris, Mr. Humphrey, Mr. Kuhlman, Mr. Morrison, Mr. Oosterhuis, Mr. Tormey.

For Undergraduates and Graduates

120. History of Breeds. II; 3 cr. Required of students majoring in animal husbandry. Prerequisite: course 1. Mr. Fuller.

123. Advanced Live Stock Judging. Yr.; 3 cr. Prerequisites: courses 1 and 2. Mr. Fuller, Mr. Kleinheinz, Mr. Oosterhuis, Mr. Tormey.

124. The Art of Breeding. II; 2 cr. Prerequisites: courses 1, 2. Required of students majoring in animal husbandry. Mr. Humphrey, Mr. Kuhlman.

126. Live Stock Feeding. 3 cr. Required of students majoring in animal husbandry. First semester for Middle Course students with no prerequisite; second semester for Long Course students, prerequisite: course 1. Mr. Tormey.

127. Live Stock Pedigrees. II; 2 cr. Prerequisites; courses 1 and 120. Mr. Fuller.

For Graduates

230. Live Stock Practice and Problems. Yr.; 3 to 5 hours. For graduates and students majoring in animal husbandry. Prerequisites: courses 1, 120, 124, 126. Mr. Fuller, Mr. Harris, Mr. Humphrey, Mr. Kuhlman, Mr. Morrison, Mr. Oosterhuis, Mr. Tormey.

DAIRY HUSBANDRY

PROFESSOR FARRINGTON (chairman); ASSOCIATE PROFESSOR SAMMIS; ASSISTANT PROFESSOR BENKENDORF; ASSISTANTS BAER, DAY.

The department offers instruction in the theory and art of manufacturing dairy products, suited to the needs of (a) farm dairymen, (b) investigators or teachers, (c) managers, operators, or inspectors of creameries, cheese factories, or city milk plants. Students intending to major in this department should elect courses 2 and 3 or 4 at the beginning of the junior year.

For Undergraduates

1. General Farm Dairying. First half of II; 2½ cr. Elementary study of milk, and methods of testing and manufacturing farm dairy products. Lectures, Mr. Farrington; laboratory, Mr. Benkendorf, Mr. Baer.

2. Advanced Milk Inspection. I; 3 cr. Sanitary and commercial tests of dairy products. Prerequisite: course 1. Lecture, Mr. Farrington; laboratory, Mr. Benkendorf.

3. Creamery Buttermaking and Dairy Machinery. Yr.; 3 cr. Lecture, Mr. Farrington; laboratory, Mr. Benkendorf.

4. Cheese Making. Yr.; 3 cr. A general survey of commercial varieties. Mr. Sammis and assistants.

5. City Milk Supply and Ice Cream Making. Yr.; 3 cr. Milk ordinances and Board of Health regulations. Prerequisite: course 2. Mr. Baer.

Thesis. Yr.; 2 cr. Prerequisites: courses 2 and 3, 4, or 5. Mr. Farrington.

For Undergraduates and Graduates

110. Dairying for Teachers of Agriculture. Last half of II; 2 cr. Prerequisite: course 2. Mr. Benkendorf.

120. Advanced Market Milk Problems. Yr.; 3 or 5 cr. Prerequisites: courses 2 and 5. Mr. Baer.

121. Advanced Butter Yield and Quality. Yr.; 3 to 5 cr. Prerequisites: courses 2 and 3. Mr. Farrington.

122. Cheese Making and Curing. Yr.; 3 or 5 cr. The recovery and utilization of factory wastes; standardization of materials and methods. Prerequisite: course 4. Mr. Sammis.

ECONOMIC ENTOMOLOGY

PROFESSOR WILSON (chairman); INSTRUCTORS BURRILL, GENTNER.

The courses provided in this department are designed primarily to meet the needs of students specializing in other departments. Advanced and special students are expected to be able to do more or less original research upon their own initiative. The course in beekeeping includes both laboratory and field work and special trips are made to apiaries in the vicinity of Madison.

For Undergraduates and Graduates

101. General Economic Entomology. I; 3 cr. Insects and their near relatives. A study of their structure, habits, and general economic importance. Mr. Wilson, Mr. Burrill.

103. Orchard Insects. II; 3 cr. Insect pests of orchard and bush fruits. Besides a study of life histories, special attention will be given to control methods. Prerequisite: course 101. Mr. Wilson, Mr. Burrill.

105. Garden and Field Crop Insects. II; 3 cr. Insect pests of common garden and field crops and methods for their control. Prerequisite: course 101. Mr. Wilson, Mr. Gentner.

110. Beekeeping. II; 2 cr. A survey of the development of beekeeping and the principles of scientific methods in the production of honey, wax, etc. Special opportunity is given for the study of queen rearing methods. Mr. Wilson.

115. Seminary. I or II; 1 cr. For advanced and graduate students. Methods of research, etc. Mr. Wilson.

120. Research. yr.; credits to be arranged. Special assigned problems are here considered to give advanced students a practical working knowledge of research.

Thesis. Yr.; 2 cr. For advanced and graduate students specializing in entomology.

EXPERIMENTAL BREEDING

PROFESSOR COLE (chairman); ASSISTANTS KELLEY, IBSEN, WOODWORTH.

The following courses are designed for those who have had some biological training, and who desire a general knowledge of the subjects of heredity and breeding, or who contemplate following these lines, either from the theoretical or practical point of view, Special opportunity is offered those doing advanced work to get practical experience in the methods of experimental breeding.

For Undergraduates

1. Principles of Breeding. I; 2 cr. Elementary principles of heredity as applied to breeding. Mr. Cole.

Thesis. Yr.; 2 cr. Mr. Cole.

For Undergraduates and Graduates

105. Advanced Genetics. II; 3 cr. Prerequisite: Experimental breeding 1 or equivalent in Departments of Botany or Zoology. Mr. Cole, Mr. Woodworth.

120. Seminary. Yr.; 1 cr. Consent of instructor required before election. Mr. Cole.

121. Topical Work. Yr.; credit to be arranged. For those not prepared for course 225. To be taken with or subsequently to course 1. Mr. Cole.

For Graduates

225. Research. Yr.; hours to be arranged. Mr. Cole.

FORESTRY

In Farm Forestry the courses are planned to meet the needs of students both in the Long and in the Short Course in Agriculture desiring a general knowledge of the forestry and economic principles underlying the formation and intelligent protection and use of the farm woodlot. Instruction is given by means of lectures, and of demonstrations on the woodlots of the University Farm.

1. **Farm Forestry.** I; 1 cr. Relation of forestry to agriculture. Care of the woodlot, windbreaks, shelterbelts; starting new trees in the woodlot, methods of propagation, selection and identification of species; measuring the crop, sale value. (Omitted 1915–16.)

HORTICULTURE

Associate Professor J. G. Moore (chairman); Assistant Professors Aust, Milward; Instructors Brann, Hepler, Johnson, Potter, Roberts.

The courses offered in this department are designed to give the student a thorough working knowledge of the principles and practices of the most important lines of horticultural work.

For Undergraduates

1. Principles of Fruit Growing. I; 3 cr. Mr. Moore.

2. Fruit Growing. II; 2 cr. Prerequisite: course 1. Mr. Potter.

3. Vegetable Gardening. II; 3 cr. Mr. Hepler.

4. Vegetable Forcing. I; 3 cr. Mr. Hepler.

4a. Vegetable Forcing. II; 2 cr. A continuation of Horticulture 4. Prerequisite: Horticulture 4. Mr. Hepler.

5. Small Fruit Culture. I; 1 cr. Mr. Moore.

6. Landscape Gardening. I; 3 cr. Mr. Aust.

7. Plant Propagation. II; 2 cr. Mr. Moore.

8. Floriculture. II; 3 cr. Designed for women. Mr. Moore, Mr. Johnson, Mr. Hepler, Mr. Potter.

Thesis. Yr.; 2 cr. Mr. Moore.

For Undergraduates and Graduates

120. Plant Breeding. II; 3 cr. Methods involved in applying the theories of heredity to the improvement of horticultural plants. Prerequisite: Botany 1 and Zoology 3. Mr. Potter.

121. Experimental Horticulture. Yr.; 2 to 5 cr. Planning of experiments, keeping records, and experimental work. Mr. Moore, Mr. Hepler, Mr. Potter.

122. Systematic Pomology. I; 4 cr. Students electing this course should have had Horticulture 1 and 2. Mr. Moore, Mr. Potter.

123. Systematic Olericulture. I; 2 cr. Prerequisite: Horticulture 3. Mr. Hepler.

124. Horticultural History. II; 2 cr. For advanced students. Mr. Moore, Mr. Hepler, Mr. Potter.

125. Advanced Landscape Gardening. II; 2 cr. Continuation of Horticulture 6. Mr. Aust.

PLANT PATHOLOGY

PROFESSOR L. R. JONES (chairman); ASSISTANT PROFESSORS JOHNSON, KEITT, VAUGHN; LECTURER HUMPHREY; INSTRUCTOR BRANN; ASSISTANTS COERPER, GARDNER, REDDY, ROARK, WALKER.

For Undergraduates

Thesis. Yr.; 2 cr. Subject should be chosen early, preferably the preceding spring, in order to take advantage of the summer season to secure material. Mr. Jones.

For Undergraduates and Graduates

101. Diseases of Plants. I; 3 cr. Nature, causes, and remedies, including field and laboratory studies of a typical series of examples. Prerequisites: Botany 1 and Bacteriology 1. Mr. Jones, Mr. Johnson, Mr. Gardner, Mr. Reddy, Mr. Roark.

102. Methods in Plant Pathology. I; 3 cr. Parasitic diseases of plants, isolation of parasites, technique of cultural methods, spore germination, and inoculation. Prerequisite: Plant Pathology 101. Mr. Jones, Mr. Walker.

116. Diseases of Field Crops. II; 2 cr. Arranged to meet the needs of students specializing in plant pathology and agronomy. Mr. Reddy.

117. Diseases of Orchard Fruits. II; 2 cr. Arranged to meet the needs of students specializing in plant pathology and horticulture. Mr. Keitt, Mr. Roark.

119. Diseases of Timber, and Forest Protection*. II; 1 cr. Mr. Humphrey.

120. Diseases of Garden Crops. (Omitted 1915-16.)

122. Fungicides in Relation to Host and Parasite. II; 2 cr. Advanced course, primarily intended for students specializing in plant pathology. Prerequisite: Plant Pathology 101. Mr. Keitt, Mr. Roark.

For Graduates

223. Seminary. Yr.; 1 cr. Mr. Jones, Mr. Keitt.

225. Research. Cr. to be arranged. Mr. Jones, Mr. Johnson, Mr. Keitt.

POULTRY HUSBANDRY

Associate Professor Halpin (chairman); Instructors Dann, Hayes; Assistant Johnson.

The Poultry Department is well equipped with houses for laying stock and for brooding chicks. It also has a very complete list of incubators, brooders, and other poultry machinery. The present stock consists of thirty varieties of chickens, six varieties of ducks, five breeds of geese, one breed of turkeys, and one breed of guinea fowl.

For Undergraduates

1. Elementary Poultry Raising. I; 2 cr. Mr. Halpin.

2. Elementary Poultry Raising. II; 2 cr. Continuation of course 1. Mr. Halpin.

3. Poultry Practice. Yr.; 1 to 3 cr. Mr. Halpin, Mr. Hayes.

5. Artificial Incubation and Brooding. II; 1 to 3 cr. Prerequisites: courses 1, 2, and 3. Mr. Halpin, Mr. Hayes, Mr. Johnson.

*For further details see "The Forest Products Laboratory," page 431.

6. Poultry Judging. I; 3 cr. Mr. Halpin, Mr. Hayes.

7. Advanced Poultry Management. II; 3 cr. Prerequisites: courses 1, 2, and 3. Mr. Dann.

8. Market Poultry. I; 1 or 2 cr. Practice in fattening, killing, and dressing. Prerequisites: courses 1 and 3. Mr. Halpin, Mr. Hayes.

Thesis. 2 cr. Mr. Halpin, Mr. Hayes.

SOILS

PROFESSOR WHITSON (chairman); ASSOCIATE PROFESSOR JONES; ASSISTANT PROFESSORS STEWART, WALSTER; INSTRUCTORS GRAUL, TRUOG, WEIR; ASSISTANT ZEASMAN.

Course 1 is prerequisite to all other courses except course 2.

Courses 1, 2, and 120 are general in character and are adapted to the needs of all students of agriculture. In addition to these courses, courses 121, and 122 are required of students taking their major in soils, and form a basis for the more advanced courses designed to prepare students for instructional or investigational work in agronomy, soil fertility, or land drainage. Advanced students specializing in this subject are advised to elect courses in chemistry, soil bacteriology, plant physiology, agronomy, geology, or hydraulics, according to their special needs, during their senior and graduate years. The summer period is particularly suited to advanced work in soil fertility and courses are offered in the Summer Session for that reason.

For Undergraduates

1. Principles of Soil Physics and Fertility. II; 5 cr. Prerequisite: Chemistry 11Ag. Mr. Walster and staff.

3. Soil Physics and Fertility; Brief Course. II; 3 cr. Required of freshmen, Middle Course. Mr. Jones.

2. Land Drainage. II; 3 cr. Principles and surveying operations. Field work in tile laying. Mr. Jones, Mr. Zeasman.

Thesis. Yr.; 2 cr. Mr. Whitson and staff.

For Undergraduates and Graduates

120. Soil Management. II; 2 cr. Systems of farming for various types of soils, and relation of these systems to maintenance of fertility. Mr. Whitson.

121. Soil Analysis. I; 3 or 5 cr. Use of special and standard methods in chemical examination of soils. Mr. Walster, Mr. Graul.

122. Soil Physics. I; 4 cr. Mr. Stewart.

123. Drainage Design. I; 3 cr. Advanced practice in land drainage. Mr. Jones.

124. Plant Nutrition. I; 3 cr. Given 1915-16 and in alternate years. The effects of soil substances upon the plant, including the physiological rôle of fertilizers, soil amendments, and soil water. Mr. Walster.

125. Origin and Classification of Soils and Agricultural Climatology. II; 3 cr. Alternates with course 127. (Given 1916.) Mr. Whitson.

127. Advanced Soil Chemistry. II; 2 cr. The soil constituents, solution, and interacting processes. Methods of soil investigation and interpretation of data. Alternates with course 125. Mr. Truog.

128. Field Management. Yr., 2 to 4 cr. Physical management and fertility maintenance on special types of soil and on selected farms. Mr. Weir.

For Graduates

231. Research. Mr. Whitson and staff.

232. Seminar. Yr.; 1 cr.

VETERINARY SCIENCE

Professor Alexander; Associate Professor Hadley (chairman); Assistant Professor Beach; Instructor Coffman.

The courses detailed below are designed to give students interested in animal production an opportunity to learn how the body is constructed and works. With this as a basis, the more important aspects of live stock sanitation are studied. Especial emphasis is placed on the prevention of animal diseases. The work is made of practical value with the aid of live animals, specimens, models,

charts, and other apparatus. These studies introduce the student to terms commonly used in medicine and thus provide a means by which a reading knowledge of veterinary literature may be easily acquired.

For Undergraduates

1. The Animal Body. I; 3 cr. Anatomy and physiology. Mr. Hadley.

2. Common Diseases of Animals. II; 2 cr. Special attention to first aid treatment. Mr. Hadley.

3. Veterinary Hygiene. I; 2 cr. Including diseases of the dairy cow. Mr. Alexander.

Thesis. Yr.; 2 or 4 cr. Mr. Alexander, Mr. Hadley.

For Undergraduates and Graduates

123. Exterior of the Horse. II; 2 cr. The physics and mechanics of locomotion and examination for soundness. Prerequisite; course 1. Mr. Alexander.

124. Topical Work. Yr.; cr. to be arranged. Mr. Hadley, Mr. Beach, Mr. Coffman.

THE AGRICULTURAL EXPERIMENT STATION

H. L. Russell, Director

The Wisconsin Agricultural Experiment Station is organically associated with the College of Agriculture and members of the faculty of the college constitute the staff of the station. The purpose of the station is the promotion of agricultural science by research and experimentation. The funds for the work of the station come from both state and federal appropriations. Each of the several departments has research work continually in progress, some members of the staff devoting the major portion of their time to this work. Such subjects are selected as are of the greatest importance to the farmers of Wisconsin, so far as the facilities at hand permit.

The publications of the Experiment Station include an annual report, a series of popular bulletins, a series of research bulletins,

a series of circulars of information and a series of poster bulletins. The popular bulletins, including helpful discussions of the results of experiments, are distributed free to residents of the state upon application and are issued in editions of 20,000 to 50,000 copies. The research bulletins contain technical data and discussions not designated for wide distribution and are sent to libraries, investigators, etc. Thirty-one annual reports, 260 popular bulletins, 38 research bulletins, 55 circulars of information, 6 poster bulletins, 11 special bulletins and 30 bankers' bulletins have been issued. Any person desiring to receive the popular bulletins should apply to H. L. Russell, Director, Madison, Wis.

THE AGRICULTURAL EXTENSION SERVICE

H. L. Russell, Director

The extension work of the College of Agriculture is organized as a service of the several departments of the institution rather than as a distinct department of the college. Under this service three distinct lines of work are carried on as follows:

1. Field demonstration work of the several departments.
2. The county agricultural representative system in which a resident instructor is located in a county.
3. Collective extension instruction given in connection with the farmers' weeks and schools, demonstration trains, etc.

Through this system of giving instruction and practical demonstrations to persons not resident at the college, many thousands of rural people who are unable to come to Madison for resident instruction are aided directly by the work of the college. Much of the work is organized on the project basis, and is partly supported by federal funds. Persons desiring to receive printed matter and other information relative to this work should apply to K. L. Hatch, Assistant Director.

THE FARMERS' INSTITUTE

E. L. LUTHER, SUPERINTENDENT NELLIE E. GRIFFITHS, CLERK

The Department of Farmer's Institutes of the College of Agriculture is maintained by a legislative provision which appropriates $20,000.00 annually for the purpose of conducting Farmers' Institutes at various places throughout the state. The superintendent, assisted by special conductors and workers, during the winter of 1915-1916 conducted 110 two-day institutes and 44 Women's institutes. At each institute "follow-up" work is arranged with farmers having problems and this "follow-up" work will result in summer field demonstrations and institutes.

A Farmers' Institute Bulletin is issued annually in an edition of 40,000 copies and is distributed free of charge. A Women's Bulletin is also issued annually in an edition of 12,000 copies and distributed free of charge.

COURSES IN HOME ECONOMICS

The Department of Home Economics is connected with the College of Agriculture for administrative purposes and the faculty of this college gives instruction in certain subjects, such as food chemistry and bacteriology.

The faculties of the various other colleges, schools, and courses of the University give instruction in certain required and elective subjects offered to students taking the course in home economics.

Facilities for Instruction

The Department of Home Economics is located in the Home Economics Building, where offices, class rooms, and laboratories are provided, and in the practice cottage where the work in household management, house decoration, and dietetics have ample scope for practical solution. The department is provided with all the necessary furnishings and apparatus to give thorough instruction in the subjects of house and institutional management and sanitation, art and design, food preparation, dietetics, textiles, sewing, dressmaking, and house decoration.

The new equipment of the department and the well appointed laboratories give an opportunity for theoretical and practical training in home economics not heretofore available. There is abundant opportunity for study and practice both individually and in classes.

The work in chemistry and bacteriology, as applied to home economics, is done in sections of the laboratories set aside for this work. The courses given in the College of Letters and Science are taken in various class rooms of that college. Electives may be chosen in other colleges of the University, according to the nature of the work. Women taking the course in home economics are granted the same privileges of residence in Chadbourne Hall, and Barnard Hall, the women's dormitories, and in the use of the women's gymnasium, etc., as other women of the University.

Terms of Admission

Students are admitted to this department on the same basis as are students of other courses in the University. See index under Entrance Requirements.

Fees and Expenses

See Index under Laboratory and Tuition Fees.

Degree

The degree of Bachelor of Science (home economics) is conferred upon those who complete 120 credits, of which 36 to 40 are in home economics.

Scope of the Courses in Home Economics

The Department of Home Economics offers the following courses which deal with the principles which underlie the proper management of the home, care of children, hygienic and sanitary conduct of institutions, and the economic conditions affecting the work of women.

The courses are planned to meet the needs of five classes of students:

1. Those students who desire a general knowledge of the subject matter as a basis for application in the study of the general arts and sciences as a part of a liberal education;

2. Those students who desire to make a detailed study of home economics in its relation to the arts and sciences which are fundamental in the management of the home;

3. Those students who wish to teach home economics in the secondary schools and in higher institutions;

4. Graduate students who have the requisite knowledge to benefit by research in subjects connected with the home;

5. Those who wish to prepare themselves for other vocations than teaching or home-making, or for vocations which can be carried on in connection with other lines of work.

The courses in the related sciences as chemistry, physics, physiology, zoology, bacteriology, and economics are given in the different colleges of the University.

Outline of General Course in Home Economics

Freshman Year

First Semester

	Credits
English 1a (L. & S.), a study of the elements of efficient writing with practice in composition	3
German 2a; or French 10, and 13 or 15 (L. & S.), general courses adapted to the requirements of the student	4
Chemistry 1 (L. & S.), lectures and laboratory work in general chemistry and qualitative analysis	5
Home Economics 2, art and design	3
Total	15

Second Semester

English, 1b, a continuation of 1a	3
German, 2b; French, same as first semester	4
Chemistry, same as first semester	5
Home Economics 3, selection and preparation of foods	3
Total	15

Sophomore Year

FIRST SEMESTER

	Credits
Physics 62 (L. & S.), lectures and laboratory practice in general physics	3
Chemistry, Household, 3	5
Physiology 1 (L. & S.), a general course of lectures and laboratory work in the elements of human anatomy and physiology	3
Electives	3 or 5
Total	15

SECOND SEMESTER

Physics 62 (L. & S.), same as first semester	3
Bacteriology 4, lectures and laboratory work with bacteria as concerned with water, milk, other food supplies, and materials to be found in the household	5
Home Economics 5, textiles	4
Electives	2
Total	14

Junior Year

FIRST SEMESTER

	Credits
Home Economics 11, manufacture and selection of clothing	3
Home Economics 7, home architecture and sanitation	5
Home Economics 4, economics of food supply	4
Electives	4
Total	16

SECOND SEMESTER

Home Economics 8, household decoration	4
Home Economics 6, dietetics	4
Home Economics 11, manufacture and selection of clothing	3
Electives to be chosen as indicated below	4
Total	15

Senior Year

FIRST SEMESTER

	Credits
Home Economics 10, household management	4
Thesis to be assigned in connection with major study	2
Electives to be chosen as indicated below	9
Total	15

SECOND SEMESTER

Home Economics 109, humanics	4
Home Economics 121, teachers course	2
Thesis	2
Electives to be chosen as indicated below	7
Total	15

Electives

Opportunity is given in the junior and senior years for the election of related courses of study in various lines adapted to the requirements of the students. Information concerning electives will be furnished students upon application.

The following electives are recommended for those desiring to teach home economics: Agricultural Chemistry 122—animal chemsitry; Botany 1—general botany; Chemistry 11Ag.—quantitative analysis, 120—organic (I); Education 6—public education, 41—educational psychology; English 30—general survey of English literature; Horticulture 6—landscape gardening, 8—floriculture; Philosophy 1—psychology, 103 and 104—experimental psychology; Political Economy 1a and 1b—elements of economics, 130—statistics, 139—social psychology, 141—poverty and relief; Zoology, 4—elementary zoology; Bacteriology 124 and 125.

Majors in Home Economics

Instead of taking the general course as outlined on page (339) at the beginning of the junior year, the student may specialize in either textiles or foods, choosing one of the majors indicated in the following paragraphs. The requirements for a major in

home economics are not less than 26 credits nor more than 30 credits taken during the junior and senior years.

(1) Textiles. The students who major in textiles will include beyond the work in the freshman and sophomore years, home economics courses carrying at least 22 credits, and thesis with other electives to make 120 credits. Courses in history, art, economics, sociology, advanced chemistry are suggested as electives. On the completion of the major in textiles the graduate may enter commercial pursuits, or teach Domestic Art in the high school or Textiles in college.

(2) Foods. The students who major in foods will include, beyond the sophomore year, home economics courses carrying at least 22 credits; and thesis 4 credits; and other electives to make 120 credits. Electives may include advanced courses in chemistry; physiological chemistry; bacteriology; political economy; history; English; commerce (accounting and commercial law). This course may prepare the student to take a position as dietitian, institutional manager, or teacher of domestic science in the high school or of food and dietetics in college.

In case the student elects the majors under (1) or (2) the following outline will be followed:

Junior Year

First Semester	Credits
Major	8 or 9
Electives (open in any college)	6 or 7
Total	15

Second Semester	
Major	7 or 8
Electives (open in any college)	7 or 8
Total	15

Senior Year

First Semester	
Major	4
Thesis	2
Electives (open in any college)	9
Total	15

SECOND SEMESTER

	Credits
Major	4
Thesis	2
Home Economics 109, humanics	4
Electives (open in any college)	5
Total	15

Minors in Home Economics

A minor in home economics is not less than 15 or more than 20 credits in home economics subjects. The minors may be taken with the major but as a rule the minor is intended for those majoring in Letters and Science and desiring a more intensive and also a broader view of home economics problems. A minor may be taken in foods, textiles, or housing problems.

(1) The minor in foods must include Home Economics 1, 3, 4, and other related courses to make 15 to 20 credits.

(2) The minor in textiles must include Home Economics 2, 5, 11, and other related courses to make 15 to 20 credits.

(3) The minor in housing problems is intended to be taken with a major or minor in sociology so that those intending to do the work of sanitary inspector or other social settlement work will have a broad foundation knowledge of the fundamental problems in housing conditions. This minor includes Home Economics 2, 7, 8, 10 for which the prerequisites are Physics 1, Bacteriology 4.

Educational Requirements for State Teachers Certificate

Graduates receiving the B. S. degree in Home Economics will be entitled to receive the University Teachers Certificate, upon the recommendation of fitness by the Department of Home Economics and upon completing as a part of their elective work, the following educational courses: Psychology, 3 cr.; Education 5 cr.; Departmental Teachers Course, 2 cr.

Thesis

All candidates for a degree from the University are required to present a graduating thesis or to take a thesis course which must be acceptable to the professor at the head of the department.

These must represent original work upon some subject which has been arranged after consultation with the student's adviser and the head of the department in which the work is done.

DESCRIPTION OF THE COURSES

PROFESSOR MARLATT (director); ASSOCIATE PROFESSOR DANIELS; ASSISTANT PROFESSORS KELLEY, SCHMIT; INSTRUCTORS AMERY, BINZEL, BOEING, DODGE, EARL, ECKHARDT, GRADY, HUNT, MANNING, PARSONS, SCOVILL, J. A. TURNER; ASSISTANTS CALKINS, KEPHART, WILLSON.

For Undergraduates

1. General Survey. yr.; 3 or 6 cr. I: Food; II: The house plan, first aids, cost of living, etc. Miss Daniels, Miss Marlatt.

2. Art and Design. I or II; 3 cr. Miss J. A. Turner, Miss Grady.

3. Principles of the Selection and Preparation of Food. II; 3 cr. Prerequisite: entrance credit in physics or chemistry or first semester of Chemistry 1. Miss Marlatt and staff.

4. Economic Problems of the Food Supply. I; 4 cr. Continuation of course 3. Prerequisites: Agricultural Chemistry 3, Home Economics 3. Miss Hunt.

5. Textiles. II; 4 cr. Historical, economic, chemical, hygienic treatment. Prerequisites: Chemistry 1, Agricultural Chemistry 3. Miss Eckhardt and staff.

6. Nutrition and Dietetics. II; 4 cr. Prerequisites: Home Economics 3, 4, Physiology 1, Bacteriology 4, Chemistry 1, Agricultural Chemistry 3. Miss Daniels.

7. House Architecture and Sanitation. I; 5 cr. Prerequisites: Physics 1 or 1 Sc., Bacteriology 4, Home Economics 2. Miss Marlatt and staff.

8. Household Decoration. II; 4 cr. Artistic and economic problems. Prerequisites: Home Economics 2, 5, 7. Miss J. A. Turner, Miss Grady.

10. Household Management. I; 4 cr. Prerequisites: Chemistry 1, Agricultural Chemistry 3, Bacteriology 4, Physics, 1 or 1 Sc., Home Economics 2, 3, 4, 5, 6, 7, 8. Miss Marlatt.

11. Manufacture and Selection of Clothing. Yr.; 6 cr. Prerequisites: Home Economics 2 and 5. Miss Schmit and staff.

95. Household Crafts. Yr.; 2 or 4 cr. Teachers course. Miss Schmit, Miss J. A. Turner.

97. Costume Design. I; 3 cr. Prerequisites: Home Economics 11. Required in major in textiles. Miss Schmit.

For Undergraduates and Graduates

101. Research. Yr.; credit to be arranged. Miss Daniels, Miss Eckhardt.

102. Topical Work. Yr.; credit to be arranged. May precede or be taken in connection with course 101. Miss Daniels, Miss Eckhardt.

103. Economic History of Textile Industry. I; 2 cr. Development of the textile industry from medieval industrial organization to present day problems of factory and sweat-shop work. Miss Eckhardt.

104. History of Costume in its Sociological Aspect. I; 2 cr. Miss Schmit.

109. Humanics. II; 4 cr. Open to seniors in home economics and seniors in the College of Letters and Science who have taken biology. Miss Marlatt.

120. Seminary. II; 1 cr. Miss Marlatt, Miss Daniels.

121. Teachers Course. I or II; 2 cr. Prerequisites: Home Economics major or minor. Miss Binzel, Miss Marlatt.

122. Institutional Management. II; 4 cr. For seniors and graduates in home economics. Miss Scovill.

123. Seminary in Housing Problems. I; 3 cr. Miss Marlatt.

125. Dietetics in Disorders of Nutrition. I; 3 cr. Prerequisites: Home Economics 6, Agricultural Chemistry 122. Required in major in food. Miss Daniels.

THE LAW SCHOOL

H. S. Richards, Dean, Professor of Law.

Resources of the Law School

The Law School is supported by annual appropriations from the Board of Regents, and by the Mortimer M. Jackson Professorship of Law. The late Judge Mortimer M. Jackson by his will gave $20,000 to the University, the income to be used to maintain a chair of law. The Regents in 1890 formally established the Mortimer M. Jackson Professorship of Law. Judge Jairus H. Carpenter, for many years Dean of the Law School, was the first incumbent of this chair, which he held until his death in 1913.

Object of the Course

The Law School offers a course of study covering a period of three years. It is designed to teach the fundamental principles of the English and American law in a thorough manner, and to fit the student for the active practice of the profession.

Admission

Students applying to the Law School may be admitted as are students in other departments by either of two methods:—

First, on certificates from accredited schools or colleges.

Second, on examination at the University.

Applicants for admission to the Law School as candidates for a degree must satisfy the general requirements of the University (see Index under Admission), and in addition, must present credits equivalent to the freshman and sophomore years in the College of Letters and Science. The above requirements may be satisfied by work done in any reputable college or university. Graduates of the regular course in the several state normal schools of Wisconsin will be admitted as candidates for a degree.

Applicants for admission who can satisfy the general entrance requirements will be admitted as unclassified students and entitled to all the privileges of the school in the way of instruction. An opportunity is thus afforded to prepare for the bar examinations in this and other states.

The examinations are conducted at the same time and by the same members of the faculty as the examination of candidates for admission to the College of Letters and Science.

In addition to the other entrance requirements, all candidates for admission to the Law School, whether graduates of accredited high schools or not, are required to take the regular entrance examination in English required for admission to the College of Letters and Science (see Index under Admission), except,

(a) Students of the University who have already passed such examination;

(b) Graduates of other approved colleges and universities. But the faculty may require any student to take additional work in English, if, in their judgment, it is necessary.

Those intending to apply for examination for admission to the first year class, or for advanced standing, should notify the Registrar of the University before the beginning of the year, and apply for directions, as examinations cannot be taken later.

Examinations for admission to the first year class will be held on June 10-11, and September 21-22, beginning at 9 o'clock.

Pre-Legal Courses

The following courses approved by the Association of American Law Schools are suggested for students preparing for the study of law, where only two years are devoted to such work: Engish (rhetoric and composition), two years; Latin or Greek, two years; German or French, two years; mathematics, or a natural or physical science, one year; history (including English and American constitutional history), two years; psychology. If three or more years be devoted to such preparation, additional courses in history, natural science, and courses in philosophy, political science, economics, and sociology are suggested.

Advanced Standing

Candidates for advanced standing who can comply with the general entrance requirements of the school as above set out will be given equivalent credit for satisfactory work done in other law

schools in good standing having a three-year course, upon presenting properly authenticated certificates of such work. The right is reserved to require examinations in all cases where the credits presented are not regarded as equivalent.

Students who have been graduated from the College of Letters and Science, and who, while students in that college, have elected and earned twenty credits in the Law School, will be admitted to the second year. To meet the above requirement, the student must elect courses offered in the first year of the law course.

All persons from other universities or colleges, who intend to apply for advanced standing under the above rules should forward or present their credentials to the Dean of the School at least one week before the opening of the particular session which the student desires to attend.

Graduation

The degree of Bachelor of Laws will be conferred upon all candidates of good character who are at least twenty-one years of age, and have complied with the following conditions:

(1) Credit for at least seventy-four credit hours with a weighted average of fair (a credit is the equivalent of one hour a week for a semester).

(2) Residence of at least three years in a law school of good standing, having a three-year course, one year of which must have been in this school.

(3) Completion of a seminar course in public and private law covering the equivalent of two hours per week for a semester. By permission of the dean a student may write a thesis with equivalent credit in lieu of the thesis course.

(4) Students completing the course with distinguished ability and presenting a thesis of unusual merit will be recommended for the degree with honor.

(5) After July 1, 1916, there shall be required for the degree of LL. B., in addition to all existing requirements, a clerkship of not less than six months in an accredited law office. This requirement may, at the option of the student, be absolved by two periods of not less than three months each. It must be entirely absolved at a time when the student is not in attendance upon the University, and after the student shall have received credit for not less than twenty semester hours in the Law School.

Admission to the Bar

The statutes of the state provide that any resident graduate of the Law Department of The University of Wisconsin shall be admitted to practice in all of the courts of this state by the supreme court upon the presentation of his diploma, and may be admitted to the supreme court when not in session by an order signed by one of the justices thereof and filed with the clerk of said court. (R. S. Wis., sec. 2586.)

Under this statute and a rule of the federal court, it is customary for the graduating class, on motion of a member of the faculty, to be admitted to the supreme court of the state, and to the district and circuit courts of the United States, immediately upon graduation. This entitles them to admission to the bar of any court of record in Wisconsin and all federal courts.

COURSES OF INSTRUCTION

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester; I or II, given each semester; cr., credits, i. e., hours of credit. Unless otherwise stated, the number of credits, per semester is given.

The courses of instruction are arranged to present, as far as possible, the fundamental topics of the law during the first year, and the specialized subjects during the second and third years.

First Year

Agency. II; 3 cr. Wambaugh's *Cases on Agency*. Mr. Wilkie.

Briefmaking. I; 1 cr. Cooley on *Briefmaking*, 3rd ed. and assigned problems. Mr. Ballantine.

Common Law Pleading. II; 3 cr. Sunderland's *Cases on Common Law Pleading*. Mr. Rundell.

Contracts. Yr.; 6 cr. (total for year). Williston's *Cases on Contracts*. Mr. Richards.

Criminal Law. II; 4 cr. Beale's *Cases on Criminal Law.* Mr. Gilmore.

Persons. 2 cr. (Omitted 1915-16.)

Property I. (Real.) I; 3 cr. Gray's *Cases on Property,* 2d ed. Vol. I and Kirchwey's *Readings in the Law of Real Property.* Mr. Rundell.

Property I. (Personal.) I; 2 cr. Gray's *Cases on Property,* (2d ed.) Vol. I. Mr. Ballantine.

Torts. I; 4 cr. Ames & Smith's *Cases on Torts.* Mr. Gilmore.

Second and Third Years

Administrative Law I. I; 2 cr. Officers and elections. Selected Cases and Goodnow's *Cases on the Law of Public Officers.* Mr. Hall.

Administrative Law II. II; 2 cr. The law governing administrative action. Freund's *Cases on Administrative Law.* Mr. Hall.

Administrative Law III. 2 cr. The law of taxation. Goodnow's *Cases on Taxation.* Mr. Hall. (Omitted 1915-16.)

Administrative Law IV. 2 cr. Municipal corporations. Selected cases and Beale's *Cases on Municipal Corporations.* Mr. Hall. (Omitted 1915-16.)

Bankruptcy. 2 cr. Holbrook & Aigler's *Cases on Bankruptcy.* Mr. Wilkie. (Omitted 1915-16.)

Bills of Exchange and Promissory Notes. I; 4 cr. Smith & Moore's *Cases on Bills and Notes.* Mr. Wilkie.

Code Pleading. Yr.; 4 cr. (total for year). Hinton's *Cases on Code Pleading.* Mr. Boesel.

Code Practice. Yr.; 4 cr. (total for year). Wisconsin statutes and decisions. Mr. Sanborn.

Conflict of Laws. 3 cr. (total for year). Lorenzen's *Cases on Conflict of Laws.* Mr. Smith. (Omitted 1915-16.)

Constitutional Law. Yr.; 6 cr. (total for year). Hall's *Cases on Constitutional Law.* Mr. Gilmore.

Corporations. II; 4 cr. Richards' *Cases on Corporations.* Mr. Richards.

Criminal Procedure. 1 cr. Mikell's *Cases on Criminal Procedure.* Mr. Gilmore. (Omitted 1915-16.)

Damages. II; 2 cr. Beale's *Cases on Damages.* Mr. Wilkie.

Equity I. I; 3 cr. Ames' *Cases on Equity.* Mr. Smith.

Equity II. II; 3 cr. Ames' *Cases on Equity,* Vols. I and II. Mr. Smith.

Equity Pleading. 1 cr. Selected cases. (Omitted 1915-16.)

Evidence. II; 4 cr. Thayer's *Cases on Evidence.* Mr. Smith.

Insurance. 2 cr. Wambaugh's *Cases on Insurance.* (Omitted 1915-16.)

International Law. II; 2 cr. Scott's *Cases on International Law.* Mr. Hornbeck.

Mortgages. II; 2 cr. Kirchwey's *Cases on Mortgages.* Mr. Wilkie.

Office Practice. II; 2 cr. Mr. Ballantine.

Partnership. I; 3 cr. Gilmore's *Cases on Partnership.* Mr. Rundell.

Practice Court. II; 1 cr. Mr. Ballantine.

Problems in Contemporary Legislation. II; 2 cr. Thesis course. Mr. Gilmore.

Property II. II; 4 cr. Gray's *Cases on Property,* Vols. V and VI. Mr. Rundell.

Property III. II; 3 cr. Acquisition of real estate inter vivos. Gray's *Cases on Property,* Vol. III. Mr. Ballantine.

Property IV. I; 2 cr. Wills and administration. Gray's *Cases on Property,* Vol. IV. Mr. Wilkie.

Property V. I; 2 cr. Rights in another's land. Natural rights, easements; covenants as to the use of land; rents; franchises. Gray's *Cases on Property,* Vol. II. Mr. Rundell.

Public Service Companies. I; 3 cr. Green's *Cases on Carriers* and Frankfurter's *Cases on the Interstate Commerce Act.* Mr. Ballantine.

Quasi-Contracts. I; 2 cr. Scott's *Cases on Quasi-Contracts.* Mr. Smith.

Sales. I; 3 cr. Williston's *Cases on Sales.* Mr. Smith.

Suretyship. I; 2 cr. Ames' *Cases on Suretyship.* Mr. Wilkie.

Trusts. I; 4 cr. Ames' *Cases on Trusts* (2d ed.) Mr. Richards.

Required and Elective Courses

Candidates for the degree are required to take all the subjects of the first year, twelve hours of work in the second year, and twelve hours in the third year. The work of the second and third years is elective except the course in the History of Law required of all candidates for a degree. Second year students may elect not less than twelve nor more than fourteen hours in courses offered in the second year. Second year students who are graduates of the College of Letters and Science, and who have not completed all the courses of the first year, will be required to include such omitted

courses in their list of electives. Third year students may elect not less than twelve nor more than fifteen hours in courses offered in the third year and in courses not already taken by them when second year students. No student is permitted to count more than twelve hours of work in any one semester towards the total hours required for the degree. Elections in all cases are subject to the approval of the Dean.

Procedure and Practice Courses

Courses in Procedure and Practice extend throughout the last two years and comprise Common Law Pleading, two credits, Code Pleading, four credits, Equity Pleading, one credit, Code Practice, four credits, and Criminal Procedure, one credit. The purpose of the courses is to instruct the student in the principles of pleading and practice at common law and under the codes, by duplicating as far as possible the steps taken by an active practitioner in the preparation for trial of cases at law and in equity throughout the entire field of litigation. The student is required to prepare pleadings in assigned cases, and to carry a cause of action through the various steps from its inception to the final judgment. A practice court is maintained in connection with the work in code practice.

Elective Studies

Students of the Law School will be permitted to pursue studies in other departments of the University, but not for credit toward the law degree.

Students in the College of Letters and Science will be permitted to elect, as a part of their undergraduate course, studies in the Law School for which see Index, under Election.

Examinations

Written examinations are held at the close of each semester and of the Summer Session.

Library

The library of the Law School contains 23,500 bound volumes, comprising the official reports of the various states and territories and of the United States; a complete set of English, Irish, and Canadian reports; the Reporter System; the various series of selected cases, as American Decisions, American Reports, American State Reports; Lawyers' Reports Annotated; duplicates of the more important reports; complete sets of the leading law periodicals; the leading encyclopedias of law and other works of reference; a large collection of textbooks, statutes, digests, etc.

Students are allowed free access to the books. The library is open each week day from 8 a. m. to 10 p. m.

For information concerning the other libraries accessible to students, see Index under Library.

The University

Students of the Law School may pursue studies for which they are prepared, in other departments of the University, without additional fees in so far as such studies do not interfere with their work in the Law School. Before registering in other departments, the student must obtain permission from the Dean of the Law School.

Law Clubs

A number of law clubs and a practice court are maintained by the students, in which questions of law are argued and decided.

Fees and Expenses

All fees are payable in advance at the office of the Secretary of the Regents. (See Index under Tuition and Fees.) Admission to membership in the classes is not permitted until the fees are paid. No deductions are made for absences, nor for failure to begin at the opening of the year, nor is extension of time allowed for payment of fees.

Receipts showing the payment of tuition must be filed with the Dean within ten days after entry.

It is most desirable that each student should provide himself with his own textbooks and books of selected cases which are designated in the program of instruction. These books may be

obtained from the University Cooperative Association at a considerable discount from the quoted prices. The books required for the first year can be obtained for about $35 and for the second and third years for about $65.

The expenses of living are moderate. (See Index under Expenses.)

Students desiring information in regard to boarding places, or general information as to expenses, should address their inquiries to the Secretary of the Regents.

A careful perusal of this general statement, it is believed, will supply all needed information; but should further inquiries as to admission, examination, etc., be necessary, they should be addressed to the Dean of the Law School, Madison, Wis.

Summer Session

The Summer Session established in 1907 is a regular session of the school. The courses offered are not review courses or abbreviations of the subjects presented during the regular session. The lectures are given by regular members of the faculty assisted by experienced teachers from other law schools. Full credit toward the degree in law is given for all work successfully completed. An opportunity is thus afforded to those who for any reason are unable to attend the regular session to obtain thorough and systematic legal instruction. By taking advantage of the summer sessions regular students of the school can materially shorten the calendar period of residence required for the degree.

The session of 1916 begins June 26 and continues until September 1.

For Summer Session courses, see p. 450.

THE MEDICAL SCHOOL

C. R. Bardeen, Dean, Professor of Anatomy.

Aims

The aims of the Medical School are fourfold:

1. To encourage a thorough preliminary medical education, and to offer adequate facilities for a thorough preparation for clinical work.
2. To promote the development of preventive medicine and hygiene.
3. To stimulate research in the sciences upon which modern medicine is based.

Admission Requirements in the Medical School

For matriculation without condition in the Medical School a student must furnish evidence:

1. That he has satisfied the requirements for admission to the College of Letters and Science.
2. That he has completed at least the equivalent of two years of work in this college.
3. That he has successfully pursued laboratory courses of college grade in physics, chemistry, and biology.
4. That he has studied elementary Latin.
5. That he has a reading knowledge of French or German.

Admission to Advanced Standing

A student who has completed elsewhere work equivalent to that required for matriculation and to that of the first year of the medical curriculum may be admitted to the second year of the medical course.

Medical Certificates

Upon the successful completion of the two years of the medical curriculum at Wisconsin, a student will be given a formal certificate. A student who completes less than the two years of the medical course may, however, obtain credentials covering the pre-medical and medical studies which he has pursued.

Degrees

The Medical School offers merely the first two years of a four-year medical curriculum and confers no degrees. The College of Letters and Science confers the degree of Bachelor of Science upon the students registered during the junior and senior years in the Medical School, and the degree of Bachelor of Science or of Bachelor of Arts upon students registered during the senior year in the Medical School. The degrees of Master of Science, Doctor of Philosophy, and Doctor of Public Health are conferred by the University faculty upon graduate students who specialize in the medical sciences and fulfill the requirements of these degrees, which are described in the section devoted to the Graduate School.

Bachelor of Arts

The regular requirements for the degree apply to those students who elect the work of the first year of the medical course during the senior year in the College of Letters and Science.

Bachelor of Science

(Medical Science Course)

Students in the College of Letters and Science who are candidates for this degree are required to take the following studies:

a. English: 6 units (3 hours per week per semester) to be taken in the first year of residence.

b. Foreign language. (1) A knowledge of elementary Latin (equivalent to two years of high school Latin). (2) A reading knowledge of German or French. This reading knowledge shall be determined by the respective departments and will ordinarily be the equivalent of six credits beyond first year French or of four credits beyond second year German. At least two years of work in foreign language shall be taken in college.

c. Courses in physics, chemistry, biology, and the medical sciences as outlined in the requirements of the Medical School. The requirements made of candidates for the degree of Bachelor of Arts that six unit hours shall be elected in either history or mathematics does not apply to candidates for the degree of Bachelor of Science (Medical Science Course).

d. The "credit" is the standard for computing the amount of work required for graduation. This is equal to one hour of recitation or lecture per week for one semester. Students are expected to take 15 credits per week in recitations, lectures, and laboratory work, making 30 credits per year, and 120 for the course. In addition, two hours per week (one credit per semester) of gymnastics are required of men, and four hours per week (two credits per semester) of women, during the first two years. Men are required to drill two hours per week during the first two years for which four credits are given. The total requirements for class-room work, military drill, and the gymnasium are, therefore, 128 credits.

No student will be permitted to receive credit toward graduation for more than eighteen credits in one semester in regular studies except by permission of the faculty obtained in advance. Candidates for the degree of Bachelor of Science cannot count toward graduation more than sixteen credits in any one semester unless the standings are 85 or above.

e. Major Study. At the beginning of the sophomore or the junior year, every candidate for the degree of Bachelor of Arts or Bachelor of Science shall elect as his major subject work in some one department. This department will determine the manner in which the work of the major shall be completed.

f. Thesis. All candidates for a baccalaureate degree are required to present a graduating thesis, the subject of which must be approved by the student adviser and the chairman of the department in which the candidate is doing the work represented by the thesis. The thesis must represent some phase of the student's work in his major study, and must have the character of a scholarly dissertation on the subject.

Choice of Courses

The student who enters the College of Letters and Science with the intention of studying medicine should arrange his work so that he can take up systematically the work required for medical credit and for a bachelor's degree. Elective work should be chosen with

the intention of making the course of study broad as well as thorough.

The following language studies are required:

English 1a, 1b.

Two years of foreign language including second year French or third year German unless a high grade is obtained in second year German.

Students who have not studied Latin in the high school are required to take a course in elementary Latin.

The following science studies are required*:

Pre-medical Work

	Lectures and Recitations.	*Laboratory Hours.*	*Credits.*
Chemistry 1	128	192	10
Organic Chemistry 120	48	96	4
Physics 1 or 1Sc	160	128	10
Biology 1	96	256	10
	432	672	34
Study required in the first year of medical course if not presented for matriculation.			
Embryology	16	48	2
First Year Medical Course			
Histology	32	112	4
Neurology	32	80	4
Gross Anatomy	32	352	12
Physiology	112	128	9
Physiol. Chem	20	140	4
	228	812	33
Second Year Medical Course			
Pathology	80	192	8
Bacteriology and Hygiene	64	112	5
Pharmacology and Toxicology	64	144	6
Clinical Medicine	64	128	6
	272	576	25

*It is recognized that similar courses at other institutions may not correspond with the scientific courses given at Wisconsin. This will not prevent full credit being granted for approximately equivalent courses pursued elsewhere.

Required of candidates for a bachelor's degree: Thesis: 128 laboratory hours (4 units).

Required and elective work may be arranged according to one of the following plans:

1. Six Year Combined Course (Leading to the B. S. and M. D. Degrees).

If the student has a thorough preparation in the high school, he may take work in the freshman and sophomore years which will enable him to matriculate in the Medical School in his junior year, take the B. S. degree and get a certificate for two years of medical study at the end of the senior year and complete his medical course by two years' further study in any medical school which does not require more than two years of college work for entrance. During the freshman and sophomore years such a student will have to confine himself closely to the work in science and language required for matriculation in the Medical School. The exact choice of studies will depend somewhat upon the high school training and the ability of the student.

The following schedule is suggested:

Freshman Year

English 1a and 1b.....3 credits per semester
German or French.....4 credits per semester
Chemistry 1.....5 credits per semester
Electives.....3 credits per semester

Sophomore Year

German or French.....4 credits per semester
Physics 1 or 1Sc.....5 credits per semester
Biology 1.....5 credits per semester
Organic Chemistry 120.....4 credits one semester

Junior Year

(First Year in the Medical School)

First Semester		*Second Semester*	
Histology 110	4 credits	Neurology 126	4 credits
Human Anatomy 121	8 credits	Human Anatomy 121	4 credits
Physiol. Chemistry 104	4 credits	Physiology 105	9 credits
Embryology 115	2 credits		

Senior Year

(Second Year in the Medical School)

First Semester		*Second Semester*	
Pathology 101	6 credits	Pathology	2 credits
Medical Bacteriology 102	5 credits	Toxicology 101-2	2 credits
Pharmacology 104-5	4 credits	Clinical Medicine 101-103	6 credits
Thesis	2 credits	Thesis	2 credits

Elective (advanced work in any of the departments of the Medical School).

2. Seven Year Combined Course (Leading to the B. A. and M. D. Degrees)

In this course the student matriculates as a first-year medical student during his senior year in the College of Letters and Science; receives the B. A. degree upon graduation and takes the second year of the medical course as a graduate student. He can then finish the clinical portion of the medical course by two years' further study, thus making the combined arts and medical course seven years. This course is in many ways preferable to the six-year combined course since it permits a greater freedom of election and a broader course of study. The language and science work should follow somewhat the lines laid down for the freshman and sophomore years in the six-year combined course, but can be more spread out and taken in conjunction with various electives to suit the needs and inclinations of the student.

3. Complete Arts Course Preceding the Medical Course

Students who can afford the time may take the complete arts course before beginning the technical work of the medical course. A bright, well-trained student not infrequently manages to take the B. A. degree in three years. For such a student, the time needed for the two degrees would be the same as that mentioned above. For other students eight years are required, four for the B. A. course and four for the medical course. A far broader training is thus afforded than in the shorter combined course. Students expecting to finish the clinical part of the medical course at the Johns Hopkins, Cornell, or Western Reserve University must choose either the course of study mentioned above or the seven-year combined course. The work in sciences and foreign language should include all of that

mentioned in the first two years of the six-year combined course and may profitably extend beyond this.

Full credit for one year of medical work will not be allowed unless the required preliminary studies and the studies of the first year of the medical course have been completed, and the student has been registered two semesters in the Medical School. Full credit for two years of medical work will be granted only to those who have satisfied the preliminary requirements, who have registered for two college years as medical students, and who have completed all the required studies of the regular curriculum.

Courses for Physicians

The regular courses in the various departments are open to physicians. It is hoped gradually to develop such shorter special courses as may be of greatest direct practical benefit to the physicians of the state in aiding them to keep up with the rapid advance in the medical sciences. Suggestions concerning such courses are desired.

4. Courses Leading to M. P. H. and Dr. P. H.

In conjunction with the State Department of Public Health and with the Department of Health of Milwaukee, a course is offered extending over one year and leading to the degree of Master of Public Health. This course will be open to those who have received a degree in medicine or in medical or sanitary science and desire to fit themselves especially for public health work. It is also planned to offer a short course each year for those already engaged in public health work, but who desire more insight into certain aspects of this work. The following course leading to the degree of Master of Public Health is announced for the year 1916-17. Candidates for the degree of Doctor of Public Health are required to do advanced work and to write a thesis in addition to completing the work covered by this course.

First Semester	Credits
Hygiene 102	5
Hygiene 115	2
Hygiene 125	3

Second Semester	Credits
Hygiene 106	3
Hygiene 110	3
Hygiene 120–121	5
Hygiene 125	2
Hygiene 126	3

Scientific Investigation

It is desired that the facilities of the various laboratories of the Medical School be utilized to the greatest advantage in the investigation of the causes and prevention of disease both in man and animals. The laboratories of the Medical School are freely open to those engaged in such investigations and, so far as possible, aid will be given in the carrying out of investigations of this character either at the University or elsewhere in the state.

DEPARTMENTS OF INSTRUCTION

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester; I or II, given each semester; cr., credits, i. e., hours of credit. Unless otherwise stated, the number of credits per semester is given.

For a description of the courses in botany, zoology, chemistry, physics, psychology, climatology, and languages, see departmental announcements in the College of Letters and Science.

ANATOMY

Professor Bardeen; Associate Professor W. S. Miller; Instructors De Garis, Monroe; Assistant Robinson.

A group of courses intended to offer a comprehensive view of the gross and microscopic anatomy and the embryology of mammals with especial reference to man is given in this department. In addition, opportunities are offered for advanced work and research in anatomy and for a study of some of the lower animal types of special interest in medicine.

For Graduates and Undergraduates

105. Comparative Mammalian Anatomy. II; 3 cr. Dr. De Garis.

110. Histology and Organology. I; 4 cr. Dr. Miller.

115. Mammalian Embryology. I; 2 cr. Dr. Bardeen.

121. Human Gross Anatomy. Yr.; 6 cr. Dr. Bardeen.

122. Topographical Anatomy. II; 3 cr. Frozen sections and special preparations. Dr. Miller.

123. Special Human Anatomy. Those qualified to do independent work may make some special arrangement for the study of human anatomy.

126. Neurology. II; 4 cr. Dissection of the human brain, and a study of the microscopic anatomy of the central nervous system and sense organs. Dr. Miller.

130. Advanced Anatomy.

131. Historical Seminary. II; 1 cr. Dr. Miller.

For Graduates

235. Investigation under Direction.

240. Independent Investigation. Facilities for conducting research in anatomy are offered.

CLINICAL MEDICINE

Professor Evans; Associate Professors Van Valzah, Lorenz; Assistant Professors Middleton, Morris, Rinker; Instructors Moore, Drane.

101. Medical Diagnosis. II; 3 cr. Dr. Evans, Dr. Morris.

102. Clinical Laboratory Diagnosis. II; 2 cr. Dr. Middleton, Dr. Moore, Dr. Drane.

103. Minor Surgery and Bandaging. II; 1 cr. Dr. Van Valzah, Dr. Rinker.

104. Advanced Clinical Diagnosis and Experimental Medicine. Serum diagnosis, vaccine therapy.

105. Elective Preliminary Work in Medicine and Surgery.

HYGIENE

In conjunction with the staff of the State Laboratory of Hygiene, the State Board of Health and the Board of Health of Milwaukee courses in Hygiene are offered by members of the faculty of the Medical School under the general supervision of Dr. Paul F. Clark.

For Undergraduates

1. Health and Disease. II; 1 to 3 cr. A course covering the more important aspects of personal and public hygiene, designed especially for students who desire a knowledge of how to promote their own health and that of the community. Dr. Clark and various members of the faculty of the Medical School.

For Undergraduates and Graduates

102. Bacteriology for Health Officers. I; 5 cr. Given in conjunction with medical bacteriology but with special work in the State Laboratory of Hygiene and some special lectures. Dr. Clark, Dr. Stovall.

106. Physiology for Health Officers. II; 3 cr. Given in conjunction with courses 106 and 107 in medical physiology but with special reference to the needs of health officers. Special topics in respiration, dietetics, chemistry of food, air, water, sewage, etc. Dr. Eyster, Dr. Dawson.

110. Special Pathology and Hygiene for Health Officers. II; 3 cr. Given in conjunction with Pathology 101 and Clinical Medicine 102, but with special work for health officers. Dr. Bunting, Dr. Clark, Dr. Evans, Dr. Stovall, Dr. Moore.

115. Public Health Administration and Vital Statistics. I; 2 cr. Reading and practical work at the main office of the State Board of Health. Mr. Hutchcroft.

120. Practical Field Work. II. Inspection of slaughter houses, cow sheds, meats, schools, factories, and work shops; public and private methods of sewage disposal; disinfectants. Under the direction of the State Board of Health.

121. Practical Field Work. Municipal public health work. Under the direction of the Board of Health of the city of Milwaukee.

125. Chemistry of Water Supplies. I: Water analysis in the laboratory. II: Study of water supplies in the field. Mr. Tully.

126. Public Sanitation. II; 3 cr. Dr. Clark.

PATHOLOGY AND MEDICAL BACTERIOLOGY

PROFESSOR BUNTING; ASSOCIATE PROFESSOR CLARK; INSTRUCTORS LANGE, NEUMAN; ASSISTANT MCKITTRICK.

For Undergraduates and Graduates

Courses 101, 102, and 103 are open to students who have successfully completed courses in histology and embryology. Courses 101, 102, and 104 are required of medical students.

101. General and Special Pathology. I; 6 cr. The laboratory exercises devoted mainly to pathological histology and to demonstrations of gross morbid specimens. Dr. Bunting, Dr. Lange, Mr. Neuman.

102. Medical Bacteriology. I; 5 cr. Considers the bacteria and protozoa which are especially concerned in the production of disease processes. Dr. Clark, Dr. Lange, Mr. Neuman, Mr. McKittrick.

103. Experimental Pathology. II; 4 cr. Dr. Bunting, Dr. Lange, Mr. Neuman.

106. Oncology. II; 2 cr. A study of tumors. Prerequisite: course 101. Dr. Bunting, Dr. Lange.

104. Immunity. II; 3 cr. Prerequisite: course 102. Dr. Clark, Mr. Neuman.

107. Sources and Modes of Infection. II; 3 cr. Given in conjunction with Hygiene 126. Dr. Clark.

For Graduates

204. Advanced Pathology. Dr. Bunting.

205. Journal Club. Yr.; 1 cr.

206. Advanced Bacteriology. Dr. Clark.

PHARMACOLOGY AND TOXICOLOGY

PROFESSOR LOEVENHART; INSTRUCTOR GASSER.

Elementary and advanced courses in pharmacology and toxicology are offered in this department. For the elementary courses a previous training in physiological chemistry and physiology is required. The advanced courses are open to those who have had adequate elementary training.

For Undergraduates and Graduates

101. Toxicology. II; 1 cr. General action of toxic drugs, on diagnosis of poisoning, treatment, and the mode of conducting an autopsy when the tissues are to be subsequently examined chemically in medico-legal cases. Dr. Loevenhart.

102. Toxicology. II; 1 cr. A chemical study of the principal volatile poisons, the alkaloids, the glucosides, and the metallic poisons. Special attention is given to the chief tests for the identification of these poisons. Dr. Loevenhart.

104. Pharmacology. I; 2 cr. Lectures on the chemistry, the pharmacological and toxicological actions, and the therapeutic uses of the chief medicinal drugs. Practice in prescription writing. Dr. Loevenhart.

105. Pharmacology. I; 2 cr. Experimental studies on the action of drugs. Dr. Loevenhart.

108. Advanced Work. Dr. Loevenhart.

112. Independent Investigation.

116. Journal Club. Yr.

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

Professor Eyster; Associate Professors Bradley, Meek; Assistant Professor Dawson; Assistants Hodges, Kerr, Taylor.

The following courses are designed especially for students studying medicine. Course 104 is open only to those who have had a previous training in general and organic chemistry (courses 1 and 120), physics (course 1 or 1Sc) and general biology (course 1). As a preparation for course 105, comparative anatomy, histology, and neurology (Anatomy 105, 110, and 126), and course 104 are recommended.

For Undergraduates

1. Elements of Physiology. I; 3 cr. Lectures, demonstrations, and recitations. Especially adapted to teachers of elementary physiology and hygiene. Required of sophomores in home economics 2 cr.) and open to other students. Students should have had some hemistry. Dr. Meek, Dr. Dawson, Mr. Hodges.

2. Elements of Physiology. I; 1 cr. Laboratory. Required of sophomores in home economics; open to others as an elective. Dr. Meek, Dr. Dawson, Mr. Hodges.

For Undergraduates and Graduates

104. Physiological Chemistry. I; 4 cr. Lectures, conferences, and laboratory. Required of juniors in medicine and open to others as an elective. Prerequisites: general and organic chemistry, physics, and biology. Dr. Bradley, Mr. Taylor.

114. Physiological Chemistry. I; 3 cr. Lectures, conferences, and laboratory. Required of juniors in physical education and open to others as an elective. Prerequisites: general and organic chemistry, physics, and biology. Dr. Bradley, Mr. Taylor.

105. Physiology. II; 9 cr. Lectures, recitations, demonstrations, and laboratory. Required of juniors in medicine and open to others as an elective. Prerequisites: comparative or human anatomy, histology, neurology, and physiological chemistry. Dr. Eyster, Dr. Meek, Dr. Dawson, Mr. Kerr.

115. Physiology. II; 7 cr. Lectures, recitations, demonstrations, and laboratory. Required of juniors in physical education and open to others as an elective. Prerequisites: comparative anatomy and physiological chemistry. Dr. Eyster, Dr. Meek, Dr. Dawson, Mr. Kerr.

116. Physiology of Exercise. I; 3 cr. Lectures and laboratory. Required of seniors in physical education and open to others as an elective. Prerequisites: Physiology 105 or 115. Dr. Eyster, Dr. Meek, Dr. Dawson.

117. Advanced Physiological Chemistry and Research. Yr.; credits according to work done. Dr. Bradley.

118. Advanced Physiology and Research. Yr.; credit according to work done. Dr. Eyster, Dr. Meek.

120. Journal Club. Yr.; 1 cr. Reports on recent physiological and biochemical literature. Dr. Eyster.

For Graduates

208. Advanced Laboratory Course in Physiology. Designed for teachers of animal physiology as well as for physicians and students of medicine who desire a wider experience in experimental physiology than can be gained in course 105. Dr. Eyster.

210. Advanced Laboratory Course in Physiological Chemistry. Corresponds to course 208.

THE GRADUATE SCHOOL

GEORGE C. COMSTOCK, DEAN.

General Statement

The University of Wisconsin is a part of the system of public instruction provided by the state, but is open to all properly qualified students without regard to state lines. It is the aim of the University to offer opportunities for advanced instruction and research to as wide a constituency as possible. No limitations are placed upon a student's' freedom in research and in the expression of his conclusions upon subjects which he is prepared to treat, but the University avoids all that is partisan in politics and sectarian in religion, without debarring its members from investigation and activity in any field.

Organization

The work of the Graduate School is under the general direction of the graduate faculty. The Dean of the Graduate School is charged with general supervision of all graduate students and is the medium of communication between such students and the University administration.

Aims and Methods

The Graduate School aims to serve the needs of men and women of college training who desire a larger and more thorough acquaintance with the scholarship and research of the world than can be obtained in the current undergraduate courses. It seeks to awaken in the minds of capable men and women an appreciation of high scholarship, research, and the advancement of learning, to the end that they may effectively aid, not only in the promulgation of academic instruction, but also in extending the boundaries of knowledge. Although the work of the Graduate School is in large

part planned with reference to the needs of those who desire to fit themselves for the higher positions in the work of education, and who as preparation for this work wish to specialize along definite lines, the opportunities of the school are open to others as well.

In all departments of the Graduate School special emphasis is laid upon bringing the graduate student into contact with the research problems of his field of study. To this end able students share in the investigations of their instructors and are encouraged to acquire the spirit as well as the methods of productive work. Provision has been made by the University for the publication under its auspices of the results of specially meritorious work of this kind, and doctors' theses of more than common merit are occasionally thus published.

Clubs and Societies

To promote interest in problems of scholarship and investigation, and for training in the presentation of results, numerous voluntary clubs and societies have been established by instructors and students in the Graduate School. Among these are:

The Science Club,
The Classical Club,
The Language and Literature Club,
The Historical Conference,
The Romance Language Club,
The German Journal Club,
The Chemical Club,
The Biological Club,
The Mathematical Club,
The Wisconsin Section of the American Chemical Society,
The University of Wisconsin Branch of the American Institute of Electrical Engineers,
The University of Wisconsin Section of the American Electrochemical Society.

The Graduate Club, while sharing in these purposes, is primarily a social organization of graduate students for the promotion of acquaintance and good fellowship among themselves and members of the faculty.

Fellowships and Scholarships*

University Fellowships

For the purpose of promoting higher scholarship and research the Regents of the University have established twenty-two University Fellowships of the annual value of $400 each. These are allotted to the several departments of instruction as follows:

To political economy, two; to history, two; to geology, and the biological sciences, two; to engineering, two; to agriculture, two; to the following departments and groups of departments one each, viz.: botany, political science, sociology, Latin, Greek, German, Romance languages, chemistry, physics, mathematics and astronomy, philosophy, education.

To the above should be added certain endowed fellowships specially described upon following pages.

The following are regulations respecting fellowships and scholarships:

1. Any fellowship to which the present regulations apply may be held by any graduate of a college of recognized standing or by anyone whose education is equivalent to that represented by a college degree. Those about to take such a degree are eligible candidates, the regulations applying to the time of entrance upon the duties of the fellowship. Men and women are equally eligible. Preference in appointment will usually be shown to candidates who possess a competent reading knowledge of French and German.

2. Fellowships will be granted upon application only, which should be made upon a special blank form furnished by the Registrar of the University; such application, with accompanying evidence of merit, attainment, and ability, to be in the hands of the Registrar before March 1st of the collegiate year preceding that during which the fellowship is to be held.

3. All fellowships will be filled each year. Fellows may be reappointed for one additional year only.

4. Application must be accompanied by evidence of scholarship, ability, and general worthiness; such as theses (whether prepared for this or other purposes), published writings, testimonials from instructors, outline of educational course pursued, special distinctions gained and the like. Applications for reappointment should contain a full account of the work of the preceding year. Applications to receive attention, must contain a definite statement of the special studies which the applicant intends to pursue.

5. Each fellow shall pursue his studies under the direction of an assigned professor or professors. Assignment of University services to the fellow shall be made by the President in consultation with the head of the department to which the fellow has been assigned, and the work assigned may be equivalent to one hour of teaching daily. It is stipulated that the holder

*With exception of honorary fellows, all fellows and University scholars are required to pay the regular fees.

of the Sociology fellowship shall do work at the University Settlement in Milwaukee.

6. Vacancies in fellowships, due to resignation or other cause, may be filled as they occur, at the option of the faculty.

Honorary Fellowships

The Regents have established honorary fellowships, equal in number to the University fellowships, and filled in a similar way. These are restricted, however, to persons who have already held academic honors, such as fellowships or teaching or research appointments. No compensation is attached to these positions except the remission of University fees, and no teaching service is required; but to be eligible to an honorary fellowship one must be a graduate of at least one year's standing.

Teaching Fellowships

For the promotion of efficiency in teaching, the Regents of the University have established in addition to the University Fellowships above described eight teaching fellowships, which are to be filled annually upon nomination made by the Committee on the Training of Teachers. These fellowships are open only to graduates of The University of Wisconsin who have had no experience in teaching. The holders of these fellowships devote one-half year to special graduate study within the University and one-half year to apprentice teaching, under supervision in a "co-operating high school." For the latter service a payment of $135 is made in addition to the stipend of $275 attached to the fellowship. For further details concerning these teaching fellowships application may be made to the Director of the Course for the Training of Teachers.

Working Fellowships

An arrangement has been made whereby a limited number of graduate students may be appointed to positions under the state government of Wisconsin known as Working Fellowships in Transportation, Taxation, Insurance, and Labor and bearing a salary of $600 for eleven months' service. Appointment to these positions is made upon recommendation of the Civil Service Commission and the department expects the incumbent to devote one-half of his time to graduate study within the University and one-half to the service of the state, viz: the Tax Commission, The Railroad Commission, Industrial Commission, and the Department of Insurance. It is expected that the service rendered to these departments will be,

in part at least, of the nature of investigation furnishing a valuable supplement to academic work in the University Department of Political Economy. For further information application may be made to the Civil Service Commission or to the University Registrar.

The Albert Markham Memorial Graduate Traveling Fellowship

In accordance with the terms of a bequest from the estate of the late Albert Markham, founder and principal of Markham Academy, Milwaukee, the Albert Markham Memorial Graduate Traveling Fellowship is offered annually in the departments of language and literature of The University of Wisconsin, to holders of a Ph. D. degree and is administered by a committee representing those departments. The income for 1915-16 is $800.

The major work of the appointee must lie in one of the departments of language and literature. He is expected to devote the year to foreign travel and study in foreign universities, but by special permission he may study at some other American university.

The Mary M. Adams Graduate Fellowship in English

By will the late Charles Kendall Adams, formerly President of The University of Wisconsin, conveyed the larger part of his estate to the Regents of the University for the gradual establishment of fellowships in Modern History, Greek, and in the English Language and Literature. The first of these fellowships, the Mary M. Adams Graduate Fellowship in the English Language and Literature became available in the academic year 1906-07, since which time the annual amount paid to the incumbent has ranged from $500 to $550.

The Charles Kendall Adams Graduate Fellowship in Greek

The second of the graduate fellowships established by the will of the late President Adams became available in the academic year 1913-14. It is called the Charles Kendall Adams Graduate Fellowship in Greek, and its value to the incumbent will be something over $500.

Graduate Scholarships

The Regents of the University maintain twenty-one graduate scholarships of the value of $225 each. Two of these are designated

for economics, one for political science, one for European history, one for American history, two for Agriculture, and three for Engineering. Appointments to these scholarships are in general made in the same manner as appointments to fellowships, but by special provision authority is conferred upon the faculties of Beloit College, of Carroll College, of Lawrence College, of Milton College, of Milwaukee-Downer College, and of Ripon College to nominate annually to the faculty of The University of Wisconsin one member of their respective senior classes as a suitable candidate for a University scholarship. Such candidates when duly appointed by the Regents of the University, shall be in all respects upon the same footing as other University scholars.

Henry Gund Scholarship

Through the generosity of Mr. Henry Gund, of La Crosse, there has been established the Henry Gund Scholarship in German Literature of the annual value of approximately $250.

Research Assistantships in the Forest Products Laboratory

In accordance with the regulations of the United States Civil Service Commission, a limited number of students who show unusual ability in research may be appointed as student research assistants by the Forest Service and Bureau of Plant Industry. The entire time of the student is given to lecture or class work in the University and to research in the Forest Products Laboratory. The salary varies from $100 to $300 a year and laboratory fees will be remitted for work in the Forest Products Laboratory. The number of students thus appointed will depend largely upon the funds available, ten men holding such positions at present in the Divisions of Chemistry and Pathology of Forest Products. Applications for these assistantships, accompanied by testimonials, should be sent to Director H. F. Weiss, Forest Products Laboratory, before March 1 of the collegiate year preceding that during which the assistantship is to be held.

Admission to the Graduate School

Graduates from four-year courses of liberal study in any approved university or college will be admitted to the Graduate School without examination, but will not be considered as candidates for a higher

degree until announcement of such candidacy has been made to the Dean of the Graduate School. Undergraduates of The University of Wisconsin who have completed all requirements for the baccalaureate degree may be admitted to the Graduate School before the degree is actually conferred. Each applicant for admission to the Graduate School should, in person, present his college diploma to the University Registrar, who will determine, provisionally, his eligibility to admission, and will furnish a statement of fees to be paid at the Bursar's office. This statement serves also as a certificate of enrollment in the Graduate School and should be presented promptly to the Dean, at Room 157 University Hall, who will issue to the student an election card for presentation to the several instructors under whom he desires to study. Students already enrolled in the Graduate School should obtain from the Dean an election card at or before the beginning of each semester.

Assignment of Studies

Graduate students are invited to confer freely with the Dean of the Graduate School in all matters concerning their relations to the University.

Second Degrees

The University of Wisconsin confers the following second degrees: Master of Arts, Master of Science, Master of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, Engineer of Mines.

These degrees are conferred in accordance with the conditions set forth below, upon graduates of The University of Wisconsin and upon graduates of other institutions of learning whose training has been substantially equivalent to that represented by the baccalaureate degree of The University of Wisconsin. The University will determine this substantial equivalence of training by such methods as seem best adapted to each case, and may impose upon any candidate such additional requirements as seem needful and just.

The degree, Master of Arts, is conferred upon candidates whose undergraduate work corresponds to that now leading to the degree Bachelor of Arts, as conferred by The University of Wisconsin, and whose graduate studies are non-professional in character. The degree, Master of Science, and the second degrees in engineering, are respectively conferred upon candidates whose undergraduate work

corresponds to that now leading to the degree, Bachelor of Science, as conferred by The University of Wisconsin. This degree may also be conferred upon holders of the B. A. degree who have pursued advanced work in science. The degree, Master of Philosophy, is conferred only upon those candidates who have received from The University of Wisconsin the degree of Bachelor of Philosophy, but such candidates may receive the M. A. degree in lieu of Ph. M. by absolving, as a supplement to their graduate work, all requirements for the B. A. degree not satisfied at the time of taking their Ph. B.

Candidacy for the above degrees is normally based upon resident study at the University, but provision is made whereby a measure of credit may be extended to work done *in absentia*. In no case, however, will a master's degree be conferred in course without one semester of resident graduate study at The University of Wisconsin and the equivalent of another semester's work done, under approved conditions, elsewhere.

The following regulations for the attainment of second degrees apply to all candidates in residence.

1. During a period of at least one academic year the candidate must pursue a course of graduate study characterized by definiteness of purpose and approved by the University as appropriate to that purpose and suitable in amount. Such a course includes normally for each semester assigned graduate work carrying from nine to twelve credits and at least one-half of this work must lie in a single department. The undergraduate preparation of the candidate must be sufficient to satisfy the instructor that the advanced work may be profitably undertaken. Undergraduate courses of suitable character may be elected in addition to the normal amount of graduate work, provided that the recommendation of the professor in charge of the student's major and the approval of the Dean of the Graduate School be obtained in advance.

2. Students who during their candidacy for the master's degree are engaged in teaching, or other remunerative employment, will be required to devote to their studies such period longer than one year, as may be designated by the Graduate Committee.

3. For students seeking to specialize in a definite line of study the preparation of a thesis may be required and subject to the approval of the professor in charge, such thesis work may be elected by others. A typewritten copy of the completed thesis bearing the approval of the professor under whom it is taken must be filed with the Librarian of the University.

4. The candidate must sustain an oral examination upon the graduate work offered in support of his candidacy. The time and place of this examination will be determined and the examining committee appointed by the Dean of the Graduate School.

Second Degrees in Engineering

The degrees, Civil Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, and Engineer of Mines will be conferred:

(a) Upon graduates of approved institutions who have completed suitable undergraduate courses and who successfully pursue not less than one year of advanced engineering study at The University of Wisconsin, in accordance with the rules above set forth for the attainment of second degrees.

(b) Upon graduates of the College of Engineering of The University of Wisconsin who have spent three years in professional work, at least one of which must have been in a position of responsibility, and who present a satisfactory thesis.

Second Degrees for Students in Professional Colleges

Graduates of approved institutions who are regularly enrolled in the professional colleges of this University may supplement their professional studies by work taken in the Graduate School. Upon the completion of an approved course of study they will be admitted to examination for the master's degree, to be conferred at the time of their graduation from the professional college. The course of study thus prescribed for the attainment of the master's degree may be expected, normally, to require one-third of the student's time for a period of two years.

Candidacy for the Master's Degree Partly in Absentia

By consent of the departments concerned, any person eligible to candidacy for a second degree, who has done satisfactory graduate work during one summer session of the University, may be admitted to candidacy for a master's degree upon the following terms:

1. The candidate must conform to all of the above regulations for candidates for the master's degree with exception of the requirement of residence at the University.

2. During a period of two consecutive years, while not in residence at the University, the candidate must pursue a course of advanced study previously arranged and approved by some department of the University and attested by a signed statement filed with the Dean of the Graduate School. See Rule 3 below. This work is designated his major study, and during two or more summer sessions, in addition to the one above named, he must pursue, at the University, work in continuation of, or collateral to, this major; for example, laboratory or seminary work in the department in which the major is taken. The *absentia* work is expected to equal in amount that normally accomplished in three summer sessions. But, experience having shown that in many cases this amount of work can not be done within two years by teachers and other persons charged with onerous duties, the University reserves the right to impose in such cases four or more summer sessions as the minimum period of residence, with corresponding diminution of the work *in absentia*.

3. As some departments of the University do not concede the privilege of candidacy *in absentia*, the applicant for this privilege must arrange in advance with the department concerned for its approval of the proposed work and must show that he has access to adequate facilities for its prosecution. A form showing that such arrangement has been made must be completed and filed with the Dean of the Graduate School at or before the close of the first summer session of candidacy. By consent of the department and of the Dean of the Graduate School, graduates of The University of Wisconsin may enter upon the *absentia* work above prescribed, without prior residence in the Graduate School. For all other candidates residence at The University of Wisconsin for one summer session, or its equivalent, will be required as a prerequisite to approval of candidacy by this method. Continuous supervision by the University cannot, in general, be given to work done *in absentia*, and its amount and character will therefore be tested at the opening of each summer session by examination upon the ground covered *in absentia* during the preceding year.

The Doctor's Degree

The degree of Doctor of Philosophy is not conferred solely as the result of faithful study extending over any prescribed period; special attainments are required in all candidacy for this degree, particularly the power of independent investigation as shown by

the production of a thesis embodying original research or creative scholarship, presented with a fair degree of literary skill. Candidacy for the degree is based upon resident graduate study normally extending over a period of not less than three academic years, at least one of which, usually the last, must be spent at this university. Candidates who are engaged in teaching or other remunerative employment will be required to devote to their candidacy such additional period in excess of three years as may be designated by the Graduate Committee.

The attention of graduate students is called to the following regulations respecting candidacy for the doctor's degree and they will be presumed cognizant of them.

1. Major Study. Candidates for this degree are required to select a major study, which may be coextensive with the work of a department or with one of the subjects under which certain departmental announcements of courses are classified, or which may be constructed from two closely related subjects. Only in exceptional cases and with the prior approval of the Dean of the Graduate School will a major be allowed to extend beyond a single department. The courses composing the major may be divided among several instructors, one of whom, designated as In charge of the Major Study, will act as the student's adviser in the selection and arrangement of courses constituting the major and also the minor studies defined below. The major professor will have immediate supervision of the thesis unless the Graduate Committee, upon recommendation of the department, shall otherwise direct.

2. Minor Studies. Supplementary to his major work, the candidate must pursue one and may pursue two minor studies, which shall aggregate from one-fourth to one-third of the time spent upon his graduate studies and which shall be outside the department of his major subject. Such minors and the amount of work to be devoted to them shall be stated to the Graduate Committee for its approval at the time of admission to candidacy for the degree. See Sec. 3.

3. Admission to Candidacy. Preferably nine months and at least seven months prior to the oral examination provided in Sec. 4, the candidate shall file with the Dean of the Graduate School his formal application to be admitted to candidacy for the doctor's degree. This application shall include the following statements:

(a) The title of his proposed thesis (subject to future verbal amendment) and the major professor's approval of such title.

(b) Certificates from the Departments of French and German of The University of Wisconsin that the candidate possesses a reading knowledge of those languages adequate for use in research in his major subject.

(c) Departmental recommendation of candidacy based upon examination, or such other substantial test as the departments may elect. The nature of such test shall be stated in the recommendation.

(d) The scope of the proposed minors, as provided in Sec. 2, and the approval of a professor who assumes charge of each such minor.

This application shall be submitted to the Graduate Committee, which may reject it for cause, or may approve it and admit to candidacy. With reference to time requirements imposed by the University, the Graduate Committee may specify the earliest permissible date for the final oral examination provided in Sec. 4.

4. Oral Examination. Every candidate for the doctor's degree is subject to oral examination upon the general field of his major and minor studies but such examination upon a second minor subject may be waived upon recommendation of the instructor in charge, accompanied by a certificate that the candidate has passed a special written examination adequately covering the field of such subject. The Dean of the Graduate School will appoint for each candidate an examining committee, usually composed of five persons, with the major professor as chairman, and will designate a time and place for the examination. The candidate's completed thesis shall be presented to this committee or, in lieu thereof, the major professor shall state to the committee its purpose and scope and shall certify to the committee that the work upon the thesis is substantially completed. This examination shall be open to all members of the Graduate Faculty.

5. Thesis. At any time after admission to candidacy, the candidate may submit to the Dean of the Graduate School for approval of its mechanical form and execution, a typewritten copy of his completed thesis, provided with a title page in form prescribed by the University and furnished by it, in blank, upon request. At any time thereafter, upon request of the major professor, the Dean shall constitute a committee of three persons, including the major professor, who shall report upon the substantial merit of the thesis. Their report, if favorable, shall be endorsed upon the thesis for publication. When so endorsed the thesis shall be filed in the University Library and shall be withdrawn therefrom only upon written authorization of the Dean of the Graduate School. In case of divided

opinion among the examiners, the case shall be decided by the Graduate Committee with right of appeal to the faculty.

6. Abstract. At any time after approval of the thesis, the candidate may file with the Dean of the Graduate School either an abstract of the thesis, or a selected part thereof, certified by the major professor to be adequate for publication in lieu of the complete thesis.

7. Security for Publication. After filing such abstract or selected part, the candidate shall place with the University Bursar the sum of fifty dollars as a guaranty of prompt publication of his thesis. The sum so placed shall be held in trust by the Bursar for a period of not less than one year and shall be refunded to the candidate, if during such period he shall deliver to the University Librarian the printed copies of his thesis prescribed in Sec. 8. At the expiration of the period thus prescribed, if the printed copies have not been so delivered, the Dean of the Graduate School may declare such fifty dollars to be forfeited to the fund for the publication of thesis abstracts and it shall be transferred to that fund by the Bursar.

8. The successful candidate is urged to put his thesis into print as promptly as possible and to deposit one hundred copies of the same in the University Library. In the case of doctors' theses published in (1) such scholarly periodicals or society or University publications as shall be approved by the Dean of the Graduate School, or (2) in bound volumes issued and sold by well known publishing houses approved by the Dean, the candidate may deposit in the University Library six copies of the thesis so published in lieu of the one hundred copies above described. By approval of the major professor and the Dean of the Graduate School, publication and filing of an approved part of the thesis may be accepted in satisfaction of this requirement.

9. Recommendation to the Graduate Faculty that the doctor's degree be conferred upon the candidate will be made (a) upon absolving the requirements above set forth under Secs. 3, 4, 5, and 8, or (b) upon absolving the requirements of Secs. 3, 4, 5, 6, and making the deposit named under Sec. 7.

Degree of Doctor of Public Health

The degree of Doctor of Public Health (Dr. P. H.) is open to holders of the degree of Doctor of Medicine from medical schools recognized as maintaining satisfactory standards. Candidates for

the degree of Dr. P. H. must spend at least two years subsequent to the regular Medical Course in the study of sciences related to hygiene and public health. The last of these years must be spent at The University of Wisconsin and must be devoted chiefly to work upon a special subject leading to a thesis containing some original research acceptable to the Executive Committee of the Medical School. The general requirements for the degree are essentially similar to those specified for the degree of Doctor of Philosophy with the following exceptions:

1. The language requirements are those maintained for the B. S. degree (Medical Science Course).
2. The time requirements are as outlined above.
3. The preliminary examination of the candidate is to be conducted by and his thesis approved by the Executive Committee of the Medical School.

Fees and Expenses

See p. 66 and the Index.

Graduate Circular

The special announcement of the Graduate School giving detailed information concerning the school, may be obtained upon application to the Registrar of the University.

UNIVERSITY EXTENSION DIVISION

(The Extra-mural College)

LOUIS E. REBER, DEAN

Of the three main functions of a commonwealth university: (1) resident instruction, (2) research, and (3) the dissemination of the useful and assimilable knowledge which has been accumulated through productive scholarship to all classes of citizens and in forms adapted to their requirements, the third is fulfilled in an organized way by the Extension Division.

This Division constitutes the Extra-mural college of the University, and is therefore one of the seven coordinate colleges of the University with a dean and a faculty of its own.

Organization

The work of the Extension Division is divided into four departments as follows:

I. Correspondence-Study
II. Instruction by Lectures
III. Debating and Public Discussion
IV. General Information and Welfare

Field Organization

For convenience and efficiency in administration, the state is divided into districts. In a central point of each is established an office or district headquarters, over which a district representative presides. Associated with him are district and traveling instructors, who give personal assistance and instruction to students who have need of such help, or conduct class groups for those pursuing correspondence-study work where that may be desirable.

Field organizers make known the instruction and other opportunities which are made available through the Extension Division, and organize the details of the work in the field.

District Organizations

First District Office	Milwaukee
Second District Office	Oshkosh
Third District Office	La Crosse
Fourth District Office	Superior
Fifth District Office	Wausau
Sixth District Office	Eau Claire

Object

The object of this University in carrying on extension work is to provide the highest type of education feasible for the citizens of the commonwealth who are unable to attend established educational institutions and to give every one in the state the opportunity to obtain the highest education possible at the smallest practical expense —to bring the University and the home into close relationship.

CORRESPONDENCE-STUDY DEPARTMENT

WILLIAM H. LIGHTY, SECRETARY AND PROFESSOR.

Purpose

For the needs of those who are unable to adjust themselves to the formal system of education, special forms of consecutive home study courses have been developed by the Correspondence-Study Department. This department offers individual instruction adapted to the special needs of students who can not come into residence study at the University. The instruction given may be undertaken in the leisure hours of each student at his own home.

Plan and Scope

The University of Wisconsin provides, through the Correspondence-Study Department, non-resident or home study instruction as follows:

I. Certain regular university studies which may, under approved conditions, be taken for credit toward a degree.

II. Advanced courses designed to help persons—graduates and others—in professional or practical life to keep in touch with the advancement in science and other fields of knowledge.

III. High School and preparatory studies for those for whom the conventional institutions are not available or practicable.

IV. Elementary and grammar school studies for those who require such instruction for practical purposes.

V. Vocational courses prepared with reference to the needs and requirements of given occupations.

General Benefits

Persons who are benefited by correspondence-study may be divided into two main classes: (1) those who have the taste, ability, and inclination to continue their education whether general or vocational; (2) wage-earners who cannot leave their employment in order to acquire training directed towards greater proficiency and skill.

The first class may be roughly divided into: (1) those who wish to keep abreast of the advances in knowledge in their profession or business, or who wish to study purely for purposes of general culture; (2) those who wish to acquire units of credit towards a university degree; and (3) those who require preparation for entrance to the University.

The second class includes: (1) those whom the necessity of earning a livelihood has taken from school before acquiring an elementary education; (2) those who have had the benefits of more or less liberal educational opportunities, but have received no training especially adapted to fit them for their chosen vocations; and (3) those who desire to change vocations and prepare themselves for employment more nearly adapted to their tastes and abilities.

This system of instruction is designed for persons carrying on their own education. It is open to nonresidents as well as to residents of the state of Wisconsin.

Industrial Education

This department cooperates with employers and local school authorities in the organization of local instruction in vocational and continuation studies. Where a number of persons have the same interests and needs, classes are formed under the instruction of teachers familiar with the local industrial conditions.

The instructor engaged in this work gives his entire time to it. He is as familiar with the employee's labor as he is with the lesson text, and, therefore, can help the men to make practical applications of lesson to work.

Method and System

PROCEDURE. The student who wishes to undertake correspondence-study should first select such course or courses as he may desire to take and send for an application blank. He should fill out the blank with information called for and return it, with the required fee, to the office of the Extension Division. The necessary textbooks, outfit, etc., may also be purchased through the Extension Division if the student so desires. Students are encouraged to register for but one course at a time. No more than two courses may be registered for at one time unless the student can give evidence that he has several hours a day to devote to study.

THE INSTRUCTION. Upon receipt of the application and fee, the first two lessons will be sent with instructions for study, methods of preparation, and directions for returning lesson sheets and reports. Each lesson will be returned to the student with such corrections, explanations, and suggestions as may be needed. Lists of books, assignments for reading, and all necessary assistance will be furnished throughout the course, so that no student will be left without adequate aid and guidance. Questions on the subject in hand are at all times encouraged.

BY WHOM PREPARED. These courses are prepared by the members of the University faculty, and each represents a definite amount of work equivalent to similar work done in residence at the University, or in standardized schools.

THE UNIT COURSE. The unit course is divided, where practicable, into forty weekly assignments. Such a course represents at least an amount of work equal to that done in residence at the University in a full five recitation-hour study a week for one semester, or half year. It is assumed that this work may be done by the average student in forty weeks on a minimum leisure for study of one hour a day, six days in the week. It is, however, the student's privilege to pursue his studies as rapidly as he is able.

THE LESSON. The unit course is divided into assignments. In some courses this may call for but a single report, but in others the assignment is divided into two or more lessons. In all cases the assignment represents an average week's work, and not an evening's work as at school.

PERMANENCE. The department endeavors to make its work thorough and permanent and the various courses have been arranged in coordination with the regular residence work, the short courses, and the summer session.

EXAMINATIONS. Examinations are optional with the student, but are required where credits or certificates are sought. These examinations must be taken at the University, or under conditions approved by the University.

REGULATIONS. 1. Students may begin correspondence courses at any time during the year.

2. For admission to the Correspondence-Study Department no preliminary examination is required. The student is required to fill out an application blank, giving such information as may be helpful in adapting the instruction to the personal needs of each student.

3. Students who undertake correspondence-study work for university credit must state this fact in advance and comply with all the requirements of the University.

4. For the benefit of the department it is desired that the applicant state fully the purpose he has in view in taking the work, and also in detail such educational advantages, training, or experience as he may have had. The department endeavors to meet the needs of the individual student by advice and suggestion, as well as by formal instruction, but whenever it finds that the course elected is not for the best interests of the student, it reserves the right to reject the application, or to advise a change to another course.

5. Correspondence students enrolled in a course (or courses) comprising twenty assignments or less, not involving credit towards a University degree, are allowed twelve months from the date of registration to complete the work. For longer courses a proportionately longer time is allowed. Correspondence students who are candidates for credit towards a degree are expected to complete one course of forty assignments or less within twelve months, two courses within fifteen months, three courses within eighteen months from the date of registration.

6. No fee is refunded because of a student's inability to enter upon or pursue a course for which he has once registered. If an application for instruction is rejected the fee is returned.

7. The fee for a full unit course of forty assignments is only twenty dollars. When the student registers for more than one unit course he receives a discount of twenty-five per cent, upon the amount of the fees in excess of twenty dollars. These fees are deliberately put upon the lowest operating basis.

Laboratory Work

Provision is made in connection with many correspondence courses, both in the advanced grade and in the vocational studies, by which laboratory practice forms a part of the instruction. In some courses laboratory outfits are sent to the student from the University to be set up in his own home. In other cases special arrangements are made for short periods of laboratory practice at Madison. In some studies local branch laboratories are established where local students may receive special instruction as the correspondence course proceeds.

University Credit

1. Persons who have had the required preparation for admission to the University, will, upon satisfactory completion of a correspondence-study course designed for credit, be awarded a certificate of credit in the University.

2. The maximum credit granted for work done by correspondence-study, however, may not exceed one-half the unit hours required for graduation.

3. At the completion of each correspondence-study course for University credit, the student shall pass an examination held under the direction of the instructor giving such course, or by some one designated by the University for that purpose.

4. Work taken for credit may not be done by any student while in attendance at any institution of learning.

5. In special cases credit may be allowed for correspondence-study courses of preparatory grade to satisfy partial entrance requirements to the University.

6. Credit to an amount not exceeding one-fourth of the unit hours required for graduation may be given at The University of Wisconsin to students of such other correspondence schools or departments as may be designated by The University of Wisconsin. It is, however, required that such credits shall be subject to the same provisions as are made in The University of Wisconsin, and subject to the action of the accredited schools committee, or the advanced standing committee, as the case may require.

7. Credit records of correspondence-study work are filed in the University Extension office until the student has satisfactorily completed one year of study in residence. When all the requirements are satisfied, the correspondence-study records may be transferred to the Registrar's office and applied toward graduation.

8. All courses offered by the Correspondence-Study Department, whether taken for University credit or not, are on a uniform basis in reference to the amount of work covered. Courses which are satisfactorily completed have, therefore, a definite value, and all students who successfully complete such courses will be awarded certificates of the grade in which the work is taken.

Correspondence-Study Courses

Courses marked with an asterisk (*) involve University credit. Full information on any of the correspondence-study courses is supplied on request.

Astronomy

MR. EATON.

1. Popular Astronomy.

Botany

PROFESSOR ALLEN; ASSOCIATE PROFESSOR OVERTON; ASSISTANT PROFESSOR GILBERT.

1. Description and Classification of Flowering Plants*; 11. General Botany*; 12. Morphology of Seed Plants*; 2. General Morphology of Algae*; 3. General Morphology of Fungi*; 5. Plant Histology*; 4. Morphology of Mosses and Ferns*; 7. Drug and Food Products*; 8. Trees and Shrubs*; 21. Elementary Botany.

Business Administration

ASSOCIATE PROFESSOR BUTLER; MR. IRWIN, MR. KUECHENMEISTER, MR. LANGMAS, MR. NICHOLS, MR. READ, MR. THOMPSON.

Business Organization and Management

142–155. Complete Course, Business Organization and Management; 142–144. General Organization of Business; 145–150. Types of Business Organization; 151–152. Industrial Management; 153–155. Marketing Methods.

Bookkeeping and Accounting

128. Bookkeeping; 129. Accounting Principles; 135. Advanced Accounting Problems; 136. Cost Accounting; 130A. Bookkeeping and Cost Finding for Printers.

Business Law

115. Contracts; 118. Sales; 122. Commercial Paper; 124. Private Corporations; 198. Insurance.

Retailing

159. Retail Selling and Store Management; 159A. Retail Selling.

Other Subjects

102. Commercial Correspondence; 114. Commercial and Industrial Geography.*

Chemistry

PROFESSOR KAHLENBERG; ASSISTANT PROFESSOR KRAUSKOPF.

1. Elementary Chemistry*; 2. Qualitative Analysis.*

Education

PROFESSORS ELLIOTT, HENMON, O'SHEA; ASSISTANT PROFESSOR STARCH; MRS. HOYT, MR. SEYBOLT.

1. Principles of Teaching*; 2. The Development of Childhood and Youth*; 3. Educational Psychology*; 4. The Child and Elementary Education; 5. Child Nature and Training; 6. History of Modern Education*; 51. Social Development and Education*; 61. Advanced Educational Psychology*; 71. History of American Education*; 81. Administration and Supervision of Education*; 91. Conferences on Teaching Problems.*

Electrical Engineering

ASSOCIATE PROFESSOR JANSKY; ASSISTANT PROFESSOR WINNING; MR. HOBBS, MR. JACKLIN, MR. KRANZ, MR. MITCHELL, MR. NESBITT, MR. WINN.

301. Elementary Electrical Mathematics; 310. Elementary Magnetism and Electricity; 311. Direct Currents and Direct Current Machinery; 312. Theory of Alternating Currents; 313. Alternating Current Machinery; 314. Electric Lamps and Illumination; 316. Central Electric Stations; 317. Electric Power Transmission; 318. Telephones and Telephone Apparatus; 318A. Elementary

Principles of Telephones; 319. Commercial Electrical Measuring Instruments; 319A. Watt-hour Meters; 320. Testing of Electrical Machinery; 322. Electric Batteries; 323. Electrical Central Station Distribution Systems; 324. Electric Wiring; 330. Electrical Engineering Mathematics.

English

ASSISTANT PROFESSORS BEATTY, PITMAN; MISS BASCOM, MR. WATT.

1. Elementary English; 61. English Grammar; 64. Practical English Review; 2. Intermediate English Composition; 3. High School English Classics; 62. Advanced English Grammar; 8. Technical English; 63. Grammar Review and Elementary Composition; 102. Commercial Correspondence; 79. Review of English Composition; 81. Review of American Literature; 91. Review of English Literature; 5 and 6. English Composition*; 7. Advanced Composition*; 113A. Classical Lyric Poetry in English*; 113B. Ancient Classical Drama in English*; 16. The Short Story*; 51 and 52. General Survey of English Literature*; 31. General Survey of American Poetry*; 17A and 17B. Shakspere*; 18. The Poetry of Tennyson*; 19. The Poetry of Browning*; 25. The English Novel in the Nineteenth Century*; 35A and 35B. Modern Drama*; 4. The Teaching of English*; 214S. The Ballad*; 215S. Byron and His Contemporaries*; 216S. Shakspere*.

French

PROFESSOR SMITH; MR. GALLAND, MISS DIXON.

1 and 2. Elementary French*; 3 and 4. Intermediate French*; 5. Technical French*; 6. Elementary French Prose Composition*; 7. Advanced French Composition*; 8. Modern French Dramatists*; 9. Modern French Novelists*; 10. General Survey of French Literature.*

Geology and Mineralogy

PROFESSORS LEITH, WHITBECK, WINCHELL; ASSOCIATE PROFESSOR MARTIN; ASSISTANT PROFESSORS BEAN, STEIDTMANN, WILLIAMS.

1. Mineralogy*; 2. Economic Geology*; 3. Physical Geography*; 4. Elementary Geology*; 6. Laboratory Work in Optical Mineralogy*; 7. Paleontology.*

German

PROFESSOR HOHLFELD; ASSISTANT PROFESSOR A. ERNST; MR. EPPELS.

1 and 2. Elementary German*; 3 and 4. Intermediate German*; 6. Scientific German*; 7. Commercial German*; 8. Critical German Prose*; 9. Grammar Review*; 12. German Composition*; 19. Elementary Teachers' Course; 20. Advanced Teachers' Course*; 25. Modern German Dramatists*; 26. Modern German Novelists*; 22. Schiller*; 21. Goethe*; 29. Goethe's Faust*; 30. History of German Literature*; 31. History of the German Language*. Studies in Lessing, Heine, Uhland, and Modern German Poetry are also available. Courses in Gothic, Old High German, Middle High German, and Old Saxon will also be arranged.

Greek

PROFESSOR SMITH; ASSISTANT PROFESSOR PITMAN.

1. Elementary Greek*; 2 and 2A. Xenophon's Anabasis*; 3. Homer's Iliad I–III or Odyssey VI–VIII*; 6. Advanced Prose Composition*; 113A. Classical Lyric Poetry in English*; 113B. Ancient Classical Drama in English.*

Health

DR. DEARHOLT, DR. MENDENHALL.

20. Local Health Officers' Work; 6. Study of the Human Body; 7. The Prospective Mother; 8. The Child in Health; 9. The Child in Disease.

Hebrew

PROFESSOR WILLIAMS; ASSISTANT PROFESSOR WOLFENSON.

1 and 2. Elementary Hebrew.*

History

PROFESSORS DENNIS, FISH, SELLERY; ASSOCIATE PROFESSOR CHASE.

1. United States History; 2. American History 1760–1830*; 6. English History*; 8A and 8B. Modern European History*; 12. Medieval History*; 20. Oriental and Greek History*; 21. Roman History*; 67. United States History Review; 89. English History Review.

Home Economics

PROFESSOR MARLATT; MRS. MENDENHALL, MISS A. TURNER, MISS J. TURNER.

1. Food Study for the Inexperienced Housewife; 2. Planning the Family Dietary; 3. Dietetics; 5. Household Management; 6. Study of the Human Body; 7. The Prospective Mother; 8. The Child in Health; 9. The Child in Disease; 10. Sewing; 11. Study of Fabrics; 12. Muslin Garments; 13. Dressmaking; 14. Infants' Clothes; 15. Home Furnishing and Decoration; 20. General Survey of Home Economics*; 21. Applied Design*; 22. Selection and Preparation of Foods*; 25. Cooking and Housework (for the rural school teacher); 26. Sewing (for the rural school teacher).

Italian

PROFESSOR SMITH; MR. GALLAND.

1. Elementary Italian*; 2. Reading in Italian.*

Latin

PROFESSOR SLAUGHTER; ASSISTANT PROFESSOR PITMAN.

1. Elementary Latin*; 2. Caesar*; 3. Cicero*; 4. Virgil's Aeneid*; 6. Advanced Prose Composition*; 7. Livy: Books I and XXI*; 10. Cicero: De Senectute*; 12. Terence: Phormio and Andria*; 14. Horace: Odes*; 15. Horace: Satires and Epistles*; 16. Catullus*; 17. Roman Mythology*; 20. Cicero: Letters*; 113A. Classical Lyric Poetry in English*; 113B. Ancient Classical Drama in English.*

Manual Arts

PROFESSOR CRAWSHAW; ASSISTANT PROFESSOR HENDERSON.

1. History and Literature of Manual Arts*; 2. Teaching and Supervision of Manual Arts*; 3. Organization of Manual and Industrial Arts*; 4. Vocational Education and Vocational Guidance.*

Mathematics

PROFESSOR SLICHTER; ASSISTANT PROFESSOR BURGESS; MISS HOLT.

1. Elementary Algebra; 3. Plane Geometry; 4. Solid Geometry; 5. Plane Trigonometry*; 6. University Algebra*; 7. Analytic Geometry*; 8. Elementary Calculus*; 11. Practical Arithmetic; 12.

Mensuration and Practical Geometry; 13. Practical Algebra; 14. Practical Trigonometry and Logarithms; 15. Practical Calculus; 61. Arithmetic Review; 62. Elementary Algebra Review; 201A and 201B. Shop Mathematics; 40. Algebra for Engineers; 41 and 42. Elementary Analysis*; 44. Differential Calculus*; 45. Integral Calculus*; 51. Agricultural Mathematics*; 55. Commercial Arithmetic; 56. Commercial Algebra*; 65. Advanced Calculus*; 66. Differential Equations*; 67. Theoretical Mechanics*; 68. Higher Algebra.*

Mechanical Drawing

Professor Phillips; Associate Professor Norris; Assistant Professors Hogan, Millar; Mr. Hills, Mr. Winn.

1 and 2. Elements of Mechanical Drawing*; 3. Descriptive Geometry*; 4. Freehand Lettering; 203. Shop Sketching; 204A and 204B. Shop Drawing; 205. Sheet Metal Drafting; 243A. Principles of Architectural Drawing.

Mechanical Engineering

Associate Professor Norris; Assistant Professors Bascom, Henderson, Hogan, Shealy, Winning; Mr. Hills, Mr. Hobbs, Mr. Jacklin, Mr. Lehmann, Mr. Mitchell, Mr. Nesbitt, Mr. Winn.

201A. Shop Mathematics; 201B. Advanced Shop Mathematics; 203. Shop Sketching; 204A and 204B. Shop Drawing; 205. Sheet Metal Drafting; 206. Elements of Mechanics; 207. Strength of Materials; 208. Mechanism; 209. Machine Elements; 210. Advanced Design; 214. Principles of Steam Engineering; 215. Heat; 216. Steam Boilers; 217. Steam Engines; 219A. Gas and Oil Engines; 219B. Gas Producers; 219C. Gas Engine Theory and Design; 219D. Gasoline Automobiles; 220. Test Methods; 222. Refrigeration; 223. Heating and Ventilation; 224. Power Plant Economics; 225. Compressed Air; 229. Electric Machinery; 230. Engine Running; 231. Fuels; 234. Heating and Ventilating Public Buildings; 235. Principles and Practice of Plumbing; 241. Carpenters' and Builders' Arithmetic; 242. Lumber and Its Uses; 243A. Principles of Architectural Drawing; 272. Cupola Practice; 274. Foundry Metallurgy; 281. Hydraulics.

Meteorology

MR. MILLER.

1. Meteorology*; 2. Climatology.*

Music

PROFESSOR DYKEMA; MR. TOWNSEND.

1C. Theory of Music; 45C. Principles of Instrumental Instruction*; 5C. Elementary Harmony*; 31C and 51C. Public School Music*; 61C. Advanced Harmony*; 75C. History of Music*; 97C. Community Music.*

Pharmacy

PROFESSORS FISCHER, KREMERS, KAHLENBERG; ASSOCIATE PROFESSOR BRADLEY; ASSISTANT PROFESSORS DENNISTON, GILBERT, KRAUSKOPF; MR. LANGENHAN, MISS WAKEMAN.

1. Pharmacy*; 3. General Chemistry*; 5. Inorganic Preparations*; 12. Qualitative Analysis*; 10. Morphology and Classification of Flowering Plants*; 15. Plant Histology*; 30. Drug Assaying*; 35. Physiological Chemistry*; 40. Pharmaceutical Chemical Analysis*; 45. Microscopical Examination of Food Products*; 46. Microscopical Examination of Drugs*; 50. Pharmacology*; 51. Toxicology*; 20A, 20B, 20C. Prescription Practice*; 21A, 21B, 21C. Advanced Prescription Practice*; 21D. Prescription Incompatibility*; 22A and 22B. Pharmaceutical Technology*; 23A. Alkaloidal Assay.*

Philosophy

PROFESSOR SHARP; ASSOCIATE PROFESSOR OTTO; ASSISTANT PROFESSOR STARCH.

1. General Psychology*; 10. Ethics.*

Physics

ASSOCIATE PROFESSOR JANSKY; MR. KRANZ.

1. High School Physics; 51E and 52E. University Physics.

Political Economy

PROFESSORS ELY, ROSS, SCOTT; ASSOCIATE PROFESSORS GILLIN, HESS; MR. MCKAY.

1. Elements of Political Economy*; 2. The Labor Movement*; 3. Transportation*; 4. Socialism*; 5. Economics of Saving and Investment; 7. Commercial and Industrial Geography*; 10. Elements of Money and Banking*; 10A. Brief Course in Money and Banking; 15. Social Psychology*; 16. General Sociology*; 17. Practical Sociology*; 18. Criminology and Penology.*

Political Science

ASSOCIATE PROFESSOR C. LLOYD-JONES; ASSISTANT PROFESSOR MACGREGOR.

1. American Government and Politics*; 1A. The American Judiciary*; 1B. The American Executive and Executive Methods*; 3. Party Organization and Management*; 3A. American Legislatures and Legislative Methods*; 4A. American Diplomacy*; 4B. World Politics*; 5A. American Constitutional Law*; 5B. International Law of Peace*; 5C. International Law of War*; 6. American Municipal and Civic Progress*; 10. Municipal Government in Europe and the United States*; 22. Local Government.*

Public Speaking

PROFESSOR O'NEILL; ASSISTANT PROFESSOR BLANTON.

1. Elementary Speech Writing; 10. Composition of Public Addresses*; 12. Argumentation*; 21. Correction of Speech Defects*; 22. Voice Training and Elimination of Voice Defects.*

Spanish

PROFESSOR SMITH; MR. GALLAND.

1 and 2. Elementary Spanish*; 3 and 4. Intermediate Spanish*; 7 and 8. Don Quijote.*

Structural Engineering

ASSOCIATE PROFESSOR HOOL; MR. FULLER, MR. HILLS, MR. LEHMANN, MR. THIESSEN.

401. Mathematics; 404. Mechanical Drawing; 407. Strength of Materials; 408 and 409. Elements of Structures; 410. Roof Trusses; 411. Plate Girder Bridges; 412 and 413. Bridge Trusses; 415, 416, and 417. Masonry Structures; 418A, 418B, and 418C. Reinforced Concrete Construction; 421. Steel Building Construction; 430. Practical Course in Concrete.

Surveying

ASSOCIATE PROFESSOR HOOL; ASSISTANT PROFESSOR BASCOM.

441. Surveying with Field Problems.

Teachers' Reviews

PROFESSOR WHITBECK; ASSOCIATE PROFESSORS CHASE, JANSKY; ASSISTANT PROFESSORS BEATTY, BURGESS; MISS BASCOM, MISS GANGSTAD, MRS. HOYT, MR. KRANZ, MRS. VAN DUSEN.

61. Arithmetic; 62. Elementary Algebra; 63. Grammar and Elementary Composition; 65. Geography; 67. United States History; 69. Civil Government; 71. Physiology and Hygiene; 73. School Management; 77. Physical Geography; 79. English Composition; 81. American Literature; 83. Cataloguing and Use of the School Library; 87. Physics; 89. English History; 91. English Literature.

INSTRUCTION BY LECTURES

PAUL F. VOELKER, SECRETARY AND EXTENSION LECTURER.

Purpose

For instruction and platform inspiration in communities where the lyceum need exists the Department of Instruction by Lectures organizes and supplies local programs.

Scope of Service

The University offers through this department (1) single lectures or series of such lectures; (2) lecture, concert, recital, or reading programs or a miscellaneous combination of these. Such programs are offered with the definite purpose of developing better taste and higher standards with reference to public entertainments, and an appreciation of art, music, and literature by presenting examples.

LECTURES. The field covered by the lecture courses is a wide one, including topics in education, history, geography and travel, political economy, political science, sociology, business administration, the history and literature of ancient and modern peoples, including Greek and Roman, Scandinavian, German, French, and English life and letters, the physical sciences, engineering branches, forestry, and physical training. The bulletins containing details of information will be sent on request.

WISCONSIN WEEKS. This department arranges one week programs during the month of July in communities that desire or feel the need of the instruction, inspiration, and social results of the basic feature of the chautauqua movement.

TEACHERS' CONVENTIONS AND INSTITUTES. The Extension Division will provide speakers for these meetings as far as the regular work of the University will permit.

COMMENCEMENT ADDRESSES. This department arranges for commencement addresses to be delivered by members of the University staff and others available in this service. The charges will be arranged in each case for the speaker desired through the Extension Division.

SPECIAL OCCASION LECTURES. This department furnishes speakers for special occasions, such as memorial and dedication exercises, convocation addresses in schools, commercial organizations, and civic and women's clubs.

Expenses

LOCAL EXPENSES. These include hall rent, printing, advertising, etc., and the lantern and operator, where the lecture is illustrated.

UNIVERSITY CHARGES—LECTURERS' FEES. Full information concerning lecturers' fees will be supplied on application.

DEBATING AND PUBLIC DISCUSSION

ALMERE L. SCOTT, SECRETARY.

Purpose

For the assistance and instruction of citizens who are interested in important social, educational, and political problems, the Department of Debating and Public Discussion fosters forum activities for deliberative study and discussion.

Inasmuch as the intelligent and active interest in and study of these questions among all classes of people tends essentially to the making of good citizens, the department issues suggestive and guiding bulletins, collects and maintains a loan library available through parcels post, and keeps in close touch through correspondence and personal interviews with community centers, civic clubs, farmers' clubs, women's and business men's organizations, teachers' and other professional men's associations, school and library boards, literary societies of educational institutions, particularly of the rural state graded, county agricultural and county training schools, seminaries and academies and all similar organizations throughout the state.

BULLETINS

Several compact and useful guides have been issued as aids to debaters, including Debating Societies—Organization and Procedure; Principles of Effective Debating; How to Judge a Debate; Triangular Debating Leagues; and School Literary Societies. The latter contains over fifty questions stated for debate. As aids to organizations, bulletins on Farmers' Clubs and Civic Clubs have been published.

FORMULATED QUESTIONS. The bulletins which formulate subjects for debate, giving brief historical facts and arguments, concluding with a selected, classified bibliography, serve as an impetus to careful study and have proved helpful and time-saving. Such questions as the following have been thus presented: Annexation of Cuba and Independence of the Philippines; Closed vs. Open Shop; Commission Plan of City Government; Consolidation of Rural Schools and Free Text Books; Initiative and Referendum; Municipal Home Rule; The Recall; and Restriction of Immigration. These publications are sent free upon request to Wisconsin citizens, and upon receipt of list price, outside of the state.

Loan of Material

The loan package libraries include mounted newspaper clippings, office bound sections of periodicals, government documents, publications of organizations, copies of addresses, reprints, typewritten excerpts, books—in fact all forms of carefully selected available material dealing in a fair and balanced manner with the different phases of worth-while subjects. This material may be borrowed in Wisconsin through the mail.

The Scope of the Service

This department, therefore, aids students in communities where local library facilities are meagre in the selection and study of subjects for debate, discussion, club papers, special topics, themes, and orations. Although preference is given to requests from communities where no libraries exist the department constantly aims to supplement and cooperate with local librarians.

GENERAL INFORMATION AND WELFARE

JOHN LEWIS GILLIN, SECRETARY AND PROFESSOR OF SOCIOLOGY.

Purpose

The Department of General Information and Welfare constitutes a clearing-house through which all reasonable inquiries of the people of the state on general matters may receive consideration. The department disseminates methodically information bearing on public welfare.

The researches of government bureaus and commissions, of experiment stations and laboratories, of scientific institutions and associations, are often imbedded in voluminous technical reports. Thus they do not serve their full measure of usefulness. The department digests and edits these documents into a form which retains all the essential facts adapted to non-technical and democratic needs.

Reports are made by the department upon questions of food, hygiene, and sanitation; discoveries affecting the cure and prevention of disease; economic, political, social, and ethical topics; educational matters; the conservation of resources; agricultural, engineering, manufacturing, and commercial conditions; recreation and social health; child labor; municipal problems; the aesthetic and economic requirements of life in country and in city; home furnishing and decoration; landscape design; architecture; music; and similar subjects, as demands for such information arise.

Method

Information is gathered by this department and presented in suitable form for distribution. The department also secures expert advisers for communities having special problems to solve.

To conduct several specific lines of welfare work, the Municipal Reference Bureau, the Civic and Social Center Bureau, the Health Instruction Bureau, and the Community Music Bureau have been organized, each with an expert on the particular subject in charge.

Municipal Reference Bureau

To meet the need for information in the important field of municipal government, information which is difficult to obtain and hard to keep up to date, a Municipal Reference Bureau has been es-

tablished for the service of the cities of the state. It collects and furnishes information on all subjects of municipal organization and administration, public works, public utilities and public service rates, municipal employment, paving, sewage disposal, water supplies and water purification, garbage disposal, parks and playgrounds, housing, street cleaning, street sprinkling, dust prevention, smoke abatement, city planning, civic centers, art commissions, care of city trees, schools, and sanitation, accounting methods, comparative statistics, commission and city manager government, home rule, civic organizations, and other subjects of municipal interest. The bureau collects and maintains a file of charters, ordinances, and official publications of the principal cities of the United States. It has correspondents in most of the American cities, and in this way is able to furnish information as to which cities have passed an ordinance of any type, for instance a milk ordinance, or a wheel tax ordinance; to present data as to the efficiency of different types of ordinances; and, if desired, to lend copies of particular enactments. It can tell how boards of public works are organized in various cities, how school boards are constituted, or how street sprinkling or street repairs are paid for. In short, it aims to be a clearing house for municipal experiments and experiences.

Bureau of Civic and Social Centers

To encourage the use of public buildings for community assemblies a bureau of community centers offers advice in the organization and conduct of community gatherings. Through the work of this bureau many communities have gathered in their schoolhouses or other public buildings and organized for free, non-partisan, non-sectarian discussion of public questions for the promotion of civic intelligence. The bureau provides the medium through which assistance may be obtained by the people of the state in organizing such community gatherings, in preparing programs and securing constructive plans for neighborhood betterment.

Health Instruction Bureau

The Health Instruction Bureau was established for the purpose of recasting into popular form scientific knowledge regarding the prevention and cure of disease, and disseminating it by means of correspondence-study courses, lectures, publications, exhibits, personal correspondence, surveys, consultations, and conferences.

Community Music

To enable the people of local communities to develop their musical interests, the Bureau of Community Music offers in addition to the correspondence-study courses given under another department, the services of a leader for the organization of community choruses, lectures, and other forms of instruction and assistance to the people of the state.

Exhibits

In addition to above specific lines of activity for the general good, the Department of General Information and Welfare provides travelling welfare exhibits and organizes local programs, and vocational, social, and community institutes on various aspects of general welfare work. Among others may be mentioned a child welfare exhibit, a health exhibit, two exhibits on recreation, and a community center exhibit which have been shown in a large number of Wisconsin cities. The exhibit and demonstration method of instruction has proved so successful that these various exhibits have been displayed in more than a score of community and social service institutes held in various parts of the state, and in twenty Wisconsin Week programs during the past year. These exhibits consist of statistical charts, pictures, models and descriptive literature, interpreted by an expert and accompanied by a program of talks, addresses, and conferences upon the subject of the exhibit. For some years several departments of the University have cooperated with the Wisconsin Anti-Tuberculosis Association in accumulating an effective and instructive tuberculosis exhibit which has been widely used in this connection throughout the state. These exhibits are sent by the Extension Division to communities in the state upon application without cost beyond the expense of transportation.

Social Service Institutes

The Extension Division is prepared to put into the larger centers of Wisconsin a Social Service Institute lasting for such periods as seem desirable, and providing intensive study at a nominal registration fee for those interested in such subjects as the relief of poverty, recreation, juvenile delinquency, child welfare, and similar topics. The subjects to be treated will depend in each case on the problems of the locality where the institute is to be held.

Community Institutes

For the benefit of villages and small cities the Community Institute has been organized to provide a program dealing with the most pressing problems of each community. This institute can be carried on for three or four days in each place. In connection with it, as well as with the social service institute, an exhibit may be provided, and stereopticon lectures and motion pictures are used to illustrate the best knowledge available on the particular problem under consideration.

Vocational Institutes

In vocational institutes lectures and demonstrations dealing with the latest investigations of experts who stand at the head of their special lines of research are presented in such simple and practical form as to be readily available by the crafts, for example such programs as were organized on several occasions for the bakers of the state. The Extension Division will arrange for and conduct vocational institutes of one or more days' duration as desired.

Bureau of Visual Instruction

For several years the Extension Division has lent lantern slides, motion picture films, and other illustrative material to schools and other institutions and organizations. This service has now been organized into the Bureau of Visual Instruction, which is making a thorough and systematic study of materials that may be used in illustrative teaching, or in instruction through the medium of the eye, and placing such material within easy and constant reach of all schools and other social organizations of the state. The bureau has a carefully selected collection of educational lantern slides and motion picture films to be lent to schools for use in class work and for community gatherings. During the year 1914-15 nearly 15,000 lantern slides on more than 100 subjects and 100,000 feet of motion picture film on 75 subjects are available for use through this bureau. Four circuits have been established on which the material is routed weekly to 140 schools which have applied for regular service for 35 weeks in succession. In addition occasional service is being given frequently to schools and social organizations not in circuit.

THE SCHOOL OF MUSIC

CHARLES H. MILLS, DIRECTOR, PROFESSOR OF MUSIC.

GENERAL ANNOUNCEMENT

The School of Music offers the following courses: a four-year course leading to the degree of Graduate in Music; a two-year course leading to the certificate of Supervisor of Public School Music.

The music credits which may be secured by candidates for degrees other than in music are limited to twenty.

Advanced instruction in pianoforte, organ, voice culture, and violin may be taken as electives by juniors and seniors of the University, upon consultation with the Director of the School of Music, after meeting the Examination Committee of the School. Credit, not to exceed a total of ten semester hours, is given on the same basis as for other collegiate studies.

Individual instruction in vocal or instrumental music may be taken by students not otherwise connected with the University, and such students are not required to pay the incidental fee required of all University students, but they must be able to satisfy the usual entrance requirements.

Special students, twenty-one years of age, are admitted to the School of Music, under the regular provisions of the College of Letters and Science as "Adult Special Students."

Special students, under twenty-one years of age, who have unusual musical talent, may, in exceptional cases, be admitted to the School of Music on the recommendation of the faculty of the School although they may not be able to satisfy fully the entrance requirements.

Students wishing to enter the School of Music will apply to the Registrar, Room 158, University Hall.

A detailed statement of musical courses will be found under Music in the College of Letters and Science.

THE COURSE OF STUDY LEADING TO THE DEGREE OF GRADUATE IN MUSIC

PROFESSOR MILLS, CHAIRMAN.

MUSICAL REQUIREMENTS FOR ENTRANCE

Organ

No previous knowledge of organ playing is required, but a student must be well grounded in pianoforte playing, must possess a correct technique, and be able to read four-part music.

Pianoforte

Applicants for admission will be expected to play music of the grade of Mozart's Sonata in D major, No. 3, Peters Edition; Loeschhorn, Op. 52 and Op. 66; Bach, Little Preludes.

Violin

Candidates must be well grounded in correct position, intor ation, tone, and bowing, and must have mastered the equivalent of David's Violin School, Part I, and the easier pieces of Dancla, Alard, and others.

Voice Culture

The student must be able to read simple music and must have had an amount of training equal to the first half of Concone, with the usual technical study for the same period.

The course in applied music includes the study of the classic, romantic, and modern schools, and covers a period of four years of two-half hours of instruction per week, or the equivalent, in organ, pianoforte, violin, or voice culture.

Courses of Instruction

Freshman Year

FIRST SEMESTER. Applied Music: 2 half-hours of instruction and not less than 6 hours of practice per week, 2 credits; Theoretical subjects: Harmony 1a; Ear training and sight singing 71, 2 credits;

Harmony 1, 3 credits; English 1a and 1b, 3 credits; *French, German, or Italian, 4 credits; Physical Education. Total: 14 credits.

SECOND SEMESTER. Same as first. Total: 14 credits.

Sophomore Year

FIRST SEMESTER. Applied Music: 2 half-hours of instruction and not less than 6 hours of practice per week, 2 credits; Theoretical subjects: Ear training and sight reading 75, 1 credit; Harmony 11, 2 credits; Appreciation of Music 61, 2 credits; English 30, or other electives in English, 3 credits; French, German, or Italian, 4 credits; Electives, 2 credits; Physical Education. Total: 16 credits.

SECOND SEMESTER. Same as first semester. Total: 16 credits.

Junior Year

FIRST SEMESTER. Applied Music: 2 half-hours of instruction and not less than 6 hours of practice per week, 2 credits; Theoretical subjects: Counterpoint 21, 2 credits; History of Music 31, 2 credits; Physics, Course in Acoustics, 2 credits; English, French, German, or Italian Literature, 3 credits; Elective, 4 credits. Total: 15 credits.

SECOND SEMESTER. Same as first except for the dropping of Physics, and substituting 2 electives. Total: 15 credits.

Senior Year

FIRST SEMESTER. Applied Music: 2 half-hours of instruction and not less than 6 hours of practice per week, 2 credits; Ensemble Playing or Singing 85, 2 credits; Theoretical subjects: Composition 162, or Instrumentation 152, 2 credits; Thesis or Recital, 35, 2 credits; Elocution (Public Speaking 12a), 3 credits; Elective, 4 credits. Total: 15 credits.

SECOND SEMESTER. Same as for first semester. Total: 15 credits.

Total for four years: 120 credits.

All candidates for the degree of Graduate in Music are required to pursue their studies in accordance with the above schedule.

Voice students are subject to the following exceptions: First, membership in the Choral Union is obligatory, unless excused by the Director. Second, at least two years of pianoforte study are required in addition to the prescribed work in voice, but the second year of pianoforte study is substituted for elective in the second

* French 1, 4, 10. German 1a to 2b, 3, 14. Italian 101.

year. Third, Counterpoint, Composition, and Instrumentation are not required.

Organ students are subject to the following exception: Those not sufficiently proficient may be required to take work in pianoforte during the first and second years, this to be decided by the instructor and the director.

Violin students are required to take two years of pianoforte study in addition to the prescribed work in violin, and may substitute those credits for electives.

There is opportunity for a liberal choice of electives in addition to the required studies enumerated above. These may be chosen from other courses offered by the School of Music, or by other departments of instruction in the University on consultation with the director or an adviser appointed by him.

Students must prove their efficiency before their graduation either by giving a recital or writing a thesis on a given topic. Students are allowed a choice of these alternatives on consultation with the director or an adviser appointed by him. Two credits are allowed for either recital or thesis. The latter is subject to the regulations under Theses. (See Index).

Department of Public School Music

PROFESSOR DYKEMA, CHAIRMAN.

Course for Supervisors of Music in Schools

This is a two-year course designed for those who wish to fit themselves for the supervision of music in the public schools.

The requirements for admission to the Supervisors' Course are the same as for all other courses in the University.

A Supervisor of Music Certificate is granted on the completion of the course. Students expecting to proceed to the degree of Bachelor of Arts must satisfy the requirements for that degree.

Students regularly enrolled in the Supervisor's Course will be allowed one credit per semester for work in pianoforte, and one credit per semester for work in voice culture, under the provisions of electives.

Students who, upon entering, do not show suitable proficiency in pianoforte playing or singing (voice culture), will be required to take instruction in one or both at the discretion of the director and the chairman of the Department of Public School Music.

Students are required to take from 14 to 16 hours per week in recitations, lectures, etc., making 62 credits for the course.

Membership in the Choral Union is obligatory, and is not counted as an elective credit.

In the second year, not later than June 1st, all candidates for graduation must submit an original outline covering one of the standard textbook series. This work is subject to the regulations under Theses (See Index).

The required work is as follows:

First Year

First Semester. Methods 41, 3 credits; Practice 42, 1 credit; Harmony 1a, no credit; Harmony 1, 3 credits; Ear training and sight singing 71, 2 credits; Education 44, 1 credit; Appreciation of Music 61, 2 credits; English 1, 3 credits; Elements of Practical Instrumentation 89, 1 credit; Physical Education. Total: 16 credits.

Second Semester. Same as first semester. Total: 16 credits.

Second Year

First Semester. Methods 51, 2 credits; Practice 52, 2 credits; Ear training and sight reading 75, 1 credit; Harmony 11, 2 credits; History of Music 31, 2 credits; *Elective, 6 credits; Physical Education. Total: 15 credits.

Second Semester. Same as first. Total: 15 credits. Total for two years: 62 credits.

Special State Certificate

Students satisfactorily completing the two-year course for Supervisors of Music will be entitled to a recommendation to the State Board of Examiners to receive a special state license to teach music in the public schools of the state. This recommendation will be issued by the Director of the Course for the Training of Teachers (Dr. E. C. Elliott, 123 University Hall), providing:

* The following courses are recommended as electives: Astronomy 1, Biology 1, Chemistry 1, Education 113, Fine Arts 1, French 1a, 1b, 10, Geology 1, 3, 4, German 1a, 2b, 3, 14, Greek 5a, 5b, History 1, 5, 10, Italian 1, Latin A and 6, Mathematics 1 and 2, Physics 1, Psychology 1. (Courses in Home Economics may not be elected by second year students expecting to proceed to a baccalaureate degree).

(a) That the student registers in the Course for the Training of Teachers not later than December 1st of the first year of residence.

(b) That the student has earned the following credits as electives: Philosophy 1 (Psychology), three credits; choice of the following three-fifth subjects: Education 1 (History of Modern Education), Education 6 (Public Education), Education 11, (Mental Development), Education 41 (Educational Psychology).

(c) That the student presents a statement from the Director of the School of Music as to general fitness for teaching.

Addendum; General Course for Grade and High School Teachers

This course is designed for teachers who expect to combine the teaching of other branches with the subject of music, in grade and high schools. The class meets twice a week throughout the year. The work consists of a study of the technical points to be presented in the school and the practice of songs suitable for school use. This course is of value to those who expect to teach in the public schools or who wish to conduct high school choruses, and includes training in conducting. The course is open to University students without an additional fee. Persons not in the University are admitted on the payment of the incidental fee of $12. (Collegiate Course 45, 2 credits.) Not given 1915-16.

Public School Drawing

Students who take the two-year Supervisors' Course will find it to their advantage to devote some attention to preparation for the teaching of drawing. For this purpose the following elective courses in the Department of Manual Arts are available: Course 50, Freehand Drawing and Perspective (first semester); Course 51, Cast Drawing, Water Color Rendering (second semester); Course 1, Mechanics and Drawing (throughout the year).

Instruction in Applied Music

Pianoforte: Mr. Mills, Miss Regan, Mr. Townsend.
Voice Culture: Mr. Chamberlain, Miss Bergman, Mrs. Sanders.
Organ: Mr. Mills, Miss Eastman.
Violin and Viola: Mr. von Geltch.

Orchestral Instruments

Violincello and Double-Bass: Mr. Mann.
Wood-Wind Instruments: Mr. Saugstad.
Brass Instruments: Mr. Mann.

Orchestra

Mr. Mann, Mr. Mills.

The University Orchestra is composed of about sixty-five of the students of the University. The purpose of the organization is the study of the larger classical forms, as well as cooperation with the Choral Union, in performance of representative choral works. The orchestra gives several concerts throughout the year.

Rehearsals are held weekly in Music Hall from October to May. Membership is open to the entire student body, including graduate students, provided they possess sufficient knowledge of any orchestral instrument to pursue the work profitably. After two semesters' connection with the orchestra a student may receive a credit of one hour for each of the two following semesters. This work is catalogued as Collegiate Course 76.

Band

Mr. Saugstad.

The Regimental Band, consisting of two sections of about sixty and thirty-five men, is open to all students possessing the necessary qualifications. The band represents one of the most important musical activities at the University, and gives some fifty performances each year. Each section rehearses in Music Hall twice a week throughout the year. Freshmen and sophomores belonging to the band receive credit for military drill. Students who desire to join should confer with the bandmaster.

Choral Union

Mr. Dykema.

The Choral Union is open to all members of the University interested in studying and presenting oratorios and standard choral works.

Membership is also open to others not in the University. There is a membership fee of one dollar a year. At least two performances,

(one at Christmas and one in the Spring) are given each year. Rehearsals are held weekly in Music Hall from October to May.

This work is catalogued as Collegiate Course 77, and is open as an elective to students of all schools and colleges. University credit of one unit-hour for the whole year is granted at the end of the season. Freshmen are eligible for membership, though without credit for the first year.

University Men's Glee Club

MR. JONES.

The University Men's Glee Club is an organization of twenty-four men. This club, together with the Mandolin Club makes at least one extensive tour during the school year. Vacancies are filled by competitive trial, and membership is open to the entire student body, including graduate students.

University Girls' Glee Club

MRS. SANDERS.

The University Girls' Glee Club is an organization of thirty-two women. Frequent public appearances are made locally. Vacancies are filled by competitive trial and membership is open to the entire student body, including graduate students.

Recitals and Concerts

All music students are required to attend the concerts, recitals, and lectures (public) given under the auspices of the School of Music.

Artists' Recital Series

The Artists' Recital Series consists of an annual course of recitals of chamber music.

Students enrolled in the School of Music are required to attend these concerts for which a fee of one dollar a year is charged (payable at the time of registration).

Students' season tickets at $1.00 are available to all students of all schools and colleges of the University.

Season tickets at moderate cost are also available to the general public.

Faculty Recitals and Lectures

Lecture-recitals and concerts, open to the public without charge, are given by members of the faculty of the School of Music at stated intervals during the concert season.

Student Recitals

Student recitals, free to all students of the University and open to all others by invitation, are held at frequent intervals throughout the collegiate year.

Public performance being part of the course of study in a practical subject, all students are required to participate on a program when they are, in the teacher's opinion, sufficiently prepared.

Equipment

The School of Music is provided with a concert auditorium, lecture hall, teaching rooms for applied music, practice rooms, a two-manual organ, pianos, orchestral and band instruments, and an equipment of mechanical instruments.

Tuition for Theoretical Subjects in Music

Resident tuition	free
Non-resident tuition, per semester	$50 00
Incidental fee for all students, per semester	12 00

All students of the School of Music who are studying for the degree of Graduate in Music or for the Supervisors of Music Certificate must pay the incidental fee of $12 a semester, but neither the incidental fee nor non-resident tuition is required of students taking only applied music in private instruction. Persons who are members of other schools and colleges of the University may take the theoretical courses in music without charge.

The fees in any subject are the same for all teachers and are as follows:

Private Instruction Once a Week Per Semester

One-half hour of instruction	$20 00
One hour of instruction	36 00

Private Instruction Twice a Week Per Semester

One-half hour of instruction.....$36 00
One hour of instruction..... 72 00

NOTE—Students regularly enrolled in the University orchestra or band are entitled to half rates for tuition in stringed instruments, wood-wind, or brass.

Piano practice, each semester, one hour daily.....$ 3 00
Organ practice, each semester, one hour daily..... 9 00
Concert fee..... 1 00

No deductions are made for absence except in cases of protracted illness, when a rebate of one-half the fee for the time lost will be granted.

Students enrolling at any time previous to the fifteenth day of any semester will be charged the full fee for that semester. Students enrolling thereafter may receive some reduction at the discretion of the Director.

All fees must be paid before the third lesson unless otherwise excused by the Director. Teachers are not permitted to give instruction without receiving an entitle card from each student after the second lesson.

Rules and Regulations

The School of Music calendar is the same as that of the University, including two semesters of about eighteen weeks each, and a summer session of six weeks; but students in Applied Music may enter at any time.

No student is expected to take part in any public performance without the consent of his instructor and the Director.

General Directions

All students in the four- and two-year course in music must present their registration card from the Registrar's office before being assigned work in the School of Music.

All students in Applied Music must present an Applied Music registration card before registering in the School of Music.

New students in Applied Music will be examined by the Examining Committee of the School of Music to learn the status of their work and to determine whether or not the subject can be taken for credit in the case of juniors and seniors from the College of Letters

and Science. This committee will meet from ten to twelve on the first Tuesday, Thursday, and Friday, Sept. 21, 23, and 24, and on Wednesday at eleven throughout the semester when necessary. Appointments to meet the committee may be made with the secretary.

The office of the Director in Music Hall at the University will be open for several days before the opening of each half semester for the reception of students and assignment of courses. After the opening of the University the Director may be found at Music Hall from 11 to 12 and from 2:30 to 3:30 daily, Saturdays excepted.

For further information address

C. H. Mills,
Director, School of Music,
The University of Wisconsin,
Madison, Wisconsin.

DEPARTMENT OF PHYSICAL EDUCATION

GEO. W. EHLER, DIRECTOR, PROFESSOR OF PHYSICAL EDUCATION,

PROFESSOR HETHERINGTON; ASSISTANT PROFESSORS MEANWELL, DIRECTOR MEN'S GYMNASIUM; TRILLING, DIRECTOR WOMEN'S GYMNASIUM; ELSOM, JOHNSON, JONES, JUNEAU; INSTRUCTORS BROWN, BROWNELL, DRIVER, FORBES, HINDMAN, H'DOUBLER, MCCHESNEY, PORTER, STEVENSON, VAIL; ASSISTANTS AYER, BUTLER, STEINAUER, WILSON; STUDENT ASSISTANTS BENEDICT, KNOTT, LEE, LOVEQUEST, SANDS.

Jurisdiction

The Department of Physical Education has jurisdiction over all athletic, aquatic, and gymnastic activities.

Aims

The aims of the department are as follows:

A. Student Growth and Development

1. To contribute to health, organic vigor, and good physical habits.
2. To provide an incentive and an opportunity for every student to secure at least one hour's physical activity daily as a balance to the sedentary demands of university life;
3. To conserve the social and moral values of games and sports and to secure to every student the fullest opportunity for their practice.

B. Training of Teachers

To train physical educators and play leaders.

C. Extension

To promote a more effective organization of play and administration of physical education throughout the state of Wisconsin.

Equipment

The Men's Gymnasium is 200 feet in length by 100 feet in width, with an annex, 225 by 84 feet. On the ground floor are the offices, locker rooms, bath rooms and swimming pool, and a special room for corrective exercise. On the second floor are the offices of the Military Department and an unobstructed hall 165 by 98 feet used for the purposes of military drill and games. On the third floor are the visitors' gallery of the drill hall, the military club room, and the wrestling room.

The fourth floor contains the gymnastic hall, 165 by 65 feet. The equipment includes the usual apparatus and four handball courts. The annex contains a 12 lap cinder track, a baseball cage with floor of earth, and the rowing room.

The Women's Gymnasium occupies five floors of Lathrop Hall, erected in 1910. The main exercising room is two stories high with floor 118 x 60 feet, visitors' gallery, stage, and running track. The concert room, 72 x 42 feet, is used for smaller classes. An auxiliary class and game room, 42 x 72 feet, and a lecture room are on the fifth floor. The equipment includes a complete outfit of developing appliances and the best modern types of light and heavy apparatus.

Two floors of one wing contain dressing rooms, showers, and lockers designed for the accommodation of 1,000 women. In the basement are four regulation bowling alleys; the swimming pool, 60 x 26 feet, well lighted and ventilated and supplied with filtered water; dressing rooms, showers, and hair drying apparatus.

The outdoor facilities include the University athletic field at Camp Randall—33 acres, the women's field at Memorial Park—3 acres, the men's playground on the Lower Campus—2 acres, and twenty-three tennis courts. The University roads, drives, and paths afford excellent courses for cross country running. The University boat-houses next to the men's gymnasium on the shore of Lake Mendota contain twelve four-oared and eight-oared gigs and shells, four "war" canoes and storage room for canoes belonging to students.

A modern 40 horse-power, high-speed launch, supplied with complete life saving equipment, is kept in constant commission for instant service throughout the boating season.

For outdoor sports in winter there are a toboggan slide, 1,400 feet long and 100 feet high, and opportunities for skating and hockey on Lake Mendota.

Requirements

Physical training is prescribed for all first and second year students throughout the college year, two periods a week for men and four for women.

Men students are required to be able to swim a distance of fifty yards, women thirty-five yards, by the end of the sophomore year.

Students may not be excused from the prescribed training during the first two years without substituting an equivalent satisfactory to the department, or making up the work before graduation, for which permission must be secured in advance.

Credits to the extent of four (4) for men and eight (8) for women must be secured in Physical Education by the satisfactory completion of the regular courses.

Election of specialized sports and exercises (course 2) may be made by students as soon as they have attained the minimum standard of vigor, development, and skill. This will usually occur at the end of the first year. Freshmen who have attained the required standard at the time of entrance may elect their exercise under course 2.

For the purposes of this department the college year is divided into three seasons, *Fall*—October and November; *Winter*—December, January, February, March; *Spring*—April, May, and June. All activities are conducted out of doors in so far as the weather will permit. Regular indoor exercise is confined to the winter months.

The regulation suit for men consists of white sleeveless shirt, running pants, supporter, and rubber soled shoes. For outdoor sports students will require heavy shoes, khaki trousers, and negligee shirt or jersey.

For women a uniform suit is required and should be purchased in the Fall in Madison. Price $5.00.

The locker and laundry fee is $1.25 each semester, required of each freshman and sophomore. Upperclass women using the women's baths and swimming pool pay a laundry and suit fee of 50 cents each semester.

Medical and Physical Examinations

The organic condition, stage of physical development, and degree of motor efficiency attained by each entering freshman and sophomore are determined at the opening of the college year by a series of examinations and tests made by the Department of Clinical Medicine and the Department of Physical Education.

An endeavor is made to determine the student's exact organic condition with a view to outlining for him a proper regimen of exercise, diet, rest, and work. Students are classified on an organic scale and are permitted to engage only in such sports and games for which they are physically fitted.

No student is permitted to participate in competitive games either of intercollegiate or intramural grade unless physically fit for the same as determined by the examinations.

All candidates for football and other teams must be examined by and secure the permit of the Department of Clinical Medicine as well as that of the Department of Physical Education before reporting for practice with their squads.

Enrollment and Assignment

All first year women will meet in Concert Room, Lathrop Hall, Thursday, September 21, 1916, at 3:30 to register and be assigned a date for examination. All second year women will register on the same day at 4:30.

All first year men and women are assigned to physical education periods in the same manner as to other class periods by the Freshman Assignment Committees.

All second year men of the Colleges of Agriculture and Engineering will be assigned to class periods by the committees of those colleges. All second year men of the College of Letters and Science will arrange their elections in this department at the department office before Saturday, September 23, 1916.

All required activities of the Department of Physical Education begin Monday, September 25, 1916. All absences on and after that date must be made up.

Tournaments and Contests

Interclass and intercollege tournaments and contests are conducted in all games and sports under the supervision and control of the department.

In the conduct of the men's activities the department has the cooperation of the Intramural Athletic Committee of the Student Athletic Board, consisting of five students representing agriculture, commerce, engineering, law, and letters and science.

The Women's Athletic Association cooperates with the department in the conduct of women's activities.

These two student organizations determine the rating of the various sports and the awards for achievement in the contests and tournaments.

The University is a member of the Intercollegiate Conference Athletic Association and maintains representative teams in all intercollegiate sports. No student may be a member of an intercollegiate team unless (1) he is eligible according to the requirements of the Student Life and Interest Committee, (2) has been a year in the University, (3) has no conditions in his various courses, (4) has received a weighted average of 77 in the work of the previous semester, and (5) is carrying full work.

Intramural and intercollegiate sports are under the government of the Athletic Council, a sub-committee of the Faculty Committee on Student Life and Interests.

Voluntary Exercise

All students are urged to secure at least one hour of recreative exercise each day and the facilities of the entire department are open for this purpose whenever not required for prescribed activities. Advice and direction may be secured by any student at any time. All advanced practice courses are open to any student fitted to take them.

Professional Training

Courses are planned to meet the needs of five classes of students: First, students desiring to major in physical education and become responsible instructors or directors; second, students desiring to minor in physical education in preparation for combining leadership of physical training activities with some academic subject in high schools; third, students desiring a general familiarity with the problems of physical education as a part of their equipment for positions as principals or superintendents in the public schools or for positions as social centre directors; fourth, students desiring academic courses in physical education as a part of a liberal education.

The courses listed cover instruction in seven phases of work: (1) Technical physical training activities, e. g., games, athletics, dancing, aquatics, gymnastics, etc.; (2) The functions and values of vigorous psycho-motor activities in the development of the child and in the recreative habits of the adult; (3) The growth, needs, and physical capacities of children and youth by age periods; (4) The

physical examination and the classification of children and youth according to needs and fitness to participate in different activities; (5) The analysis and adaptation of activities to group and individual needs and capacities; (6) The principles of teaching and the methods of leadership in molding the moral expression of the powerful instincts expressed in play and in establishing hygienic and recreative habits; and (7) The principles of organization, management, and administration.

The requirements for a major are designed to prepare students for a responsible direction of physical training activities in all their developmental, hygienic, and social relationships. The development of physical education in the public schools, the rapid rise of playground organization, the emphasis on physical training activities in social centers and their introduction into social welfare institutions, are continually increasing the demand for well trained physical educators who can make the activities of the gymnasium, playground, and athletic field physically safe and developmental, morally constructive, and a source of recreative habits that will last for life and conserve adult physical resources. These responsibilities require a training in the seven phases of work outlined above with a preliminary training in biology, chemistry, anatomy, and physiology. Students, therefore, desiring to major in physical education should declare their intentions at the time of entrance to the University and consult with the instructor in charge as to their fitness to undertake the work.

Students desiring to specialize as instructors in certain physical training activities may do so by taking the required practice courses in course 20 and the required special technique in courses 21 to 50.

No University credit will be given in the special technique courses except to students majoring or minoring in physical education.

Major

Students regularly entered in the College of Letters and Science electing their major in Physical Education are required to take courses 20 for four years, 56, 59, 62, 63, 67, 107, 108, 114, courses 21-50 (at least four credits) and thesis (4 credits) a total of 32 credits; Zoology 104a, Education A and 1 or 6 or 11 or 41 and Physiology 114, and 105 or 115; and satisfy prerequisites in biology, chemistry, and philosophy, or their equivalents. Additional credit may be secured in courses 16, 55, 107, 66, 68, and 21-50.

Minor

Students electing Physical Education as a minor subject must take courses 20 for four years, 59, 60, and 21-50 for four credits, a minimum of 10 credits. Additional credits may be secured in courses 56, 66, and 21-50. Prerequisites are Philosophy 1, Education A, and 1 or 6 or 11 or 41, Zoology 1b.

State Teachers Certificate

Graduates majoring in Physical Education will be entitled to receive the state teachers certificate by compliance with the requirements of the Course for the Training of Teachers, page 255.

COURSES OF INSTRUCTION

Abbreviations in the announcement of courses: Yr., throughout the year; I, given during the first semester; II, given during the second semester; I or II, given each semester; cr., credits, i. e., hours of credit. Unless otherwise stated, the number of credits per semester is given.

For all Students

1. Developmental Exercises. 1 or 2 cr. Prescribed for all freshmen and such sophomores as have not attained the requisite development. Men, two hours; women, four hours, weekly.

2. Advanced Exercises. 1 to 4 cr. Systematic courses in athletics—track and field events, cross country running, baseball, basketball, football (intercollegiate, soccer), tennis, field hockey, etc.; aquatics—swimming, rowing, water polo, diving, life saving; gymnastics—advanced apparatus exercises, gymnastic, folk, and esthetic dancing, tumbling; wrestling, fencing, and boxing. The work of the various class and varsity teams is included in this course. Open to all students who have attained the required degree of organic power and bodily skill. Prescribed for sophomores who have completed course 1. Prerequisite: course 1 or its equivalent.

3. Special Corrective Exercises. 1 or 2 cr. Required of all freshmen and sophomores unfitted to take courses 1 and 2.

4. Efficient Living. The laws of personal and general hygiene. Given with course 1.

19. Practice Teaching. Cr. to be arranged.

20. General Technique. a. Men. b. Women. For professional students. The practice course for students majoring or minoring in physical education. Parallel to courses 1 and 2, including in addition instruction in nomenclature, elementary organization of material, methods of leading sections and squads, and practice leading in courses 1 and 2. The course covers four years for major or minor students.

The work in courses 1, 2, 3, 4, and 20 is differentiated for the men and women according to their respective natures and needs.

Fall	Winter	Spring
1. Baseball	2. Basketball	1. Baseball
5. Cross country running	3. Boxing	4. Canoeing
8. Field hockey	6. Dancing	8. Field hockey
9. Football	7. Fencing	9. Football
13. Rowing	10. Gymnastics	13. Rowing
15. Soccer	11. Handball	15. Soccer
16. Swimming	12. Ice hockey	16. Swimming
17. Tennis	13. Rowing	17. Tennis
18. Track and field	14. Skating*	18. Track and field
	16. Swimming	
	18. Track and field	
	19. Tumbling	
	20. Water polo	
	21. Wrestling	

*Part season only and according to weather. May be elected only in connection with some other sport.

16. First Aid to the Injured. I; 1 cr. Mr. Elsom.

55. History of Physical Education. II; 2 cr. Mr. Elsom.

56. Kinesiology. II; 3 cr. Prerequisites: course 20 and Zoology 104a. Mr. Hetherington.

107. Physiology of Exercise (Physiology 116). I; 3 cr. Prerequisites: course 56 and Physiology 105 or 115. Mr. Eyster, Mr. Dawson, Mr. Meek.

108. The Principles of Physical Education. II; 3 cr. Prerequisites: Zoology 1a and 1b, Physiology 1 and 2 or 105 or 115; and Philosophy 1. Mr. Hetherington.

59. Nature, Function, and Organization of Play. I; 3 cr. Prerequisites: Zoology 1a and 1b, Philosophy 1. Mr. Hetherington.

60–61. Physical Education of Children and Adolescents. II; 3 cr. Primarily for students minoring in physical education. Prerequisites: Physiology 1 and 2 and course 59. Mr. Ehler.

62. Growth and Development. I; 3 cr. Growth and development of tissues and organs in relation to organic and neuro-muscular education. Prerequisite: Zoology 106, Philosophy 1. Mr. Hetherington.

114. Medical Examinations. II; 3 cr. (Clinical Medicine 101). Prerequisite: Physiology 105 or 115. Mr. Evans.

63. Physical Examinations and Gymnastic Therapeutics. Yr.; 2 cr. Prerequisites: courses 56, 62, 107, and 114. Mr. Elsom.

66. The Management or Practical Conduct of the Playground. II; 1 cr. Prerequisite: course 59. Must be accompanied by course 22 or 42. Mr. Meanwell.

67. Principles of Adaptation and Teaching. I; 2 cr. Adaptation of motor activities to individuals and groups, differentiated by sex and age; coaching; practice teaching. Prerequisites: courses 20, 56, 59, and 62. Mr. Hetherington.

68. Organization and Administration. I; 3 cr. Prerequisites: courses 20, 59, 67, and 108. Mr. Ehler.

21–50. Special Organization and Methods. Cr. to be arranged. Special studies of the more complex activities used in physical education, from the standpoint of leadership, instruction, training, and special management. Each activity includes lectures, demonstrations, practice, and practice teaching as may be assigned. Prerequisites: Personal skill in the performance of each activity, acquired in course 20 or its equivalent.

Men.

21. Gymnastics (tactics, calisthenics, apparatus, tumbling). 22. Plays and games including tennis and handball. 23. Basketball. 24. Track and field. 25. Swimming and boating. 26. Dancing (men and boys). 27. Baseball. 29. Football—American. 30. Soccer, field hockey, and ice hockey. 34. Boxing, fencing, and wrestling.

21, 22, 23, 24 required for major or certificate.

Women.

41. Gymnastics (tactics, calisthenics, apparatus). 42. Plays and games. 43. Folk dancing. 44. Basketball and field hockey. 45. Swimming and boating. 46. Advanced folk and esthetic dancing. 47. Baseball and track and field. 48. Rowing. 50. Fencing, archery, and tennis.

41, 42, 43, 44 required for major or certificate.

MILITARY SCIENCE AND TACTICS

First Lieutenant, Philip G. Wrightson, U. S. Infantry, Commandant; Battalion Sergeant Major W. G. Atkins, U. S. Army, Retired, Assistant Commandant.

Rated as *Distinguished Class* by the War Department, June 1915.

Military instruction at The University of Wisconsin is not elective but is required by law. Congress of the United States and the Legislature of the State of Wisconsin have made it a special and imperative feature of the course of education furnished at the institution. By the regulations of the University, all able bodied male students of the freshman and sophomore classes are required to take military instruction unless excused by proper authority.

The work of the department includes practical instruction in the infantry drill, both close and extended order, rifle practice, first aid to the injured, signaling, wireless telegraphy, operation of machine guns, field camps, and map maneuvers. Two courses of theoretical work, open to any student in the corps, include military law, engineering, hygiene, drill regulations, etc. For the practical work, one unit hour of credit is allowed for each semester. For the theoretical, credit is given as for other subjects.

University fees amounting to ten dollars each semester will be refunded to all cadets who elect to take drill as commissioned officer after having completed the required course. An additional prize of fifty dollars will be paid to the cadet colonels and lieutenant colonels and twenty-five dollars to each major. These officers will act as assistant instructors in military science and tactics.

Upon graduation, especially qualified students receive from the Governor of Wisconsin commissions as brevet second lieutenants in the National Guard of Wisconsin, subject to assignment to duty for five years after graduation.

The University, having last year won the honor of *Distinguished Class* from the War Department for excellence in its Mili-

tary Department gives the *Honor Graduate* of the Department, a recommendation to receive a commission as second lieutenant in the regular army at a salary of $1,700.00 a year, providing vacancies exist.

All male freshmen and sophomores are required to report to the Commandant in person during the registration period. They will then be assigned to companies and should, at this time, present any excuse which may operate to exempt them from drill or necessitate its deference.

Students may be excused from or defer drill on the following grounds only, all requests for exemptions and postponements being decided by the Commandant.

I. Exempt from Drill and Recitations

1. Foreigners not desiring to become citizens.
2. Physically unfit, on medical certificate from the Department of Clinical Medicine of this University.
3. Short Course, College of Pharmacy.
4. Normal School Graduates and those who enter the University with college work sufficient to give them junior rank in some college of the University.
5, Those holding honorable discharges from the United States Army, Navy, or Marine Corps.

II. Excused from Drill or Recitation Under Policy of the Department on Authority of the Commandant

1. Students from accredited schools or national guards. Proper credentials must be presented to show actual performance of duty and that the course covered elsewhere equals that given here.
2. Students certified by the Director of Athletics as absolutely necessary on Varsity teams or under such other conditions and for such periods of time as the Commandant and the Director may agree upon. All such men *must* report for the Annual Inspection.
3. Special cases arising among the short term students after conference between the Commandant, and the instructor, class adviser, or dean.
4. Adult special students over 23 years of age not intending to graduate.

III. Deferring but Required to Make Up in the Department

1. Self supporting students where the hours of labor actually conflict with drill hours.

2. All cases not falling under any of those previously mentioned.

Both drills and recitational courses begin at the opening of the semester. Drills will be held three hours a week until April first and two hours a week thereafter. This regulation applies to both freshmen and sophomores.

All appointments to office in the companies shall originate in the sophomore class but officers may be promoted and continued in office during their junior and senior years.

All students *must* provide themselves with the cadet uniform as described by and furnished through the Military Department. The uniforms are obtained by the University Purchasing Department under contract and furnished to the students at actual cost price. The deposit of approximately $18.00 must be paid to the Bursar by all male students entering for the first time. To students exempted from drill under group I and, under certain sections of group II, a refund will be made as soon as the status of the student is determined. This can be done only at the office of the Commandant.

Students are warned against purchasing a uniform from any other than the official source unless such uniform has first been inspected and approved by the Commandant.

Organization

The organization is that of two regiments of infantry, consisting of six battalions of four companies each, two bands, a hospital detachment, engineer detachment, signal company, and machine gun company. These are all supplied with a full quota of officers. Students will enter the infantry companies and afterward be assigned to the other units at the discretion of the Commandant. Assignment to special units is limited to those who have had freshman drill.

The Commandant is assisted by Lieutenant Colonel and Surgeon J. C. Elsom, who has direct charge of the Hospital Detachment and by the colonels, lieutenant colonels, and majors who are responsible for the instruction of their subordinate officers in drill regulations. The bands of fifty and thirty pieces each are under the direction of Major Saugstad.

Required Courses

For Freshmen

1. **Infantry Drill.** Yr.; 1 cr. Commandant and Cadet Officers.

For Sophomores

2. **Advanced Drill and Map Maneuvers.** Yr.; 1 cr. Prerequisite, Drill 1. Commandant and Cadet Officers.

Elective Courses

3. **Field and Camp Duties.** Yr.; 2 cr. Drill regulations, firing regulations, and military hygiene. Commandant.

4. **Elements of the Art of War.** Yr.; 3 cr. Military law, field engineering, field service regulations, military map making, reading and war games or map maneuvers. Commandant.

THE WASHBURN OBSERVATORY

GEORGE C. COMSTOCK, DIRECTOR AND PROFESSOR OF ASTRONOMY;
ALBERT S. FLINT, ASTRONOMER; EDNA M. HILL, CLERK.

The Washburn Observatory was established in the year 1878 through the munificence of the late Gov. Cadwallader C. Washburn. Although its obligations and opportunities as a branch of a teaching university have not been ignored, the energies of its staff from the beginning have been directed mainly to astronomical research. Among the lines of research cultivated are the measurement of the positions and motions of the heavenly bodies, the discovery and measurement of double stars, with investigation of their orbits, the investigation of variable stars, the study of changes of latitude and the amount and character of the atmospheric refraction, the determination of the amount of the aberration of light, problems of stellar color, proper motions of faint stars, and a systematic investigation of the parallaxes of all accessible stars which have large proper motions.

The principal instruments of the observatory are:

An equatorially mounted telescope of 40 centimeters aperture, constructed by Alvan Clark & Sons, and provided with graduated circles, driving clock, a filar micrometer, double image micrometer by Steinheil, a spectroscope, astro-photometer, and a very complete set of eyepieces; a meridian circle, by A. Repsold & Sons, of Hamburg, with collimators, transit micrometer, and the usual accessories of such an instrument. The objective of the instrument was made by the Clarks, and has an aperture of 12 centimeters and a focal length of 58 inches. The circle is graduated to 2 minutes of arc. For several years this instrument has been employed in an extensive series of determinations of stellar parallax. There are also a sidereal clock by Höwü, of Amsterdam, two mean time clocks by Howard, of Boston, a chronograph, by Fauth & Co., of Washington, and a printing chronograph by Gaertner.

In the Students Observatory are mounted an equatorial telescope, by Alvan Clark & Sons, of 15 centimeters aperture, and a transit instrument of the broken telescope type, by Bamberg. These instruments, while primarily intended for instruction, are well adapted to and are employed for certain classes of original work. In particular, the equatorial telescope has been provided with reflecting prisms (Loewy), and employed as one of the principal instruments of the Observatory in an investigation of the refraction and the constant of aberration. The Bamberg instrument is used for latitude determinations by the Talcott method and for the time service of the Observatory. The Observatory also possesses a considerable number of subsidiary instruments, such as portable telescopes, spectroscopes, photometers, chronometers, sextants, engineers' transits, an altazimuth, a universal instrument of the German type, a personal equation machine, a spherometer caliper, seismoscopes, photographic apparatus, and a complete set of meteorological instruments.

The Woodman Astronomical Library, established in connection with the Observatory, and supported from the income of a fund given by the late Cyrus Woodman, Esq., possesses a large and valuable collection of works upon astronomy and kindred subjects.

By provision of law the results of important investigations conducted at the Washburn Observatory are published by the state, and under this provision twelve volumes, representing the more important work done at the Observatory, have been issued.

Students of sufficient technical attainments are admitted to the Observatory and take part in the investigations in progress. Meritorious original work of such students may be included in the Publications of the Observatory, or in the Bulletins of the University. For the courses of instruction in astronomy see Index, under Astronomy.

U. S. WEATHER BUREAU OFFICE

ERIC R. MILLER, OFFICIAL IN CHARGE.

The local office of the U. S. Weather Bureau is located at the University. The exposed apparatus is mounted on the roof of North Hall. The office, where the registers are in operation is in room 84, on the fourth floor of the same building. The equipment of the station includes eye-reading instruments for measuring the barometric pressure, temperature, humidity, rainfall, and the direction and velocity of the wind, and automatic registers for making continuous records of the barometric pressure, temperature, humidity, rainfall, direction and velocity of the wind, and sunshine. The office was established here in 1904 and complete records are available for climatic studies since that time. Eye-reading instruments alone had been regularly observed from 1869 until the establishment of the office in 1904 by Prof. W. W. Daniels, by the Signal Corps, U. S. Army, and by the Washburn Observatory. These records are now on file in the Weather Bureau office, where they may be consulted.

In addition to tabulating climatic data, the office prepares and distributes to the public the daily weather map, the weather forecast, and weather information. The office is open to the public from 9 A. M. to 4 P. M. daily except Sundays and holidays.

THE FOREST PRODUCTS LABORATORY

H. F. Weiss, Director.

Fellows, W. A. Gruse, E. J. Pieper.

The Forest Products Laboratory is an institution of industrial research conducted by the Forest Service, United States Department of Agriculture, in cooperation with The University of Wisconsin, to study problems bearing on the most efficient use of forest products and to disseminate such knowledge. The staff of the laboratory cooperates with that of the University of Wisconsin in the lectures and research outlined below. The laboratory offers unusual facilities for research in forest products and possesses very complete scientific and technical equipment. The investigations closely approximate commercial conditions and involve cooperation with the various industries in testing the research on a commercial basis. The technical sections of the laboratory are the following: (1) Timber Physics. The physical, histological, and morphological properties of wood, including the theory and practice of kiln drying, and all of the work of the United States Government on the identification of woods. (2) Timber Tests. Investigations on the strength, stiffness, hardness, and other mechanical properties of woods; the strength of wooden products such as spokes, barrels, and boxes; the efficiency of wooden joints and fastenings. (3) Wood Preservation. The composition, properties, and efficiency of various wood preservatives, and the processes used in applying them. Researches on decreasing the inflammability of wood. (4) Derived Products. Researches on methods of production and utilization of wood by-products, such as alcohol, turpentine, rosins, acetates, etc. (5) Pulp and Paper. Researches with various woods and study of processes in their reduction to pulp. (6) Pathology. Researches on fungi, the decay of structural timbers and methods of prevention. The section of pathology is maintained by the Bureau of Plant Industry.

The lectures and research are offered to undergraduates and graduates, who may choose a problem as major work for a thesis for the degree of Bachelor of Arts or Bachelor of Science, Master of Arts or Master of Science, or Doctor of Philosophy. When a research problem is assigned as a major subject by one of the staff the minor lecture and laboratory courses can be chosen to suit the student, provided this conforms with the regulations of the University. The object of this work is to enable students to acquire fundamental training and to apply this knowledge in scientific and commercial operations and investigations in wood-using industries and in teaching.

A meeting of the technical staff is held in the laboratory on each Saturday morning for the discussion of literature and recent discoveries. Seminars are also held by the technical sections.

FELLOWSHIPS AND STUDENT RESEARCH ASSISTANTSHIPS

Two fellowships are available for students in the Department of Chemistry of Forest Products. These carry a stipend of $300 per year and a remission of laboratory and tuition fees.

Students who show unusual ability in research may be appointed as student research assistants in this laboratory in accordance with the regulations of the United States Civil Service Commission. The salary will not exceed $300 per year and tuition and laboratory fees will be remitted. Application for these fellowships and assistantships must be made to the Director, Forest Products Laboratory. The number of students appointed will depend upon the available funds and problems.

Lecture and Laboratory Courses

A general course on forestry and utilization (101) is given during the first semester and is open to any student. This is followed in the second semester by a technical course in wood technology (102) and one on structural timbers (110) which are adapted particularly to junior, senior, and graduate engineers. Four lecture courses in chemical subjects are arranged as a series extending over two years. A laboratory course involving work on sugars, celluloses, terpenes, preservatives, waste products, and industrial problems is given as an elective. A course in pathology of wood is given in cooperation with the Department of Plant Pathology during the second semester to undergraduates and graduates.

CHEMISTRY OF FOREST PRODUCTS

PROFESSOR ACREE (chairman); LECTURERS BATEMAN, HUMPHREY, KRESS, KRESSMANN, PALMER, SCHORGER.

For Graduates and Undergraduates

103. Industrial Chemistry Applied to Forest Products. II; 2 cr. Pulp and paper, wood preservation, tanning, wood distillation, the production of alcohols from wood waste, naval stores, and other industries. Prerequisite: Chemistry 120. Mr. Bateman, Mr. Kress, Mr. Kressmann, Mr. Palmer, Mr. Schorger.

104. Sugars, Starches, and Celluloses. I; 3 cr. Their reactions and configurations; technical processes involved in their manufacture. Prerequisite: Chemistry 120. (Given 1916-17.) Mr. Acree.

105. Vegetable and Aniline Dyes. I; 3 cr. Theory and application. Prerequisite: Chemistry 120. (Given 1917-18.) Mr. Acree, Mr. Kress.

106. Physical-Organic Chemistry. II; 3 cr. Theory and application to wood using processes. Prerequisite: Chemistry 120, 130. (Given 1917-18.) Mr. Acree.

107. Chemistry of Forest Products. Yr.; credit to be arranged. Laboratory work on sugars, celluloses, dyes, terpenes, preservatives, wood distillation, fermentation, and industrial problems, as an elective. Mr. Acree, Mr. Bateman, Mr. Kress, Mr. Kressmann, Mr. Palmer, Mr. Schorger.

For Graduates

208. Research in Chemistry of Forest Products. Yr.; hours to be arranged.

a. Coal tars, wood tars, and wood preservatives. Mr. Bateman.

b. The production of ethyl alcohol from wood waste; tannins, and fermentation. Mr. Kressmann.

c. Wood distillation and wood extraction. Mr. Palmer.

d. Carbohydrates and terpenes. Mr. Schorger.

e. Pulp and paper. Mr. Kress.

f. The chemical action of bacteria and fungi on carbohydrates. Mr. Humphrey, Mr. Acree.

g. Sugars, dyes, and physical-organic chemistry. Mr. Acree.

209. Seminary in Chemistry of Forest Products. Yr.; 2 hours. Mr. Acree.

FORESTRY AND WOOD TECHNOLOGY

LECTURERS TIEMANN (chairman), GERRY, HUMPHREY, KOEHLER, NEWLIN, TEESDALE.

For Graduates and Undergraduates

101. Forestry and Utilization of Wood. I; 2 cr. A general course in theory and practice; their relation to forest conservation. Mr. Tiemann.

102. Wood Technology. II; 2 cr. Structure and identification of woods, physical and mechanical properties, kiln drying, wood preservation. Primarily for junior, senior, and graduate engineers. Mr. Tiemann, Mr. Newlin, Mr. Teesdale.

110. Structural Timbers. II; 1 cr. Identification, preservation, mechanical properties, grading rules, and building codes. Prerequisite: Mechanics 3 and 4. Mr. Newlin.

In the Department of Plant Pathology

119. Diseases of Timber. II; 1 cr. A survey of fungi causing rot in living trees and structural timbers and control methods. Mr. Humphrey.

SPECIAL LECTURES

Given to supplement regular courses in The University of Wisconsin.

In the Department of Botany

110. Plant Histology. Two lectures on wood structure. Miss Gerry.

115. Histology of Woods. Four lectures on the minute structure and characteristics of the wood of important forest trees. Miss Gerry, Mr. Tiemann.

2. Elementary Morphology and Physiology. Three lectures giving a broad discussion of woody tissue and how it differs from lower plant forms and herbaceous stems. Miss Gerry.

IN THE DEPARTMENT OF MANUAL ARTS

4. Elementary Bench Woodwork. Five lectures on the physical properties of wood and wood structure. Mr. Tiemann, Miss Gerry.

5. Furniture and Cabinet Design and Construction. Three lectures on the theory and practice of kiln drying. Mr. Tiemann.

10. Wood Finishing. One lecture on the structure, development, and significance of tyloses. Miss Gerry.

IN THE DEPARTMENT OF RAILWAY ENGINEERING

103. Railway Maintenance. Three lectures on the preservation of structural timbers as applied to railroad requirements. Mr. Teesdale.

IN THE DEPARTMENT OF ROADS AND PAVEMENTS

102. Roads and Pavements. Two lectures on the construction of wood block pavements. Mr. Teesdale.

IN THE DEPARTMENT OF AGRICULTURAL ENGINEERING

1. General Agricultural Engineering. One lecture on practical methods of preserving farm timbers. Mr. Teesdale.

IN THE DEPARTMENT OF MECHANICS

52. Materials of Construction. One lecture on factors influencing the working stresses and grading of timber. Mr. Newlin.

IN THE UNIVERSITY EXTENSION DIVISION

Several lectures on various technical activities of the Forest Products Laboratory will be given. More specific announcements to be made by the Extension Division.

THE SUMMER SESSION

SCOTT H. GOODNIGHT, DIRECTOR

Duration of the Session

The eighteenth Summer Session of The University of Wisconsin opens June 26, 1916. The session lasts six weeks and closes August 4, except in the Law School, where the session continues ten weeks and ends September 1.

Classes of Courses

Courses, both academic and professional, are offered for graduates and for undergraduates in arts, law, engineering, and agriculture, for teachers in colleges, agricultural schools, high schools, and technical schools, and for special students, as lawyers, doctors, and practicing engineers. Practically all the courses carry full academic credit. All the library, laboratory, and other facilities of the University are available during the summer, and the opportunities for thesis and advanced investigative work are particularly favorable at this time.

Terms of Admission

The requirements for graduates and undergraduates who desire University credit are the same for the Summer Session as for the other sessions of the University. (See page 87 of this catalogue.)

All persons, however, who desire to share in its advantages may be enrolled in the Summer Session without passing the entrance examination. They are freely admitted to all courses as auditors, and are permitted to elect work in the courses for which they are qualified. Credit toward a degree will be given, however, only to students who satisfy the entrance requirements of the University.

Credits for Summer Session Work

A student in any of the colleges may receive for the session of six weeks a maximum of six credits. In the Law School (ten weeks) the maximum is eight credits. Credit toward all degrees may be earned in the summer session. Candidates who expect to offer for graduation the minimum of thirty credits must spend two semesters in residence; those who expect to offer forty-five or more credits earned in residence, may earn all or any part of them in summer session.

A special method of obtaining the master's degree by part summer session and part *in absentia* work is described on page 376 of this catalogue.

Fees and Registration

The general fee for the Summer Session, irrespective of the number of courses taken, is $15 for six weeks and $25 for ten weeks. Those who attend merely as visitors pay the same fee as other students.

Registration must precede entrance upon any part of the work of the session. Registration takes place Saturday, June 24, and Monday, June 26, at the office of the Registrar, 158 University Hall.

Graduate School (six weeks)	$15 00
Letters and Science (six weeks)	15 00
Engineering (six weeks)	15 00
Agriculture (six weeks)	15 00
Law (ten weeks)	25 00
Field courses, geology, surveying, farm management (four weeks)	10 00
Students remaining beyond the regular summer session, additional fee, per week	2 50

The laboratory fees are proportionate with those paid in the long session. For example, the laboratory deposit for a course in chemistry is $10, with a refund determined by the amount of materials used and of breakage, if any; the fee for the course in human dissection is $10. The shop and laboratory fees in the College of Engineering are $2 per credit. All fees are payable at the time of registration.

Public Exercises

A large number of lectures and conferences upon topics of general interest is given at convenient hours. A program of these public exercises is published weekly during the session.

Summer Session Bulletin

For illustrated bulletin of the Summer Session, describing the different courses in considerable detail, apply to the Registrar.

GRADUATE SCHOOL, COLLEGE OF LETTERS AND SCIENCE, MEDICAL SCHOOL

ANATOMY

PROFESSOR BARDEEN; ASSOCIATE PROFESSOR MILLER.

110. Histology and Organology, 3 cr.; 115. Embryology, 3 cr.; 121. Human Anatomy, cr. according to work done; 122. Topographical Anatomy, cr. according to work done; 126. Neurology, 3 cr.; 130. Modern Laboratory Methods and Research.

ASTRONOMY

PROFESSOR COMSTOCK.

1S. General Astronomy, 2 cr.

BOTANY

ASSISTANT PROFESSORS BARTHOLOMEW, GILBERT; INSTRUCTORS BRYAN, STEWART, STEIL; ASSISTANTS ARMSTRONG, SMITH.

1. General Botany, 3 cr.; Senior Thesis, 2 cr.; 104. Morphology of Fungi, 3 cr.; 105. Mosses and Ferns, 2 cr.; 110. Plant Histology, 2 cr.; 130. Classification of Seed Plants, 2 cr.; 138S. Native Trees and Shrubs, 1 cr.; 146. Plant Physiology, 4 cr.; 90. The Teaching of Botany, 1 cr.; 216. Research.

CHEMISTRY

PROFESSORS FISCHER, KAHLENBERG; ASSISTANT PROFESSOR CARLETON; INSTRUCTORS AUGSPURGER, ELLINGSON, NEBEL, SCHUETTE; ASSISTANT ROESELER.

1. General Chemistry, 2 or 4 cr.; 1S. Qualitative Analysis, 2 or more cr.; 11S. Quantitative Analysis, 3 or more cr.; 112S. Advanced Quantitative Analysis, 2 or more cr.; 113S. Water Analysis, 1 cr.; 114S. Gas Analysis, 1 cr.; 116S. Organic Analysis, cr. to be arranged; 120S. Organic Chemistry, 2 or more cr.; 146S. Chemistry of Foods and their Adulterations, 2 or more cr.; 130S. Theoretical and Physical Chemistry, 2 cr.; 200S. Chemical Research, cr. according to work done.

CLINICAL MEDICINE

ASSISTANT PROFESSOR F. C. RINKER, INSTRUCTORS MOORE, DRANE.

102. Clinical Laboratory Diagnosis, 1 cr.; 103. Minor Surgery and Bandaging, 1 cr.

EDUCATION

PROFESSORS HENMON, O'SHEA, SHARP; SUPERINTENDENT BROOME (EAST ORANGE, N. J.); ASSISTANT PROFESSORS BASSETT, MILLER, STARCH; INSTRUCTOR SEYBOLT.

1. History of Modern Education, 2 cr.; 2S. The High-school Recitation, 2 cr.; 11. Mental Development, 2 cr.; 41. Educational Psychology, 2 cr.; 103. History of American Education, 2 cr.; 108S. High-school Organization, 2 cr.; 104S. School Administration and Supervision, 2 cr.; 112. Social Development and Education, 2 cr.; 144. Advanced Educational Psychology, 2 cr.; 145.S Educational Measurements, 2 cr.; 149S. Moral Education, 2 cr.; 235S. Problems in the Administration and Supervision of Schools, 2 cr.; 8fS. Festivals, elementary, 2 cr.; 9fS. Festivals, advanced, 2 cr.

ENGLISH

PROFESSOR YOUNG; ASSOCIATE PROFESSOR PYRE; ASSISTANT PROFESSORS BEATTY, DODGE, MANCHESTER, TAYLOR; INSTRUCTORS CAMPBELL, CARR, PENDLETON, WATT.

A. Sub-freshman English, no cr.; 1. Freshman English, 3 cr.; 1a. Advanced Freshman English, 3 cr.; 6S. Advanced Composition, 2 cr.; 7S. The Contemporary English Novel, 2 cr.; 30. General Survey of English Literature from Swift to Swinburne, 2 cr.; 34. Romantic Movement, 2 cr.; 37S. Shakspere, 2 cr.; 50a. The Teaching of Composition, 2 cr.; 50b. The Teaching of Literature, 2 cr.; 120a. Anglo-Saxon, 2 cr.; 131S. Chaucer, 2 cr.; 145S. Browning, 2 cr.; 157S. Milton, 2 cr.; 214S. The Ballad, 2 cr.; 215S. Byron and his Contemporaries, 2 cr.; 216S. Shakspere, 2 cr.

GEOGRAPHY AND GEOLOGY

ASSOCIATE PROFESSOR MARTIN; ASSISTANT PROFESSOR STEIDTMANN; INSTRUCTOR FINCH.

2S. General Geology, 2 cr.; 5S. Industrial and Commercial Geography, 2 cr.; 10S. Physical and Applied Geography, 2 cr.; 102S. Geography of South America, 2 cr.; 104S. Geography of Wisconsin, 1 cr.; 106S. Agricultural Geography, 2 cr.; 109S. Glaciers and Glaciation, 1 cr.; 131. Field Course at Devils Lake, 4 to 6 cr.

GERMAN

PROFESSORS HOHLFELD, VOSS; ASSOCIATE PROFESSORS GOODNIGHT, PURIN; ASSISTANT PROFESSORS HAERTEL, MORGAN; INSTRUCTORS ARON, GREUBEL, JAMESON.

1a. First Semester German, 4 cr.; 1b. Second Semester German, 4 cr.; 2a. Third Semester German, 4 cr.; 2b. Fourth Semester German, 2 cr.; 40. Conversation, 1 cr.; 16. Prose Reading, 2 cr.; 20. Schiller (Soph. Read.), 2 cr.; 10. Composition and Grammar Review, 2 cr.; 31S. Lessing (Jun. Elective), 2 cr.; 30. Germany and Its Institutions, 1 cr.; 112. Advanced Practice,

2 cr.; 114a. The Teaching of German, 2 cr.; 114b. Phonetics (Teachers' Course), 1 cr.; 162S. Goethe, 2 cr.; 150. History of German Language, 2 cr.; 135. Novel, 2nd half of 19th Century, 2 cr.; 155. Old High German, 1 cr.; 244S. Medieval Lyric Poetry, 1 cr.; 269. Philological Proseminary (Tristan and Isolde), 1 cr.; 248. Literary Seminary (Hebbel), cr. according to work done.

GREEK

ASSOCIATE PROFESSOR LAIRD.

5a. Elementary Greek, 2 cr.; 5b. Xenophon or Homer, 1 cr.; 10. Plato's *Apology* and *Crito* or *Herodotus* vii, or Euripides' *Medea*, 1cr.; 106. Advanced Reading Course, 1 cr.

HISTORY

PROFESSORS LARSON (UNIVERSITY OF ILLINOIS), PAXSON, SELLERY; ASSOCIATE PROFESSORS CHASE, ROOT; MR. WEST (SWARTHMORE COLLEGE).

10. Roman History, 2 cr.; 1b. Medieval History (1095-1500), 2 cr.; 4. United States (1763-1829), 2 cr.; 129S. Greek Confederations, 2 cr.; 141S. English Constitutional History, 2 cr.; 140. Reformation, 2 cr.; 119. European Colonies in America to 1823, 2 cr.; 143S. England since 1783, 2 cr.; 124. Recent History of the United States (1875-1913), 2 cr.; 150. Teaching of History, 2 cr.; 151. Reading for Teachers, 2 cr.; 262. Seminary in American History, 1875-1885, 2 cr.

JOURNALISM

ASSOCIATE PROFESSOR BLEYER; INSTRUCTOR HYDE.

102. Newspaper Reporting, 2 cr.; 104. Editorial Writing, 2 cr.; 105. Magazine Writing, 2 cr.; 190S. Journalism in High School, 1 cr.

LATIN

ASSOCIATE PROFESSOR FISKE; ASSISTANT PROFESSOR SABIN; ASSISTANT ROBERTS.

B. Elementary Latin, 4 cr.; 2S. Latin Composition and Syntax for Teachers, 1 cr.; 5S. Reading of Easy Latin Prose, 2 cr.; 100S. Roman Religion, 1 cr.; 116. The Teaching of Latin, 2 cr.; 233. Graduate Seminary, 2 cr.

MANUAL ARTS

PROFESSORS CRAWSHAW, PHILLIPS; ASSISTANT PROFESSORS GODDARD, MILLAR, KEOWN, VARNUM; LECTURER JONES (SOMERVILLE, MASS.); INSTRUCTORS ANDERSON, BRUNSELL, CHISHOLM, DABNEY, DORRANS, ORTH, PAYTON, SANSOM, SCHUMANN, WILSON.

1. Elements of Mechanical Drawing, 3 cr.; 2. Elements of Mechanical Drawing, 3 cr.; 3. Descriptive Geometry, 3 cr.; 4. Elementary Bench Woodwork, 3 cr.; 5. Furniture and Cabinet Design and Construction, 3 cr.; 6. Wood Turning, 3 cr.; 16. Pattern-Making, 3 cr.; 17. Advanced Pattern Making, 3 cr.; 7. Foundry Work, 3 cr.; 8. Forge Work, 3 cr.; 9. Machine Shop Work, 3 cr.; 52. The Teaching and Supervision of Drawing and Design, 3 cr.; 60. Constructive and Applied Design, 3 cr.; 70. Applied Design in Metal, 3 cr.; 71. Applied Design, in Clay, 2 cr.; 113. Organization, 1 cr.; 112. The Teaching of Manual Arts, 2 cr.; 12. Lower Grade Construction, 3 cr.; 115. Manual Arts Seminary, 1 cr.; 15S. Architectural Drafting, 3 cr.; 16S. Advanced Architectural Drafting, 3 cr.; 17S. Machine Design for Teachers of Manual Arts, 2 cr.; 18S. Cement Construction and Carpentry, 3 cr.; 19S. Municipal Sanitation for Teachers of Manual Arts, 1 cr.

MATHEMATICS

ASSOCIATE PROFESSOR SKINNER; ASSISTANT PROFESSORS HART, MARCH, WOLFF; INSTRUCTORS PAINE, SIMPSON, TAYLOR.

50. Algebra Review, no credit; 1. Algebra, 2 cr.; 2. Plane Trigonometry and Logarithms, 2 cr.; 2aS. Advanced Plane Geom-

etry, 1 cr.; 4. Analytic Geometry, 2 cr.; 5. Calculus, 2 cr.; 5S. Calculus, 2 cr.; 6. Complex Numbers, 1 cr.; 7. Commerce Algebra, 2 cr.; 8. Elementary Solid Geometry, 2 cr.; 10. The Teaching of Secondary Mathematics, 2 cr.; 52. Elementary Analysis, 5 cr.; 55. Integral Calculus, 4 cr.; 113. Theoretical Mechanics, 2 cr.; 118. Probabilities and Statistics, 2 cr.; 119. Differential Geometry, 2 cr.; 126S. Infinite Series, 2 cr.; 263. Theory of Substitutions, 2 cr.

METEOROLOGY

MR. E. R. MILLER, OF THE U. S. WEATHER BUREAU.

2. Climate and Man, 2 cr.

MUSIC

PROFESSORS DYKEMA, MILLS; MISS CRANE (STATE NORMAL AND TRAINING SCHOOL, POTSDAM, N. Y.); INSTRUCTORS CHAMBERLAIN, TOWNSEND, MR. ZANSIG (ETHICAL CULTURE SCHOOL NEW YORK).

1S. Harmony, Elementary, 2 cr.; 71S. Ear Training and Sight Reading, 2 cr.; 75. Advanced Ear Training, 2 cr.; 41S. Public School Music, Advanced, 2 cr.; 51S. Public School Music, Elementary, 2 cr.; 11S. Harmony, Advanced, 2 cr.; 33S. History and Appreciation, 2 cr.; 81-2S. Pianoforte, 1 cr.; 82-2S. Voice Culture, 1 cr.; 78S. Community Music, 2 cr.; 79S. Selection and Interpretation of Material, 2 cr.; 21S. Counterpoint, 2 cr.; 154S. Seminary in Public School Music, 1 or 2 cr.

PATHOLOGY AND MEDICAL BACTERIOLOGY

ASSOCIATE PROFESSOR CLARK.

1S. Immunity, 1 cr.; 2S. Bacteriology and Immunity, 3 cr.; 3S. Medical Bacteriology, 5 cr.

PHARMACY

INSTRUCTOR LANGENHAN.

20. Prescription Practice, 3 cr.; 121. Advanced Prescription Practice, 4 cr.; 30. Pharmaceutical Technology, 2 cr.; 45S. Alkaloidal Assaying, cr. to be arranged.

PHILOSOPHY

PROFESSORS HENMON, MCGILVARY, SHARP; ASSOCIATE PROFESSOR OTTO.

1S. Introductory Psychology, 2 cr.; 11S. Elementary Logic, 2 cr.; 21S. Introduction to Philosophy, 2 cr.; 49. Moral Education, 2 cr.; 134S. William James and Henri Bergson, 2 cr.; 136S. German Philosophical Idealism, 2 cr.; 145S. The Evolution of Morality, 2 cr.

PHYSICAL EDUCATION

PROFESSOR EHLER; ASSISTANT PROFESSORS JONES, MEANWELL, TRILLING; INSTRUCTORS H'DOUBLER, HINDMAN, MCCHESNEY, STEVENSON.

58S. Elements of Physical Education, 2 cr.; 59S. Nature and Function of Play, 2 cr.; 60S. Physical Education in Elementary Schools, 1 cr.; 61S. Physical Education in Secondary Schools, 1 cr.; 66. Conduct and Management of a Playground, 1 cr.; 67S. Principles of Coaching and Training, 1 cr.; 16. First Aid to the Injured, 1 cr.; 21S. Gymnastics for Men, 1 cr.; 22S. Athletics and Games (Boys and Men), 1 cr.; 23. Basketball, 1 cr.; 24S. Track and Field, 1 cr.; 26S. Gymnastic Dancing, 1 cr.; 25S. Swimming and Life Saving, no cr.; 28S. Swimming Practice, no cr.; 29S. Football, 1 cr.; 41S. Gymnastics for Women, 1 cr.; 42S. Athletics and Games (Girls and Women), 1 cr.; 43S. a. Folk Dancing—Grades I to V, 1 cr.; b. Folk Dancing—Grades VI to XII, 1 cr.; 44S. Team Games for Girls and Women, 1 cr.; 46S. a. Elementary Esthetic Dancing, 1 cr.; b. Advanced Esthetic Dancing, 1 cr.

PHYSICS

PROFESSORS MASON, SNOW; ASSISTANT PROFESSOR ROEBUCK; ASSISTANT GREENSLADE.

1. General Physics, 2 cr.; 2. General Laboratory Practice, 1 cr. for each thirty hours of work performed; 20S. Experimental Lectures for High-school Teachers, no credit; 3S. Heat, 2 cr.; 3. Advanced Laboratory Practice in Heat, 1 cr. for each thirty hours of work performed; 4. Electricity and Magnetism, 2 cr.; 5. Advanced Laboratory Practice in Electricity and Magnetism, 1 cr. for each thirty hours of work performed; 116. Introduction to the Mathematical Theory of Electricity, 2 cr.; 118. The Kinetic Theory of Gases, 2 cr.

POLITICAL ECONOMY, COMMERCE, SOCIOLOGY

PROFESSORS GILLIN, GILMAN, ROSS, SCOTT; ASSOCIATE PROFESSOR HESS; ASSISTANT PROFESSOR TRUMBOWER.

1S. Elements of Political Economy, 4 cr.; 5S. Banking, 2 cr.; 13. Marketing Methods, 2 cr.; 184. Auditing, 2 cr.; 185. Analysis of Corporation Reports, 2 cr.; 136. Railway Rates and Traffic Problems, 2 cr.; 140. General Sociology, 2 cr.; 141. Poverty and Relief, 2 cr.; 142a. Public Utilities, 2 cr.; 251a. The Classical Economists, 2 cr.; 258. Degeneracy and Society, 2 cr.; 263. Seminary on the Dynamics of Population, 2 cr.

POLITICAL SCIENCE

ASSOCIATE PROFESSORS LLOYD JONES, OGG; ASSISTANT PROFESSOR HORNBECK.

7. American Government and Politics, 2 cr.; 139. Municipal Government, 2 cr.; 117. Federal Administration, 2 cr.; 118. International Law, 2 cr.; 122. Party Government, 2 cr.; 137. Modern Internationalism, 2 cr.

PUBLIC SPEAKING

PROFESSOR O'NEILL; PROFESSOR GAYLORD (STATE NORMAL SCHOOL, WINONA, MINN.); ASSISTANT PROFESSORS BLANTON, JOHNSON; INSTRUCTOR HOUGHTON.

15. Practical Public Speaking, 1 cr.; 8. Extempore Speaking, 1 cr.; 12S. Fundamentals of Vocal Expression, 2 cr.; 33S. High School Dramatics, 1 cr.; 21S. Voice Training, 1 cr.; 125S. Correction of Speech Defects, 2 cr.; Speech Clinic, no credit; 41S. Psychology of Reading and Speaking, 2 cr.; 43S. Educational Problems in Reading and Speaking, 2 cr.; 18. Teachers' Problems, 1 cr.; 35S. Argumentation and Debate for Teachers, 1 cr.; 36S. Speech Composition, 1 cr.

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PROFESSOR SMITH; ASSOCIATE PROFESSOR GIESE; ASSISTANT PROFESSORS MICHELL, SCHLATTER; INSTRUCTORS ERNST, GALLAND, GREENLEAF; ASSISTANTS KINNE, LYON.

1. Beginners' French, 4 cr.; 12S. Second Semester French, 4 cr.; 13S. Intermediate French, 2 cr.; 14S. Advanced French, 2 cr.; 15. Elementary Conversation, 1 or 2 cr.; 16. Intermediate French Conversation, 1 or 2 cr.; 17S. Grammar and Composition, 1 cr.; 18. French Pronunciation, 2 cr.; 19S. Advanced Conversation, 1 or 2 cr.; 128S. Modern French Prose Drama, 2 cr.; 129S. Classic French Literature, 2 cr.; 130S. Romantic School, 2 cr.; 233S. Old French Literature, 2 cr.; 234S. Research in French.

Italian

1. Elementary Italian, 2 cr.; 226S. Italian Literature.

Spanish

1a or 1b. Elementary Spanish, 4 cr.; 118S. Advanced Spanish, 2 cr.; 119S. Spanish Literature, 2 cr.; 229S. Research in Spanish.

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ASSISTANT PROFESSOR WOLFENSON.

1. Hebrew History, 2 cr.; 2. Survey of Hebrew Literature, 2 cr.; 3. Semitic Archeology and Institutions, 1 cr.

ZOOLOGY

ASSOCIATE PROFESSOR PEARSE; LECTURER JUDAY; INSTRUCTOR LOWE; ASSISTANT MUTTKOWSKI.

1b. Animal Biology, 3 cr.; 108. General Animal Physiology, 2 cr.; 103. Field Zoology, 2 cr.; 105. Special Problems, cr. to be arranged. 110. Entomology, 1 cr.; 120. Teaching of Zoology, 1 cr.; 124a. Limnology, credit to be arranged; 228. Research.

COLLEGE OF ENGINEERING

CHEMICAL ENGINEERING

ASSOCIATE PROFESSOR KOWALKE.

114a. Chemical Manufacture, 4 cr.

ELECTRICAL ENGINEERING

ASSISTANT PROFESSOR SHUSTER.

103a. Continuous Currents, 3 cr.; 130. Testing Direct Current Dynamos, 1 or 2 cr.; 112a. Testing Alternating Current Machinery and Appliances, 1 or 2 cr.; 4S. Theses and Special Work.

HYDRAULIC ENGINEERING

ASSISTANT PROFESSOR CORP.

A. Municipal Sanitation, 1 cr.; 1. Hydraulics, 3 or 4 cr.; 102. Testing of Hydraulic Machines, 2 cr.; 103. Experimental Hydraulics.

MACHINE DESIGN

ASSISTANT PROFESSOR KEOWN.

A. Elementary Design, no cr.; B. Machine Design for Teachers of Manual Arts, 2 cr. on Manual Arts course; 1. Mechanism, cr. to be arranged; 2. Machine Elements, cr. to be arranged; 4, Design of Complete Machine, cr. to be arranged.

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PROFESSOR PHILLIPS; ASSISTANT PROFESSOR MILLAR; INSTRUCTORS ORTH, THOMAS.

1. Elements of Drawing, 3 cr.; 2. Elements of Drawing, 3 cr.; 3. Descriptive Geometry, 3 cr.

APPLIED MECHANICS

ASSISTANT PROFESSOR KOMMERS; INSTRUCTOR ROARK.

1. Statics, 3 cr.; 2. Dynamics, 2 cr.; 3. Mechanics of Materials, 5 cr.; 51, 52, 53. Materials of Construction, 2 cr.; 108. Laboratory Research in the Materials of Construction, cr. to be arranged.

SHOP WORK

SUPERINTENDENT GODDARD; INSTRUCTORS CHISHOLM, DABNEY, PAYTON, SANSOM, SCHUMANN; ASSISTANT ZURIAN.

1. Elementary Pattern Making, 1 cr.; 2. Bench Work in Iron, ½ cr.; 3. Elementary Forge Work, ½ cr.; 4. Lathe Work in Metals, 1 cr.; 5. Planing and Milling, 1 cr.; 6. Tool Making, 2 cr.; 7. General Shop Work, 1 to 4 cr.; 8. Heat Treatment of Steel, 1 cr.; 9. Advanced Pattern Making and Foundry Practice, 1 cr.

STEAM AND GAS ENGINEERING

ASSISTANT PROFESSOR BLACK.

7. Elementary Thermodynamics, 2 cr.; 10S. Gas Engines and Gas Producers, 1 cr.; 11S. Compressed Air, 1 cr.; 12S. Heating and Ventilating, 1 cr.; 127. Calibration of Laboratory Instruments and Engine Testing, 2 cr.; 23. Advanced Steam and Gas Engine Testing, 1 or 2 cr.; 13S. Refrigeration and Refrigerating Machinery, 1 cr.; 30. Gas Engine Testing, 2 cr.

SURVEYING

ASSOCIATE PROFESSOR SMITH; INSTRUCTOR OWEN; ASSISTANTS BEEBE, BRAGG, CORNISH, CRUMP, HENNY.

1. Elementary Surveying, 2 cr.; 2. Elementary Surveying, 2 cr.; 3. Elementary Surveying, 2 cr.; 4. Advanced Surveying, 3 cr.; 106. Topographic Survey of Devils Lake Region, cr. according to work done; 108. Special Course for Electrical and Mechanical Engineers, 3 cr.; 110. Mining Survey, cr. to be arranged.

LAW SCHOOL

PROFESSORS GILMORE, SMITH, MCGOVNEY (UNIVERSITY OF MISSOURI); ASSISTANT PROFESSOR RUNDELL.

First Year

Criminal Law, 4 cr.; Torts, 4 cr.

Second and Third Years

Equity III, 2 cr.; Evidence, 2 cr.; Municipal Corporations, 2 cr.; Persons, 2 cr.; Suretyship, 2 cr.; Trusts, 4 cr.; Wills, 2 cr.

COLLEGE OF AGRICULTURE

AGRICULTURAL BACTERIOLOGY

PROFESSOR HASTINGS.

1. General Bacteriology, 4 or 5 cr.

AGRICULTURAL CHEMISTRY

PROFESSOR HART; ASSISTANT PROFESSOR PETERSON; INSTRUCTOR DRESCHER.

1S. General Agricultural Chemistry, 1 cr.; 3. Household Chemistry, 2 or 3 cr.; 200S. Research, cr. according to work done.

AGRICULTURAL ECONOMICS

PROFESSORS HIBBARD, OTIS, TAYLOR.

128. Cooperation and Marketing, 2 cr.; 224. The Premises of Agricultural Economics, 2 cr.; 102S. Farm Management, Field Course, cr. according to work done.

AGRICULTURAL EDUCATION

PROFESSOR HATCH; ASSISTANT PROFESSOR JAMES.

1. Methods of Teaching Secondary Agriculture, 2 cr.; 103S. Agricultural Extension, 2 cr.

AGRONOMY

PROFESSOR R. A. MOORE; ASSISTANT PROFESSOR STONE; INSTRUCTORS LEITH, MORTIMER.

1. Outline of Agronomy, 2 cr.; 120. Weed Identification, 2 cr.; Thesis and Field Course, 2 to 4 cr.; 130. Grain Breeding, 2 or 3 cr.

ANIMAL HUSBANDRY

ASSOCIATE PROFESSOR FULLER.

1. Elementary Stock Judging, 2 cr.; 2. Live Stock Management, 2 cr.

DAIRY HUSBANDRY

PROFESSOR FARRINGTON; ASSISTANT PROFESSOR BENKENDORF.

1. Milk and Its Products, 2 cr.; 102S. Dairy Practice, 1 to 4 cr.

ECONOMIC ENTOMOLOGY AND PLANT PATHOLOGY

PROFESSOR WILSON; ASSISTANT PROFESSOR VAUGHAN.

1S. Diseases of Plants (last three weeks), 2 cr.; 101S. Economic Entomology (first three weeks), 2 cr.

EXPERIMENTAL BREEDING

PROFESSOR COLE.

121. Topical Work, 2 or 4 cr.; 103S. Practice Work, 2 or 3 cr.; 225. Research, cr. to be arranged.

HOME ECONOMICS

PROFESSOR MARLATT; INSTRUCTORS HUNT, MANNING, BARNES, BRANEGAN (PLATTEVILLE NORMAL SCHOOL).

3S. Selection and Preparation of Foods, 2 cr.; 4S. Economic Problems of Food Supply, 2 cr.; 7S. House Architecture and Sanitation, 2 or more cr.; 92S. Sewing, 2 cr.; 95S. Dressmaking and Drafting, 2 cr.; 96S. Advanced Dressmaking, 2 cr.; 109S. Humanics, 2 cr.

HORTICULTURE

ASSOCIATE PROFESSOR MOORE.

1. Principles of Fruit Growing, 2 cr.; 2S. Teachers Horticulture, 2 cr.

POULTRY HUSBANDRY

ASSOCIATE PROFESSOR HALPIN.

1. Elementary Poultry Raising, 2 cr.; 2. Poultry Judging, 2 cr.

SOILS

ASSISTANT PROFESSOR WALSTER; ASSISTANT ZEASMAN.

1S. Elementary Soils, 2 cr.; 102S. Laboratory Course, 2 cr.; 104S. Soil Chemistry, 2 cr.; 2S. Drainage, 2 cr.

CONVOCATIONS

At intervals throughout the year assemblies of the members of the University are held, at which addresses are generally given. Such assemblies are known as convocations.

List of Convocation Addresses: Calendar Year 1915

Jan. 7th.
John A. W. Haas, D. D., President Muhlenberg College.
"Goods and the Good."

Feb. 22d.
Sir Douglas Mawson.
"Racing with Death in Antartic Blizzards."

Mar. 25th.
Albert Parker Fitch, D. D., President Andover Theological Seminary.
"The American Student and his Use of Time."

May 5th, 6th, and 7th.
William Howard Taft, LL. D., Professor of Law in Yale University.
"The Presidency, its Powers, Duties, Responsibilities, and Limitations."

Oct. 14th.
Isaac T. Headland, D. D., formerly Professor in Pekin Uhiversity.
"The Building of a Civilization."

Oct. 30th.
William G. McAdoo, Secretary of the Treasury of the United States.
"The Merchant Marine."

Nov. 9th.
David Starr Jordan, LL. D., Chancellor of Stanford University.
"The Pacifist Movement."

Nov. 22d.
Jenkin Lloyd Jones, LL. D., Pastor of All Souls Church, Chicago.
"Above All. Humanity."

PUBLIC LECTURES

Each year the University arranges for a series of public lectures, bringing to Madison for that purpose a number of distinguished speakers. It is aimed to provide lectures of general interest and to have them cover a wide range of subjects. The lectures are free to the students and to the public.

List of Public Lecturers 1914–15

Feb. 8th, 1915.
Mr. Percy A. Scholes of Oxford, England.
"The Golden Age of British Music" with musical illustrations.

Feb. 9th
Professor Anesaki, Japan.
"A Survey of Japanese Art" (illustrated).

Feb. 10th
Professor Anesaki, Japan.
"Japanese Art in an Age of Democracy" (illustrated).

Feb. 10th
Professor André LeBreton of Bordeaux, France.
"Une rêverie dans le parc de Versailles" (illustrated).

Feb. 11th
Professor André LeBreton.
"Balzac, l'homme et l'oeuvre."

Feb. 23d
Mr. Stanton Coit of the Ethical Society, London.
"Social Ethics in England."

Feb. 24th
Mr. Frank W. C. Hersey of Harvard University
"The Art of the Theatre."

Feb. 25th
Professor Kuno Meyer of the University of Berlin
"Ancient Irish Poetry."

Feb. 26th
Mr. S. K. Ratcliffe, Editor of the Sociological Review, London
"New Influences in Social Thought."
Mar. 17th
Mr. A. E. Hamilton of Eugenics Record Office
"The Eugenics Movement."
Mar. 25th
Mr. Leonard C. Van Noppen
"The Dutch Renaissance."
Apr. 6th
Dr. H. Gideon Wells.
"Experimental Cancer Research."
Apr. 7th
Mr. Padraic Colum.
"Modern Irish Poetry."
Apr. 26th-29th
Sir Walter Raleigh of Oxford University, England.
Apr. 26—"The Reviewers."
Apr. 27—"Hazlitt."
Apr. 28—"Lamb."
Apr. 29—"Landor."
May 4th
Mr. George Macaulay Trevelyan.
"Servia and the South-Eastern European Question."
May 6th
M. Robert de Lapradelle.
La Question de Maroc.

List of Public Lecturers—First Semester 1915-16

Dec. 3, 1915.
Professor Walter Sheldon Tower, Department of Geology, University of Chicago.
"Argentina."
Dec. 6-7.
Professor Ellsworth Huntington, of Yale University.
Dec. 6—"Civilization and Climate."
Dec. 7—"Changes of Climate and History."

DEGREES

CONFERRED ON COMMENCEMENT DAY, 1915

COLLEGE OF LETTERS AND SCIENCE

Bachelor of Arts

Helen Humphrey Abrams
Henriette Lorraine Achtenberg
Howard Allen Adams
Roah Mary Adams
William Karl Adams
*John Henry Adler
Elsa Eugenia Agrell
Irma Elizabeth Alexander
Herman Joe Allen
Ruth Marguerite Allen
Elna Constance Anderson
Lewis Orvin Anderson
Olive Viola Andrews
Rachel Angvik
William Vernon Arvold
Elsie Genevieve Astell
Margaret Aurland
*Elizabeth Baker
Marion Virginia Baker
Marguerite Baldwin
Merle Mary Baldwin
*Norman Douglas Bassett
Harry Neal Baum
Lily Katharine Bauman
Gladys June Bautz
Gertrude Dorothea Behrens
Mildred Honor Beim
Mary Scoville Bemis
Jeanette Benson
Louis Freeman Best
Nathaniel Paul Biart
Fred G. Bishop
Alice Ladd Bitner
Ethalinda Grace Black
Jessica May Boorse
Mary M. Boorse
*Harold Renshaw Brayton
George Thomas Bresnahan
*Louise Withee Brown
Mabel Mary Brown
Mary Storer Brown
Isabelle Frances Brownell
E. Dorothy Bundy
Marjorie Burdick
John Edward Burke
Walter Richard Bussewitz
Dorothy Alden Caldwell
Marie Louise Carns
Mary Josephine Cash
*Chun-lin Chai
Shiu Yuen Chen
Emily Ethel Clark
Leona Letitia Clark
Warren Edward Clark
Flora Bartlette Collver
Leora Agnes Connors
Frederic LeRoy Conover
Frederick Macomber Cooper
Gertrude Marion Corbett
Marjorie Anna Cronander
Margaret McCune Curry
Gladys Gertrude Dafoe
*Clarence Arthur Dahle
Dorothy Brockway Dana
Marian Lorraine Davies
Charles Francis De Garis

*Degree conferred since commencement, 1915.

Neste Densmoor
Mary Virginia Dickinson
Emma Jane Dobeas
Walter Logie Dobie
Dagmar Doneghy
James Lee Douglas
Lillian Jessie Dow
Royal Samuel Draper
Arthur Robert Draves
Ella Rose Duggan
Marion Margaret Duke
Guy Earle Eaglesfield
Rhoda Ann Edmonds
Elsie Caroline Eifler
Ralph Herbert Eisaman
Esther Isabella English
Hattie Clara Engsberg
Riah Belle Fagan
Helen Salome Fairbairn
Wirt Gerry Faust
Abbie Jane Fellows
Nina Fieldstad
*Tuve John Floden
Freda Monica Frankel
Fannie Alberta Fuller
Arthur Gabler
Isabelle Anna Gamble
Florence G. Gannon
Ethel Grace Garbutt
Gertrude Verena Gath
E. Corrinne Gebhart
Alma Madeline Gehrz
*Harold John Gentzen
May Olivia George
Max Gilbert
William Glassner
Harry Samuel Gleick
Nancy Anna Gray
Ruth Elizabeth Green
*Harry Andrew Grinde
Felix Gustaf Gustafson
Helen Grace Hadden
Jean Morgan Hadden
*Eleanore Halline
Alice Myrtle Hansen
Lucile Dorothy Hatch
Bessie Versalee Hawley
Margaret Elizabeth Hayes
*Raymond Julius Heilman
Frances Hemphill
Genevieve Estelle Hendricks
Daisy Alford Hetherington
*Marguerite Josetta Hinckley
Ping Song Ho
Edwin Stanley Hollen
Harriett Electa Holley
Clara Marie Holman
Edith Laura Horstmann
Isabelle Bertine Hougen
Jean Howden Howell
Swei Hsun
William Earle Hubbard
Richard Nash Hunt
Lucile Langson Huntington
Raymond Thomas Jackson
*Marjorie Jacques
*Clara Louise Jaggard
Hugh John Jamieson
Florence Jay
James Francis Jenkins
Anna Dorothy Jones
Ida Lucile Jones
Hubert Frederic Juergens
Charlotte Sarah Kahn
Ray Monroe Keeler
Esther Elizabeth Kelly
*Charles Joseph Kidder
Mary Louisa King
*Oscara Klingholz
*Ewald Ulrich Klumb
Minnie Agnes Knight
Edmund Charles Kratsch
Marguerite Viola Kraus
Roland Edward Kremers
Louis Eugene Krumholz
*Helene Josephine Laitem
Lloyd Harold Landau
Florence Columbia Landsberg
*Esther Lassfolk
*Frances Lauder
Mabel Irene Lehnhoff
Sylvia Leonard
Maude Le Roy
Cora Cole Lewis
Melvina Cora Lewis
Russell Francis Lewis
Constance Wood Loar
Cornelia Frances Loomis
Marvin Marx Lowenthal
George Margaret Lyle
Joseph James McCormick

*Degree conferred since commencement, 1915.

Grace Margaret McGarry
*Oliver Philip McKee
Kenneth Charles McMurry
Mary Eunice McNeil
*Minghai Ma
Raymond Cady Mackay
Jane Crozier Macklem
*Edna Hermina Manegold
Roberta Rice Mann
Howard Parsons Marshall
Mabel Minnie Marshall
*Ada North Martin
George Hilmar Martin
Marguerite Emma Martin
Adele Masten
Mabel Claire Matteson
Emma Louise Matthews
Maude Eunice Matthews
Hazelle Irene Mayberry
*Hildegarde Meisekothen
Ellis Monroe
Anna Rosalie Moore
Roger Emmett Moore
Caroline Ruth Morris
Thomas William Morris
Edward Walter Moses
Arthur Harcourt Mountain
Jeannette Munro
*Claire Roy Murphy
Henry Richard Murphy
Eleanor Bradford Negley
Katherine Newman
Marjorie Elizabeth Nind
Russell Wasson Nowels
*Laurence Henry Purdy
Sidney Loesch Oehler
Edna Marie Ollis
Esther Georgia Olsen
Rhoda Esther Owen
Florence Beth Patterson
Randolph Rogers Payne
Helen Charlotte Pence
Elsea Gladys Peterson
Dorothy Foster Pettibone
Helen Loudora Pohle
Marguerite Ruth Pohle
Cornelius Wyman Poor
Rosa Matilda Pope
Albertine Prince
Betha Margaret Pugh
Grace Madeline Pugh
Adelaide Rawson
*Dwight Logan Reid
*Elizabeth Marguerite Reilly
Anita Emma Reinking
Elizabeth Elsie Reiser
Winifred Gard Rettger
*Marion Eliza Richardson
Frederick August Richter
Elda Katherine Riggert
*Roland Howard Risdon
*Ralph Roscoe Ritzman
Paul Ramsey Roach
Blanche Gertrude Robbins
Philip Kyle Robinson
Elizabeth Clarke Rood
*Elizabeth Ruth Rosenkrans
Mae Ross
William Edward Roth
Alden Bruce Rowely
Ida May Rush
Lyda Marie Ryser
Mary Honora Sayle
Joseph Elias Sazama
Elmer Eric Schattschneider
Anna Marie Schmidt
Harry George Schultz
George Melvin Schwartz
Esther Shapiro
Percy B. Shostac
Marshall Garfield Simonds
Emily Sims
Rachel Lloyd Skinner
Marguerite Frances Slawson
Theodosia May Slothower
Elizabeth Mary Smith
Lorraine Culver Spencer
Olga May Steig
*Hugh Wynne Steiner
*Joseph True Steuer
Margaret Stevens
Edith Adrienne Stone
*Isabella Byington Stover
Idelle Celeste Strelow
Genevieve Stump
Agnes Laura Taylor
Olive Elizabeth Thauer
Marie Anne Thielman
*James Everett Thompson
Chloe Elizabeth Tilden
Eben Henry Toole
Helen Edna Treakle

*Degree conferred since commencement, 1915.

John McClelland Trembly
Dorothy Amanda Trowbridge
Helen Caroline Ulrich
Lucy Annie Underwood
Robert Wayne Uphoff
*Louina Montague Van Norman
Wilna Louise Warner
Charles Nicholls Webb
Lilah Marguerite Webster
Bertha Mary Weeks
*Helen Marguerite Welter
Raymond Clarence Werner
Clarence Fred Whiffen
Rachel Effie White
Nellie Maude Wightman
Beth Elinor Williams
Ruth Willits
Elsa Albertha Wilmanns
*Alice Vanderveer Winger
Ruth Edna Winkley
Bessie Sara Winn
Henry Newton Winn
*John George Wittmayer
Frederick Wood
Helen Louise Wurdemann
John Barlow Youmans

Course in Commerce

Paul Gus Brann
Fred George Budig
Earl Francis Buelow
Russell John Carter
Morris Smead Cohn
Charles Crawford Edmonds
Herman Victor Gaertner
Warren Carroll Garst
Edwin Anders Gelein
Gerhardt Oscar Gullickson
James Ellingwood Halsted
Arthur Gilbert Harter
Howard Leslie Heald
Clarence Raymond Hicks
Leo George Hoeveler
*J. Clark Householder
Walter Henry Knobel
Harry Jefferson Koch
Thorpe Messenger Langley
Albon Blake Lindemann
Alexander Toris Linn
Fred Eugene Lohe
Fred Palmerlee Loomis
*James Arthur Lyons
*Robert Clayton McKay
Annis Cleveland McLean
Harold James Matteson
*Nina Mary Regina Miller
Peter Henry Miller
Vernus Edwin Nelson
Lawrence Louis Neumann
Emil Herman Neupert
*Archie Marcus Peisch
Harry Arthur Peterson
Edward Christian Portman, Jr.
Lester William Rothe
Charles Frank Schimel
Isidore John Schulte
Lynn Archibald Simmons
Willard Moorehouse Sporleder
Herman William Thoreson
Frank William Tillman
John Fred Weinberger
Harry Gordon White
Wilfred Hamilton Williams

Course in Journalism

Laurence McKinley Bell
Don Clinton Dickinson
*Donald Hugh Higgins
Bert Whitman Hocking
Harold Jenness
Huldah Marie Johnson
Vachel Weldon Lackey
Mary Allman McMahan
Stephen Earl Perrine
Ashton Kelley Smith
Frances Louise Smith
Oscar Carl Zilisch

*Degree conferred since commencement, 1915.

Bachelor of Philosophy

*Ida Barbara Arzberger
Aubrey Keith Brewer
*John Wesley Bugg
Helen Mae Carr
Yvonne Marie Dauplaise
Irene Estelle Denneen
Jessie Adelaide Dietrich
Winifred Edsall
Katherine Anastatia Fox
Orrin Adolph Fried
Robert Harold Gee
Mildred Gilbertson
Henry Francis James
Davis Wallace Kumm
Charlotte Louise Kurz
Annie Katherine Larson
Harley Wesley Lyon
Louis James Martell
*Oscar Frederick Mattson
*Marius Rolland
Fred Edmund Schlatter
*Homer John Smith
*Oren Daniel Stiehl
*Jennie Olena Twetten
Lillian May Wallace
Everett Le Roy Walters

Bachelor of Science, Chemistry Course

Carl Noyes Austin
Wayne Harrison Bentley
George Marsters Bishop
Valentin Blatz, Jr.
Alf Erickson
Katharine Ellen Faville
Walter William Heinecke
Walter Joseph Imig
*Harold Arthur Lewis
Herbert Lambert Marter
*Roscoe Foote Patt
Oscar Edwin Siegfried Roeseler
Grace Lenice Van Natta
Kwang Pi Young

Bachelor of Science, Medical Science Course

George Herman Anderson
Harrold Albert Bachmann
William Waldo Bauer
John Edward Bentley
Clarence John Brown
Robin Carl Buerki
Rudolph Jacob Gieseler
Robert Nathaniel Hedges
*Victor Clarence Jacobsen
*Michael Kasak
Ernest Charles McGill
Leland Sterling McKittrick
Alfred Lisle Mayfield
Herman Charles Meyer
Edward Frank Mielke
Michael David Moran
Fred August Nause
Robert Percival Parsons
Kenneth Cleland Peacock
Reginald Lloyd Prees
Henry Shacoff
Archie Ambrose Skemp
Burton Raymond Weston

Bachelor of Science, Pharmacy Course

Francis Albert Federer
†Norbert Robert Mueller
William Rabak

*Degree conferred since commencement, 1915.
†Degree conferred March 3, 1915.

Graduate in Pharmacy

George Vaughn Brainard
*Robert Rodney Confer
*Fred Clair Mink
Timon Norton Rasmussen
Oliver Brutus Reese
John Adolph Seeman
Ernest Paul Wenstadt
Vera Charlotte Zuehlke

COLLEGE OF ENGINEERING

Bachelor of Science

Civil Engineering Course

Bert Edwin Anderson
Russell Arnold Anderson
Frank Jerome Bachelder
Walter Thelford Bolton
Archibald Williston Case
Raymond Thomas Cavanagh
*Hoy Benjamin Clayton
Cuthbert Powell Conrad
Myron Cornish
Arthur Wilson Crump
Lawrence Harger Doolittle
William Azell Goss
Melville Cooper Hall
William Wallace Innes
Paul Lillard
Harry Alexander Marshall
Allen Ellsworth Nance
Louis Frederick Reuter, Jr.
Louis Charles Rockett
Lester Cushing Rogers
*Nicholas Abraham Saigh
Seth Henness Seelye
Edward Hagop Tashjian
Walter Stanley Todd
Herbert William Wesle
Leo Richard Wheeler

Mechanical Engineering Course

*Harry Charles Anderton
Harry Edward Bauer
Walter Frank Blair
George Harvey Blanding
William Lewis Breckinridge, Jr.
John Francis Clancy
Paul Coddington
Frederick William Colbeck
Freeman Douglas Fletcher
Walter Bertram Gesell
*Alfred Lincoln Gibert
Harvey Banderob Heider
Warren Fred Heineman
Levi Lithgow Henry
Edwin Sanford Herreid
*Alfred Holtum
Charles Harry Klotz
Edwin Theodore Lorig
José Margarida
Harry Frank Oldenburg
Sam Irving Roth
*James Thurston Ryan
Russell Gilman Smith
Samuel Harvey Squier
Walter Hermann Stiemke
Clarence William Zachow

*Degree conferred since commencement, 1915.

Electrical Engineering Course

Earl Raymond Adlington
Thomas Stephen Burns
Paul Nathan Elderkin
Francis Cutler Ellis
Elmer Le Grand Goldsmith
Rinold Herman Grambsch
Ray Stephen Hardin
Harry Hersh
Floyd Oswald Jorstad
Gonzalo Manela Kamantigue
Roy Brook Kile
Forrest Julius Krueger
Ernest Otto Albert Lange
Virgil Poston
William Carl Raube
John Willis Reed
Herbert William August Rusch
Edward Arden Sipp
Merrill Edmund Skinner
Carrington Harlow Stone
Perry Wadsworth Wilder
Verle Eynon Williams

Chemical Engineering Course

Michael Agazim
Harold Richards Boehmer
John Boardman Edwards, Jr.
James Monroe Gillet
Aaron John Helfrecht
Eugene Coerper Herthel
Herman Bunsen Heyn
Harvey Van Zandt Higley
‡Walter Arion Jannsen
William Randolph Lacey
Aaron Arthur Ladon
Louis Sigmund Loeb
Fernando Margarida
Horton Rudolph Parker
Roman Anton Schmid
Alfred Julius Stirn
Merville Spoor Thompson
Norman Burr Thompson
Jacob Trantin, Jr.

Mining Engineering Course

William Venuste Dargan
Frederick Weed Hodson
*Robert William Hughes
Bjorne Knudsen
William Harrison Loerpabel
Arthur Tempest Newell
Rollin Anthony Pallansch
Franklin Gray Pardee
Donald Franklin Schindler

GRADUATES OF ADVANCED ENGINEERING COURSES

Civil Engineer

Otterbein Andrew Bailey
Ferdinand De Witt Bickel
Kendal Benjamin Bragg
Teofilo Reyes
Earl Raimon Stivers

Mechanical Engineer

Walter Sargent Bemis
Edward Joseph Connell

*Degree conferred since commencement, 1915.
‡Degree conferred as of the class of 1907.

Electrical Engineer

Moses Yuntsin Chang
Richard Henry Jones
William Ray McCann
Clifton Anton Olson

Chemical Engineer

John Henry Gehrmann

COLLEGE OF AGRICULTURE

Bachelor of Science (Agriculture)

Arthur Robert Albert
Peter Theodore Anagnos
Julia Foster Avery
Frank Leroy Bellows
Russell Bernhard Bieri
*Harold Spencer Bingham
George Pettit Blakney
Albert Arthur Bluemke
Gustav Bohstedt
Alfred Bercry Booth
Clarence Kinne Boucher
George Earl Brainard
Paul Murphy Brown
Miltimore Witherell Brush
Gilbert William Burnet
George Abert Cary
Stewart Curtis Chandler
Paul Weaver Chase
Glenn Gardner Clark
William Noble Clark
Percy Jay Crandall
Charles Logan Crosby
Reynale Richardson Crosby
Oma Leo Cunningham
James Harold Dance
James Garfield Danilson
Halsey Darrow
Albert Jenness Dexter
William Francis Dummer
Willard Arthur Dustrude
Harry Wilmer Dye
Charles William Evert
Will Asa Foster
Charles Francis Frye
Jonathan Garst
Robert Shiels Goodhue
Burrell Pinckney Graves
Howard Thomas Greene
Raymond Hiram Halderson
John M. Hammer
*William Carl Hansen
Clifford Cedric Haumerson
*Arthur F. Hedges
Rolland Louis Hegeman
Arthur Henry Henderson
*Loyd A. Henry
William Sabieski Hildreth
Charles Dodge Hoag
Walter Mathew Horne
Walter Ernest Hoyord
Wolcott Wood Hubbell
*Joseph Walter Jackson
Charles Gregory Jewett
Arthur Norman Johnson
Wayne Leslie Johnson
Fred Rufus Jones
Hugh Meirion Jones
Karl Lincoln Juve
William Garfield Kammlade
Emil John Kautsky
Martin Thomas Kennedy
Edward Conrad Adam Kraemer
*John Clarence Kyle
James Alexander Laird
Alfred Clarence Lindauer
Martyn Clifford Lobdell
*Glenn Winfred Lycan
Clarence Smith McBride
Joseph Frank Machotka
Joseph Aloysius Machovec

*Degree conferred since commencement, 1915.

Donald Frederick Mattson
George Andrew Maxey
Benno Walter Meyer
*George Innes Middleton
†Percy Warren Moore
William Alfred Moorhouse
Frank Edward Mussehl
Edward Columbus Nathan
William Baker Noyes
Thomas Lawrence O'Hora
Frederic William Oldenburg
Thomas Mandaneous Olson
Glenn Harrison Orr
Enrique Rizo Patron
Roswell Covert Pickett
Walter Pitz
Maurice Cecil Poss
Arthur Frederick Pott
John Gardner Poynton
Edward Joseph Prucha
Henry John Rahmlow
Jesse Horatio Reed
Stuart Walker Reid
Frank Robotka
Hiram Herbert Roehm
Harry Edward Roethe
Charles Spurgeon Rowe
Raymond Cleveland Salter
Albert Amiel Schaal
Samuel James Schilling
Joseph Herm Schlenvogt
Edward William Schmidt
Leo Lawrence Schoepf
Carl Harms Schroeder
Benjamin Otto Schwendener
Claire Osborne Scott
Dan Albert Shaffer
Leon Slothower
Glen David Spoor
Lester Edward Stam
George Durban Talbot
*Clifford Chaffee Taylor
Harold Ray Walker
Carl Frederick Wehrwein
Harry Albert Weingartner
Clinton Raymond Wiseman
Arno Wittich
Benjamin Frank Wood
Ivan Morris Wright

Bachelor of Science, Home Economics Course

Grace Lina Bell
Agnes Boeing
Alice Veronica Bradley
Reva Ernestine Bristol
Evelyn Chapman
Josephine Marie Cullinan
Beulah Dahle
Grace Dulaney
Florence Farquhar
Elsa Marie Fauerbach
Helen Ann Flett
May Columbia Gleason
Nell Scott Hamilton
Helena Christine Louise Hanson
Stella Jane Hayden
Clara Higgins
Virginia Margaret Higgins
Ora Lucy Hinkson
Alene Theresa Hinn
Florence May Jarvis
Ethel Alberta Kalmbach
Catherine MacArthur
Margaret Mary McKenna
Mabel Jane McMurry
*Lucile Mary Marshall
Cornelia Mathews
Gladys Emma Miller
Agnes Morrissey
Cecilia Elizabeth Murray
Bessie Arabelle Piper
Mary Alice Poulter
Alma Seielstad
Ella Marie Shoemaker
Nina Simmonds
Edna Winnefred Smith
Helen Mary Smith
Sylvia Gertrude Stuessy
Florence Marie Weiss
Luellu Minett Winans

*Degree conferred since commencement, 1915.
†Degree conferred March 3, 1915.

Graduate in Agriculture

Warren Talmadge Bleecker
*Carlyle Carr
Willard Steadman Comings
Lee Medbury Eaton
Starr Sedgwick Eaton
Anthony Michael Gass
William Fowler Guthrie
Orlando Holway
Florence Margaret Jenks
James Albert Jensen
Walter Samuel Jensen
Martin Reinhold Knickel
Gustav Wesley Kuhlman
Norman L. Moll
Raymond Heinsdorff Rishel
Ross Newman Root
James S. Sazama
Werner Charles Schmoock
Harold Edward Seielstad
Mildred Florence Shepherd
Milo Joseph Slagg
Elmer Clarence Thompson
Louis Charles Thomsen
Lauren Edgar Tichenor
Robert Pinkerton Willan
Stanley Miller Wilsey
Overton Sidney Woodward

LAW SCHOOL

Bachelor of Laws

*Thorwald Martin Beck, B.A.
John Francis Buckley
†Alfred Joseph Buscheck
Raymond Bills Carmichael, B.A.
Roger George Cunningham, B.A.
†Carl Edgar Dietze
Winfred Cyril Dittmer
Edward Maxmillian Duquaine
Clarence Charles Fenn
Warren Blaine Foster
†Joseph Thomas Gallagher
Harold Peter Janisch, B.A.
Nettie Elizabeth Karcher
George Franklin Korf, Ph.B.
Clarence Raymond Kuenzli
*Ritchie David Lewis
Theodore Gorman Lewis, B.A.
*Patrick Henry Martin
Edgar Melzer, B.A.
*Roy Harrison Proctor, B.A.
†Jones Spencer Pullen
Henry Stephen Rademacher
Nathan William Reed, B.A.
*Richard Theodore Reinholdt
Oscar Bertrand Rhyner
†Edward Joseph Samp
Jackson Johnson Sells
Norris Sanborn Stoltze
Harold Wallis Story, B. A.
Frederick Rice Wahl, B.A.
William Brennan Webster, M.A.
Earle Howard Whitcomb
*Frederick McNeely Wylie

SCHOOL OF MUSIC

Graduate in Music

*Pearl Constance Gjertson
*Evelyn Cornelia Hanson
Eleanor Hardy Keller
Dora Lucile Lake

*Degree conferred since commencement, 1915.
†Degree conferred March 3, 1915.

Graduate From Course for Supervisors of Music

Marguerite Evelyn Jacques Black
Nellie Maude Black
Gladys Vivian Craker
Ivanelle Critchlow
Zelma Irene Gnagi
Eileen Mary Harrington
Mary Elyda Main
Grace Perkins Metcalf
Hilda Adne Mingle
Ruby Marie Radcliffe

GRADUATE SCHOOL

Master of Arts

Rodney Whittemore Babcock, B. A. (University of Missouri) in Mathematics
Edgar Alan Baird, B. A. (The University of Wisconsin) in Botany
*Margaret Dorothea Barland, B. A. (Oberlin College) in German
Marjory Elizabeth Bennett, B. A. (Carroll College) in Latin
*Jesse Hinton Binford, B. A. (Richmond College) in Agricultural Economics
Augustus Hall Brunelle, B. A. (Morningside College) in Latin and Greek
Mary Van Rensselaer Buell, B. A. (The University of Wisconsin) in Chemistry
Charles D. Bulger, Ph. B. (Buchtel College) in German
Louise Chapman, B. A. (Mt. Holyoke College) in English
Selwyn De Witt Collins, B. A. (University of Missouri) in Political Economy
Philip Leslie Coon, B. A. (Milton College) in Chemistry
Ellis Merton Coulter, B. A. (University of North Carolina) in History
Edward Jethro Cragoe, B. A. (Ripon College) in Chemistry
Willard Goldsworthy Crawford, B. A. (The University of Wisconsin) in Inorganic Chemistry
Irene Hannah Cummings, Ph. B. (Grinnell College) in Latin
Golden Norman Dagger, B. A. (Ohio State University) in Agricultural Economics
Melvin Kaolen Davis, B. A. (The University of Wisconsin) in Geology
*Jackson Belden Dennison, B. S. (Lenox College) in Political Economy
Emily S. Dexter, B. A. (Ripon College) in Education
Nathaniel Beach Dexter, B. A. (Ripon College) in English
Kenneth Duncan, B. A. (Wabash College) in Political Economy
Murray French Edwards, B. S. (Virginia Military Institute) in German
*Carl Ferdinand Eyring, B. A. (Brigham Young University) in Physics
*George Arthur Glyer, B. A. (Carroll College) in History
Theodore Gregory Gronert, B. A. (The University of Wisconsin) in American History
*William Arthur Gruse, B. A. (Johns Hopkins) in Forest Products
Durand Appleton Hall, B. A. (Williams College) in Geology
Alvin Harvey Hansen, B. A. (Yankton College) in Political Economy
*Florence Villritt Hargrave, Ph. B. (The University of Wisconsin) in English
*Ora Mabel Harnish, B. A. (Lebanon Valley College) in Political Science
Henry Panet Hastings, B. A. (Yale University) in Chemistry

*Degree conferred since commencement, 1915.

Mary Anne Maloney Hewitt, B. A. (The University of Wisconsin) in English
Asher Hobson, B. A. (University of Kansas) in Agricultural Economics
*William H. Hoover, B. A. (Wabash College) in Physics
Henry Gustav Hotz, Ph. B. (The University of Wisconsin) in Education
Clark Leonard Hull, B. A. (University of Michigan) in Psychology
*John Earl Hummer, B. S. (Bucknell University) in Education
Bertha Elizabeth Hunter, B. A. (Indiana University) in English
Howard White Huntley, B. A. (Wake Forest College) in Chemistry
*Elizabeth Crocker Jenkins, B. A. (Radcliffe College) in Education
Harry Jerome, B. A. (University of Omaha) in Political Economy
*Russell Stafford Knappen, B. S. (Ohio Wesleyan University) in Geology
Selma Sophie König, B. A. (The University of Wisconsin) in German
Samuel Andrew Kruse, B. S. (University of Missouri) in Education
*Arthur William Larsen, B. A. (The University of Wisconsin) in Mathematics
Frederick Oscar Leiser, B. L. (The University of Wisconsin) in Sociology
Robert Davis Longyear, B. A. (Williams College) in Geology
Grace Mary McAlexander, B. A. (Vassar College) in History
*Jeannette Eliza Marsh, Ph. B. (Oberlin College) in German
Maria Louise Merkelbach, B. A. (The University of Wisconsin) in German
Ruth Norton, B. A. (Lake Erie College) in German
Katherine Parry, Ph. B. (Upper Iowa University) in English
*Mary Elizabeth Perley, B. A. (Washington State University) in German
Ernest John Pieper, B. A. (Johns Hopkins University) in Chemistry
Luther John Pollard, B. A. (Lawrence College) in Agriculture
Ruth Price, B. A. (Leland Stanford, Jr., University) in History
Jeanette Alta Reed, B. A. (Ohio Wesleyan University) in Latin
*Carrie Jean Reitz, B. A. (The University of Wisconsin) in French
Alice Myrick Reynolds, B. A. (Milwaukee Downer College) in History
Hazel Isabelle Roberts, B. A. (The University of Wisconsin) in English
*Agnes L. Robinson, Ph. B. (University of Iowa) in German
*Elizabeth Rossberg-Leipnitz, B. A. (The University of Wisconsin) in German
Victor Rubin, B. A. (The University of Wisconsin) in English
Ralf Thiele Runge, B. A. (The University of Wisconsin) in German
*Frank Everett Rupert, B. S. (University of Michigan) in Chemistry
Isabel Mary Ryder, B. A. (Mount St. Joseph College) in Sociology
*Stella Elsie Sanders, B. A. (De Pauw University) in Latin
Margaret Agnes Scallon, B. A. (University of Michigan) in Latin
*Paul Bigelow Schaeffer, B. A. (Kansas University) in History
Elizabeth Alexandria Seeberg, B. A. (University of Texas) in Psychology
Ottilie Seybolt, B. A. (Mt. Holyoke College) in English
Daniel Du Pre Smith, B. A. (The University of Wisconsin) in History
*John Earl Smith, B. A. (Indiana University) in Physics
Beatrice Gertrude Spiegel, B. S. (Elmira College) in Political Economy
Lydia Matilda Stoekle, B. A. (Northwestern University) in English
*John Wills Taylor, Ph. B. (The University of Wisconsin) in History
Valeria Thoma, B. A. (The University of Wisconsin) in Botany
Kate Schoolfield Tillett, B. A. (Randolph Macon Woman's College) in English
Arnon Wallace Welch, B. S. (Meridian College) in Political Economy

*Degree conferred since commencement, 1915.

*Karl E. Whinnery, Ph. B. (Mt. Union College) in History
*James Elmer Wildish, B. A. (University of Missouri) in Chemistry
*Samuel Wenger Witmer, B. A. (Goshen College, Indiana) in Botany
*Frank Lee Wright, B. A. (Kansas State Normal College) in Education
Ralph Bailey Yewdale, B. A. (The University of Wisconsin) in European History
Louise Young, B. A. (Vanderbilt University) in Philosophy

Master of Science

*Erwin Oliver Anderson, B. S. (Michigan Agricultural College) in Farm Management
*Eugene Calvin Bird, B. A. (Oberlin College) in Agronomy
Carl Petty Blackwell, B. S. (Oklahoma Agricultural and Mechanical College) in Agronomy
John Alden Bower, B. A. (Williams College) in Animal Husbandry
*Walker Edward Bryan, B. S. (Alabama Polytechnic Institute) in Agronomy
Alfred Cummings Burrill, B. S. (Harvard University) in Economic Entomology
Alvin Robert Cahn, B. S. (Cornell University) in Zoology
Annie Rowland Cahoon, Ph. B. (Milwaukee Downer College) in Physical Education
*Beihan H. Cheu, B. S. (The University of Wisconsin) in Agricultural Economics
Newell Howland Comish, B. S. (Utah Agricultural College) in Agriculture
Herbert Carl Dallwig, B. S. (The University of Wisconsin) in Pharmacology
Alpheus Davis Faville, B. S. (Lawrence College) in Experimental Breeding
*Frederick Azel Fenton, B. A. (Clark University) in Economic Entomology
Lloyd Victor France, B. S. (The University of Wisconsin) in Economic Entomology
Charles N. Frey, B. S. (Michigan Agricultural College) in Botany
Max William Gardner, B. S. (Michigan Agricultural College) in Plant Pathology
*John Henry Gehrs, B. S. (Missouri University) in Agricultural Education
Bienvenido Maria Gonzalez Y Sioco, B. Agr. (University of the Philippines) in Animal Husbandry
Hazel Marie Gray, B. S. (The University of Wisconsin) in Bacteriology
William Adrian Hadfield, B. S. (The University of Wisconsin) in Chemistry
*Augustus W. Hayes, B. S. (University of Illinois) in Agricultural Economics
Erwin Lloyd Henning, B. S. (The University of Wisconsin) in Soils
James Lawrence Hiers, B. S. (Clemson College) in Agronomy
Howell Harris Humphrey, B. A. (Ripon College) in Agronomy
Charles William Hungerford, B. S. (Upper Iowa University) in Botany
Lorenzo Foster Kinney, Jr., B. S. (Rhode Island State College) in Agricultural Economics
Alfred Conrad Kolls, B. S. (The University of Wisconsin) in Pharmacology
*Seu Zung Kwauk, B. S. (Cornell University) in Animal Husbandry
Alvin Romaine Lamb, B. S. (The University of Wisconsin) in Agricultural Chemistry

*Degree conferred since commencement, 1915.

*Henry August Langenhan, B. S. (The University of Wisconsin) in Pharmacy
*Harvey Earl Larsen, B. A. (Ripon College) in Agricultural Economics
James Napolean Lipscomb, B. S. (Mississippi Agricultural and Mechanical College) in Agricultural Economics
Marion Bertice McKay, B. S. (Oklahoma Agricultural and Mechanical College) in Plant Pathology
*John Hoyne McLeod, B. S. (Agricultural and Mechanical College of Texas) in Farm Management
Karl Augustus Menninger, B. S. (The University of Wisconsin) in Medicine
Ole Sever Neseth, B. A. (Red Wing Seminary) in Medicine
Chu Chi Pan, B. S. (The University of Wisconsin) in Soils
Robert Delafield Rands, B. S. (University of Nebraska) in Plant Pathology
Francis Marion Rast, B. S. (Clemson College) in Agronomy
Otto August Reinking, B. S. (The University of Wisconsin) in Plant Pathology
Eugene Washburn Roark, B. A. (Clark University) in Plant Pathology
Harry Robert Rosen, B. S. (Pennsylvania State College) in Botany
Gordon William Rosencrans, B. A. (Miami University) in Animal Husbandry
Hubert Minton Rosencrans, B. A. (Miami University) in Chemistry
Chintaman Vishun Sané, B. Agr. (University of Bombay) in Soils
Donald Wing Sawtelle, B. S. (University of Maine) in Agricultural Economics
*Ralph Sayre, B. S., (Beloit College) in Chemistry
*Gustavus Adolphus Schmidt, B. A. (University of Illinois) in Agricultural Education
Walter Henry Schoewe, B. A. (The University of Wisconsin) in Geology
Eugene Schultz, B. S. (The University of Wisconsin) in Plant Pathology
*Olive Amy Sheets, B. S. (Ohio State University) in Home Economics
Albert Adolph Sliwinski, B. S. (The University of Wisconsin) in Chemistry
Dillon Farris Smith, B. A. (Wake Forest College) in Forest Products
*Forrest Wilbur Stemple, B. A. (West Virginia University) in Agronomy
*Wendell Holmes Tisdale, B. S. (Alabama Polytechnic Institute) in Plant Pathology
Alan James Turnbull, B. S. (The University of Wisconsin) in Farm Management.
John Charles Walker, B. S. (The University of Wisconsin) in Plant Pathology
Edward Hyatt Wight, B. S. (Princeton University) in Chemistry
*Andrew Hamilton Wright, B. S. (Kansas State Agricultural College) in Agronomy
Pond Sheppon Wu, B. S. (Purdue University) in Civil Engineering

Master of Philosophy

Thomas Lyman Bewick, Ph. B. (The University of Wisconsin) in Agronomy
Ira Odell Hubbard, Ph. B. (The University of Wisconsin) in Education
Lynn Ira Schoonover, Ph. B. (The University of Wisconsin) in History
James William Shannon, Ph. B. (The University of Wisconsin) in American History
William Edgar Slagg, Ph. B. (The University of Wisconsin) in Botany

*Degree conferred since commencement, 1915.

Civil Engineer

Byron Bird, C. E. (Iowa State College)
Thesis: An investigation of the pitot tube
Ralph Byron Clement, B. S. (Dartmouth College)
Thesis: An investigation of the profile of the stream below a submerged weir to determine the best regions for head measurement
*Frank Alfred De Boos, B. S. (The University of Wisconsin)
Thesis: A study of humidity and the control of humidity in buildings
Harrison Levi Garner, B. S. (The University of Wisconsin)
Thesis: The location and construction of high tension transmission lines
Howard B. Gates, B. S. (The University of Wisconsin)
Thesis: The construction of the Harlem river tubes—a portion of the subway system in New York City
Earl John Hewitt, B. S. (The University of Wisconsin)
Thesis: The experimental determination of the characteristics of a gould 6-inch double suction centrifugal pump
William Clay Penn, B. S. (The University of Wisconsin)
Thesis: A triangulation survey
Ren George Saxton, B. S. (The University of Wisconsin)
Thesis: Investigation of highways in Cuyahoga County, Ohio
Sidney James Williams, B. S. (The University of Wisconsin)
Thesis: Fire protection in public and quasi-public buildings with especial reference to governmental control and safety to life

Electrical Engineer

Phillip Sheridan Biegler, B. S. (The University of Wisconsin)
Thesis: Investigation of power plant conditions for a water power company serving a city of 30,000
*Kohniu Chien, B. S. (The University of Wisconsin)
Thesis requirement satisfied by Bachelor of Science thesis
Arthur Charles King, B. S. (The University of Wisconsin)
Thesis: Report on electric rates of the Union Gas and Electric Company, Cincinnati, Ohio
Eli Ross Manor, B. S. (The University of Wisconsin)
Thesis: Comparative efficiency tests of electric headlight equipments
James Garfield Zimmerman, B. S. (The University of Wisconsin)
Thesis: A new electrical ignition system as application of the circuit including a spark gap, a condenser, an induction coil, and a source of electricity in series arrangement

Mechanical Engineer

William James Freeman, B. S. (The University of Wisconsin)
Thesis: Report of value of property of the Pacific Gas and Electric Company, Phoenix, Arizona

*Degree conferred since commencement, 1915.

Elmer George Hoefer, B. S. (The University of Wisconsin)
Thesis: The problem of the heat, light, and power for the University of Wyoming with the design of a central station
Fred Viall Larkin, B. S. (The University of Wisconsin)
Thesis: Test of a 200 H. P. suction gas producer plant
Gustus Ludwig Larson, B. S. (University of Idaho)
Thesis: Tests on the recirculation of washed air
Edward Rand Richter, B. S. (The University of Wisconsin)
Thesis: The upper incline at Mayari, Cuba

Chemical Engineer

Robert Earl Baker, M. A. (University of Illinois)
Thesis: Cleaning and depositing brass with a single solution
George Cameron McNaughton, B. S. (The University of Wisconsin)
Thesis: The grinding of cooked and uncooked spruce and substitute for spruce in the manufacture of mechanical pulp

Engineer of Mines

Harold Osborn Davidson, B. S. (University of Michigan)
Thesis: The development of a Menominee range mine

Master of Public Health

Guy William Henika, M. D. (Harvey Medical College) in Medical Bacteriology
Thesis: A sanitary survey of the milk supply of the city of Madison

Doctor of Public Health

Walter Ernest Meanwell, M. D. (Baltimore Medical College) in Bacteriology and Pathology
Thesis: A sanitary survey of the ice cream of Madison, Wisconsin

Doctor of Philosophy

Jesse Hickman Bond, M. A. (University of Oregon) in Sociology, Political Economy, and Philosophy
Thesis: The teaching of professional ethics in American professional schools
*George Clinton Brandenburg, M. A. (University of Colorado) in Education, Sociology, and History
Thesis: Psychological aspects of language and grammar
*Eugene Hugh Byrne, B. L. (The University of Wisconsin) in European History, American History, and French
Thesis: Italian colonies in Syria during the crusades

*Degree conferred since commencement, 1915.

Clarence Marsh Case, M. A. (Brown University) in Sociology and Political Economy
Thesis: The social psychology of passive resistance

Gottlob Charles Cast, M. A. (Northwestern University) in German, English, and Philosophy
Thesis: Das Motiv der Vererbung im deutschen Drama des 19. Jahrhunderts

*Reginald Bancroft Cooke, M. A. (University of California) in Philosophy, Education, and Sociology
Thesis: The ethical system of F. E. Beneke

Julia Adrienne Doe, M. A. (The University of Wisconsin) in Greek and Latin
Thesis: Periphrases in Herodotus

*James Harold Doyle, M. A. (The University of Wisconsin) in Education and Sociology
Thesis: Intelligence and its measurement

Katherine Jeanne Gallagher, M. A. (The University of Wisconsin) in American History, English History, and Political Economy
Thesis: Social background of the old Northwest, 1835-1859

*Hardin Roads Glascock, B. A. (Ohio Wesleyan University) in Zoology, Embryology, and Botany
Thesis: Comparative spermatogenesis of turtle

Edmund Cecil Harder, M. A. (The University of Wisconsin) in Geology and Agricultural Bacteriology
Thesis: Contact metamorphism as represented by various iron ore deposits

*Raymond Davis Harriman, M. A. (The University of Wisconsin) in Latin, Greek, and History
Thesis: The spread of Latin in Egypt

John Nicholas Lowe, M. A. (Ripon College) in Zoology, Botany, and Physiology
Thesis: Action of chemical stimuli on the chromatophores of the brook trout salvelinus fontinalis mitchill

George Frederic Lussky, M. A. (The University of Wisconsin) in German and Greek
Thesis: The compound tenses in Old-Saxon

Charles August Mann, M. S. (The University of Wisconsin) in Chemistry and Applied Electro-chemistry
Thesis: Chemistry of saw palmetto berries

John William Oliver, M. A. (University of Missouri) in American History and Political Science
Thesis: History of the United States pensions since civil war

*Selig Perlman, B. A. (The University of Wisconsin) in Political Economy, Sociology, and Political Science
Thesis: American labor movements, upheaval and reorganization

Howard Edward Pulling, B. A. (Beloit College) in Botany and Chemistry
Thesis: The movement of water in aerotid soils

Elizabeth Anita Smith, M. A. (The University of Wisconsin) in Zoology and Botany
Thesis: Spermatogenesis of the dragon fly sympetrum semicenctum (Say)

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*Degree conferred since commencement, 1915.

Thomas Leslie Tanton, M. A. (University of Toronto) in Geology and Chemistry, Metamorphic Geology
Thesis: The relative importance of meteoric and magmatic waters in the deposition of certain primary ores
Heiskell Bryan Whaling, M. A. (University of Texas) in Political Economy and Political Science
Thesis: Fair value:—Economic and legal principles and tendencies
*Orville Turner Wilson, M. A. (University of Kansas) in Botany, Bacteriology, and Plant Pathology
Thesis: A study of Pseudopeziza Medicognis (Leaf spot of alfalfa)
John Whyte, M. A. (The University of Wisconsin) in German, German Philology, and English
Thesis: "Das junge Deutschland" in its relations to Great Britain
Herbert Wing, M. A. (The University of Wisconsin) in Ancient History, Greek, and Latin
Thesis: The financial relations of Athens to her allies in the Vth century

HONORARY DEGREES

Doctor of Laws

Edward Asahel Birge, Dean of the College of Letters and Science in The University of Wisconsin
Henry Baird Favill, Professor of Clinical Medicine in the Rush Medical College, Chicago

Civil Engineer

Charles Frederick Loweth, Chief Engineer of the Chicago, Milwaukee and St. Paul Railroad Company

GRADUATION HONORS

College of Letters and Science

Honors for Theses

Harry Neal Baum, in History
Thesis: Count Raymond of Toulouse
Mary Scoville Bemis, in Political Economy
Thesis: Investment philanthropy: A profitable investment? A profitable philanthropy?
George Marsters Bishop, in Chemistry
Thesis: On the equilibrium between calcium carbonate and carbon dioxide

*Degree conferred since commencement, 1915.

Alice Ladd Bitner, in Botany
Thesis: Studies of the life history of taphrina coryli nishida on corylus americana
Robin Carl Buerki, in Clinical Medicine
Thesis: The effect of thyroid feeding on the numerical leucocytic count of rabbits
Russell J. Carter, in Commerce
Thesis: Credit and accounting systems for retail grocers
Crawford Charles Edmonds, in Commerce
Thesis: Some current problems in railway finance
May Olivia George, in German
Thesis: Contemporary society in the dramas of Ibsen and Sudermann
Harry Samuel Gleick, in Political Economy
Thesis: Banking and currency situation in Missouri during the period of special charter legislation, 1803-1857
Ping Song Ho, in Political Science
Thesis: Constitutional development in China
Lloyd Harold Landau, in History
Thesis: Diplomatic relations between the United States and the far east since the Spanish-American war
Russell Francis Lewis, in Political Economy
Thesis: Effects of the European war upon American trade conditions
Marvin Marx Lowenthal, in History
Thesis: The Jew in 18th century America
Helen Charlotte Pence, in Latin
Thesis: Cicero and Anthony
Winifred Russell Rettger, in German
Thesis: The treatment of heredity in the modern German drama
William Edward Roth, in Mathematics
Thesis: The foundations of geometry and algebra III
Wilfred Hamilton Williams, in Commerce
Thesis: The sales contest
Kwang Pi Young, in Chemistry
Thesis: A new gravimetric method for the separation of aluminum from zinc, manganese, iron, chromium, cobalt, and nickel

Law School

Roger George Cunningham, B. A.
Warren Blaine Foster

Summary of Graduates

		1915
Number of first degrees granted, 1854-1915	11,461	723
Present Courses:		
Courses leading to the degree of Bachelor of Arts, 1904-1915	3,312	352
(Included in the above is the Course in Commerce, 1904-1915, 379; 1915, 45; and the Course in Journalism, 1914-1915, 19; 1915, 12.)		
Course for Normal School Graduates, Ph. B., 1898-1915	463	26
Chemistry Course, B. S., 1909-1915	62	14
Geology, B. S., 1914	1	
Medical Science Course, B. S., 1909-1915	100	23
Pharmacy Course, B. S., 1895-1915	53	3
Pharmacy Course, Ph. G., 1884-1915	322	8
School of Music, M. G., 1898-1915	132	4
Course for Supervisors of Music, 1910-1915	39*	10*
Course in Agriculture, B. S., 1878-1915	523	119
Home Economics Course, B. S., 1909-1915	113	39
Course in Agriculture (Middle Course) Ag. G. 1910-1915	94*	27*
Law Course, LL. B., 1869-1915	1,999	33
Civil Engineering Course, B. S., 1873-1915	605	26
Mechanical Engineering Course, B. S., 1876-1915	416	26
Electrical Engineering Course, B. S., 1892-1915	530	22
Chemical Engineering Course, B. S., 1903-1915	79	19
Mining Engineering Course, B. S., 1910-1915	28	9
Courses discontinued:		
Ancient Classical Course, B. A., 1854-1903	470	
Modern Classical Course, B. L., 1876-1903	548	
English Course, B. L. 1887-1903	458	
Civic Historical Course, B. L., 1893-1903	383	
General Science Course, B. S., 1886-1903	722	
School of Commerce (B. L., 8; B. S., 1) 1902-1903	9	
Normal Course, 1865-1868	25	
Metallurgical Engineering Course, B. M. E., 1876-1896	16	
General Engineering Course, B. S., 1901-1910	92	
Higher degrees on Examination, 1875-1915	1,768	210
Master, 1879-1915	1,187	151
Engineer, 1879-1915	294	34
(Included in the above is the Advanced Course in Engineering, 1910-1915, 67; 1915, 12.)		
Doctor of Public Health, 1912-1915	2	1
Doctor of Philosophy, 1892-1915	285	24

*Not included in totals.

Summary of Degrees

Number of first degrees granted, 1854-1915		11,461
Bachelor of Arts, 1854-1915	3,782	
Bachelor of Philosophy, 1898-1915	463	
Bachelor of Letters, 1876-1903	1,397	
Bachelor of Science, 1873-1915	3,325	
Bachelor of Metallurgical Engineering, 1876-1896	16	
Bachelor of Laws, 1869-1915	1,999	
Graduate in Music, 1898-1915	132	
Graduate in Pharmacy, 1884-1915	322	
Graduate in Agriculture (Middle Course), 1910-1915	94*	
Normal Course, 1865-1868	25	
Course for Supervisors of Music, 1910-1915	39*	
Higher degrees on Examination, 1875-1915		1,768
Master, 1879-1915	11,87	
Engineer, 1879-1915	294	
Doctor of Public Health, 1912-1915	2	
Doctor of Philosophy, 1892-1915	285	
Grand Total of first and higher degrees granted, 1854-1915		13,229

*Not included in totals

STUDENTS

GRADUATES

Fellows and Scholars

Andrews, Olive Viola — *Oshkosh*
B. A., University of Wisconsin, Teaching Fellow in Zoology
Bachhuber, Leo John — *Mayville*
B. S., University of Wisconsin,
Fellow in Experimental Breeding
Bohm, Erwin Herbert — *Madison*
M. A., Ohio State University, Henry Gund Scholar in German
Collins, Selwyn De Witt — *Harrisonville, Mo.*
M. A., University of Wisconsin,
Scholar in Political Economy
Conrad, Cuthbert Powell — *Madison*
B. S., University of Wisconsin Fellow in Hydraulic Engineering
Conrad, Elisabeth — *Madison*
M. A., University of Wisconsin,
Fellow in Romance Languages
Crawford, Finla Goff — *Cameron Mills, N. Y.*
Ph. B., Alfred University, Scholar in American History
Curry, Margaret McCune — *Terre Haute, Ind.*
B. A., University of Wisconsin, Teaching Fellow in English
Das, Rajani Kanta — *Dacca, India*
M. A., University of Wisconsin,
Honorary Fellow in Political Economy
De Verter, Paul Logan — *Crawfordsville, Ind.*
B. A., Wabash College, Scholar in Chemical Engineering
Dice, Charles Amos — *Strasburg, Ohio*
M. A., Harvard University, Fellow in Sociology
Ellman, Frances Catherine — *Madison*
M. A., University of Wisconsin, Teaching Fellow in French
Fagan, Riah Belle — *Columbia City, Ind.*
B. A., University of Wisconsin, Scholar in Latin and Greek
Faville, Katharine Ellen — *Lake Mills*
B. S., University of Wisconsin, Scholar in Chemistry
Ferris, Holmes Dunbar — *Beloit*
B. A., Beloit College, Beloit College Scholar (Political Science)

Fowler, Charles Vern — *Lawrence, Kas.*
B. S., University of Kansas, Scholar in Electrical Engineering

*Garey Alva Edward — *Edgecton*
B. A., Milton College, Milton College Scholar (Political Science)

Gibbs, William Merriott — *Springfield, Mo.*
B. S., University of Missouri, Scholar in Agricultural Bacteriology

Giessing, Charles Paul — *Brooklyn, N. Y.*
M. A., Cornell University, Fellow in German

Grinstead, Wren Jones — *Richmond, Ky.*
M. A., State University of Kentucky, Fellow in Education

Gruse, William Arthur — *Madison*
M. A., University of Wisconsin, Fellow in the Chemistry of Forest Products

Haake, Alfred Paul — *Madison*
B. A., University of Wisconsin, Scholar in Political Economy

Hadden, Jean Morgan tc — *Muskegon, Mich.*
B. A., University of Wisconsin, Teaching Fellow in French

Hargrave, Rose Edna — *Madison*
B. A., Lawrence College Lawrence College Scholar (English)

Hart, Ray Weston — *Madison*
C. E., University of Wisconsin, Fellow in Geology

Haulenbeck, Raymond Foulston — *Newark, N. J.*
B. A., Princeton University, Charles Kendall Adams Fellow in Greek

Hicks, John Donald — *Douglas, Wyo.*
M. A., Northwestern University, Fellow in American History

Hobson, Asher — *Madison*
M. A., University of Wisconsin, Fellow in Agricultural Economics

Hollcroft, Temple Rice — *Alton, Ind.*
M. A., University of Kentucky, Fellow in Mathematics

Jones, De Witt Owen — *Wales*
B. S., Carroll College, Carroll College Scholar (Chemistry)

Jones, Fred Reuel — *Madison*
M. S., University of Wisconsin, Scholar in Plant Pathology

Malone, Julian Yerkes — *Ripon*
B. A., Ripon College, Ripon College Scholar (Zoology)

Miller, Frances Howe — *Jefferson City, Mo.*
M. A., University of Missouri, Mary M. Adams Fellow in English

Miller, Sidney Lincoln — *Madison*
B. A., Kansas State Normal College, Fellow in Political Economy

Millner, Samuel Morehead, Jr. — *Danville, Va.*
B. S., Virginia Military Institute, Scholar in Romance Languages

Moore, Roger Emmett — *Madison*
B. A., University of Wisconsin, Scholar in Mathematics

Mueller, Norbert Robert — *Princeton*
B. S., University of Wisconsin, Hollister Fellow in Pharmacy

*Appointed for second semester, 1915–16.

Muttkowski, Richard Anthony — *Milwaukee*
B. A., University of Wisconsin, — Fellow in Zoology
Pieper, Ernest John — *Madison*
M. A., University of Wisconsin, — Fellow in the Chemistry of Forest Products
Quigley, Harold Scott — *Grand Forks, N. D.*
B. A., Oxford College, — Fellow in Political Science
Raney, William Francis — *Hastings, Nebr.*
B. A., Oxford College, — Fellow in European History
Reed, Jeannette Alta — *Ironspot, O.*
M. A., University of Wisconsin, — Fellow in Greek
Roberg, Philip — *Minneapolis, Minn.*
M. A., University of Wisconsin, — Fellow in Electrical Engineering
Roberts, Lucy George — *Berea, Ky.*
M. A., University of Wisconsin, — Fellow in Latin
Roberts, Marinda Ingalls — *Ft. Madison Ia.*
B. A., Milwaukee-Downer College, — Milwaukee-Downer Scholar (History)
Sayle, Mary Honora — *Madison*
B. A., University of Wisconsin — Teaching Fellow in Zoology
Seeberg, Elizabeth Alexandra tc — *Milwaukee*
M. A., University of Wisconsin, — Scholar in Philosophy
Strong, John Stoughton — *Albion, Mich.*
B. A., Albion College, — Fellow in Physics
Thompson, H. Walter — *McPherson, Kas*
M. A., University of Kansas, — Scholar in Political Science
Titus, Esbon Yokum — *Omaha, Nebr.*
B. A., University of Colorado, — Fellow in Chemistry
Underwood, Lucy Annis — *Montello*
B. A., University of Wisconsin, — Teaching Fellow in English
Vaughan, Floyd Lamar — *Madison*
M. A., University of Texas, — Fellow in Political Economy
West, Francis Everett — *Alma, Mich.*
M. S., Michigan Agriculture College, — Honorary Fellow in Botany
*Wing, Herbert — *Madison*
Ph. D., University of Wisconsin — Albert Markham Memorial Travelling Fellowship
Young, Louise — *Memphis, Tenn.*
M. A., University of Wisconsin, — Fellow in Philosophy
Young, Vive Hall — *Madison*
Ph. M., University of Wisconsin, — Fellow in Botany

Other Graduates

Abbott, Elmore Stuart — *Modesto, Cal.*
B. S., University of Nevada — Electrical Engineering
Abrams, Helen Humphrey — *Bridgeport*
B. A., University of Wisconsin — History
Acker, Mae — *Polo, Ill.*
B. A., Wittenberg College — English

*Not included in totals.

Alcock, Frederick James — *Meaford, Ont.*
Ph. D., Yale University — Geology
All, Fred Hunter — *Ellendale, S. C.*
B. S., Clemson College — Animal Husbandry
Allen, Herman Joseph — *Belleville*
B. A., University of Wisconsin — Geology
Amsdell, Hattie D. — *Hope, N. D.*
B. A., University of Iowa — Public Speaking
Anderson, Achsah Cornelia — *Milwaukee*
B. A., University of Wisconsin — History
Anderson, John Einar — *Salt Lake City, Utah*
B. A., Brigham Young University — Physics
Anderson, Russell Arnold — *Madison*
B. S., University of Wisconsin — Engineering
Armstrong, George Miller — *Barnwell, S. C.*
B. S., Clemson Agricultural College — Plant Physiology
Arneson, Ben Albert — *Madison*
M. A., University of Wisconsin — Political Science
Asbury, Joseph Lester — *Madison*
B. A., De Pauw University — Journalism
Baird, Edgar Alan — *Madison*
M. A., University of Wisconsin — Botany
Baker, Elizabeth — *Oconomowoc*
B. A., University of Wisconsin — Agriculture
Barker, Henry D. — *Tamassee, S. C.*
B. S., Clemson College — Agronomy
Barr, Walter James — *Crawfordsville, Ind.*
B. A., Wabash College — Physics
Bascom, Lelia — *Madison*
M. A., University of Wisconsin — English
Bassett, Herbert — *Madison*
B. S., University of Illinois — Geology
Bassett, Irene — *Bloomington, Ill.*
B. S., Illinois Wesleyan University — Music
Bateman, Ernest — *Madison*
Ph. B., Yale University — Forest Products
Baum, Harry Neal — *Madison*
B.A., University of Wisconsin — European History
Beach, Sarah Morehouse — *Bridgeport, Conn.*
M. A., University of Wisconsin — German Literature
Bean, Ernest F. — *Madison*
M. A., University of Wisconsin — Geology
Beath, John William — *Evansville*
B. A., University of Wisconsin — Education
Beatty, Benton Almon — *Parkersburg, W. Va.*
B. S., Kenyon College — Forest Products
Becker, Joseph Aloysius — *Hurley*
B. S., University of Wisconsin — Agricultural Economics
Bedford, Edwin Jefferson — *Fayette, Mo.*
B. A., Central College — Political Economy
Benger, Ernest Baden — *Madison*
M. S., University of Wisconsin — Chemistry

Bennett, James Percy	*Madison*
M. A., University of Missouri	Botany
Bentley, Wayne Harrison	*Stevens Point*
B. S., University of Wisconsin	Agricultural Chemistry
Bird, Francis Henry	*Madison*
M. A., Dartmouth College	Political Economy
Bishop, George Holman	*Ann Arbor, Mich.*
B. A., University of Michigan	Zoology
Bishop, George Marsters	*Madison*
B. S., University of Wisconsin	Chemistry
Black, John Donald	*Fort Atkinson*
M. A., University of Wisconsin	Political Economy
Blattner, George Wayman	*Madison*
B. A., University of Texas	Political Economy
Blosser, Christian B.	*Goshen*, Ind.
B. A., Indiana University	Horticulture
Bohnson, Van Lorens	*Madison*
B. S., University of Wisconsin	Chemistry
Bohstedt, Gustav	*Victor, Ia.*
B. S., University of Wisconsin	Agricultural Chemistry
Bonnell, John Kester	*Madison*
M. A., Harvard University	English
Bonnett, Robert Kline	*Manhattan, Kas.*
B. S., Kansas State Agricultural College	Agronomy
Boutwell, Paul Winslow	*Madison*
M. A., University of Wisconsin	Chemistry
Bowton, Reese C.	*Madison*
B. A., Indiana University	Education
Bradley, Robert Foster, Jr.	*Madison*
M. A., University of South Carolina	French
Brann, Albert	*Madison*
B. A., University of Wisconsin	Inorganic Chemistry
Brann, John William	*Baileys Harbor*
M. S., University of Wisconsin	Plant Pathology
Breckon, William Darche	*Oconomowoc*
B. Agr., Ontario Agricultural College	Agricultural Economics
Breese, Clinton Samuel	*Waukesha*
B. A., Carroll College	Commerce
Brenneman, William Dwight	*Merrimac*
B. A., Mount Union College	Political Economy
Brown, Elizabeth	*Madison*
B. A., University of Wisconsin	Romance Languages
Brown, Mabel Mary	*Platteville*
B. A., University of Wisconsin	Botany
Browning, Harold William	*Wakefield, R. I.*
B. S., University of Wisconsin	Botany
Bruce, Everend Lester	*Ottawa, Can.*
Ph. D., Columbia University	Geology
Brunelle, Augustus Hall	*Madison*
M. A., University of Wisconsin	History
Buckner, James Morgan	*Fairfax, S. C.*
B. S., Clemson Agricultural College	Agronomy

Burchard, Winfield — *Madison*
M. A., University of Wisconsin — Chemistry
Burhop, William Henry — *Sheboygan Falls*
B. A., University of Wisconsin — Political Economy
Burrill, Alfred Cummings — *Madison*
M. S., University of Wisconsin — Economic Entomology
Burton, Anna Livingston — *Livingston*
M. A., University of Wisconsin — Botany
Butcher, Ruth Moore — *St. Clairsville, O.*
Ph. B., Mt. Union College — English
Butler, Lee Wright — *Madison*
B. A., Simpson College — Physics
Cahn, Alvin Robert — *Chicago, Ill.*
M. S., University of Wisconsin — Zoology
Calkins, Kathleen Clinch — *Evansville*
B. S., University of Wisconsin
Cantu, Abel — *Teran, Mexico*
B. A., William Jewell College — Spanish
Carncross, Elmer Aeneas — *Lodi*
B. S., University of Wisconsin — Farm Management
Carns, Marie Louise tc — *Knoxville, Ill.*
B. A., University of Wisconsin — Physical Education
Carpenter, William Chase — *Plymouth*
B. A., Ripon College — Physics
Carsner, Eubanks — *Madison*
M. S., University of Wisconsin — Plant Pathology
Carter, Fred Gay m — *Madison*
B. A., University of Wisconsin — Medicine
Cary, Marie — *Madison*
B. A., University of Wisconsin — English
Caulfield, Ruby — *Gloster, Miss.*
B. A., Mississippi Industrial Institute and College — French
Charlton, Alice Grace — *Milwaukee*
B. A., Wellesley College — Chemistry
Childs, Edward Powell — *Asheville, N. C.*
B. S., Denison University — Education
Chrisman, Oscie Drusilla — *Athens, O.*
B. A., Ohio University — History
Clark, Emily Ethel — *Portage*
B. A., University of Wisconsin — Political Economy
Clark, Leona L. — *Portage*
B. A., University of Wisconsin — History
Clifford, Charles William — *Madison*
B. A., University of Denver — Agricultural Chemistry
Coerper, Florence Maude — *Hartford*
B. A., University of Wisconsin — Plant Pathology
Combs, Bert Lester — *Farmersburg, Ind.*
B. A., Wabash College — Physics
Conover, Frederic Le Roy — *Madison*
B. A., University of Wisconsin — Engineering
Conrad, Agnes — *Madison*
B. S., University of Arizona — English

Conrad, Sara Eugenia	*Madison*	
M. A., University of Wisconsin	Romance Languages	
Cook, Grant	*Eagle River*	
Ph. B., Lawrence College	Biology	
Cook, Guy Shimer	*Greenville, Ill.*	
B. A., University of Missouri	Physics	
Coulter, Ellis Merton	*Connelly Springs, N. C.*	
M. A., University of Wisconsin	American History	
Cousins, Clarence Edwin	*Salem, Mass.*	
M. A., University of Wisconsin	French	
Crane, Millard	*Winona Lake, Ind.*	
B. S., Purdue University	Agricultural Economics	
Crawford, Willard Goldsworthy	*Madison*	
M. A., University of Wisconsin	Chemistry	
Dahm, Thomas Matthew	*Madison*	
M. A., Northwestern University	Physics	
Davis, Melvin Knolen tc	*Madison*	
M. A., University of Wisconsin	Geology	
Davis, William Harold	*Cedar Falls, Ia.*	
B. A., Cornell University	Plant Pathology	
Davis, William Lloyd	*Madison*	
Ph. B., University of Wisconsin	Sociology	
Denise, Carrie Louise	*Burlington, Ia.*	
Ph. B., Grinnell College	Sociology	
Dexter, Elise Forsythe	*Madison*	
B. A., University of Wisconsin	German	
Dickoré, Marie Paula	*Cincinnati, O.*	
M. A., University of Cincinnati	Music	
Dixon, Esther Margaret	*Madison*	
M. A., University of Wisconsin	Spanish	
Dooley, Mabel	*Knoxville, Tenn.*	
B. A., Randolph Macon Woman's College	English	
Drescher, Benjamin Walter	*Sun Prairie*	
B. A., Baldwin Wallace College	German	
Drescher, Henry Adolph tc	*Sun Prairie*	
M. S., University of Wisconsin	Agricultural Chemistry	
Du Mez, Andrew Grover	*Cashton*	
M. S., University of Wisconsin	Pharmacy	
Eagan, Joseph Bernard	*Avoca*	
B. A., University of Wisconsin	Commerce	
Eberle, George Jacquinn	*Madison*	
B. A., University of Wisconsin	Political Economy	
Edmonds, Charles Crawford	*Madison*	
B. A., University of Wisconsin	Political Economy	
Edwards, Robert Dean	*Ithaca, N. Y.*	
B. S., Cornell University	Dairy Husbandry	
Eggleston, George Konti	*Dallas*	
B. A., Lawrence College	Political Economy	
Eimer, Edna	*Milwaukee*	
B. A., University of Wisconsin	English	
Eller, William Henri	*Alma*	
M. A., University of Wisconsin	German	

Elmendorf, Armin — *Madison*
B. S. M. E., University of Illinois — Engineering
Emsley, Bert — *Methuen, Mass.*
B. A., Harvard University — English
Engelhardt, Georgette Martha — *Milwaukee*
B. A., Milwaukee-Downer College — English
Eppels, Conrad Joseph — *Madison*
Royal Teachers College, Germany — German
Erdmann, Henry Ernest — *Madison*
B. S., South Dakota State College — Agricultural Economics
Essinger, Anna — *Madison*
German
Etter, Arthur Edward — *Monroe*
B. A., University of Wisconsin — Agriculture
Evans, Gertrude — *Madison*
B. A., University of Wisconsin — Manual Arts
Everett, James Roy — *Brownsburg, Ind.*
B. A., Indiana State Normal College — Mathematics
Fardy, Martin Joseph m — *Mukwonago*
B. S., Marquette University — Medicine
Federer, Francis Albert — *Waukesha*
B. S., University of Wisconsin — Pharmacy
Fedt, Andrew John — *McFarland*
B. A., Red Wing Seminary — English
Filter, Raymond O. — *Milwaukee*
B. A., Baldwin-Wallace College — Psychology
Finch, Vernor Clifford — *Madison*
B. S., University of Chicago — Geography
Finnegan, Charles Robert m — *La Valle*
B. A., Ripon College, — Medicine
Finner, Paul Frederick — *Dodge*
M. A., University of Chicago — Education
*Folks, Lalitha Marilla — *Yonkers, N. Y.*
B. A., Vassar College — Political Economy
Foshay, Nellie M. — *Topeka, Kansas*
B. A., Emporia College — Latin
Foster, Leighton George — *Madison*
B. A., Lawrence College — Agricultural Economics
Fowler, William Henry — *San Antonio, Texas*
B. A., University of Texas — Engineering
Francis, Emma — *Canton, Ohio*
B. S., Columbia University — Home Economics
Frehafer, Mabel Katharine — *Chestnut Hill, Pa.*
M. A., University of Wisconsin — Physics
Frey, Charles N. — *Caledonia, Mich.*
M. S., University of Wisconsin — Botany
Fried, Orrin A. — *Fountain City*
Ph. B., University of Wisconsin — Political Economy
Fulmer, Henry L. — *Batesburg, S. C.*
M. S., University of Wisconsin — Agricultural Bacteriology

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Gardner, Edward Hall — *Madison*
M. A., Columbia University — English
Gardner, Max William — *Madison*
M. S., University of Wisconsin — Plant Pathology
Garner, Eva Marie — *Grinnell, Ia.*
B. A., Grinnell College — Latin
Geib, Horace Valentine — *Caledonia, Mich.*
B. S., Michigan Agricultural College — Soils
Gerry, Eloise — *Madison*
M. A., Radcliffe College — Botany
Glaeser, Martin Gustave — *Sheboygan*
B. A., University of Wisconsin — Political Economy
Gonzalez, Bienvenido Maria — *Apalit, Pampanga, P. I.*
M. S., University of Wisconsin — Experimental Breeding
Goodchild, Elta Anne — *Havelock, Ia.*
B. A., Morningside College — German
Goodhue, Robert Shiell tc — *Madison*
B. S., University of Wisconsin — Soils
Gray, Frank — *Madison*
M. S., University of Wisconsin — Physics
Gray, George Harrison — *Madison*
B. S., Massachusetts Institute of Technology — Electrical Engineering
Greene, Mark Hindley — *Madison*
B. S., Utah Agricultural College — Agricultural Economics
Greenleaf, Charles Hunt — *Madison*
B. A., Stanford University — Romance Languages
Greenslade, Grover Rawle — *Walla Walla, Wash.*
M. A., University of Washington — Physics
Griffin, Clara Adelaide — *Madison*
B. A., Wellesley College — Journalism
Griffith, Clyde I. — *Madison*
B. A. E., Iowa State College — Agricultural Engineering
Gronert, Theodore Gregory — *Prairie du Chien*
M. A., University of Wisconsin — American History
Gwinn, Charles Sumner — *Madison*
B. A., Cornell University — Geology
Hagberg, John Bernhard — *Madison*
Ph. B., University of Wisconsin — Physics
Haines, Anne Shoemaker — *Swarthmore, Pa.*
B. A., Swarthmore College — German
Hamilton, Maud — *Emporia, Kans.*
B. A., Cornell University — Ancient History
Hammond, Aileen Spaulding — *Madison*
B. A., University of Chicago — Spanish
Hammond, Lester Davisson — *Madison*
M. A., University of Wisconsin — Chemistry
Hansen, Alvin Harvey — *Madison*
M. A., University of Wisconsin — Political Economy
Hanson, Lewis Peter — *Madison*
B. S., University of Wisconsin — Soils

Harbert, Arlos Jackson — *Clarksburg, W. Va.*
B. A., Washington and Lee University — Political Science
Harper, Hester Lewis Moore — *Madison*
B. A., University of Wisconsin — English
Hartman, Russell Edwin — *Lebanon, Pa.*
B. S., Pennsylvania State College — Plant Pathology
Hastings, Henry Panet — *Hartford, Conn.*
M. A., University of Wisconsin — Chemistry of Forest Products
Hawkins, Aubrey Leslie — *Madison*
M. A., Indiana University — English
Hawkins, Pliny Haine — *Madison*
M. S., Montana Agricultural College — Botany
Haymaker, Herbert Henley — *Wichita, Kas.*
B. S., Kansas State Agricultural College — Plant Pathology
H'Doubler, Margaret Newell — *Madison*
B. A., University of Wisconsin — Physical Education
Heidbreder, Edna — *Quincy, Ill.*
B. A., Knox College — Philosophy
Hemsath, Frederich Augustus — *Bethlehem, Pa.*
B. S., Muhlenberg College — Agricultural Bacteriology
Hetherington, Daisy Alford — *Madison*
B. A., University of Wisconsin — Education
Hewitt, Irving John — *Madison*
B. A., University of Wisconsin — United States History
Hickok, Irene Cole — *Brooklyn, N. Y.*
B. A., Barnard College, — Political Economy
Hill, Ada Elizabeth — *Madison*
B. A., University of Wisconsin — German
Hills, Thomas Lawrence — *Burlington, Vt.*
M. S., University of Wisconsin — Agricultural Bacteriology
Hobart, Clyde Monroe — *Madison*
M. A., University of Illinois — Philosophy
Holmes, Clarence Leroy — *Madison*
B. A., University of Michigan — Agricultural Economics
Hooley, Osborne Edward — *Milwaukee*
M. A., University of Wisconsin — History
Hoover, William H. — *Madison*
B. A., Wabash College — Physics
Horton, Anna Frances — *Ithaca, N. Y.*
B. S., Cornell University — Agricultural Chemistry
Horwitz, John Louis — *Madison*
B. S., Connecticut Agricultural College — Dairy Husbandry
Hostman, Milton H. — *Plymouth*
B. A., Ripon College — Physics
Hotchkiss, William Otis — *Madison*
C. E., University of Wisconsin — Geology
Houseman, Harley Vernon — *Madison*
M. A., Indiana University — Agricultural Chemistry
Howard, Henry C., Jr. — *Seattle, Wash*
B. S., University of Washington — Forest Products
Hubbard, Dorothy Rowe — *Madison*
B. A., University of Wisconsin — English

Hudson, Nelle G. *Boscobel*
Ph. B., University of Wisconsin Geology
Hughes, Alice Ethel *Portland, Ore.*
B. A., St. Mary's College, Portland, Ore. Latin
Hull, Clark Leonard *Madison*
M. A., University of Wisconsin Psychology
Humphreys, Harry Christopher *Organ Cave, W. Va.*
B. A., West Virginia University Education
Hungerford, Charles William *Madison*
M. S., University of Wisconsin Plant Pathology
Hunt, Richard Nash *Madison*
B. A., University of Wisconsin Geology
Hunter, Charles Axtell *Blue Rapids, Kas.*
B. S., Kansas State Agricultural College
Agricultural Bacteriology
Huntley, Howard White *Madison*
M. A., University of Wisconsin Chemistry of Forest Products
Hutchinson, Mark Eastwood *Madison*
M. A., University of Nebraska Latin
Ibsen, Heman Lauritz *Chicago, Ill.*
M. S., University of Wisconsin Experimental Breeding
Ingraham, Olin *Madison*
M. A., Columbia University Political Economy
Inomata, Tsunao *Nagaoka, Japan*
B. A., Waseda College Agricultural Economics
Jameson, Kate Wetzel *Madison*
M. A., University of Wisconsin German
Jerome, Gladys S. *Madison*
B. A., University of Omaha English
Jerome, Harry *Madison*
M. A., University of Wisconsin Political Economy
Johnson, Carl J. *Brookings, S. D.*
B. S., South Dakota State College Civil Engineering
Johnson, Huldah Marie *Madison*
B. A., University of Wisconsin English
Johnson, John Bernhardt *Suring*
B. A., Northland College Commerce
Johnson, Lillian Richards *Madison*
B. L., University of Wisconsin Political Economy
Johnston, Margaret *Burnt Prairie, Ill.*
B. A., Knox College German
Jolivette, Edna E. *La Crosse*
B. A., University of Wisconsin Physical Education
Jones, Llewelyn *Cambria*
B. A., Ripon College Chemistry
Jones, Maldwyn Lloyd *Racine*
B. S., University of Wisconsin Chemistry
Jones, Richard Uriah *Madison*
B. A., Macalester College Chemistry
Jones, Sarah Van Hoosen *Chicago, Ill.*
Ph. B., University of Chicago Animal Husbandry

Joslin, Elizabeth Verran — *Madison*
B. A., University of Wisconsin — Latin
Judd, Roy Clair — *Madison*
M. S., University of Wisconsin — Chemistry
Karlson, Eric Hjalmar — *Madison*
B. A., Augustana College — Philosophy
Kazda, Adolph Henry — *Manitowoc*
B. A., University of Wisconsin — History
Keffer, Ralph — *Madison*
M. A., University of Wisconsin — Mathematics
Kelley, Frank James — *Madison*
B. S., University of Pennsylvania — Experimental Breeding
Kelly, G. Norton — *Wausau*
B. A., Beloit College — Commerce
Kennedy, Cornelia — *Minneapolis, Minn.*
B. A., University of Minnesota — Agricultural Chemistry
Ketcham, Dorothy l a p s — *Indianapolis, Ind.*
M. A., Indiana University — Sociology
Kidder, Mary Agnes — *Madison*
Ph. B., University of Chicago — Sociology
Kinne, Burdette Ingersoll — *Madison*
B. A., University of Wisconsin — French
Kinney, Samuel Marks — *Madison*
B. A., Oberlin College — Political Economy
Kitchel, Anna T. — *Milwaukee*
B. A., Smith College — English
Knutsen, Martin Halvor — *Ridgeway*
B. S., University of Wisconsin — Agricultural Bacteriology
Koehler, Arthur — *Madison*
B. S., University of Michigan — Botany
Kowalke, Winifred Titus — *Madison*
M. S., University of Wisconsin — Home Economics
Kraft, Mary Helen — *Minneapolis, Minn*
B. A., University of Minnesota — German
Kranz, Hermann Ernest — *Madison*
B. S., University of Wisconsin — Electrical Engineering
Kressmann, Frederick William — *Madison*
M. S., University of Illinois — Chemistry of Forest Products
Kuhlman, Arthur Henry — *Madison*
B. S., University of Wisconsin — Animal Husbandry
Kumlien, Wendell Frichiof — *Whitewater*
B. A., Lawrence College — Agronomy
La Motte, Frank Linton — *Baltimore, Md.*
Johns Hopkins University — Chemistry of Forest Products
Lammel, Allabelle — *Neenah*
B. A., Lawrence College — Political Economy
Landegend, Edward Van — *Racine*
B. A., University of Michigan — Education
Langenhan, Henry August — *Madison*
M. S., University of Wisconsin — Pharmacy
Lanphier, Ira B. — *Milbank, S. D.*
B. S., South Dakota State College — Hydraulic Engineering

Larson, Alfred — *Wausau*
B. A., University of Wisconsin — Agricultural Bacteriology
Lebert, Eugene Marie — *Madison*
M. A., University of Wisconsin — French
Lee, Frederic Collins — *Madison*
B. S., Johns Hopkins University — Chemistry of Forest Products
Leedy, John Wentworth — *Madison*
B. S., University of Minnesota — Botany
Lewis, Harold Arthur — *Fond du Lac*
B. S., University of Wisconsin — Chemistry of Forest Products
Lewis, Mabel — *Madison*
B. A., Yankton College — Home Economics
Lewis, Neil Madison — *Ruston, La.*
M. A., Louisiana State University — Political Economy
Lindsay, Ruth Hutchinson — *Milwaukee*
B. A., Wellesley College — Botany
Link, Frances Mary — *Madison*
B. A., University of Wisconsin — Political Science
Lockhart, William Otto — *Owensville, Mo.*
B. S., Missouri University — Agricultural Education
Loft, Genivera Edmunds — *Fond du Lac*
B. A., University of Wisconsin — Geography
Longyear, John Munro, Jr. — *Madison*
M. S., Harvard University — Geology
Loughlin, Rosemary — *Madison*
B. A., State University of Iowa — Zoology
Lowry, Ralph Brownlee — *Lowryville, S. C.*
B. S., Clemson Agricultural College — Agronomy
Lundy, Gabriel — *Grand Forks, N. D.*
B. S., North Dakota Agricultural College — Agricultural Economics
Lyon, Albert Eddy — *Madison*
M. A., University of Wisconsin — Spanish
McCrory, Walter tc — *Milwaukee*
B. S., University of Wisconsin — Education
McGinnis, James Luther — *Madison*
B. S., Oregon Agricultural College — Agricultural Economics
McGregor, Ford Herbert — *Madison*
M. A., University of Wisconsin — Political Science
McKinley, Charles — *Madison*
B. A., University of Washington — Political Science
McKinley, Nellie L. — *Madison*
M. A., University of Washington — Political Economy
McKittrick, Leland Sterling m tc — *Eau Claire*
B. S., University of Wisconsin — Medicine
McMahon, Alma Louise — *Madison*
Ph. B., University of Wisconsin — History
Mallonee, Louis Dee — *Madison*
M. A., University of Wisconsin — Political Science
Malone, Alice — *Los Angeles, Cal.*
M. A., University of Michigan — German

Mardfin, Emilie — *New York, N. Y.*
B. S., Cornell University — Plant Pathology
Martin, Albert Pray — *Pawtucket, R. I.*
M. A., University of Wisconsin — German
Martin, Harry Edwin — *Madison*
M. A., Centre College — English
Martin, Hilmar George m — *Milwaukee*
B. A., University of Wisconsin — Medicine
Mathie, Edward Joseph — *Madison*
B. A., University of Wisconsin — Sociology
Matthew, Ernest Bertram — *Hays, Kas.*
B. A., Kansas State Normal School — Agricultural Education
Maw, Irene Augusta — *Madison*
B. A., University of Wisconsin — Political Economy
Meanwell, Walter Ernest — *Madison*
D. P. H., University of Wisconsin — Bacteriology
Mehl, Paul — *Madison*
B. S., Oregon Agricultural College — Agricultural Economics
Mehlig, Lee Percy m — *Madison*
B. S., University of Wisconsin — Anatomy
Mengelberg, Gertrude tc — *Milwaukee*
B. A., Wellesley College — German
Menzi, Ernest Ummel — *Madison*
M. A., University of Wisconsin — French
Miller, Frances Elizabeth — *Terre Haute, Ind.*
B. A., De Pauw University — Home Economics
Miller, Gladys — *Madison*
B. A., University of Wisconsin — History
Miller, Harry George — *Madison*
M. S., University of Wisconsin — Agricultural Chemistry
Miller, Maude — *Madison*
B. A., University of Wisconsin — Botany
Miller, Nina — *Madison*
B. A., University of Wisconsin — Political Economy
Mittelman, Edward Becker — *Milwaukee*
B. A., University of Wisconsin — Political Economy
Monroe, Ellis — *Yonkers, N. Y.*
B. A., University of Wisconsin — Agriculture
Moore, Charles Ellet — *Berryville, Va.*
B. S., Virginia Military Institute — Electrical Engineering
Morgan, Clyde Spencer — *Oakfield*
B. A., Ripon College — Physics
Morgan, De Witt Schuyler — *Tulsa, Okla.*
B. A., Henry Kendall College — Political Economy
Morris, Hannah — *Dodgeville*
B. A., University of Wisconsin — History
Morris, Harold Hulett — *Racine*
B. A., University of Wisconsin — Chemistry
Morris, Olive Christine — *Minneapolis, Minn.*
Ph. B., Syracuse University — Philosophy
Morrison, Frank Barron — *Madison*
B. S., University of Wisconsin — Agricultural Chemistry

Müller, Hugo cph — *Carter*
M. D., University of Michigan — Medical Bacteriology
Murray, Cecilia Elizabeth — *Madison*
B. S., University of Wisconsin — Home Economics
Murray, Frances Josephine — *Madison*
B. A., University of Wisconsin — Romance Languages
Nebel, Walter — *Madison*
M. S., University of Wisconsin — Chemistry
Nelson, Albert M. — *Yankton, S. D.*
B. A., Red Wing Seminary — Education
Nelson, Samuel Maximilian — *New Brunswick, N. J.*
B. S., Rutgers College — Sociology
Nelson, Thurlow Christian — *New Brunswick, N. J.*
B. S., Rutgers College — Zoology
Nelson, Vernus Edwin — *Argyle*
B. A., University of Wisconsin — Political Economy
Nelson, Victor Emanuel — *Madison*
M. S., University of Wisconsin — Agricultural Chemistry
Neumann, John Xavier — *Madison*
B. S., University of Wisconsin — Bacteriology
Ninman, Herman John — *Belle Plaine*
B. S., University of Wisconsin — Plant Pathology
Nœr, Oyvind Jual — *Madison*
B. S., University of Wisconsin — Chemistry
Orr, Lester B. — *Mt. Hope*
B. S., University of Wisconsin — Electrical Engineering
Owen, Rhoda Esther — *Milwaukee*
B. A., University of Wisconsin — History
Paine, George Porter — *Madison*
M. A., Harvard University — Mathematical Physics
Palit, Barendra Kumar m — *Madison*
B. S., University of Wisconsin — Medicine
Papazian, Kapriel Serope — *Madison*
B. A., Anatolia College — Education
Park, Stephen Alan — *Madison*
M. A., University of Wisconsin — Political Science
Parkinson, Anna Strong — *Madison*
B. S., University of Wisconsin — Economic Entomology
Parmenter, Charles Leroy — *Madison*
M. A., University of Southern California — Zoology
Paul, Joseph B. — *Madison*
M. A., University of Wisconsin — Education
Petersen, Max Heinrich — *Dundee, Ill.*
M. A., Northwestern University — Physics
Peterson, Francis Edwin — *Fergus Falls, Minn.*
B. A., Luther College — German
Phelan, Walter Abbott — *Brooklyn, N. Y.*
E. E., Brooklyn Polytechnic Institute — Physics
Pickett, Roswell Covert tc — *Madison*
B. S., University of Wisconsin — Economic Entomology
Pierson, Merle — *Milwaukee*
M. A., University of Wisconsin — Medicine

Pietenpol, William Brasser	*Waupun*
M. A., University of Wisconsin	Physics
Pitz, Walter	*Manitowoc*
B. S., University of Wisconsin	Agricultural Chemistry
Plunkett, Charles Tuck	*Cambridge, Mass.*
M. A., Harvard University	Romance Languages
Pohle, Marguerite Ruth	*Madison*
B. A., University of Wisconsin	Latin
Potter, George Frederick	*Madison*
B. S., University of Wisconsin	Horticulture
Pressentin, Olga Charlotte	*Madison*
B. A., University of Wisconsin	Physical Education
Prine, Charles W.	*Hillsboro, Ohio*
B. S., Denison University	Physics
Pritz, Wesley Brown	*Dayton, O.*
B. S., Ohio State University	Chemical Engineering
Raddatz, William G.	*Madison*
M. A., Northwestern University	Sociology
Rakshit, Hemendra Kisor	*Dacca, Bengal, India*
B. A., University of Wisconsin	European History
Rands, Robert Delafield	*Madison*
M. S., University of Wisconsin	Plant Pathology
Rapps, Grover Herman	*Milwaukee*
B. A., University of Wisconsin	Semitic Languages
Reddy, Charles Steven	*Madison*
B. S., University of Wisconsin	Plant Pathology
Reeves, Goldie Jackson	*Cloverdale, Ind.*
B. A., Indiana State Normal School	Latin
Richards, C. Audrey	*St. Marys, O.*
M. A., Miami University	Botany
Richardson, James Edward, Jr.	*Pardeeville*
B. A., Johns Hopkins University	Horticulture
Ridenour, Harry Lee	*Madison*
M. A., Harvard University	English
Ritter, Philip August	*Madison*
B. S., University of Wisconsin	Chemistry
Ritzman, Ralph Roscoe m	*Madison*
B. A., University of Wisconsin	Medicine
Roark, Eugene Washburn	*Madison*
M. S., University of Wisconsin	Plant Pathology
Roark, Mary Creegan	*Madison*
B. A., National University	Education
Roberts, Harold Stine	*Merchantville, N. J.*
M. A., Princeton University	German
Robinson, Byron Lewis M.	*Oconomowoc*
B. A., University of Wisconsin	Medicine
Roehm, Hiram Herbert	*Laurium, Mich.*
B. S., University of Wisconsin	Agricultural Bacteriology
Roeseler, Oscar Edwin Siegfried	*Superior*
B. S., University of Wisconsin	Chemistry
Rowe, May Augusta	*Beloit*
B. S., Beloit College	Home Economics

Roxas, Manuel Luz — *Lipa, Philippines*
M. S., University of The Philippines — Agricultural Chemistry
Rushton, Wyatt — *Montgomery, Ala.*
B. A., University of Alabama — Journalism
Rutledge, Ralph Merrill — *Corvallis, Ore.*
B. S., Oregon Agricultural College — Agricultural Economics
Ryan, Gertrude Eva — *Dubuque, Ia.*
B. A., Vassar College — English
Sands, Albert Theodore — *Chippewa Falls*
B. A., University of Wisconsin — Physical Education
Sawtelle, Donald Wing — *Madison*
M. S., University of Wisconsin — Agricultural Economics
Saxer, Alexander — *Milwaukee*
Graduate, Gymnasium, Switzerland — German
Schaal, Albert Amiel t c — *Cassville*
B. S., University of Wisconsin — Agricultural Chemistry
Schafer, Raymond Walter — *Jewell, Kas.*
B. S., Kansas State Agricultural College — Agricultural Economics
Schenkenberg, Lee Jay — *Waterford*
B. S., University of Wisconsin — Agricultural Chemistry
Schorger, Arlie William — *Madison*
M. A., Ohio State University — Chemistry of Forest Products
Schubring, Arthur Otto — *Madison*
B. S., University of Wisconsin — Horticulture
Schubring, Selma Langenhan — *Madison*
M. A., University of Wisconsin — English
Schuette, Henry August — *Madison*
M. S., University of Wisconsin — Chemistry
Schwartz, George Melvin — *Byron*
B. A., University of Wisconsin — Geology
Scott, Irene Nash — *Madison*
B. L., University of Wisconsin — Romance Languages
Searle, Ray Edwin — *Ripon*
B. A., Ripon College — Chemistry
Seybolt, Ottilie — *Madison*
M. A., University of Wisconsin — English
Shero, Lucius Rogers — *Racine*
M. A., University of Wisconsin — Greek
Silverstein, I. Philip — *Brooklyn, N. Y.*
E. M., Columbia University — Chemical Engineering
Simpson, Herbert Downs — *Madison*
M. A., Princeton University — Political Economy
Simpson, Thomas Marshall — *Madison*
M. A., University of Wisconsin — Mathematics
Sister Mary Aquinas Devlin — *Madison*
M. A., University of Wisconsin — Latin
Sister Mary Fidelis, O. S. D. — *Madison*
B. A., University of Wisconsin — Physics
Sloan, Edith Ann — *Brookings, S. D.*
B. S., South Dakota State College — Home Economics
Smith, Curtis Everett m — *Paris, Tenn.*
B. A., Mississippi Medical College — Medicine

Smith, Gilbert Brown Lorenzo — *Ellicottville, N. Y.*
B. A., Colgate University — Chemistry
Smith, Howell Kurtz — *Jarrettsville, Md.*
B. A., Western Maryland College — Chemistry
Smith, Pearl Mabry — *Washington, D. C.*
B. A., University of Wisconsin — Botany
Snyder, Myrtle Elizabeth t c — *Madison*
B. A., University of Wisconsin — Political Economy
Speek, Peter Alexander — *Madison*
M. A., University of Wisconsin — Political Economy
Steenbock, Harry — *Madison*
M. S., University of Wisconsin — Agricultural Chemistry
Steigleder, Emil Eugen — *Karlsruhe Baden, Germany*
Berlin University — Experimental Breeding
Steil, William Nicholas — *Madison*
Ph. B., University of Wisconsin — Botany
Stewart, Harold Wilson — *Madison*
B. S., University of Illinois — Soils
Stewart, Theodosia — *Hazelton, Kas.*
B. A., University of Kansas — English
Stiehl, Oren Daniel — *Madison*
Ph. B., University of Wisconsin — Education
Stine, Oscar Clemen — *Madison*
Ph. B., Ohio State University — Agricultural Economics
Stocking, Mary Bosworth — *Boston, Mass.*
B. S., Simmons College — Home Economics
Stone, Edith Adrienne — *Madison*
B. A., University of Wisconsin — Physical Education
Strang, Anna Holden — *Madison*
B. A., Colorado College — Plant Pathology
Strowd, Wallace Headen — *Madison*
M. S., University of Wisconsin — Agricultural Chemistry
Stuessy, Sylvia Gertrude — *Madison*
B. S., University of Wisconsin — Home Economics
Sutherland, Margaret — *Eau Claire*
Ph. M., University of Wisconsin — History
Sweet, Howard Elliott — *Des Moines, Ia.*
B. S., Drake University — Chemical Engineering
Szlupas, Keistutis George — *Scranton, Pa.*
B. S., Pennsylvania State College — Physics
Tanner, Burton Frank — *Norman, Okla.*
B. L., Dakota Wesleyan University — Public Speaking
Taylor, Agnes Laura — *Barron*
B. A., University of Wisconsin — Political Economy
Taylor, Edward Gordon — *Newtonville, Mass.*
B. S., Massachusetts Institute of Technology — Physics
Taylor, Eugene — *Madison*
M. A., De Pauw University — Mathematics
Tennant, Herschel Vern — *Madison*
B. S., Dakota Wesleyan University — Agricultural Engineering
Te Selle, Hazel Rozella — *Sheboygan Falls*
B A., University of Wisconsin — Physics

Textor, Clinton Kenney — *Madison*
B. S., University of Wisconsin — Chemical Engineering
Thayer, Frank Barnes — *Racine*
B. A., Oberlin College — English
Thompson, Milton Winfield — *Madison*
M. A., University of Illinois — Political Science
Tisdale, Wendell Holmes — *Madison*
M. S., University of Wisconsin — Plant Pathology
Tomhagen, Edith Sommer m — *Madison*
B. A., University of Wisconsin — Medicine
Toole, Eben Henry — *Madison*
B. A., University of Wisconsin — Botany
Towne, Laura — *Madison*
B. A., University of Wisconsin — Romance Languages
Truog, Emil — *Arcadia*
M. S., University of Wisconsin — Chemistry
Turner, Clarence Lester — *Milwaukee*
M. A., Ohio Wesleyan University — Zoology
Tylor, William Russell — *Easton, Md.*
B. A., Swarthmore College — Political Economy
Unzicker, Samuel Peter — *Tuleta, Texas*
B. A., Goshen College — Chemistry
Vollmer, Lawrence J. — *Milton Junction*
B. A., Union College, Nebraska — History
Wales, Julia Grace — *St. Andrews East, Quebec, Canada*
M. A., Radcliffe College — English Literature
Walker, J. Charles — *Racine*
M. S., University of Wisconsin — Plant Pathology
Wann, Louis — *Madison*
M. A., Columbia University — English
Wanner, Theodore L. — *Fargo, N. Dak.*
M. A., Hamline University — Physics
Weaver, Paul John — *Madison*
B. A., University of Wisconsin — Music
Weik, Dorothy Ames — *St. Louis, Mo.*
B. A., De Pauw University — Home Economics
Weir, James Henry — *Mukwonago*
B. S., University of Wisconsin — Education
Weniger, Wanda — *Milwaukee*
B. S., Oregon Agricultural College — Botany
Wetmore, Mary Rhoda — *Madison*
M. D., University of Michigan — Medicine
White, Gertrude Marean — *Burdett, N. Y.*
M. A., University of Wisconsin — Zoology
White, Harold M. — *Oshkosh*
B. A., Ripon College — Mining Engineering
Wiebe, Hermann H. — *Madison*
B. A., University of Nebraska — German
Wight, Edward Hyatt — *Madison*
M. S., University of Wisconsin — Chemistry of Forest Products
Williams, Frank Ernest — *Madison*
M. A., University of Wisconsin — Geography

Williamson, Robert Crosier — *Madison*
B. A., University of Wisconsin — Physics
Williamson, Robert Vernon — *Wells, Ore.*
B. S., Oregon Agricultural College — Chemistry
Winston, John Robinson — *Hood River, Ore.*
M. S., Pennsylvania State College — Plant Pathology
Witte, Edwin Emil — *Watertown*
B. A., University of Wisconsin — Political Economy
Wood, Frederick — *Zionsville, Ind.*
B. A., University of Wisconsin — Mathematics
Woodbridge, Lydia Dudley — *Duluth, Minn.*
B. L., Mt. Holyoke College — German
Woodworth, Clyde Melvin — *Madison*
M. S., University of Wisconsin — Experimental Breeding
Wright, Andrew Hamilton, — *Madison*
M. S., University of Wisconsin — Agronomy
Wright, Kathleen — *Milwaukee*
B. A., Saint Clara College — English
Wright, Rowe — *Milwaukee*
B. A., University of Wisconsin — English
Youmans, John Barlow — *Mukwonago*
B. A., University of Wisconsin — Medicine
Young, Kwang Pi — *Tientsin, China*
B. A., University of Wisconsin — Chemistry
Yui, Stewart Erb Shuin — *Wuchang, China.*
B. A., Boone College, China — Political Science
Zimmerman, Elisabeth Tabita — *Kalamazoo, Mich.*
B. A., University of Michigan — German

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UNDERGRADUATES

COLLEGE OF LETTERS AND SCIENCE

Seniors

Albers, Ruth Hermione	*Wausau*
Alvord, Ellsworth Chapman l	*Washburn*
Anderson, Mamie Elizabeth t c	*Grantsburg*
Appleyard, George Seaborne	*Ashland*
Assovsky, Abraham	*Sun Prairie*
Atwood, Fannie Elizabeth	*Madison*
Axon, Margaret Forrest t c	*Lodi*
Baily, Sarah Elizabeth	*Sac City, Ia.*
Baker, Beatrice	*West Bend*
Bannen, Dorothy Agnes t c	*Milwaukee*
Barnbrock, Henry, Jr.	*Madison*
Barnebey, Ethel Edessa	*Madison*
Bayley, Edwin Hobart	*Waupun*
Bechtel, Ethel Elizabeth	*Cavalier, N. D.*
Beck, Victor Van	*Madison*
Behrens, Paul Ellsworth	*Madison*
Belleville, Dorothy	*Sewichley, Pa.*
Benish, George Anthony	*Eau Claire*
Bernstein, Charles Ralph l	*Cleveland, O.*
Beyer, Bert John t c	*Milwaukee*
Bickel, John Marcher	*Racine*
Bird, Marie Eaton	*Wausau*
Black, Forrest Revere	*Tiffin, O.*
Black, Nellie Maude t c	*Madison*
Bloor, Edwin Garfield m	*Oconomowoc*
Blum, Genevieve Florence t c	*Eau Claire*
Bodden, Isabelle A. t c	*Milwaukee*
Bodman, Charlotte Maconda	*Madison*
Bogart, Franklin Blevins m	*Chattanooga, Tenn.*
Bonar, Barnet Edward m	*Madison*
Bond, Harry William m	*Wheeling, W. Va.*
Bosshard, Jessie Margaret	*Woodstock, Ill.*
Boulware, Lemuel Ricketts	*Springfield, Ky.*
Brandenburg, Earl William	*La Crosse*
Breidablik, Julie Ellida	*Madison*
Brice, Elizabeth t c	*Lima, O.*
Briggs, Henry Russell l	*Madison*
Brown, Marion Clarkson m t c	*Webster Grove, Mo.*
Brown, Randolph Fletcher	*Indianapolis, Ind.*

Buech, William Frederick	*Milwaukee*
Burlingame, Lois Arlina t c	*Madison*
Burroughs, LeRoy Stanton	*Milwaukee*
Cadwallader, Laura Hanes	*Philadelphia, Pa.*
Campbell, Meredith Fairfax m	*Madison*
Carncross, Flora May	*Lodi*
Carpenter, Elbert Hand	*Racine*
Cartier, Vincent George	*Ludington, Mich.*
Chandler, Fremont Augustus m	*Bradley*
Chapin, Harold Fountain	*Minneapolis, Minn.*
Chase, Melvin Leslie	*Ashton, S. D.*
Cheng, Tsung-Hai	*Chekiang, China*
Christensen, Dorothy Bess t c	*Madison*
Clarke, Irma Marie t c	*Superior*
Colby, Grace t c	*Madison*
Coleman, Dora Leeanna t c	*Madison*
Collentine, George Ernest m	*Monroe*
Comstock, Mary Cecelia Everett t c	*Madison*
Connors, Harold Francis	*Hurley*
Conover, Charles Sydney	*Madison*
Conover, Marion Clark	*Madison*
Cunningham, Robert John l	*Janesville*
Dabney, William Lyle	*Shelfax, Va.*
Dahlman, Clara Marie t c	*Sheboygan*
Dahm, Justine Genevieve t c	*McGregor, Ia.*
Davies, Ruth Eaton	*Madison*
Dean, James Reeve m	*Madison*
De Bolt, Albert Chester	*Oklahoma City, Okla.*
De Bruin, Louis Cornelius	*So. Kaukauna*
Decker, Myrtle Margaret t c	*Roswell, N. M.*
Dembitz, Annette	*Louisville, Ky.*
Deming, Genevieve Elizabeth	*Madison*
Dexter, Dorothy Dabb	*Madison*
Dillman, Ruth Esther	*Milwaukee*
Dittmar, Ada Alice	*Milwaukee*
Dittmar, Mabel Emily t c	*Milwaukee*
Dodd, Edith	*Ashland*
Donnelly, Ruth Clarissa t c	*Milwaukee*
Dorward, Elsie Estelle	*Madison*
Downs, Frank Emmett m	*Hurley*
Drowatzky, Leon Charles	*Tomah*
Dunn, Charles Bryan l	*Madison*
Dunn, Wendell Earl	*Madison*
Dunwiddie, Alan Warren	*Janesville*
Eagles, Leon Kinnerell	*Albion, Ind.*
Eastman, Arthur Andrews	*Madison*
Eastman, Walker Parrish	*Chicago, Ill.*
Ebinger, Ruth Elizabeth t c	*Aurora, Ill.*
Edwards, Ann Elizabeth t c	*Madison*
Egstad, Herman Melvin	*La Crosse*
Eitelgoerge, Norma Augusta t c	*Aurora, Ill.*
Eldred, Frank Claude	*Madison*

Elwell, Mary Frances t c	*McGregor, Ia*
Estrem, Theodore Adolph m	*Petersburg, Nebr.*
Eubank, Myrtle Ann	*Madison*
Euler, Arthur t c	*La Crosse*
Evans, Harold Boice	*Madison*
Falevsky, Edward Ludwig Carl t c	*West de Pere*
Farisy, Arthur Thomas m	*Franklin, Minn.*
Farr, Helen Esther w l s	*Eau Claire*
Finnerud, Clark Wiley m	*Watertown, S. D.*
Fiske, Seymour	*Philadelphia, Pa.*
Fleming, Florence t c	*Madison*
Foote, Evelyn Louise	*Waterloo, Ia.*
Fowler, Mary Lucile t c	*Fond du Lac*
Frawley, James Robert l	*Eau Claire*
Frazee, John Paul l	*Madison*
Fuller, Clara Bertram	*New York, N. Y.*
Gapen, Clara Marie t c	*Whitewater*
Garber, Ada Ruth t c	*Muskegon, Mich.*
Gavoille, Adele Rose	*Belleville*
Gay, Mabel Theressa t c	*Morris, Ill.*
Glassow, Ruth Bertha t c	*Schofield*
Gleason, Inez Evangeline t c	*Madison*
Goodwin, Alice	*Hartland*
Graewin, Robert August Charles t c	*Tomah*
Grant, Gerald Gregory	*Madison*
Grant, Robert Lexow	*Madison*
Greene, Otta Luella t c	*Connersville, Ind.*
Grove, Henry Frederick, Jr.	*Madison*
Grover, Stephen Freeman, Jr. l	*Madison*
Guequierre, Jacques Pierre m	*Madison*
Gullander, Magnhilde Alvira t c	*Madison*
Gurney, Carrie Louise	*Madison*
Hagerty, Bernice Icylene t c	*Knapp*
Hahn, Bernadette Irene t c	*Watertown*
Hall, Fred Menzo	*Madison*
Hamilton, Mary Jeannette t c	*Berlin*
Haner, Helen Sara t c	*Sun Prairie*
Hanley, Marguerite Catherine John	*Portage*
Hanson, Alma Carrie t c	*Medford*
Hanson, Bertha Gladys	*Stacyville, Ia.*
Hanson, Bess Frances	*Stacyville, Ia.*
Hanson, Elmer Glenn	*Hudson*
Hanson, Joel Hjalmar m	*Eau Claire*
Harpel, Charlotte Beverly t c	*La Crosse*
Hass, Melvin Herman	*Fond du Lac*
Hayes, Agnes Mary t c	*La Crosse*
Heath, George Earl	*Pardeeville*
Heineman, Mae Edna	*Merrill*
Heinrich, William Anthony m	*Cedarburg*
Helm, Elizabeth t c	*Rockford, Ill.*
Hemenway, Mary t c	*Madison*
Henken, Jacob Frank m	*Racine*
Herreid, Cecilia	*Madison*

Herrick, Roy Jefferson t c	*Horicon*
Herrington, Edna Truax t c	*Madison*
Herzog, Harry Joseph t c	*Madison*
Higgins, Irene t c	*Eagle River*
Hill, Carol Rogers	*Woodstock, Ill.*
Hillberry, Maud Eva m	*Blue River*
Hintzman, William Frederick	*Madison*
Hitchcock, Frances Loraine	*Oak Park, Ill.*
Hitt, Arthur Adolph	*Alma*
Hohlfeld, Helen Minnie t c	*Madison*
Holman, Alfreda Anna t c	*Milwaukee*
Horwitz, Jack m	*Milwaukee*
Howe, Margaret Ann t c	*Milwaukee*
Hughes, Margaret Mary	*Madison*
Jackson, Arnold Stevens m	*Madison*
Jackson, Genevieve Anne	*Aberdeen, S. D.*
Jameson, Raymond Deloy	*Madison*
Jamieson, Arthur A.	*Poynette*
Janes, Arthur De Witt l	*Tomah*
Jennings, Marion	*Sterling, Ill.*
Johnson, Donald Peter	*Grand Rapids*
Johnson, Edna Leoa t c	*Sloan, Ia.*
Johnson, Russell Lowell l	*Madison*
Johnson, Selma Johnethe t c	*Ellsworth*
Jones, Ina Emogene t c	*Madison*
Jones, Kathlyn Janette t c	*Fond du Lac*
Jones, May Eleanor t c	*Mitchell, S. D.*
Jordan, Raymond Wood	*Green Bay*
Josephson, Clifford Ivar	*Moline, Ill.*
Judson, Verna Eleanor t c	*Marshfield*
Kading, Earl Christian m	*Madison*
Karow, Edna Cornelia t c	*De Forest*
Kay, Rosaline	*Madison*
Keith, Ruth Alice	*Galesville*
Kelley, Elizabeth C.	*Mitchell, S. D.*
Kellington, Celestia May	*New Rockford, N. D.*
Kelly, Elizabeth Mary t c	*Briggsville*
Kerr, Harold Dabney m	*Catonsville, Ind.*
Kidder, Mattie Elizabeth	*Madison*
*Kiekhoefer, Viola Meta t c	*Fond du Lac*
Kiley, William Earl m	*Byron, Ill.*
King, Kenneth Caldwell	*Oak Park, Ill.*
Kingsley, Susanna	*Minden, Nebr.*
Kleb, Marie Rosine t c	*Reedsburg*
Kleiner, Lucile Charlotte	*Eau Claire*
Knight, Temperance Winifred	*Mineral Point*
Krippene, Harry Peter	*Oshkosh*
Kriskey, Imogene Clarissa t c	*Wausau*
Lambert, Helen Kathryn t c	*Merrill*
Larsen, Nellie May t c	*Lake Geneva*
Latham, Gwendoline t c	*Madison*

*Died March 20, 1916.

Lawson, Lillian Edith t c	*Menasha*
Lee, Francis Knut t c	*Elroy*
Leicht, Albert Edward	*Chicago, Ill.*
Leslie, Kathleen	*Verona*
Levis, George Winden	*Madison*
Lewis, Dorothy	*Indianapolis, Ind.*
Lewis, Raymond	*McFarland*
Lord, Vine David	*Cando, N. D.*
Luce, Marion Day t c	*Sturgeon Bay*
McCabe, Raphaella Catherine t c	*Abbotsford*
McCoy, Leslie Layton m	*Pittsville*
McDonald, Thomas Frank	*Marshfield*
McDougle, Verne Russell	*Charleston, Ill.*
McFadden, Doris Lucille	*Madison*
McGuire, Margaret Agatha	*Superior*
McHugh, Glenn Eller l	*Milwaukee*
Malone, Ralph Douglas t c	*Madison*
Manegold, Gertrude	*Milwaukee*
Mansfield, Esther Caroline	*Milwaukee*
Marsh, Carl James	*Madison*
Marsh, Harry Gilmore m	*Waunakee*
Marshall, Marion Genevieve t c	*Lodi*
Mathews, Madeline Eleanor t c	*Ashland*
Mattox, Madeline t c	*Aurora, Ind.*
Maw, Clarabel	*Madison*
Mayer, Elsie Dorothy	*Chicago, Ill.*
Mead, Fergus	*Milwaukee*
Meland, Norman	*Red Wing, Minn.*
Melnikow, Henry Playman t c	*Milwaukee*
Mertzke, Arthur John	*North Freedom*
Metzner, Albertine Emilie t c	*Plymouth*
Meuer, Alma Helen t c	*Madison*
Meyer, Laura Ann	*Prairie du Sac*
Meyers, Nell t c	*Rensselaer, Ind.*
Miller, Dora Mae	*Stoughton*
Miller, Kathryn Doris	*Markesan*
Milner, Myrtle Olive	*Charles City, Ia.*
Mills, Laura Roe	*Buffalo, N. Y.*
Mitchell, Vera t c	*Hillsboro*
Moll, Arthur Mackenzie m	*Kenton, Mich.*
Mueller, Amy Fredricka t c	*Madison*
Mueller, Bernard Christian	*Davenport, Ia.*
Müller, Herbert t c	*Reedsburg*
Murphy, Ambrose Edward	*La Crosse*
Myrland, Ruth Henrietta t c	*Madison*
Naffz, Ena Josephine	*Madison*
Nagle, Edna Marie t c	*Rock Rapids, Ia.*
Narr, Edward Richard	*Milwaukee*
Nebel, Catherine Elizabeth t c	*Milwaukee*
Newbury, Horace Charles m	*Waukesha*
Nichols, Lela Vanera	*Mauston*
Niederaur, Philip Mitchell	*Bryan, O.*
Noble, Thomas Benjamin m	*Indianapolis, Ind.*

Nolan, Edward Paul	*Madison*
Nuzum, Ralph Edgar	*Viroqua*
Olson, Sigurd Bernhardt	*Calumet, Mich.*
O'Malley, Thomas Stanley m	*Madison*
O'Neil, Marion Eugenia t c	*Chippewa Falls*
Opgenorth, Olive Carolyn	*Kewaskum*
Opstedal, Joseph Arnold m	*Madison*
O'Shea, Harriet Eastabrooks t c	*Madison*
Otterson, Joseph Orlando	*Madison*
Palmer, Frances Angeline t c	*Vernon Center, Minn.*
Parke, Vera Janet	*Madison*
Paul, Irene Rosalind t c	*Hurley*
Pearson, Cecil Philip	*Madison, N. J.*
Perry, Ralph Haney l	*Algoma*
Pesark, Helen Margaret t c	*Superior*
Petersen, Estelle Lillian	*Racine*
Petersen, Le Roy	*Amery*
Peterson, Evan Hugo l	*Stockholm*
Peterson, Rebecca Orpha t c	*Madison*
Pfeiffer, Reuben Roland l	*Plymouth*
Piggins, Ralph Sproule m	*Milwaukee*
Pleuss, Anita Valentine	*Madison*
Poppe, Hanna Dorothea t c	*Friendship*
Porter, Carl Elder l	*Madison, S. D.*
Pradt, Louis Atwater l	*Wausau*
Prescott, Ethel Marguerite t c	*Cambridge*
Pritchard, Lucile	*Aurora, Ill.*
Radke, Etta Ida t c	*Madison*
Rawson, Harry Walker l	*Plainfield*
Reed, Grace t c	*Sparta*
Richards, John Stanley t c	*Monticello*
Richards, William t c	*South Bethlehem, Pa.*
Rickmeier, Earl George	*Sheboygan*
Roach, Melba Clarice t c	*Fennimore*
Roberts, Florence Jean t c	*Superior*
Roberts, Royal Arlington l	*Racine*
Robinson, George Clarence t c	*Oconomowoc*
Robrock, Lawrence Martin	*Madison*
Rohan, Margaret Josephine t c	*Racine*
Rosenberg, Louis	*Milwaukee*
Rosenow, Gustav Adolph t c	*Menasha*
Ross, Amanda Ida t c	*Milwaukee*
Ross, Anne Henrietta Elizabeth t c	*Milwaukee*
Rounds, Cyrus Joseph	*Eau Claire*
Rousseau, Lousene Gwendolynne t c	*Rib Lake*
Sachtjen, Sylvia Marie	*Madison*
Sachtjen, Wilbur Paul	*Madison*
Sadler, Omar T. t c	*Hart, Mich.*
Salsbury, Helen Viola t c	*Cazenovia, N. Y.*
Sanders, Hazel Alvilda	*Madison*
Sarazin, Katherine Isabelle	*Superior*
Schaffer, Fred Byron	*Madison*
Schaller, Agnes Beatrice t c	*La Crosse*

Schappa, Gladys Wilcox t c	*Madison*
Scheuber, Frank Adolph	*Livingston, Mont.*
Schlossmann, Bernard m	*Waukesha*
Schneider, Chester Clayton m	*Milwaukee*
Schneider, Elsie Elizabeth t c	*Madison*
Schultz, Magnus Petersen	*Madison*
Schweickhard, Dean Merrill t c	*Mankato, Minn.*
Schweppe, Alfred John	*St. James, Minn.*
Seavert, Eloise Susan t c	*Chicago, Ill.*
Sevringhaus, Elmer Louis	*New Albany, Ind.*
Seymour, Leland S.	*Madison*
Sharkey, Edith Lucille	*Chicago, Ill.*
Shearer Harry Arthur m	*Fennimore*
Shepherd, Louise	*Madison*
Simmons, Horace Davis	*Milwaukee*
Skavlem, John Harvey m	*Stoughton*
Smith, Charlotte Estelle w l s	*Chicago, Ill.*
Smith, Edith M. t c	*Port Washington*
Smith, Helen Gertrude t c	*La Crosse*
Smith, Maxwell Austin	*Madison*
Spiering, Lillie Luise t c	*Mayville*
Spohn, Daniel M.	*Goshen, Ind.*
Stadelbauer, Fred Walter	*Madison*
Stavrum, Edwin Richard	*La Crosse*
Stephens, Stephen De Witt t c	*Madison*
Stephenson' Verne Lindsay	*South Bend, Ind.*
Stevens, Frederica Leighton	*Madison*
Stewart, Katherine Bernice t c	*Madison*
Stirwalt, Cyrena Belle	*Prairieton, Ind.*
Stone, Frank Moore	*Madison*
Strickland, William Kimball	*Superior*
Sturtevant, Imogen t c	*Madison*
Sutherland, Bessie Irene t c	*Eau Claire*
Sutherland, Leah Elizabeth t c	*Dillon, Mont.*
Swanton, Milo Kendell l	*Madison*
Sword, Julia Cecil t c	*Madison*
Talbot, Jennie t c	*Berlin*
Tammen, Thomas Peter t c	*Nokomis, Ill.*
Taylor, Joseph Vincent m	*Marple, Nebr.*
Teschner, Else t c	*Milwaukee*
Thomas, Ruth Marie t c	*Chicago, Ill.*
Thompson, Roland Louis m	*Elroy*
Thompson, Victor Emanuel	*Madison*
Thuringer, Adele Victoria t c	*Madison*
Tiffany, Jay Miller	*Aberdeen, S. D.*
Tomlinson, Ruth Muriel t c	*Ashland*
Tompkins, Miriam Downing t c	*Wauwatosa*
Treat, Isabel Glenn	*Indianapolis, Ind.*
Trezise, Harry Lewis	*Ironwood, Mich.*
Trilling, Blanche M.	*Madison*
Turner, Wells Eugene	*Wausau*
Vail, Samuel Crane	*Beloit*
Van Arsdale, Helen Susan	*Racine*

Van Dyke, Madge Patterson t c	*Kilbourn*
Van Liere, Edward Jerald m	*Bristol*
Vaughn, Madge t c	*Des Moines, Ia.*
Volk, Hubert Thomas l	*Plymouth*
Wahl, Margaret Lydia	*Milwaukee*
Wahle, George Henry m	*Marshfield*
Waite, Jay Davies t c	*Amery*
Wakefield, Henry Don	*Milwaukee*
Ward, Joseph Leon	*Decatur, Ill.*
Ward, Lyman Casey	*Washington, D. C.*
Warrick, Ennis Champ	*Madison*
Watson, Florence Giddings	*River Forest, Ill.*
Wedel, Sylvia Carmen	*St. Louis, Mo.*
Wegge, William Edward m	*Milwaukee*
Wells, Caroline Mary t c	*Madison*
Westcott, Penelope Sheild	*Baltimore, Md.*
Wheeler, Crawford	*Eau Claire*
White, Webb Bogart	*Humboldt, Ia.*
Whitman, Francis Nunn	*Los Angeles, Cal.*
Wickham' James Arthur l	*Eau Claire*
Wilder, Marjorie E. t c	*Evansville*
Williams, Laurence Henry	*Delavan*
Williams, Ray Evan	*Dodgeville*
Wilson, Ann Elizabeth t c	*Brookings, S. D.*
Wilson, Margaret Mabel	*Green City, Mo.*
Winter, Coie Bertha t c	*River Falls*
Wise, Merton Barber	*Rothschild*
Witthuhn, Elmer William t c	*Appleton*
Wittwer, Elgia Lelia	*Madison*
Wollaeger, Erich Christopher William	*Madison*
Wood, Henrietta Holmes t c	*Madison*
Wood, Iris Leota	*Madison*
Woodard, Allen Byrne	*Marengo, Ill.*
Wright, Katharine Marcia m	*Forest Glen, Md.*
Yeager, Susan Amelia t c	*Darlington*
Yocum, William Kerns	*Glen Moore, Pa.*
Young, Isabel Helen m t c	*Madison*
Zillmer, Helen Jane	*Milwaukee* —392

Course in Commerce

Altendorf, Florenz George	*Port Washington*
Ayer, Forrest Lamont	*Verona*
Banting, Fergus Frank	Stoughton
Barton, Maurice L.	*Albany*
Bauman, John Sprague	*Oshkosh*
Benedict, Harry Ellis	*Neillsville*
Bottum, Stewart Neil	*Tulare, S. D.*
Brown, Lehm Lincoln	*Madison*
Burmeister, Roy Frederick	*Gratiot*
Butterbaugh, Grant Illion	*Grand Rapids*
Chickering, Alfred Dorance	*New London*
Clarke, Lyle C.	*Baraboo*

Clifford, William Foster	*Evansville, Ind.*
Conley, John George	*Eau Claire*
Connor, Edwin Joseph	*Madison*
Duncan, John Nelson	*Green Bay*
Eder, Abraham John	*Milwaukee*
Fellows, Donald Ross Hotchkiss	*New Orleans, La.*
Findorff, Milton Bremer	*Madison*
Froehlich, Armand Lamfrom	*Milwaukee*
Garling, Richard Henry	*Mayville*
Gittings, William Leroy	*Racine*
Goldie, William Bradshaw	*Milwaukee*
Harris, Charles Keath	*Superior*
Heineman, Walter Edmund	*Milwaukee*
Henry, Charles Lloyd	*Madison*
Hoeveler, Theodore Anthony	*Madison*
Imhoff, Thomas Hunt	*Newark, N. J.*
Jensen, Ben Melvin	*Grantsburg*
Kimball, Archie William	*Briggsville*
Knapstein, Theodore Michael	*New London*
Kucheman, Marco Ray	*Bellevue, Ia.*
Kuentz, Herbert Daniel	*Colby*
Leaper, Clarence	*Green Bay*
Leslie, Robert Wilson	*Antigo*
Link, Othmar Charles	*Madison*
Lynch, Laurence Joseph	*Blue Mounds*
Marsh, Samuel Alpheus	*New London*
Meyer, Elmer Ephraim	*Madison*
Morehart, Malcolm Butler	*Madison*
Morley, Frank Gearon	*Madison*
Morris, Frank Sloan	*Des Moines, Ia.*
Ramsdell, Glenn Lewis l	*Wausau*
Reimers, Fred Henry	*La Crosse*
Rieger, Harry William	*Sterling, Ill.*
Ross, William Ernest	*Madison*
Ruder, George Louis l	*Wausau*
Rumpf, Frederick William	*Stamford, Conn.*
Schmidt, Roy Hugo	*Davenport, Ia.*
Schmidt, William John Charles	*Two Rivers*
Schulz, Arthur Karl Frederick l	*Oshkosh*
Shapiro, Nathan	*Medford*
Simonson, Oscar Theodore	*Lanesboro, Minn.*
Smith, Earle Eugene	*Oshkosh*
Smith, Howard Leman	*Madison*
Smith, Lynwood Herbert	*Kansas City, Mo.*
Spooner, Truman Rhodes	*Whitewater*
Timson, Samuel Wilfred	*Madison*
Trumpf, Erwin, Clarence	*Madison*
Van Auken, Howard Myron	*Des Moines, Ia.*
Voss, Edward Fritz	*Davenport, Ia.*
Walsh, Dana Wykoff	*Madison* —62

Course for Normal School Graduates

Boucher, Nettalie Harriet	*Oshkosh*	
Budd, Emily Alice t c	*Fennimore*	
Edsall, Bessie Eva	*Ft. Atkinson*	
Granger, Clifford Elzer	*Peshtigo*	
Halverson, Henry Magnus	*Stevens Point*	
Hayden, Mary Marella t c	*Madison*	
Hein, Frederick William	*Milwaukee*	
Hodge, Edith Elizabeth	*Waunakee*	
Hodge, Evangeline Nanny t c	*Waunakee*	
Lightcap, Earl Kempthorne	*Madison*	
McGrath, Robert Timothy	*Madison*	
McNelly, Stephen Sumner t c	*Neillsville*	
Mock, Marguerite t c	*Milwaukee*	
Philipp, Ernest Joseph t c	*Milwaukee*	
Powers, Mary Grace t c	*Ellison Bay*	
Schafer, Ruby t c	*Chilton*	
Schlegel, Erna	*Westfield*	
Scott, Walter Alexander t c	*Elmwood*	
Simpson, George Lane	*Oshkosh*	
Starr, Mildred Brown t c	*Greeley, Colo.*	
Stocking, Myrtle Holmes t c	*Lindenwood, Ill.*	
Uber, August Harvey	*Milwaukee*	
Wilber, Hazel Elizabeth t c	*Galesville*	—23

Course in Chemistry

Bailey, Nathaniel Arthur	*Ashland*	
Bock, John Eric	*Milwaukee*	
Bosworth, Lloyd Athel	*Geneva, N. Y.*	
Duecker, Werner Wilfred	*Kiel*	
Duemling, Gerhard Wilhelm	*Milwaukee*	
Forbes, Merlin Arthur	*Horicon*	
Gaarder, Herbert Melvin	*Onalaska*	
Haverstick, George W.	*Waukesha*	
Hawes, Walter Charles	*Templeton*	
Johnson, Alfred Julius	*Stanley*	
Merrill, Henry Baldwin	*St. Paul, Minn.*	
Palmbach, Harry Richard	*Appleton*	
Richardson, Marston Samuel	*Madison*	
Schierz, Ernest Rudolf	*Milwaukee*	
Schilling, Fred Carl	*Horicon*	
Stephl, John Frank	*La Crosse*	
Tseng, Yu Mei	*Haimen Hsien, China*	
Williams, Garvin Daniel	*Cambria*	—18

Course in Journalism

Bill, James Raymond	*New Rochelle, N. Y.*
Boyle, Ruth Murrin	*Madison*
Crosser, Callendar Armstrong	*Madison*
Distelhorst, Fred Martin	*Dorchester*
Higgins, Martin Henry, Jr.	*Madison*

Kraus, Glenn Viering	*Marshfield*	
Lucas, Norman Columbus	*Milwaukee*	
Murphy, Harry Saunders	*Madison*	
Pittenger, Edward Mills	*Madison*	
Potter, Howard Irving	*Baraboo*	
Prussing, Arthur William	*Madison*	
Rech, William Athniel	*Kiel*	
Reedy, William Burke	*Madison*	
Wanzer, Irving Haight	*Wheaton, Ill.*	
Zache, Alex Frank	*Madison*	—15

Juniors

Abbott, John Hascall	*Madison*
Adams, Adelaide Angela t c	*Madison*
Adams, Marjorie Mae t c	*Chicago, Ill.*
Adler, Philip Abrams	*Madison*
Albright, Raymond William	*Milwaukee*
Anderson, Stanley Augustus	*Superior*
Andrews, Joy Ella	*Portage*
Andrews, Stella Malitta t c	*Madison*
Aney, Melvin Carl	*Sparta*
Anson, Barry Joseph t c	*Muscatine, Ia.*
Antes, Herbert Pullen	*Sayner*
Armen, George Kriker m	*Racine*
Ashby, Mary Alice t c	*Indianapolis, Ind.*
Ausman, Gladys Magdalene t c	*Eau Claire*
Austin, Marjorie Lucia t c	*Sterling, Ill.*
Axley, Harold m	*Cleveland*
Bachhuber, Carl Alvin m	*Mayville*
Bacon, Frances Fairchild	*Madison*
Baird, Austin Joseph	*Waukesha*
Baker, Elizabeth	*Evansville*
Baker, Verena Marcella	*Fond du Lac*
Baldwin, George Smith	*Youngstown, O.*
Ballard, Abbie Erminie	*Milwaukee*
Ballard, Eilleen Mae	*Evansville*
Barker, Robert Isaac t c	*Boscobel*
Barr, Helen Adeline	*River Forest, Ill.*
Barwig, Adele Eliza	*Mayville*
Battig, Leon	*Milwaukee*
Baumann, Adolph Otto W.	*Kiel*
Becker, George William	*Kenosha*
Bell, Donald Chesbro	*St. Joseph, Mo.*
Bemis, Alice Louise	*Chicago, Ill.*
Bennett, Genevieve t c	*Lancaster*
Bent, Winifred	*Oshkosh*
Benton, Joseph Levi m	*Richland Center*
Berg, Max John	*Waupun*
Berger, Carl Herman	*Milwaukee*
Bergum, Belle Regina t c	*Madison*
Berryman, Brownell	*Lexington, Ky.*
Bitterman, Ruth Genevieve t c	*Madison*

Black, Guy Woodron	*Fort Atkinson*
Blau, Clara Marie t c	*Spring Green*
Bleckwenn, William Jefferson m	*New York City*
Blum, Fred Gabriel	*Monticello*
Boelte, Leda Henrietta t c	*Columbus*
Boll, Helen Flanders t c	*Rice Lake*
Bond, Edith Lorraine	*Madison*
Bordelon, Grace Weymouth t c	*Bunkie, La*
Boyd, William Rowland	*Evanston, Ill.*
Brabant, Josephine Mary	*Madison*
Bradish, Norman Conyers	*Decorah, Ia.*
Brady, Victoria Virginia t c	*Chicago, Ill.*
Brand, Warner Holmes	*Madison*
Brewer, Fred French	*Menomonie*
Brooks, Dudley Cookingham t c	*Madison*
Brown, Alois Anthony m	*La Crosse*
Brown, Christine Etna	*Urbana, O.*
Brown, Lela Calhoun t c	*Hailey, Idaho*
Brown, Louise Caroline t c	*Madison*
Bruns, Dorothy Mary	*Lake Mills*
Bryan, Walter Reid	*Madison*
Bullis, Harry Amos	*Madison*
Bunn, Bertha Kellett	*Spokane, Wash.*
Burke, Mead	*Chicago, Ill.*
Burke, Ruth Alice May t c	*Fort Smith, Ark.*
Burns, Robert Emmett m	*Madison*
Burtner, Emma Florence	*Germantown, O.*
Burwell, Marjorie	*Madison*
Calvert, Jacob Grafins	*Jersey Shore, Pa.*
Caradine, Mahlon Humphrey t c	*Monroe*
Cargill, George Mac Millan	*Madison*
Carlson, Charles Gordon	*Ishpeming, Mich.*
Carlton, Marjorie Frances	*Laurium, Mich.*
Carr, Maurice Tipple	*Stoughton*
Carrell, Ross Marmon	*Des Moines, Ia.*
Carter, Eleanor Allen t c	*Louisville, Ky.*
Cazier, Lucile	*Chicago, Ill.*
Chapman, Edmund Sewall	*Lake Geneva*
Chapman, Margaret Frances t c	*Milwaukee*
Chase, Ruth Wayland	*Madison*
Clark, James George, Jr.	*Oshkosh*
Clark, John Lindsay t c	*Steubenville, O.*
Clark, Kenneth Dyer	*Chicago, Ill.*
Clark, Lois Agnes	*Madison*
Clark, Lois Jean	*Boise, Idaho*
Conover, Julian Darst	*Madison*
Cook, Irene Croxton	*Bluffton, Ind.*
Coughlin, Mary Gertrude t c	*Watertown*
Cozzens, Mildred Josephine t c	*Pueblo, Colo.*
Cramer, Clarence Everett	*Madison*
Crane, William Hanlon	*Chicago, Ill.*
Cremer, Marcia Baird t c	*Cashton*
Cummings, Charles Milton	*Oberlin, O.*

Cummings, Raymond Henry t c	*Madison*
Curtis, Gay Waite	*Janesville*
Dahl, Charles Henry	*Marinette*
Davis, Marguerite Vivian	*Williams Bay*
Davis, Marion Evelyn	*Sioux City, Ia.*
Dawson, Dorothy Ware t c	*Waverly, Ia.*
Day, Florence Evelyn t c	*Lake Geneva*
Day, Florence Hodson t c	*Hartford*
Dickens, Evelyn Forster	*Milwaukee*
Dickie, Ethel Adeline t c	*Black River Falls*
Dietel, Else Harriett	*Waterloo, Ia.*
Dillman, Mary Cecelia t c	*Randolph*
Dobie, Jessie Murray t c	*Superior*
Donaldson, Emily Lucile	*Racine*
Duffy, Gladys Marguerite t c	*Fond du Lac*
Dunton, Mary Olive	*Sycamore, Ill.*
Durrie, Agnes	*Madison*
Duvall, Gladys Carolyn t c	*Kewaunee, Ill.*
Dyson, Helen Clarke	*La Crosse*
Eastman, Mary Eleanor	*South Bend, Ind.*
Eaton, Starr Sedgwick	*Madison*
Ebbert, Georgia Grosvenor	*Oak Park, Ill.*
Eddy, Elizabeth McKee	*Hot Springs, Ark.*
Edwards, Eugene Theodore	*La Crosse*
Egan, Ellen Winifred t c	*Shullsburg*
Ellis, Mabel Evangeline t c	*Madison*
Ellis, Robert Charles	*Madison*
Emerson, Herman Adolph	*La Crosse*
Emery, Myra Teel	*Madison*
Evans, James Ambrose	*La Crosse*
Farrand, Jack Easton	*Fargo, N. D.*
Fauerbach, Louis, Jr.	*Madison*
Feeney, Jerome Joseph	*Madison*
Feinberg, Samuel Maurice m	*Watertown*
Feldman, Louis Charles	*Thiensville*
Felsher, Augusta Rose m	*Madison*
Felsher, Hannah m	*Madison*
Felten, Hilbert Oscar	*Milwaukee*
Fenelon, Eunice Sarah t c	*Weyauwega*
Fischer, Roy Frederick m	*Lancaster*
Fisher, Grace Genevieve t c	*Baraboo*
Forschler, Viola May	*La Crosse*
Foulkes, Thomas Robert	*Madison*
Fowler, Esther Lucile t c	*Fithian, Ill.*
Fox, Lucia Byrne	*Madison*
Fox, Osmon Charles	*Madison*
Franklin, Newton Lucius	*Madison*
Freer, Norman Bradford	*Hinsdale, Ill.*
Fricke, Zura Marion t c	*Neillsville*
Fuller, Florence Dell t c	*Madison*
Fuller, Vivian Marguerite Lauretta	*La Crosse*
Fullerton, Anna Marguer te	*Janesville*
Garber, Frank Webster	*Muskegon, Mich.*

Garner, Lloyd Milton	*Madison*
Gasser, William Pope m	*Freeport, Ill.*
Gath, Helen Dorothy	*Madison*
Gault, Elizabeth Collins t c	*Portage*
Gavin, Arthur t c	*Ashland*
Gerrits, Irma Dorothy t c	*Cedarburg*
Gevers, Carl Montague t c	*Racine*
Gill, Charles Albert	*Madison*
Gilpin, Margaret	*Duluth, Minn.*
Glassner, Esther Miriam t c	*Milwaukee*
Gould, Dorothy	*Evanston, Ill.*
Graper, Herbert Frederic	*Fort Atkinson*
Greene, Marjorie	*Prophetstown, Ill.*
Griswold, Katharine Parker	*West Salem*
Grootemaat, Elmer Harry	*Milwaukee*
Gunderson, Gunnar m	*La Crosse*
Gunderson, Sigurd Bjarne m	*La Crosse*
Gurney, Ellen Anna t c	*Madison*
Habhegger, Elmer Otto	*Milwaukee*
Hagopian, Bedros	*Troy, N. Y.*
Haley, Lillian Claire	*Madison*
Hall, Earl Hopkins m	*Oconto*
Hamilton, Florence Irene m	*Tomah*
Hannon, Leo John m	*Sturgeon Bay*
Hansen, Erik	*Milwaukee*
Hanson, Alma Christine	*Eau Claire*
Harloff, Rose Alice	*Madison*
Harn, John Ivan	*Madison*
Hart, Dorothy	*Madison*
Hay, Katherine	*Dubuque, Ia.*
Hayden, Margaret Camilla	*Madison*
Hayes, Arthur Michael	*La Crosse*
Hayes, Charles Addison	*Chippewa Falls*
Hayward, Laura Mae	*Chicago, Ill.*
Hazelberg, Esther Vivian	*Barron*
Heimerl, William Arthur t c	*Madison*
Heise, Anna Sophia t c	*Madison*
Heiskell, Mary Loretta	*Memphis, Tenn.*
Helmes, Lloyd Oscar m	*Madison*
Henkel, Almira Lisetta t c	*Milwaukee*
Henry, Mary Ette t c	*Reedsburg*
Hevener, James Kenneth	*St. Paul, Minn.*
Higson, Francis Delmar	*Madison*
Hineline, Harris Dale	*Madison*
Hodges, Fred Jenner m	*Madison*
Holley, Mary Loraine t c	*Antigo*
Holmes, Marian Anna	*Madison*
Hopkins, Edward James	*Madison*
Huang, Feng-hua	*Canton, China*
Hubbard, Helen t c	*Washington, D. C.*
Hudson, Louise Dorothy t c	*Charleston, Ill.*
Hudson, Mary Harlow t c	*Madison*
Hughes, Fred Parker	*Shelbyville, Ind.*

Hull, Helen Claire t c	*Madison*
Hull, Juliette De Vean	*Madison*
Hunt, Margaret Lula	*Madison*
Hutchison, Josephine Ladner	*Mineral Point*
Hyslop, Robert James m	*Madison*
Irish, Foster William	*Eau Claire*
Isenberg, Estelle Helena t c	*Baraboo*
Jackman, Flossie Esther t c	*Madison*
Jacobsen, Alta Theodora	*Oshkosh*
Jacobsen, Esther Helena t c	*Madison*
Jansky, Cyril Moreau	*Madison*
Jeddeloh, Henry Johann zu t c	*Milwaukee*
Jenison, Marguerite Edith, t c	*Fond du Lac*
Jennings, Irene Hawley t c	*Grand Rapids, Mich.*
Jensen, Esther Andrea t c	*Racine*
Jillson, Mary Louise t c	*Ripon*
Johnson, Carlton Alvin	*Eau Claire*
Johnson, George Albert	*Cambridge*
Johnson, Gertrude Kildahl	*Madison*
Johnson, Ralph Burbank	*Roswell, N. Mex.*
Jones, Emery Morris	*Madison*
Jost, Della t c	*La Crosse*
Joy, Josephine Tremont	*Akron, O.*
Kalaw, Maximo Manquiat	*Washington, D. C.*
Kammerer, Helen Theresa t c	*Racine*
Kaufmann, Imogene Hope	*Huntington, Ind.*
Keeley, Margaret Mercedes t c	*Mayville*
Kehl, Sylvester Carl m	*Madison*
Kemmer, Frank Leonard t c	*Madison*
Kentzler, Ruth Purdy t c	*Madison*
Ketcham, Harley Edward	*Wittenberg*
Ketcham, Hazel Mae	*Grand Rapids, Mich.*
Ketcham, Iva Nodene	*Madison*
Kittleson, Eva Sylvia t c	*Elroy*
Klontz, Vernon Earl t c	*Freeport, Ill.*
Knowlton, Margaret Roper	*Madison*
Koehler, Lilly Minnie t c	*Menomonee Falls*
Koepp, William Paul t c	*Madison*
Kohlman, Albert Henry	*Lodi*
Krasselt, Otto Louis t c	*Milwaukee*
Krueger, Walter William t c	*Milwaukee*
Kuney, Bernice Donnelly	*Three Lakes*
Lackey, Esther Hutchins	*Oak Park, Ill.*
Laemle, Leah Florence t c	*Marshfield*
Lake, Frances Gertrude	*Brodhead*
Lake, Thomas Owens m	*Oshkosh*
Lambert, Wilbur	*Evansville, Ind.*
Lange, Eleanor Anna t c	*Wausau*
Lange, John Robert	*Wausau*
Langer, Harold Myron l	*Waterloo*
Langer, Helen Mary	*Chicago, Ill.*
Lane, Charlotte Margaret t c	*Alma*
Leary, Julia Lenore t c	*Madison*

Lebowsky, Charles Adolph l	*Madison*
Leggett, Marvin Charles	*Bismarck, Mo.*
Legler, Frederic Mills	*Madison*
Leven, Maurice	*Fond du Lac*
Lewis, Florence Elizabeth t c	*Madison*
Lind, Alberta Augusta	*Madison*
Loughlin, Agnes Celestine	*Madison*
Lounsbury, Helen Irene	*Madison*
Loy, Georgia Adeline	*Chicago, Ill.*
Luebchow, Erwin Otto t c	*Wausau*
Lynden, Eleanor Ruth t c	*Hayward*
McCann, Ray Thomas t c	*Edgerton*
McCarthy, Blanche Marie t c	*Madison*
McCarthy, Elizabeth Lucile	*Milwaukee*
McCrory, Raymond John	*Milwaukee*
MacGregor, Elizabeth Cruikshank	*Memphis, Tenn.*
Mackedon, William m	*Milwaukee*
McKennan, Rachel	*Quincy, Ill.*
McMahon, Arthur Emerson m	*Madison*
McMillan, Carol t c	*New York City, N. Y.‡*
McNamara, Hazel Joanna	*Prophetstown, Ill.*
McNeil, John Edward	*Madison*
McRoberts, John Harold	*Aledo, Ill.*
Maedje, Carl Waldemar	*E. Cleveland, O.*
March, James Herbert	*Warren, O.*
Marckwardt, Salome Ellen	*Ann Arbor, Mich.*
Martin, Hazel Isabelle t c	*Madison*
Meyer, Harrison A	*Milwaukee*
Middleton, Forest Case t c	*Madison*
Mielenz, Irving Albert t c	*Milwaukee*
Millar, Helen Rachel t c	*Lake Geneva*
Miller, George Ellsworth	*Fairmont, W. Va.*
Miller, Myrtle	*West Salem*
Miller, Sidney Fred	*Helena, Mont.*
Miner, Harry Eugene	*Milwaukee*
Moehlman, Lillian Susan t c	*Madison*
Morris, Edith Irene	*Oshkosh*
Morris, Kathryn	*Madison*
Morsell, Mary Pendleton t c	*Milwaukee*
Morton, Charles Delos	*Chicago, Ill.*
Moser, Clara Pauline	*Elgin, Ill.*
Mygrant, Ethel Marie	*Marble, Ind.*
Naidl, George Matthew t c	*Whitelaw*
Naylor, Vera Emma t c	*Tomah*
Nelson, Byron Christopher	*Madison*
Nelson, Clara Anna	*Milwaukee*
Nelson, John Roscoe t c	*Dodgeville*
Nelson, Theodora Chase t c	*Madison*
Nelson, Wilford Merriam m	*Madison*
Newman, Irene Mary t c	*Madison*
Newman, John Logan	*Milwaukee*
Nicely, Ruth Sarah t c	*South Bend, Ind.*
Nichols, Clio Johnston	*Gallipolis, O.*

Nix, Else Margaret t c	*Indianapolis, Ind.*
Noll, Inez Margaret	*Mashfield*
O'Brien, Marie Eileen t c	*Madison*
Olson, Henry John m	*Beloit*
O'Neil, Eleanor Catherine t c	*Chippewa Falls*
O'Neill, Norma Millicent t c	*Chicago, Ill.*
Oren, Elma Tomena t c	*Madison*
Orton, Claribel Elizabeth t c	*Marinette, Minn.*
Oskamp, Alfred Stuart	*Wyoming, Ohio.*
Palmer, Gladys Evelyn	*Oak Park, Ill.*
Pancoast, William Wiles	*Eaton, Ind.*
Parson, Leonard Bradt	*De Kalb, Ill.*
Patterson, Bertha Louise	*Madison*
Pederson, Wilhilmine Mildred	*Strum*
Peebles, Grace Elizabeth t c	*Oconomowoc*
Pelton, Glen Edwin	*Oshkosh*
Penhallegan, Mary Genevieve t c	*Mineral Point*
Penningroth, Benjamin Gottlieb	*Tipon, Ia.*
Peters, Robert Leroy	*Blue River*
Phillips, Harold Edward m	*Madison*
Pierce, Gladys Marie t c	*Brodhead*
Porter, John Emery t c	*Mukwonago*
Powell, Henry Miller	*Reedsburg*
Rainey, Edward Carlysle m	*Black River Falls*
Ramsay, Eleanore t c	*Madison*
Ramsey, Madeline Eva t c	*Chicago, Ill.*
Rehfeld, Frances Eugenia	*Milwaukee*
Reichert, John Lester m	*West Bend*
Reichert, Ramona t c	*West Bend*
Richardson, Chester Dee	*Madison*
Richdorf, Lawrence Francis m	*Maribel*
Rickett, Harold William	*So. Millbrook, N. Y.*
Rigast, Adolph t c	*Milwaukee*
Rivers, Thomas Ellis	*Madison*
Roantree, Robert Peter m	*Parker, S. D.*
Roberts, Ruth Olive t c	*Indianapolis, Ind.*
Robertson, Ruth Elizabeth	*Indianapolis, Ind.*
Roder, Esther Carolyn t c	*Madison*
Rodigan, Mary Virginia	*Racine*
Root, Margarette Josephine t c	*Peoria, Ill.*
Runge, Elizabeth Agnes	*Milwaukee*
Ryan, Mark Edward m	*Oconomowoc*
Sakrison, Elmira	*Madison*
Salsman, Thomas Jefferson, Jr. l	*Oak Park, Ill.*
Sarles, Frances Margaret	*Sparta*
Sawyer, Wilda Amy t c	*Menomonee, Mich.*
Schacke, Martha Alvina t c	*Reedsburg*
Schardt, Arlie Alfred t c	*Milwaukee*
Schmidt, Ernst Conrad	*Chicago, Ill.*
Schmidt, Irma Bertha	*Evansville, Ind.*
Schrader, Ilse Josephine t c	*St. Paul, Minn.*
Schreiner, Margaret t c	*Lancaster*
Schultz, George Howard t c	*Milwaukee*

Schweichler, Lothar Adolph	*Milwaukee*
Scilley, Jean Irene	*Billings, Mont.*
Seeger, Gladys	*Manitowoc*
Seibold, Fred Carl l	*Camp Douglas*
Seids, James Vane	*Moline, Ill.*
Sheakley, Eleanor Mary	*Chicago, Ill.*
Sherman, Ivan Ashley t c	*Marshall*
Shugrue, Margaret Genevieve t c	*Chicago, Ill.*
Siddons, Frederick Philip Heyward	*Washington, D. C.*
Sievers, Edward George	*New Holstein*
Simpson, Helen Winifred	*Madison*
Skavlem, Rebecca Janet	*Stoughton*
Skinner, Margaret Audrey	*Brookings, S. D.*
Smith, Harold David	*Platte, S. D.*
Smith, Nina Kathleen t c	*Beaver Dam*
Snaddon, Robert t c	*Madison*
Sollie, Clara Georgine t c	*Ashland*
Spain, Helen Frances	*Madison*
Spicer, Myrle Harrison t c	*Madison*
Staidl, Slevi Anton	*Shawano*
Stallman, Louise Helen t c	*Watertown*
Stander, Arthur Earl	*Madison*
Stang, Hartwick Martinus m	*Eau Claire*
Starry, Leo Joseph m	*Madison*
Stier, Dimple Iryl t c	*Whitewater*
Stitt, Lydia Isabel	*Rudolph, O.*
Stone, Hosmer Ward	*Madison*
Stoner, Lillian	*Osceola, Nebr.*
Sukeforth, Howard Arthur	*Duluth, Minn.*
Sweetman, Verna Blanche	*Indianapolis, Ind.*
Swerig, Vivian Pearl	*Madison*
Swingle, Ruth Mable t c	*Muscoda*
Tabor, Beatrice Carroll t c	*St. Ignatius, Mont.*
Taylor, Paul Schuster	*Sioux City, Ia.*
Te Linde, Richard Wesley	*Waupun*
Thomann, Albert Jacob	*Madison*
Thomas, Charles Signor l	*Chicago, Ill.*
Thompson, Esther Katharine	*Elmwood*
Thompson, Fred Rush m	*Cedarville, Ill.*
Thompson, Lila	*Elmwood*
Thompson, Nora Julia	*Milwaukee*
Thompson, Reuben Clinton	*La Crosse*
Thornton, Helen t c	*Indianapolis, Ind.*
Thwing, Consuelo Lay t c	*Toledo, O.*
Tillman, Arthur George	*La Crosse*
Tillotson, Ruth Amelia	*Madison*
Tobey, Ruth Hull	*Wausau*
Toerne, Emma Augusta M. L. von t c	*Ft. Atkinson*
Tripp, Marguerite t c	*Green Bay*
Truitt, John William m	*Naperville, Ill.*
Tuller, Cass Carlene	*Morrison, Ill.*
Tupper, Warren Ernest m	*Clarkston, Wash.*
Tyrrell, Gladys Dorothy	*Madison*

Van Den Berg, William John m	*Madison*
Vergeront, Marie Edna t c	*Madison*
Wall, John Irving m	*Antigo*
Warren, Anna Lucille t c	*Baraboo*
Wattawa, Esther Wilhelmine t c	*Madison*
Weeks, Frank Amelia	*Racine*
Weeks, Louis George	*Chilton*
Welker, Ernest Gottlieb m	*Fall Creek*
Weller, Charles Grafton m	*Fond du Lac*
Wells, Alberta May	*Denver, Colo.*
Wengler, Harold	*Madison*
Werner, Walter Albert Robert	*Adams*
Wessel, Iona Johene t c	*Madison*
Westcott, May Kendall	*Baltimore, Md.*
Westgate, Clyde James m	*Cadott*
Wheeler, Sylvester Laurence	*Wauwatosa*
Whitney, Katherine Townsend	*Madison*
Wiehl, Dorothy Gerard	*St. Joseph, Mo.*
Wilcox, Lyle Brownell	*Sterling, Ill.*
Wilde, Edwin m	*Milwaukee*
Willcox, Faith Elizabeth	*Mt. Vernon, N. Y.*
Williams, Virginia Baird	*Madison*
Williston, Horace Hays	*Billings, Mont.*
Wilson, Allene Eliza	*Cape Girardeau, Mo.*
Wolcott, Leonard Clark	*Highland Park, Ill.*
Wolcott, Roger Gilbert	*Rockford, Ill.*
Wolff, Waleska Georgia	*Elkhart Lake*
Wood, Beatrix Lanore	*Hancock*
Wood, Irving William	*Oakland, Cal.*
Wood, Meta Aileen t c	*Fulton, Mo.*
Wood, Ralph Hereld	*Hancock*
Woodhouse, Norma t c	*Bloomington*
Wooll, Gerald Kelley m	*Madison*
Wootton, Elizabeth Gage	*Madison*
Wright, Omar Burton	*Belvidere, Ill.*
Yabroff, Rose t c	*Fond du Lac*
Youmans, Henry Augustus	*Mukwonago*
Younker, Helen Hedwig t c	*Des Moines, Ia.*
Zeisig, Edward t c	*Milwaukee*
Zellmer, Carl Edward m	*Antigo*
Zischke, Herman Albert	*Horicon* —452

Course in Commerce

Beneke, Henry John	*Spokane, Wash.*
Bishop, Lawson Waterman	*Mallet Creek, O.*
Blumenfeld, Franklin David	*Madison*
Boldt, Arnold John	*Davenport, Ia.*
Brown, Lee Markham	*St. Louis, Mo.*
Buser, Earl Jones	*Madison*
Camp, Edwin Warren	*Madison*
Carlson, Paul Adolph	*Unity*
Chandler, Arthur Luther	*Madison*

Childe, John Pollock	*Wyoming, O.*
Collins, Harold Cornelius	*Madison*
Coughlin, Raymond Michael	*Baraboo*
Cunningham, Louis	*La Crosse*
Davis, Oak Robert	*Milwaukee*
Denfeld, George August	*Wausau*
Dickson, Wilbur George	*Two Rivers*
Dixon, Donald Pendleton	*La Crosse*
Docken, Clarence Oliver	*Mt. Horeb*
Donnelly, James Stuart	*Appleton*
Drowatzky, Bernard Harvey	*Tomah*
Easson, Graeme Sanford	*Spokane, Wash.*
Fellman, Judson LeRoy	*Milwaukee*
Field, Harry William	*Rice Lake*
Freund, Walter Emerson	*Cedarburg*
Friedberg, Joseph	*Milwaukee*
Fuller, George Milton	*Madison*
Gardner, Milton Laroy	*Ashland*
Garrigan, George Arthur	*Beloit*
Golla, Gertrude Marie	*Grand Rapids*
Good, Samuel Pulse	*Warren, Ind.*
Goza, Ned Steel	*Helena, Mont.*
Greunke, Emmery August	*Appleton*
Griem, Rolf	*New Holstein*
Haessler, Gertrude Johanna	*Milwaukee*
Haessler, Helen Annette	*Milwaukee*
Hamilton, Bradford	*Madison*
Hansberry, James Harry	*Wonewoc*
Harper, Benjamin Louis	*Peshtigo*
Helmer, John Horatio	*Clinton*
Hendricks, Wilbert Christian	*Tomah*
Henry, Albert James	*Michigan City, Ind.*
Herner, Morrow Benedict	*Milwaukee*
Heymann, Edgar Isaac	*Chicago, Ill.*
Hoffman, Otis Edward	*Madison*
Hoppert, Arno Henry	*Sheboygan*
Hughes, William Robert	*Milwaukee*
James, Raymond Hoerner	*Chicago, Ill.*
Jennett, Edward James	*Streator, Ill.*
Johnson, Albert Sigfred	*Shell Lake*
Jones, Silas Loyd	*Warren, Ind.*
Keeley, Clarence Armand l	*Mayville*
Kletzien, Adonis Theodore	*New Holstein*
Kletzien, Loyal Herman	*New Holstein*
Knorr, Arthur Herman	*Kiel*
Lange, Alex D.	*Portland, Ore.*
Langhoff, Carl Joseph	*Milwaukee*
Laughlin, John Leo	*Antigo*
Lederer, Carl Singer	*Chicago, Ill.*
Leonard, Lowell Austin	*Riverside, Ill.*
Lester, William Pullman	*Kenilworth, Ill.*
Lichtfeldt, Clarence Hellmuth	*Milwaukee*
Luebben, Gerold Edward	*Milwaukee*

McCoy, Frank Adelbert, Jr.	*N. Tonawanda, N. Y.*
McNulty, Mary Agatha	*Spring Green*
Macfadden, William Semple	*Fargo, N. D.*
Mack, William Davis	*Madison*
Mackenzie, James Norman	*N. Tonawanda, N. Y.*
Mahler, Herbert Phillip	*Milwaukee*
Mallow, Ray Shoults	*Madison*
Mandel, Herbert William	*Eau Claire*
Marshall, Harry Lloyd	*Chicago, Ill.*
Mathews, Austin Rice	*Omaha, Nebr.*
Millard, Paul Vilas	*Antigo*
Mills, Joseph Alderman	*Nevada, Ia.*
Mitchell, John Lendrum	*Milwaukee*
Monser, Edward Lomax	*Winona, Ill.*
Moon, Joseph Nathan	*Rosendale*
Nevin, William Ambrose	*Racine*
Nichols, Wellington Clifford	*Wausau*
Niemand, Alfred Richard	*Davenport, Ia.*
Noll, Frank Michael	*Alma*
Olsen, Harold Goodwin	*Rice Lake*
Petersen, Edward Moritz	*Kansas City, Mo.*
Piehl, Gunard Alfred	*Williams Bay*
Prange, Elmer William	*St. Louis, Mo.*
Quail, John Joseph	*Hayward*
Reyer, Hugo	*Colby*
Rimsnider, Harry Edgar	*Madison*
Rom, Roy George	*Milwaukee*
Routt, David	*Milwaukee*
Ruedebusch, Kurt Carl	*Mayville*
Russell, Samuel Wood	*Spokane, Wash.*
Schaefer, Leo Henry	*Muscoda*
Schubert, Arthur Frank	*La Crosse*
Schubert, Harold John	*Madison*
Schweke, Phillip Reinhart	*Reedsburg*
Service, George Lorenz	*Mishawaka, Ind.*
Shank, Carl Bradley	*Chicago, Ill.*
Shaw, Melvin Lawrence	*Edgerton*
Shipek, Edward	*Antigo*
Smith, Russell Evarts	*Madison*
Steele, Clay Evans	*Belmont*
Swinson, Carl	*Baraboo*
Taylor, Glenn Erwin	*Ashland*
Taylor, Russell Fayette	*Whitewater*
Thomas, Charles Gerard	*Kenosha*
Thomas, Foster Keith	*Madison*
Tikalsky, Charles William	*Madison*
Trebilcock, Arthur Francis	*Mineral Point*
Tree, Orville Le Roy	*South Wayne*
Tye, William Leo	*West Chicago, Ill.*
Watson, Elmer Eugene	*Fond du Lac*
Watzke, Louis August	*Madison*
Wiles, George Marshall	*Kansas City, Mo.*
Wilger, Charles Albert	*Sterling, Ill.*

Williams, Myron Charles	*Wausau*	
Withington, James Sterling	*Baraboo*	
Wolf, Clarence Nathan	*Sun Prairie*	
Young, William Monroe, Jr.	*Milwaukee*	
Zwickel, Ernest Maurice	*Madison*	—120

Course for Normal School Graduates

Allison, Alma t c	*Madison*	
Ames, Walter Ray	*Viola*	
Anderton, Ethel Vinita	*Prairie du Chien*	
Brandt, Roy Adelbert	*Madison*	
Damuth, Lenora Rosane t c	*Ft. Atkinson*	
Donalds, Elliott Raphael	*Superior*	
Donaldson, Nellie King	*Racine*	
Gebhard, Cornelia Marie	*West Allis*	
Gray, Richard	*Milwaukee*	
Grimm, Marvel Mary	*Cassville*	
Guenther, Emma Barbara t c	*Chilton*	
Johnson, Agnes Hansena	*Markesan*	
Jones, Jessie E. t c	*Janesville*	
Mueller, Frederick George t c	*Madison*	
Paulson, Walter Ernest	*Hollandale*	
Peterson, Alvin Martin t c	*Wausau*	
Prochaska, Joseph Frank t c	*Montfort*	
Remington, Ruth Roxanna t c	*Eau Claire*	
Ressmeyer, Emma Bertha	*Madison*	
Scherf, Etta	*Indianaplois, Ind.*	
Schraa, Nicholas Charles	*Madison*	
Stager, Luella Dorothy	*Superior*	
Teasdale, Hazel	*Darlington*	
Van Beek, Clara	*Aberdeen, S. D.*	
Warner, Nellie	*Madison*	
Whipp, Anna Mabel	*River Falls*	
Wilson, William Balfour	*Belleville*	—27

Course in Chemistry

Barber, George Edgerly	*Onalaska*	
Biersach, Henry Louis	*Freeport, Ill.*	
Ede, Richard Hoyt	*Union Grove*	
Etter, Rolland Robert	*Monroe*	
Fleck, Louis Carl	*De Pere*	
Fox, Conrad Marion	*Racine*	
Graper, Leslie Gilbert	*Fort Atkinson*	
Gregg, Wells Kellogg	*Milwaukee*	
Hardy, James Edward, Jr.	*Louisville, Ky.*	
Hosman, David Fay	*Madison*	
Huebner, Erwin Otto	*Oconomowoc*	
Jacob, Harold Monroe	*La Crosse*	
Jenkins, George Harry, Jr.	*Oak Park, Ill.*	
Krohn, Carl Arthur	*Marinette*	

Liang, Chuan-ling	*Tai-An, China*	
Meloche, Villiers Willson	*Madison*	
Phillips, Max	*Evansville*	
Quentmeyer, Philip Carl	*Watertown*	
Ramsdell, Guy Arthur	*Wausau*	
Renich, Florence Caroline	*Woodstock, Ill.*	
Rude, Theodore Alfred	*Washburn*	
Schunk, Oliver Henry	*Menomonee Falls*	
Scott, Earl William	*Cambridge*	
Smith, William Lester	*La Crosse*	
Stericker, William	*Manitowoc*	
Suhr, Lewis Delmar	*Madison*	
Vance, Sarah Huntoon	*Louisville, Ky.*	
Wessel, Henry Hermann Edward	*Milwaukee*	
Wiener, Joseph	*Superior*	
Zick, William John	*Sauk City*	—30

Course in Journalism

Ayer, Esther Newell	*La Grange, Ill.*	
Barlow, Reuel Richard	*Monticello*	
Blied, Leo John	*Madison*	
Buehler, Edmund	*Alma*	
Burton, Alfred Harrison	*Chicago, Ill.*	
Ellman, Florence Jeanette	*Madison*	
Getzloe, Lester Clyde	*Kiel*	
Hornaday, Hilton Parks	*Washington, D. C.*	
Johnston, Charles Frederic, Jr.	*Sheffield, Ia.*	
Judell, Maxson Foxhall	*Milwaukee*	
Kailen, Florence	*Madison*	
Moore, J. Willard F.	*Madison*	
Morris, John Harold	*Antigo*	
Orpet, William Henry	*Lake Forest, Ill.*	
Radder, Norman John	*Sheboygan Falls*	
Rosenblatt, Hymen	*Milwaukee*	
Strong, Edwin Joseph	*Milwaukee*	
Tuteur, Irving Morris	*La Crosse*	
Wheaton, Harriette Maude	*La Harpe, Ill.*	
Wilcox, Guy Chester	*De Pere*	—20

Sophomores

Adams, Hope	*Madison*	
Adams, Mae Alice	*Racine*	
Almstrom, Camilla Gertrude	*Ashland*	
Andrews, Lulu Belle	*Madison*	
Baragwanath, Cecil Helene	*Chicago, Ill.*	
Barger, Robert Lynne	*Chicago, Ill.*	
Barnes, Ruth	*Madison*	
Batty, Helen Margaret	*Madison*	
Beach, Richard White	*Newcastle, Ind.*	
Bebb, Alice Kathryn	*Nevada, Ia.*	

Beckwith, David Van Walker	*Berlin*
Beech, Ruth Spalding	*Adams*
Behre, Charles Henry, Jr.	*New Orleans, La.*
Bell, Dorothy Marion	*Willoughby, O.*
Belowsky, Harry P.	*Milwaukee*
Benson, Ada Lillian	*Princeton, Ill.*
Benson, Robert Henry	*Milwaukee*
Bentley, Faye Oretta	*Madison*
Berg, Lucile Harriet	*Ruthven, Ia.*
Berger, Walter Jesse	*Manitowoc*
Bieberman, Lucile Wilhelmina	*Duluth, Minn.*
Bigelow, Lowell Rumsey	*Madison*
Bill, Hester	*New Rochelle, N. Y.*
Bird, Frederick Donald	*Milwaukee*
Blackmun, Joy W.	*Menomonie*
Blair, John Covode	*Grand Rapids, Mich.*
Blied, Garry Russel	*Madison*
Blix, Ovid Bernhardt	*Turtle Lake*
Boardman, Newell Stephen	*New Richmond*
Bondi, Hobart Edward	*Madison*
Bonnett, Martha Tunstall	*Manhattan, Kas.*
Borden, William Henry	*Madison*
Bradley, Robert Stevens	*Washington, D. C.*
Brennan, Joseph Patrick	*Butte, Mont.*
Breyley, Captola Roe	*Wadsworth, Ohio*
Briggs, Howard Bovee	*Arena*
Briggs, Norman Randolph	*Coeymans, N. Y.*
Brinker, Dorothy Lillian	*Niagara Falls, N. Y.*
Brittingham, Edward George	*Los Angeles, Cal.*
Brorby, Melvin Le Roy	*Madison*
Brossard, Eugene Edward, Jr.	*Columbus*
Brown, Dorothy Grace	*Chicago, Ill.*
Brown, Mary Elizabeth	*Chicago, Ill.*
Brown, Neil Winthrop	*St. Louis, Mo.*
Buck, Marjorie	*Chicago, Ill.*
Buell, Helen de Yoe	*Madison*
Bundy, Katherine Mary	*Eau Claire*
Burch, William Ellridge	*Granston, Ill.*
Burlingame, Le Roy James	*Madison*
Calkins, Marion Clinch	*Evansville*
Cantwell, Roger Clifton	*Shawano*
Carpenter, Dow W.	*Des Moines, Ia.*
Carpenter, Matthew Aloysius	*Milwaukee*
Carter, Persis	*Hinsdale, Ill.*
Casey, Marcus Thomas	*New Richmond*
Casserly, Eugene Henry	*Madison*
Chamberlain, Margaret	*Milwaukee*
Childs, Marshall Howard	*Eau Claire*
Clancy, Marion	*Spokane, Wash.*
Clark, Florence Alberta	*Ida Grove, Ia.*
Clark, Jessie Overton	*Schoolcraft, Mich.*
Clark, Robert Hawley	*Grand Rapids, Mich.*
Clarke, Josephine Freeman	*Marietta, Ga.*

Clarke, Vera Margaret	*Madison*
Coapman, Maude L.	*Kilbourn*
Cobban, Lorraine Margaret	*Madison*
Cohoe, Avery Wilmont	*Chisholm, Minn.*
Cole, Marion Olive	*Chicago, Ill.*
Colosimo, Sarah Lois	*Hurley*
Combs, Catherine Millard	*Madison*
Connell, Elsie Barbara	*Menomonee Falls*
Coon, Harold Macomber	*Chicago, Ill.*
Corscot, Marion Ruth	*Madison*
Corstvet, Emma Gretchen	*Milwaukee*
Cox, Elizabeth Jean	*Madison*
Cranefield, Marion Charles	*Madison*
Crosby, Rosamond	*Grand Rapids, Mich.*
Culver, Catharine	*Milwaukee*
Curtis, Willard Lincoln	*Chicago, Ill.*
Dahle, Ralph Biorn	*Mt. Horeb*
Daily, Alice Eunice	*Dexter, Minn.*
Davidson, James Reifsnider	*Gary, Ind.*
Davis, Dudley Hopkins	*Madison*
Davis, Trayton Hooker	*Waupun*
Dawson, Helen Beryl	*Chicago, Ill.*
Deming, Joseph Byron	*Madison*
Dennis, Clayton Stanley	*Grand Rapids, Mich.*
Dick, Mary Catherine	*Marshfield*
Diedrich, Otto Peter	*Madison*
Dodd, Helen Rose	*Ashland*
Dodd, Joseph Conway, Jr.	*Louisville, Ky.*
Dodge, Newell Phelps	*Madison*
Driver, Camilles Ogden	*Racine*
Dummer, Ethel Sturges	*Chicago, Ill.*
Dunn, Florence Jane	*Madison*
Dunnette, Marian	*Grand Rapids, Mich.*
Durst, Willis Henry	*Monroe*
Eager, Leonard Prentice	*Evansville*
Eaton, Helen Orissa	*Madison*
Eaton, Howard Ormsby	*Madison*
Edwards, William Donaldson	*Leipsic, O.*
Egan, Howard Edward	*Madison*
Elder, Edwin Sharretts	*Keokuk, Ia.*
Elliker, Dorothea Sophia	*New Glarus*
Ellis, Mildred	*Des Moines, Ia.*
Endres, Otto V.	*La Crosse*
Erd, Willis Joseph	*Madison*
Erickson, Gertrude Winifred	*Evanston, Ill.*
Erickson, Orlando Rufus	*Hartland*
Ernst, Norman Conrad	*Chicago, Ill.*
Etteldorf, Marie Rosina	*Milwaukee*
Evans, Jessie Marion	*Alma*
Evans, Margaret Mae	*Columbus*
Everett, Lucile	*Denver, Colo.*
Eversoll, Norton John	*Cassville*
Ewald, Louis Philip	*Madison*

Ewing, Charles Oscar II	*Louisville, Ky.*
Fahlberg, Vera Wilson	*Madison*
Farnsworth, Howard Julius	*Muscatine, Ia.*
Farrell, Paul Dean	*Madison*
Felsher, Rosa	*Madison*
Ferguson, Mary Josephine	*Madison*
Ferris, Fanita	*Galesburg, Ill.*
Fish, Marion Hesketh	*Milwaukee*
Fitzgerald, Gertrude	*West Newton, Mass.*
Fitzgibbon, Bernice Bridget	*Waunakee*
Fleming, Marion Edith	*Eau Claire*
Fleming, Mary Florence	*Shullsburg*
Foley, Leon Francis	*Grand Rapids*
Forbes, Esther Louise	*Worcester, Mass.*
Farrand, James Leland	*Madison*
Forsythe, Ethel Gladys	*Oconomowoc*
Fox, Stephen Patrick	*Racine*
Francis, Hugh Huntington	*Bloomer*
Fraser, Margaret Alice	*Burlington*
Frazier, Cecil Austin	*Prescott*
Frish, Agnes Evelyn	*Madison*
Gardiner, Glenn Lion	*Edgerton*
Garibaldi, John George, Jr.	*Chicago, Ill.*
Garner, Georgiana Blackburn	*Astoria, Ore.*
Gates, John Ferdinand	*Racine*
Geer, Helen Frances	*Manitowoc*
Geiger, Kathryn Marie	*Monroe*
Germer, Gertrude Emily	*Chicago, Ill.*
Gether, Bernice Katherine	*Whitefish Bay*
Giesemann, Martha Adele	*Dubuque, Ia.*
Gilman, James Ward	*Evanston, Ill.*
Gontier, Constance Frechette	*Chicago, Ill.*
Goodwin, Harriet	*Hartland*
Gordon, Helen Mae	*Rapid City, S. D.*
Gordon-Smith, Gladys Elizabeth	*Madison*
Gordon-Smith, Jean Harriet	*Madison*
Gorman, Robert Nestor	*Cincinnati, O.*
Gosline, Carl Anthony	*Beloit*
Grant, James Evert	*Madison*
Green, Jessie Louise	*Ligonier, Ind.*
Grell, Isabel Eleanor	*Johnson Creek*
Grill, Hilda Kristine Ingefried	*Waupaca*
Grill, Karl Rudolf Natanael	*Waupaca*
Griswold, Mabel Elizabeth	*Madison*
Grosser, Clarence Reynolds	*Chicago, Ill.*
Halbert, Howard Valmore	*Chicago, Ill.*
Halsor, Anna Semelie	*De Forest*
Hanley, Mary Lois	*Milwaukee*
Hanson, Will Peter	*Michigan, N. D.*
Harrison, Elizabeth	*Madison*
Hartmann, Edna Gertrude	*Madison*
Hatch, Allen Eugene	*Spring Green*
Hayden, Marjory Alice Lee	*Riverside, Vt.*

Hayes, Louis James	*Janesville*
Hayes, Matthew Raymond	*Milwaukee*
Heckman, Raymond Mathias	*Merrill*
Henkel, Leona Rose	*Mason City, Ia.*
Henningsen, Carleton	*Oakfield*
Heseman, Harold Carl	*Evansville, Ind.*
Hessman, Amanda C.	*Madison*
Heublein, Clarence Martin	*Fox Lake*
Higgins, Catherine Romana	*Madison*
Hoefer, Merrill Clayton	*Freeport, Ill.*
Hogan, Carl Monta	*Ellendale, N. D.*
Holahan, Gretta Fenelon	*Atlanta, Ga.*
Holt, Hermann	*Kansas City, Mo.*
Hook, Gladys Marietta	*South Milwaukee*
Hopson, Perle Mary	*Madison*
Horter, Philip Mathew	*Milwaukee*
Hosmer, Margaret C.	*Ashland*
Houck, Knut H.	*La Crosse*
Hovrud, Nora Christine	*Mt. Horeb*
Huber, Kate D.	*Madison*
Hughes, Anne Myra	*Madison*
Huminston, Beatrice Hayden	*Madison*
Hutchins, Lee Wilson	*Grand Rapids, Mich.*
Ingwersen, Clara Marie	*Chicago, Ill.*
Irwin, Macaulay	*Quincy, Ill.*
Jacobson, Roland Arthur	*Billings, Mont.*
Jenny, Adele Theodora	*Milwaukee*
Johannesen, Rolf Thorleif Horn	*Delavan*
Johnson, Charles Wallace	*Chicago, Ill.*
Johnson, Genevieve Catherine	*Madison*
Johnson, Harvey Chester	*Superior*
Johnson, Julia Agnes	*Portage*
Johnson, Otto Nicholi	*Chippewa Falls*
Johnston, Edna Frances	*Rudolph, O.*
Jones, Doris Elizabeth	*Madison*
Jones, Irene Helen	*Burlington*
Jones, Mildred Elizabeth	*Madison*
Juster, Eugene Meyer	*Milwaukee*
Karch, Charles Henry	*Blue Island, Ill.*
Kasiska, William Herman	*Baraboo*
Keech, Estelle Virginia	*Racine*
Kelley, Agnes Illingworth	*La Grange, Ill.*
Kelly, Roy P.	*Ashland*
Kennedy, Dorothy Elizabeth	*Ashland*
Kepke, Clara Louisa Fredericka	*Madison*
Kersten, Hugo Marie	*Two Rivers*
Keyes, Orton Francis	*Waldo*
King, Alice Van Patten	*Madison*
Kinnan, Marjorie	*Madison*
Kinne, Harold Everett	*Orofino, Idaho*
Kinsman, Frank Cyrenus	*Manawa*
Kleinheinz, Theresa Marie	*Madison*
Knickel, Walter Clayton	*Campbellsport*

Knower, Eve Tenney	*Interwald*
Knowlton, Helen Sheldon	*Madison*
Kobetich, Mary Rose	*Madison*
Koelsch, William Alfred	*Boise, Idaho*
Kohl, Clarence Elmer	*Hurley*
Kraatz, Walter Charles	*Milwaukee*
Kreitzer, Augusta Mathilde	*Sawyer*
Kremers, Elsa	*Madison*
Kuehn, Otto Robert	*Milwaukee*
La Due, Russell Morseby	*Luverne, Minn.*
Lamoreaux, Vera Rosalind	*Mayville*
Lange, Ivan Louis	*Cedarburg*
Lange, Laura Emelie	*Delavan*
Langjahr, Arno Robert	*Plymouth*
Lathrop, Francis Child	*Madison*
Lee, Noble Wishard	*Chicago, Ill.*
Lerch, Mary Frederica	*Takoma Park, D. C.*
Lingle, Paula Elizabeth Nancy	*Madison*
Lettig, Esther Eugenia	*Flandreau, S. D.*
Livingston, Edward Meakin	*Portland, Ore.*
Longfield, Charles Samuel	*Madison*
Loomis, John Lawrence	*Madison*
Loverud, Alvin Matthew	*Stoughton*
Luhmann, Robert Adolph	*Sheboygan*
Lyons, Alice	*Brodhead*
McCarthy, Kathryn Olive	*Marinette*
McDonald, Blanche Lois	*Beaver Dam*
MacDonald, Robert Paul	*So. Bend, Ind.*
McIntosh, Charles Thomas	*Edgerton*
McIntosh, Robert Burns	*Edgerton*
MacKay, Frederick William	*Oshkosh*
McKennan, Ruth	*Quincy, Ill.*
McMurry, Ora Richard	*Madison*
Mabis, Katherine Virginia	*Des Moines, Ia.*
Madden, Marguerite Helen	*Menominee, Mich.*
Mandelert, Charles Lloyd	*Chippewa Falls*
Marling, William Walter	*Madison*
Marshall, Dorothy Grace	*Milwaukee*
Martin, Alice May	*Hartford*
Martin, Edith Margaret	*Waupun*
Martin, Kate Landis	*Hot Springs, Ark.*
Mayers, Marion Catherine	*Madison*
Merchant, Edythe Mae	*Ellendale, N. D.*
Miller, David Beckwith	*Cleveland, O.*
Miller, Grace Amelia	*Los Angeles, Cal.*
Miller, John Coventry	*Madison*
Mills, James Stewart	*Janesville*
Moe, Lilly Elvina	*Duluth, Minn.*
Mooney, Alice Elizabeth	*Superior*
Mooney, Marian Louise	*Superior*
Moore, Virgil Leven	*Big Timber, Mont.*
Morris, Meade McKinley	*Madison*
Morse, Edwin French	*Sauk Center, Minn.*

Moses, Milton	*Chicago Heights, Ill.*
Mount, Ruth Estelle	*Chicago, Ill.*
Mueller, Eleanor	*South Bend, Ind.*
Mull, William Louis, Jr.	*Muscatine, Ia.*
Mullawney, Nora	*Milwaukee*
Mullen, Bernard Parker	*Sturgeon Bay*
Murphy, Lawrence William	*Madison*
Murray, Robert Oliver	*Madison*
Myers, Burton Allen	*Osborne, Kas.*
Nash, John William	*Juneau*
Nehrlich, Margaret Regina	*Sheboygan*
Nelson, Ingrid Chase	*New Brunswick, N. J.*
Nelson, Lutie Marie	*Racine*
Nicolls, Evelyn Virginia	*Wausau*
O'Connor, Clarence Wood	*Milwaukee*
O'Hora, Raphael McNulty	*Madison*
Oliver, George Peter	*Galesville*
Olsen, Lucille Eleanor	*Madison*
Parker, Foster Archibald	*Brodhead*
Pearsall, Barbara Evelyn	*Evansville*
Pearson, Norma Lenys	*Bloomington*
Peirsol, Thomas Reardon	*Ann Arbor, Mich.*
Pergande, Loretta Mathilda	*Milwaukee*
Petersen, Arthur	*Ashland*
Petersen, Arthur S. J.	*Racine*
Peterson, Esther Adollia	*Racine*
Peterson, James Dahle	*Minneapolis, Minn.*
Pink, John James	*Oconomowoc*
Plaister, Richard Morrill	*Dubuque, Ia.*
Pohle, Viola Elizabeth	*Bloomington*
Porter, Helen Ballard	*Fairmont, Minn.*
Porter, Mary Eliza	*Madison*
Potter, Ellis David	*Madison*
Poulsen, Frank Edward	*Madison*
Powers, Eileen Mary	*Mauston*
Preston, Esther Anne	*Madison*
Price, Eva Myrtle t c	*McConnell, Ill.*
Pritzlaff, Edward Frank	*Milwaukee*
Probst, Fredrica Sebald	*Tulsa, Okla.*
Ramsey, John Robbins	*Racine*
Rasmussen, Vilas Lenor	*Oconomowoc*
Reid, Dorothy Emma	*Oconomowoc*
Retting, Lucy Newnham	*Grand Rapids, Mich.*
Rice, Marion Elaine	*Chicago, Ill.*
Richards, Alberita Napier	*Hannibal, Mo.*
Richards, Dolores Millicent	*Mineral Point*
Rietbrock, Dorothy	*Milwaukee*
Rifleman, Armilda Rebecca	*Wausau*
Rindy, Ethel Genevieve	*Madison*
Roberts, Junius Sturges	*Madison*
Robertson, Jennie Marie	*Lodi*
Robson, Marshall William	*Stoughton*
Roddy, Frank Allen	*Black River Falls*

Rogers, Alfred Moore	*Chicago, Ill.*
Rogers, Lucy Ella	*Kimball*
Rohrs, Helen Natalie	*Lake Geneva*
Roseman, Max	*Green Bay*
Rowlands, Robert David	*Racine*
Royce, Elizabeth	*Madison*
Rudd, Ingeborg Elizabeth	*Kenosha*
Ruehl, Wilbur Herman	*Beaver Dam*
Runge, Doris	*Baraboo*
Russell, Margaret	*Madison*
Sandberg, Carl Albin	*Minneapolis, Minn.*
Sapp, Gladys Marguerite	*Princeton, Ill.*
Sargent, Howard Abraham	*Madison*
Sawyer, Estelle Julia	*Racine*
Sawyer, Margery Isabel	*Menominee, Mich.*
Sayle, George William	*Madison*
Schifflin, Inez	*Chicago, Ill.*
Schiller, Armand Robert	*Milwaukee*
Schmidt, Elsa Wilhelmina	*Marshfield*
Schmitz, Herbert Walter	*Manitowoc*
Schustedt, Sarah Charlotte	*Madison*
Searls, Fern Horton	*Grand Rapids*
Sebora, Earl Lloyd	*Athens*
Seeley, Mabel Edna	*Los Angeles, Cal.*
Sennett, Margaret Catherine D.	*Madison*
Shanhouse, Esther M.	*Rockford, Ill.*
Simonds, Paul William	*Milwaukee*
Simonson, Marion	*Tomah*
Simpson, Dorothy Katherine	*Winona, Minn.*
Simpson, Eber Edward, Jr.	*Oshkosh*
Sletteland, Oscar Bernard	*Pigeon Falls*
Slichter, Allen McKinnon	*Madison*
Slight, George Rigby	*Peshtigo*
Smalley, Gwynette Ellsworth	*Cuba City*
Smith, Doreen	*Superior*
Smith, Katharine	*Columbus*
Snell, Harriet	*Fargo, N. D.*
Sperry, Donald Draper	*Oak Park, Ill.*
Sprague, Mildred	*St. Joseph, Mo.*
Stack, Sylvester Stephen	*Milwaukee*
Stafford, Lloyd Holbrook	*Madison*
Stanchfield, Madelyn Elizabeth	*Fond du Lac*
Statz, Rosalia Catherine	*Madison*
Stein, Jack Samuel	*Milwaukee*
Stenjem, Eldon Mandt	*Madison*
Stevenson, Edna Elizabeth	*Arlington*
Stewart, William McKinley	*Chicago, Ill.*
Stielow, Emil	*Sheboygan*
Stolte, Ruth Lucile	*Reedsburg*
Stolze, Joseph Ariel	*Wausau*
Straus, Michael Wolf	*Hinsdale, Ill.*
Stuart, George Van Norman	*Milwaukee*
Sullivan, Angela Hope	*Dubuque, Ia*

Sullivan, John Drepperd	*Dubuque, Ia.*
Sutherland, Judson Clare	*Eau Claire*
Taylor, Joseph Clark	*Logansport, Ind.*
Taylor, Sarah Jane	*Two Rivers*
Techmeyer, Russell Arthur	*Madison*
Termansen, Hans Peter	*Sawyer*
Thauer, Royal Wallace	*Watertown*
Thayer, Verna Evelyn	*Viroqua*
Titus, Alberta Margaret	*Fond du Lac*
Tormey, Loretta Eden	*Madison*
Tredwell, Lillie	*Chicago, Ill.*
Tuchscherer, Frank Adam	*Menasha*
Twells, Geneva Anna	*Logansport, Ind.*
Twohig, Marie Evangeline	*St. Cloud*
Utman, Beatrice Violet	*Hudson*
Van Camp, William John	*Winnetoon, Nebr.*
Van Patten, Edith Rosalind	*Davenport, Ia.*
Van Pelt, Clayton Forrest	*Fond du Lac*
Van Sinden, Carl Henry	*New York City*
Vaughan, Harold Francis	*Milwaukee*
Vordale, Conrad Milo	*Sun Prairie*
Wackman, Charline Marie	*Oregon*
Wagner, Clarence Edward	*Huron, S. D.*
Ward, Elizabeth Lane	*Madison*
Warner, Mary Vivian	*Chicago, Ill.*
Webster, Margaret Rebecca	*Milwaukee*
Weck, Charles Whitney	*Slayton, Minn.*
Weix, Joseph Branick	*Beaver Dam*
Wessinger, Mary Esther	*Duluth, Minn.*
Wheeler, Warren Gregg	*Wauwatosa*
White, Leon Olliver	*Madison*
White, Olive Annie	*Madison*
Whittet, James Lowell	*Edgerton*
Wickwire, Nina Mary	*Maquoketa, Ia.*
Wieben, Harold Rudolph	*Milwaukee*
Wilbert, Gustave Carl	*Thiensville*
Williams, Dorothy Mae	*Gettysburg, S. D.*
Wilmanns, Gertrude Meta	*Milwaukee*
Wolfe, Ruth Matilda	*Sun Prairie*
Wood, Frances Carolyn	*Denver, Colo.*
Woodward, Henry Robert	*Peoria, Ill.*
Wright, Cornelia	*Winona, Minn.*
Wright, John Jesse	*Antigo*
Wurster, Carroll Barton	*Mazomanie*
Zum Brunnen, Hazel Irene	*Minneapolis, Minn.*

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Course in Commerce

Achenbach, Lester William	*Alma*
Aikens, John Thomas	*Viroqua*
Andrews, Charles Lippincott	*Moorestown, N. J.*
Austin, Carlton Leroy	*Grand Rapids, Mich*

Babcock, William Cary	*Rensselaer, Ind.*
Balmer, Stanley Leslie	*Chicago, Ill.*
Belsky, Max Bernard	*Dubuque, Ia.*
Berg, Edwin Louis	*Onalaska*
Birch, Frank Victor	*Fond du Lac*
Blake, Gilman Dorr	*Madison*
Blatz, Alvin Charles	*Milwaukee*
Blum, Clarence Arthur	*Evansville, Ind.*
Bodenstein, Alexander Frederick	*Madison*
Boehm, Otto Joseph	*Libertyville, Ill.*
Boehne, John William, Jr.	*Evansville, Ind.*
Borwell, Frank Carne	*Oak Park, Ill.*
Brennan, Rowland Edward	*Baraboo*
Brooks, Paul Francis	*Boise, Idaho*
Bryant, Harold John	*La Crosse*
Bryden, James Alan	*Milwaukee*
Burnside, Harlow Davis	*Washington, D. C.*
Connor, Peter Eugene	*Madison*
Couture, Alphonse Frank	*Rice Lake*
Curtin, John Leslie	*Madison*
Curtis, Kenneth	*Chicago, Ill.*
Curtiss, Frederick Willard, Jr.	*Madison*
Custer, Glenn Stanley	*Madison*
Dahlman, Frank J.	*Kingsville, Tex.*
Donovan, James Rowell	*Waupun*
Drowatzky, Earle Frank	*Tomah*
Eaton, Everett Hall	*Chicago, Ill.*
Edwards, Robert Thomas	*Wales*
Eger, Harold Anderson	*Madison*
Eichler, Joseph Hirst	*Dixon, Ill.*
Ellman, Ben Louis	*Madison*
Emmerich, Carl Mallery	*Park Ridge, Ill.*
Entrop, Frank Joseph	*Racine*
Erdmann, Arthur Albert	*Sheboygan*
Ernst, Hilmer Furst	*Chicago, Ill.*
Evans, Thomas Iorwerth	*Milwaukee*
Farley, Donald Stephen	*Madison*
Farquhar, Charles, Jr.	*Chicago, Ill.*
Fenelon, Harry William	*Rhinelander*
Ferguson, William Friend, Jr.	*Madison*
Fjelstad, George Gustav	*Madison*
Foskett, Horace Webster	*Shenandoah, Ia.*
Frear, Philip Arch	*Madison*
Fried, Dan Gustav	*Merrill*
Fuhrmann, Frederick William	*Dubuque, Ia.*
Funke, Frank Joseph	*La Crosse*
Ganswindt, Albert Henry	*Slades Corners*
Gasser, Mathew Harold	*Platteville*
Golden, Demmer	*Aurora, Ill.*
Goul, Marvin Clifford	*Brodhead*
Groat, John Leland	*Janesville*
Guild, Eugene Schiller	*Wiggins, Miss.*
Hanson, Arthur Guy	*Hatton, N. D.*

Hanssen, John Louis	*Davenport, Ia.*
Harrison, Don Edward	*St. Louis, Mich.*
Hawkes, Rollin Curtis	*Duluth, Minn.*
Heinecke, Fredrick Herman	*Sheboygan*
Hemming, Victor Edward	*Janesville*
Henderson, George von Bunsen	*Monadnock, N. Y.*
Hendrickson, Clarence Waldemar	*Portland, Ore.*
Hill, Byron MacLeod	*Kenosha*
Hill, George Albert, Jr.	*Wyocena*
Hinn, Carl Paul	*Fennimore*
Hinton, George William	*Sparta*
Hoffman, Sidney Charles	*Appleton*
Hogan, Leo Montgomery	*Dodgeville*
Holman, Cecil Lloyd	*Fond du Lac*
Hughes, Lyman Frank	*Milwaukee*
Jackson, John Jacob	*Tomah*
Jackson, Kenneth Hockra	*De Pere*
Jacobus, Leslie Garrett	*Wauwatosa*
Jenkins, Lyel Newton	*Leon*
Jerabek, Joseph August	*Algoma*
Jiran, George Henry	*Milwaukee*
Johnson, Bernard Jalmer	*Eau Claire*
Jones, Northrope	*Chicago, Ill.*
Josephson, Clarence Egbert	*Cambridge*
Karcher, Raymond Edward	*Freeport, Ill.*
Kerch, John Garver	*Akron, O.*
King, Marvin Stephen	*Arena*
Kittleman, Halford Harrison	*Berwyn, Ill.*
Kohlhoff, Carl H.	*Burlington*
Laun, Albert Louis	*Kiel*
Lawrenz, Roy Herman	*Portage*
Lentz, Alvin Edward	*Mayville*
Levy, Robert Ferdinand	*Augusta*
Lins, Cecilia Marie	*Spring Green*
Lins, Clemens Michael	*Spring Green*
Lipshitz, Hyman Stanley	*Oconto Falls*
McCabe, William John	*Duluth, Minn.*
McCoy, William John	*Lancaster*
McGinnis, Donald William	*Kansas City, Mo.*
McMurry, Morland John	*Madison*
Marsh, James Cadmus	*Elkhorn*
Marshall, William Hughes	*Madison*
Martin, Frederick Donough	*Indianapolis, Ind.*
Mayo, Francis Peltier	*New London*
Merrill, Willard Doris	*Orafino, Idaho*
Metz, Henry Lawrence	*Madison*
Mitchell, George Allen	*Montello*
Moffat, Edwin Aldons	*Davenport, Ia.*
Moody, John Lawrence	*Weyauwega*
Morrissey, Raymond Peter	*Madison*
Moses, Victor Clinton	*Eau Claire*
Murray, Gerald Edson	*Rensselaer, Ind.*
Nave, Cyril Winton	*Attica, Ind.*

Nicoll, Harold Vincent	*Barron*
Noer, Harold Rolf	*Wabeno*
Nuzum, William Alva	*Tomah*
Olin, Will Gorth	*Florence*
Olshefsky, Alexander Joseph	*Kenosha*
Packard, Vernon Wing	*Chicago, Ill.*
Perkins, John Raymond	*Madison*
Peterson, Carl Edwin	*Menomonie*
Pollack, Harry Arnold	*Milwaukee*
Porter, Paul Wood	*Madison*
Pribnow, Harry Warren	*Virginia, Minn.*
Pugh, Laird McCormick	*Hayward*
Razook, George	*Janesville*
Reichenbaum, Dore	*Milwaukee*
Renton, Allan West	*Ewa, Hawaii*
Rhodes, Edwin James	*Estherville, Ia.*
Richardson, James Marston	*Ft. Atkinson*
Roberts, Harvey Earl	*Madison*
Rohsenberger, Otto Leo	*Evansville, Ind.*
Salit, Zigmund	*Cleveland, O.*
Saunders, Fairfax Garner	*Waterloo*
Schmidt, George Arthur	*Milwaukee*
Schmitz, Karl Mathias	*Manitowoc*
Schultz, Armin Daniel	*Milwaukee*
Schwartz, William	*Waukegan, Ill.*
Shaw, Ward Newton	*Madison*
Sherwood, John Newton	*Kansas City, Mo.*
Siemens, Kurt Herman	*Milwaukee*
Silbernagel, George John	*Wausau*
Starker, Ernest August	*Burlington, Ia.*
Steele, Daniel Howard	*Oak Park, Ill.*
Stone, Gerald Daum	*Sun Prairie*
Stout, Sidney Allerdice	*Indianapolis, Ind.*
Suhm, Herbert Ralph	*Milwaukee*
Sweeney, Joseph Edward	*Edgerton*
Teare, Daniel James	*Augusta*
Templeton, Wallace	*Chicago, Ill.*
Thoreson, Andrew Theodora	*Edgerton*
Trautmann, John	*Sheboygan*
Vinnedge, Clarence Edward	*Anderson, Ind.*
Von Syburg, Frederic Gaffron	*Milwaukee*
Warner, Barton Kerr	*Decorah, Ia.*
Weeks, Harold Parker	*Davenport, Ia.*
Weiss, David William, Jr.	*Milwaukee*
Westigard, Nina Galena	*Fairchild*
White, Donald William	*Manitowoc*
Widman, Paul Stevens	*Jefferson*
Willis, Walter Weldon	*Canton, O.*
Wohlenberg, Carl Christopher	*Holstein, Ia.* —159

Course in Chemistry

Arzberger, Cornelius Fred	*Helenville*	
Beeman, Lyman Anderson	*Neenah*	
Black, John Herman	*Milwaukee*	
Braun, Harold	*Milwaukee*	
Gauwenberg, Winfred Joseph	*Green Bay*	
Cole, Gordon Manley	*Clintonville*	
Day, David Eliot	*Washington, D. C.*	
Dickinson, Sheldon James	*Dundee, Ill.*	
Downey, Hugh Henry	*La Crosse*	
Fowler, William McKinley	*Kankakee, Ill.*	
Friess, Ralph	*Saukville*	
Hanson, John Albert	*Wausau*	
Hetland, Victor Adolph	*Viroqua*	
Hickey, Philip John	*Cleveland, O.*	
Kaul, Hazen Herbert	*Waukesha*	
Keebler, Irwin Wallace	*Milwaukee*	
Kraemer, Elmer Otto	*Madison*	
Krueger, Rexford Henry	*Milwaukee*	
Lederer, Fred Ben	*Milwaukee*	
Meister, Charles John	*Keokuk, Ia.*	
Peterson, Otto Norman	*Madison*	
Quick, Armand J.	*Theresa*	
Rohm, Harold Valentine	*Milwaukee*	
Schoening, Edward Henry, Jr.	*Louisville, Ky.*	
Schuler, Catharine Ellen	*Milwaukee*	
Shepard, Chester Elmore	*Oconomowoc*	
Urech, Otto James	*Milwaukee*	
Warner, Charles Law	*Decorah, Ia.*	
Wendt, Herbert Carleton	*Racine*	—29

Course in Journalism

Anundsen, (Miss) George Brynnilde	*Monroe*
Arnold, Waldo Robert	*Kiel*
Bahe, Kenneth Edward	*Colorado Springs, Colo.*
Brown, John Breckenridge	*Madison*
Browne, Marshall Francis	*Madison*
Carroll, Hubert Henry	*Benedict, N. D.*
Casey, Matthew Joseph	*Oconomowoc*
Corwin, Winnafred Katherine	*Des Moines, Ia.*
Doherty, Mary Louis	*Williamsburg, Ia.*
Gilbreath, William Sydnor	*Indianapolis, Ind.*
Hefferan, Thomas Edward Maley	*Chicago, Ill.*
Hein, Edward Nicholas	*Madison*
Hendricks, Marjorie Ethel	*Madison*
Kohr, Hugo John	*Chicago, Ill.*
Kuhn, Bert Lipmann	*Chicago, Ill.*
Lucas, Spencer Alexander	*Sparta*
Reed, George Roland	*Washington, D. C.*

Schwerdt, Mathilde Angela	*La Crosse*	
Scott, Dorothy Belle	*Maywood, Ill.*	
Spensley, Sarah Amelia	*Madison*	
Swan, Harold Johnson	*Mazomanie*	
Tucker, Frank Thomas	*Milwaukee*	
Wallis, George Earl	*Rochester*	
Wight, Walter Greenwood	*Madison*	—24

Freshmen

Adams, Marguerite	*Negaunee, Mich.*
Ahern, Mary Lillian	*West Chicago, Ill.*
Alaback, Bernard	*Blue River*
Albaugh, Harriet Isabel	*Madison*
Alexander, Marvin Clark	*Madison*
Alexander, (Miss) Trent	*Madison*
Allan, Ronald Earl	*Madison*
Anderson, Mildred Patricia	*Macfarland*
Anderson, Vera Vivian	*Whitehall*
Andrews, Cleo Ruby	*Highmore, S. D.*
Andrus, Belle Theodotia	*Madison*
Arends, Anna	*Madison*
Arneson, Ralph Vernon	*Madison*
Ashby, Sarah Elizabeth	*Indianapolis, Ind.*
Bachhuber, Phyllis Cecile	*Mayville*
Baer, Edwin Ben	*St. Paul, Minn.*
Baker, Finley	*Bismark, N. D.*
Barrett, Mary Morse	*Houghton, Mich.*
Bartholf, Winifred	*Glencoe, Ill.*
Basford, Jean	*Mt. Vernon, N. Y.*
Bates, Willard Herald	*Wyocena*
Bauer, Carl Phillip	*Mandan, N. D.*
Beach, Joseph Barnes, Jr.	*Whitehall*
Beed, Dorothy Adalene	*Hampton, Ia.*
Benisek, Helen Annette	*Antigo*
Bennett, Elizabeth Rhea	*Aberdeen, S. D.*
Bents, Caryl Zelda	*Madison*
Benz, Karl	*Canton, S. D.*
Bill, Edward Lyman	*New Rochelle, N. Y.*
Binder, Walter James	*Newport, Ky.*
Bird, James Norman	*Milwaukee*
Blied, Josephine Elizabeth	*Madison*
Blossom, Frederick McClure	*Peoria, Ill.*
Boebel, Theodore Herman	*Fennimore*
Boettge, Charles Conrad	*Berlin*
Bohan, Mary Zilpha	*Avoca*
Boll, Kathryn Mae	*Rice Lake*
Bollman, Marie Henri	*St. Louis, Mo.*
Bonacci, Michael James	*Hurley*
Born, Lucile Dorothy Marie	*Toledo, O.*
Borst, Vivian	*Mondovi*
Boutin, Anna Rose	*Bayfield*

Boutin, Hiller George	*Bayfield*
Bower, Irene Angela	*Ashland*
Bowles, Winifred Patricia	*Waunakee*
Boyd, Andrew, Jr.	*La Crosse*
Bradford, Margaret Veronica	*Mineral Point*
Bradley, Gertrude	*Milwaukee*
Braley, Jessie Mahon	*Harvey, Ill.*
Brannum, Marjorie	*Chicago, Ill.*
Bray, Grace Catherine	*Elkhorn*
Briggs, Paul Austin	*St. Paul, Minn.*
Brogan, Catherine Ruth	*Ironwood, Mich.*
Brooks, Dana Bentley	*Victor, N. Y.*
Brown, Kathryn Kent	*Rhinelander*
Brown, Margaret Relihan	*St. Louis, Mo.*
Brown, Philip Melville	*Sheridan, Wyo.*
Brown, Reuben Samuel T.	*Madison*
Brown, Thomas Jasper	*Omaha, Nebr.*
Browne, Helen Converse	*Waupaca*
Bruegger, Erwin Kehr	*Williston, N. D.*
Bruns, Darwin Elroy	*Morrisonville*
Bruns, Henry Albert	*Morrisonville*
Buchanan, Perry Baker	*Winnetka, Ill.*
Bucknam, Marion McDonald	*Antigo*
Buckstaff, Angus Griswold	*Oshkosh*
Buerki, Glen Allen	*Madison*
Burke, Edith Eleanor	*Janesville*
Burns, Julia	*Racine*
Byers, Ruth	*Coldwater, Mich.*
Byrne, Vincent Hugh	*Hazel Green*
Byse, Lyman Peevy	*Wautoma*
Cairns, William Bateman	*Madison*
Caldwell, Jane Carter	*Oshkosh*
Caldwell, Josephine Helen	*Lodi*
Campbell, Isabel Catherine	*Hanover, Ill.*
Cape, Thomas Wilson	*Dodgeville*
Carey, Raymond John	*Madison*
Carnachan, James Stuart Gordon	*Fond du Lac*
Carpenter, Charles Hand	*Racine*
Carver, Watson W.	*Oshkosh*
Charles, Eva Ruth	*Madison*
Christensen, Charline Mary	*Madison*
Chubb, Mavis Adelaide	*St. Louis, Mo.*
Churchill, Norma Eleanor	*Monroe*
Churm, Carolyn Mary	*Oshkosh*
Clark, Fern Berta	*Council Bluffs, Ia.*
Clark, Lillian Martin	*Oshkosh*
Claussen, Frieda Marion	*Galesville*
Clayton, Max M.	*Central City, Nebr.*
Coapman, Vida Alice	*Kilbourn*
Cochran, George Calloway	*McAlester, Okla.*
Colville, Arthur Melvin	*Grand Ledge, Mich.*
Colvin, Jessica Burt	*Evanston, Ill.*
Conklin, Lauretta Bugher	*Winnipeg, Canada*

Conley, Henry Harold	*Cazenovia*
Conlin, Ethel Marguerite	*Madison*
Conlin, Ruth Margaret	*Madison*
Connell, John William	*Fond du Lac*
Conway, Paul Hoffmann	*Watertown*
Cook, Murray Joseph	*Ashtabula, O.*
Cook, Ogden	*Milwaukee*
Cooper, Gloria Olive	*Merrimack*
Corry, Catherine M.	*Madison*
Cosgrove, Florence Marie	*Madison*
Cosgrove, Frank William	*Fond du Lac*
Coulthard, Wilda Joyce	*Benton*
Cox, John Van Brunt	*Horicon*
Cox, Linton Alden	*Indianapolis, Ind.*
Cummings, Mary	*Madison*
Cutler, Mary Gardner	*Wauwatosa*
Daley, Frances Mary	*Madison*
Darling, Lorenzo Lyman	*Manawa*
David, Russell Lawrence	*Montfort*
Davis, Lois Adelyn	*Frankfort, Ind.*
Delaney, William Frank	*Milwaukee*
Delker, Fred William	*Madison*
Dickelmann, Lorin Elmer	*Milwaukee*
Dieterle, John Herbert	*Brookston, Ind.*
Dietz, Theo May	*Monroe*
Dimond, Dorothy Sara	*Albany, Ill.*
Dinkwitz, Oscar	*Marinette*
Dobie, Catherine Anna	*Superior*
Donahey, Ivan Paul	*Madison*
Donker, Helen Virginia	*Chicago, Ill.*
Donovan, Sylvester Francis	*Forestville*
Doran, Blanche Marie	*Harvard, Ill.*
Douma, Eddina Pauline	*Sheboygan*
Dunn, Clavert Zeph	*Chicago, Ill.*
Dyson, Doris Elinor	*Viroqua*
Eastman, Kenneth Starrett	*Kenosha*
Eimon, Ora	*Superior*
Eldridge, Irene	*Tomah*
Eller, Waldemar Christian	*Alma*
Elsom, Bernardo Whitfield	*Madison*
Elston, Daisy Alma	*Brookings, S. D.*
Emerson, Louise Lindsley	*Ekalaka, Mont.*
Endres, Hugo John	*La Crosse*
Engel, Adolph Charles	*Caroline*
Escabi, Jose	*Mayaguez, Porto Rico.*
Evans, Carol Catherine	*Madison*
Everson, Carl Olai	*Stoughton*
Exley, Erwin William	*Menasha*
Falk, Gustav Rudolph	*Spooner*
Farley, Nora Agnes	*Madison*
Fay, Marion Elizabeth	*Madison*
Fellows, Gladys	*Racine*
Field, Harold Manoel	*Oelwein, Ia.*

Finch, Maybelle Dean	*North Liberty, Ind.*
Finner, Lucy Louise	*Dodge*
Finsky, Morris	*Lake Geneva*
Fish, Helen Isabel	*Sullivan*
Fisher, Marjorie Katherine	*Baraboo*
Fisher, Ruth Elizabeth	*Duluth, Minn.*
Fitzgerald, Robert Drake	*Milwaukee*
Fjelstad, Selma Irene	*Madison*
Flaherty, Marian	*Grand Rapids, Mich.*
Flandrena, James Edward	*Hurley*
Forsythe, Gery Hamilton	*Brighton, England*
Francis, Marguerite Arline	*Chicago, Ill.*
Frazier, Mildred Lucile	*Madison*
Freymiller, Ernest Fred	*Woodman*
Frye, Harlan Taylor	*Madison*
Frye, Miriam Louise	*Madison*
Fuller, Willard Love	*Madison*
Funk, Dorothy Konradine	*Des Moines, Ia.*
Furness, Franklin Newman	*Evanston, Ill.*
Garrow, James Alex.	*New Ulm, Minn.*
Gaveney, Stanleigh	*Arcadia*
Gehr, Bertha	*Madison*
Geisert, Chester Edward	*Park Falls*
Germer, Frederic Moore	*Chicago, Ill.*
Gibbon, Elsie Florence	*Kenosha*
Gibbon, Martha Gladys	*Madison*
Gillen, Ira Edward	*Racine*
Glover, Mary Staunton	*Crawfordsville, Ind.*
Goethel, Walter William	*Eau Claire*
Goldberg, Benjamin	*Antigo*
Goldmann, Madelaine Henrietta	*Milwaukee*
Gough, James Arthur	*Sugar Bush*
Gray, Charlotte	*Joplin, Mo.*
Gray, Helen	*Manitowoc*
Greene, Truman Fay	*Madison*
Greenman, Raymond Henshaw	*Milwaukee*
Greenspon, Fannie Esther	*Appleton*
Gronfeldt, Esther Susan	*Hurley*
Groves, Elmer Walter	*Readstown*
Groves, Harold Martin	*Lodi*
Haight, Hughie Grafton	*Medford*
Hamilton, Leone	*Spokane, Wash.*
Hannon, Alice Hazel	*Milwaukee*
Hanson, Evelyn Cornelia	*Rio*
Hardy, Charles Stave	*Chicago, Ill.*
Harkes, Barbara	*Coal City, Ill.*
Harris, Muriel	*Rensselaer, Ind.*
Hart, Mabel Beth	*Hillsboro*
Hartmeyer, Helen Ann Elizabeth	*Madison*
Hay, William J., Jr.	*Oshkosh*
Hayden, Clement Donald Aloysius	*Dubuque, Ia.*
Hayes, Wolcott Paige	*Washington, D. C.*
Hayssen, Irma Charlotte	*Madison*

Head, Dorothy	*Madison*
Head, Elizabeth Rachel	*Madison*
Heddles, Rena	*Madison*
Herbst, Helen Benton	*Sioux City, Ia.*
Herrick, Don Lukes	*Milwaukee*
Hersey, Ruth Boyce	*Brooklyn*
Hicks, William Emmett	*Oshkosh*
Higbie, Nathan Bradley, Jr.	*Chicago, Ill.*
Hill, Jessie Mae	*Fish Creek*
Hill, Oscar H.	*Freeport, Ill.*
Hill, Russell James	*Chicago, Ill.*
Hill, William Braden	*Mitchell, S. D.*
Hipke, Lucius Warington	*Milwaukee*
Hjermstad, Marie Emily	*Red Wing, Minn.*
Hoffman, Alice Emily	*Madison*
Hoffman, Eldo Lawrence	*Antigo*
Hoffman, Esther Clara	*Madison*
Hogan, Beatrice Muriel	*Madison*
Hogenson, George Harold	*Valders*
Hokamp, Hester Louise	*Burlington, Ia.*
Hole, Dean	*Chicago, Ill.*
Holly, Joseph Andrew	*Grand Rapids*
Holt, Ethel May	*Cambridge*
Holz, Maxine Hermione	*Madison*
Horr, Helen Mar	*Rhinelander*
Howard, Joseph Elwyn	*Madison*
Howison, William Kelsey	*Menomonie*
Hoyer, Edward Ludwig Frederick	*West Bend*
Hoyer, George Henry Christian	*West Bend*
Hsieh, Hsueh Hai	*Wasih, China*
Hudson, Dorothy Grace	*Madison*
Hughes, Grace Esther	*Darlington*
Hughes, Ruth Anne	*Downers Grove, Ill.*
Hummel, Fred Edgar	*Milwaukee*
Hunt, Laura Adele	*Madison*
Hunt, Rhea	*Barronette*
Huntley, Alton Karl	*Clyde, O.*
Ilett, Willard	*La Grange, Ill.*
Jacobs, Gertrude Margaretta	*Reedsburg*
Jeffe, Charles Haskel	*Chicago, Ill.*
Jenks, Florence Alice	*Omah, Nebr.*
Jennings, Blandford	*Washington, D. C.*
Jennings, David Harry	*Newcastle, Ind.*
Jensen, Dagmar Christine	*Racine*
Joannides, Minas	*Milwaukee*
*Johnson, John Cassody	*Madison*
Johnson, Margaret Ruth	*Portage*
Jones, Elbert William	*Waupun*
Jones, Kenneth Thomas	*Madison*
Jones, Thelma Fay	*Madison*
Kahlenberg, Hester	*Madison*

*Died November 25, 1915.

Kanouse, Georgia Bernadine	*Madison*
Karger, Ralph Simon	*Milwaukee*
Keller, Fanny Margaret	*Madison*
Kellogg, Horace Banter	*Antigo*
Kerber, Mildred	*Chicago, Ill.*
Kerswill, Emily Louise	*Madison*
Keyes, Mary	*Madison*
Kieckhefer, Herbert Martin	*Milwaukee*
Kieckhefer, Hilda Louise	*Milwaukee*
Kimball, Charles Leonard, Jr.	*Oak Park, Ill.*
King, Florence Harriet	*Milwaukee*
King, Melvin Walter	*Altoona*
Kinney, John Leo	*Madison*
Kipp, Clarence Franklin	*Milwaukee*
Klenk, Ione Magdalena	*Sandusky, O.*
Kleven, Garnet Estell	*Mt. Horeb*
Klug, John Leslie	*Lake Geneva*
Knight, Helen Trux	*Racine*
Kraft, Roa Iza	*Blanchardville*
Kuenzli, David Benjamin	*Milwaukee*
Kupfer, Harriet Angeline	*Kenosha*
La Due, Laura Bert	*Luverne, Minn.*
La Follette, Philip Fox	*Washington, D. C.*
Lander, Miles Krause	*Grand Forks, N. Dak.*
Langdon, Irma Ruth	*Baraboo*
Langford, Vick Lorraine	*Portage*
Larsen, Esther Amelia	*Madison*
Larson, George William	*Gilmanton*
Lathrop, Margaret	*Madison*
Law, Charles Harold	*Chippewa Falls*
Legler, Henry Maxson	*Chicago, Ill.*
Lemm-Marugg, Carl	*Hamilton, Mont.*
Le Roy, Irving Thomas	*Streator, Ill.*
Levenick, Leo Benjamin	*Madison*
Lewis, Elmer Adolph	*Stoughton*
Lewis, Lillian Lucile	*McFarland*
Lewis, Margaret Jane	*Madison*
Liebermann, Lucile Sara	*Watertown*
Lindsay, Jeanette Breed	*Marion, Ind.*
Lindsay, Russell Gilbert	*Milwaukee*
Littig, Alice Gertrude	*Davenport, Ia.*
Littig, Lawrence Victor	*Davenport, Ia.*
Lloyd, Edwina Turner	*Chicago, Ill.*
Lloyd, Mazie Georgina	*Ashland*
Lohe, Irene Leona	*Manitowoc*
Longyear, Elizabeth Barrett	*Houghton, Mich.*
Loper, Carlton Foster	*Oshkosh*
Luce, Lawrence Clifford	*Baraboo*
Ludlow, Evelyn Charlotte	*Monroe*
McCarthy, Emerson Joseph	*Madison*
McCarthy, Stanley James	*Madison*
McComb, Goldie Belle	*Oshkosh*
MacConack, Jessie Margaret	*Elgin, Ill.*

MacGarr, Katherine Llewellyn	*Philadelphia, Pa.*
McKay, Frances Josephine	*Fall River*
McKeague, John Jay	*Wautoma*
McKinley, Edwin Daniel	*Dodgeville*
McKinney, Ethel D.	*Madison*
McLean, Jessie Kirby	*Menomonie*
Machlis, Clara	*Madison*
Madson, Helmer Idius	*Ettrick*
Maher, Catherine Mary	*Milwaukee*
Maher, Evangeline Genevieve	*Madison*
Mailandt, Eylce Dorothy	*Burlington, Ia.*
Mailer, Andrew Robert	*De Pere*
Mair, Roswell Charles	*Morrisonville*
Manring, Eric Hammond	*Yorktown, Md.*
March, Mildred	*Warren, O.*
Marks, Harold Eugene	*Madison*
Markus, Norbert Williams	*Quincy, Ill.*
Marling, Robert Newcomb	*Madison*
Marquardt, Gladys Eugenia	*Wausau*
Marsh, Gladys Margaret	*Madison*
Marsh, Orval Stephen	*Montfort*
Marshall, Charles Robert	*Brodhead*
Martini, John William	*Stevens Point*
Martini, Lorentz Henry Joseph	*Stevens Point*
Masten, Helen Adams	*Kansas City, Mo.*
Maurer, Catharine	*Madison*
Mautz, Cora Amalie	*Madison*
Meister, Phyllis Ruth	*Chicago, Ill.*
Melby, Eva	*Madison*
Melnikow, Maurice	*Milwaukee*
Mendelson, Mildred	*LaJunta, Colo.*
Mengelberg, Walter R.	*Milwaukee*
Meyer, Ernest Louis	*Lincoln, Nebr.*
Meyer, Lawrence Emmons	*Oshkosh*
Millard, Ella Hazelburg	*Barron*
Miller, Marjorie Estelle	*Stoughton*
Miller, Roy Edward	*Augusta*
Miller, Viola Hazel	*Evansville*
Millikin, Kathleen	*Hamilton, O.*
Mjelde, Eva Isabelle	*Big Timber, Mont.*
Modesett, Pansy Mae	*Terre Haute, Ind.*
Moe, Orpah Ruth	*Chetek*
Moe, Sigrid Winifred	*Chetek*
Montgomery, Allan Darnell	*Wichita Falls, Tex.*
Montgomery, Robert Bresee	*Madison*
Moore, Charles Francis	*Madison*
Moore, Warren Gillespie	*Chicago, Ill.*
Morman, Wade	*Wausau*
Morris, Francis Joseph	*Timothy*
Mueller, Clara Ernestine	*Milwaukee*
Mueller, Walter Edward	*Davenport, Ia.*
Murphy, Brynhilde Josephine	*Stoughton*
Murray, Walter Clinton	*Shell Lake*

Myrland, Eiel Harman	*Mauston*
Myrland, Otto Eugene	*Madison*
Naeckel, Harold William	*Davenport, Ia.*
Nehrlich, Clara Amelia	*Sheboygan*
Nelson, Dewey Vanard	*Darlington*
Nelson, Eleanor Du Mars	*Luverne, Minn.*
Nelson, Ernest Darandas	*Arcadia*
Nelson, Juanita Isabelle	*Lodi*
Nelson, Laura Marsh	*Fort Atkinson*
Netherwood, Annie Mirbell	*Madison*
Nevins, Mina Snyder	*Madison*
Newcomer, David Albert	*Washington, D. C.*
Newman, Rose Katherine	*Madison*
Nielson, Helen Marie	*Madison*
Noetzel, Murilla Gertrude	*Waukesha*
Nordmeyer, Alice Elizabeth	*Madison*
North, Martha Mary	*Sheboygan*
Nystrom, Elizabeth Ruth	*Wheaton, Ill.*
Nystrum Ray Conrad	*Medford*
O'Brien, Katharine Helen	*Fond du Lac*
Ochsner, Bertha	*Chicago, Ill.*
Odegard, Ethel Janette	*Merrill*
O'Laughlin, Eleanor	*Fond du Lac*
O'Laughlin, John Richard	*Fond du Lac*
Olesen, Martha Helena	*Humboldt, Ia.*
Olin, Doris Louise	*Florence*
Olin, Irene Hazel	*Florence*
Olson, Aletta Maren	*Beaver Dam*
Olson, Arthur Oliver	*Madison*
Olson, Edward Erick	*Milwaukee*
Olson, Mamie Isabelle	*La Crosse*
Olson, Oscar Albert	*Galesville*
Olson, William Otto	*Wautoma*
O'Malley, James Edward	*Waunakee*
Opgenorth, Irene Kathryn	*Kewaskum*
Osborne, Robert Henry	*Baraboo*
Owens, Elizabeth	*Dixon, Ill.*
Pace, Edwin Howard	*Marshall, Mich.*
Padley, Grace	*Lodi*
Pain, Charles Esmond, Jr.	*Chicago, Ill.*
Pardee, Florence MacMillen	*Madison*
Parker, Louisa	*Clinton*
Parks, Pauline Marie	*York, Nebr.*
Parsons, Mary Rutherford	*Chicago, Ill.*
Pasewalk, Gladys	*Norfolk, Nebr.*
Patten, John L.	*Evanston, Ill.*
Patterson, Dorothy Jean	*Madison*
Pecher, Marion Hoven	*Madison*
Peirce, Eugenia Ware	*Madison*
Pellow, Chauncey James	*Mineral Point*
Pentecost, Mildred May	*Elmhurst, Ill.*
Perlman, Jacob	*Madison*
Perrigo, Burton Richardson	*Milwaukee*

Peterman, Mynie Gustav	*Merrill*
Peters, Magdalene	*Edgemont, S. D.*
Peterson, Margaret Irene	*Delevan*
Pettibone, Harriet Nixon	*Burlington, Ia.*
Pieh, Addie Emma	*Madison*
Pilpel, Emily Marion	*New York City*
Piper, Purcell William	*Milwaukee*
Platt, Marion Louise	*Manitowoc*
Pleuss, Viola Elfrieda	*Madison*
Poland, Ruth Grace	*Racine*
Pollard, Seth Whitely	*Lannon*
Pomeroy, Leslie Klett	*Madison*
Pontius, Mary	*Columbia City, Ind.*
Poole, Edith Adelaide	*Ashland*
Porterfield, Alice Viola	*Kansas City, Mo.*
Post, Julia Harriet	*Madison*
Pratt, Harold James	*Edgerton*
Puckett, Mildred Vail	*Rock Rapids, Ia.*
Purcell, Margaret Regina	*Madison*
Purcell, Ruth Helen	*Hampton, Ia.*
Quadow, Nathan Leonard	*Chicago, Ill.*
Quick, Robert Orlance	*Montfort*
Radtke, Herman Peter	*New Ulm, Minn.*
Ragan, Lillian Frances	*Napoleon, O.*
Ramsay, Susan Bowen	*Madison*
Rathbun, James Malen	*Webster, S. D.*
Ratty, Frank John	*Laona*
Rausch, Elsie Florence	*Dundee, Ill.*
Reed, Harold West	*Elkhorn*
Reichert, John	*Canton, Ill.*
Reid, Velma Agnes	*Hurley*
Reinking, Margaret Beatrice	*Madison*
Richardson, Alexander Porter	*Evansville*
Richter, Charles Frederick Rand	*Milwaukee*
Ritchie, Catherine Jean	*Jefferson*
Rix, Doris Cornelia	*Milbank, S. D.*
Roark, Mary Kathleen	*Madison*
Roberts, Amol Victor	*Wild Rose*
Robinson, Kathleen Mary	*Green Bay*
Roemer, Kate Pier	*Milwaukee*
Rogers, Ezra Hazelton	*Hartford*
Ross, Arthur David	*Walnut, Ill.*
Ross, Frank Alsworth	*Madison*
Rudy, Paul Passmore	*Madison*
Rufsvold, Mildred Priscilla	*Marinette*
Runden, Randolph Hall	*Kansasville*
Runzler, Margaret	*Great Falls, Mont.*
Ruston, Margaret	*Evansville, Ind.*
Sage, Donald McCormack	*Delavan*
Salter, Arthur McKinley	*Unity*
Sandrock, Laura May	*Madison*
Sanford, Willard Clark, Jr.	*Chicago, Ill.*
Saul, Lulu Estelle	*Denison, Ia.*

Schaffer, Clarence Keisling	*Kansas City, Mo.*
Schlenk, Marie Frances	*Freeport, Ill.*
Schlotthauer, Gertrude Marie	*Madison*
Schmidt, Herbert Glueck	*Milwaukee*
Schmitz, Raymond Hubert	*Madison*
Schneiders, Edwin Francis	*Marathon*
Schnug, William	*Bonduel*
Scholtz, Theodore Livingston	*Madison*
Schroeder, Elinor Marie	*Cleveland, O.*
Schroeder, Nico Viola	*Geddes, S. D.*
Schroeder, William George	*Milwaukee*
Schuknecht, Roy John	*Port Washington*
Schulte, Margaret	*Freeport, Ill.*
Schultz, Margaret	*Milwaukee*
Schwebs, Lorena Elizabeth	*Madison*
Schweke, Rupert Gustaf	*Reedsburg*
Scott, Diana	*Philadelphia, Pa.*
Scott, Harry Hegg	*Mondovi*
Seeley, June	*Mt. Pleasant, Ia.*
Semrad, Paul August	*Chicago, Ill.*
Sepple, Helen Grace	*Chicago, Ill.*
Severinghaus, Lois Katherine	*New Albany, Ind.*
Shehan, Marie Berta	*Niagara*
Shepperd, Charles Francis	*Boaz*
Sherwood, Marguerite Nelle	*Mauston*
Shimpa, Joseph Frank	*Blue River*
Shurtleff, Bernice Roe	*Wilmette, Ill.*
Sinaiko, Josie	*Madison*
Sinaiko, Sohnia	*Madison*
Siniger, Anita Magdalena	*Galena, Ill.*
Sivyer, Benjamin Edward	*Milwaukee*
Slender, Julius Lyle	*Hurley*
Smith, Gordon Herbert	*Tomah*
Smith, Hazel Dell	*Madison*
Smith, Helen Belle	*Madison*
Smith, Mary Ruth	*Madison*
Smith, Ralph Lane Polk	*St. Paul, Minn.*
Smith, Wilhelmina Lenore t c	*Chicago, Ill.*
Snodgrass, Etha Cleaver	*Eugene, Ore.*
Sonnenberg, Willard Michael	*Sheboygan*
Spafford, Allen	*Morrison, Ill.*
Speer, Bedell Hudson	*Pittsburgh, Pa.*
Spencer, Adah Porter	*Chicago, Ill.*
Spengler, Silas Llewellyn	*Menasha*
Stadelman, Otto Robert	*Madison*
Stark, Harold	*Bayfield*
Stearns, Rachel Elizabeth	*Stoughton*
Steudel, Esther	*Chilton*
Stevens, Sara Fay	*Chicago, Ill.*
Stevenson, Violet Esther	*Arlington*
Stickle, Phoebe Elizabeth	*Cottage Grove*
Stockwell, George	*Spooner*
Sumner, Catherine Clawson	*Madison*

Sumner, Willard Carlyle	*Madison*
Sundell, Ruth Duncan	*Mason City, Ia.*
Sutton, Robert Mage	*Peoria, Ill.*
Swanson, Cleary Neil	*Marinette*
Swerig, Ada Lois	*Madison*
Taylor, Bessie Lillis	*Glen Haven*
Taylor, Dorothy Douglas	*Princeton, Ill.*
Taylor, Marvin Hunter	*Louisville, Ky.*
Temme, William Ford	*Berlin*
Tener, Virginia Simpson	*Wheeling, W. Va.*
Terry, Henry Grassie	*Stoughton*
Thies, Arthur Richard	*Pepin*
Thompson, James Moore	*St. Croix Falls*
Thorn, Marian Helen	*Hudson*
Thornton, Eva May	*La Valle*
Thwaits, Mabel	*Milwaukee*
Tigay, Bertha Sophia	*Chicago, Ill.*
Tilden, Helen Mary	*St. Paul, Minn.*
Toennies, Ernest August, Jr.	*Sheboygan*
Toerne von, Dorothy Augusta Louise	*Fort Atkinson*
Torchiani, Alfred	*Milwaukee*
Turner, Alice	*Port Washington*
Underwood, George W., Jr.	*Chicago, Ill.*
Vale, Vivian Virginia	*Madison*
Van Arsdale, Maurice William	*Racine*
Vickery, Clara Maude	*Evansville, Ind.*
Viehe, Lucile Dorothy	*Terre Haute, Ind.*
Vingom, Clair Odin	*Great Falls, Mont.*
Vivian, Robert Stansmore	*Madison*
Volkmann, Ruth Nathalie	*Chicago, Ill.*
Vrooman, Gertrude Sherman	*Washington, D. C.*
Wagner, Esterre	*La Crosse*
Wagner, Newton Van Derveer	*Madison*
Wahl, John Jacob	*Milwaukee*
Wallrich, Lucy Angeline	*Shawano*
Wanzer, Evelyn Jane	*Chicago, Ill.*
Ward, Alice Greenleaf	*Milwaukee*
Ward, Edna Margaret	*Sioux City, Ia.*
Waterman, Isabelle Amanda	*Menomonie*
Watson, Robert Dean	*Aurora, Ill.*
Wears, Marjorie Ella	*Menomonie*
Webster, James Beam	*Oconomowoc*
Weddendorf, Arno Herman	*New Ulm, Minn.*
Weinberg, Jacob Hyman	*Madison*
Weisse, Harvey Jennings	*Sheboygan Falls*
Wendland, Herman Emil	*Port Edwards*
Weston, Nathan A., Jr.	*Champaign, Ill.*
Wheeler, Harold Parker	*Milwaukee*
Whelan, Anna	*Mondovi*
Whelan, Julia Priscilla	*Mondovi*
Whitbeck, Florence	*Madison*
White, Dora Marguerite	*Mineral Point*
White, Ruby Claire	*Madison*

White, Wallace Beecher	*Burlington*
Whitlock, Robert Laird	*Gettysburg, S. D.*
Wickham, William Edward	*Eau Claire*
Wiener, Ingeborg	*Chicago, Ill.*
Wiener, Marie Louise	*Chicago, Ill.*
Wiese, Hilda Frieda	*Madison*
Winslow, Carol Lillian Marie	*Elkhart, Ind.*
Wise, Gladys Minnie	*Madison*
Wishnefsky, Ben	*Milwaukee*
Wolfers, Robert Charles	*Hopkins, Mo.*
Wollin, Evelyn Anna	*Oconomowoc*
Woodward, King Grier	*Peoria, Ill.*
Works, Lucile Ruth	*Madison*
Wright, Hallock George	*Juneau*
Wright, Robert William	*Belvidere, Ill.*
Wroe, Gerald Dillon	*Chicago, Ill.*
Yabroff, Anna	*Fond du Lac*
Yabroff, Bertha Dorothy	*Horicon*
Ziesel, Lora Celista	*Elkhart, Ind.*
Zieske, Roland	*Madison* —590

Course in Commerce

Adams, Gordon Dale	*Evansville*
Anderson, Calmar T.	*Chippewa Falls*
Anderson, Earl Canute	*Grantsburg*
Andrews, A. Irving	*Oshkosh*
Babcock, Clifford Schrieve	*Kasota, Minn.*
Baker, Herbert M.	*Zanesville, O.*
Ballhorn, Gordon Charles	*Bear Creek*
Barklow, Ernest Edward	*Springfield, Mo.*
Barlow, George William	*Kokomo, Ind.*
Barnes, Willis Stewart	*Madison*
Bartlett, John Shepard	*Milwaukee*
Baxter, Marcus Luling	*Lancaster*
Beaver, Cyril James	*Madison*
Behrendt, Otto Herman	*Wausau*
Bemis, Lloyd Edward	*Chicago, Ill.*
Bergmann, Harold Raymond	*Ft. Atkinson*
Bergset, Lloyd	*Eau Claire*
Bernard, Frank Charles	*Madison*
Boardman, Seymour Cook	*Milwaukee*
Bohnson, Roland Durfee	*Clinton, Ia.*
Brandt, Clarence Albert	*Fennimore*
Brittingham, Louis George	*Gomez Palacio Dgo, Mexico*
Brown, Porter Harris	*St. Louis, Mo.*
Brown, Richard R.	*Edgerton*
Campaign, Harry John	*Madison*
Chapman, Wesley Arnold	*South Wayne*
Clague, Stanley Richard	*Winnetka, Ill.*
Clayton, Thayer Zachariah	*Milwaukee*
Cleveland, Chester Emery, Jr.	*Chicago, Ill.*

Close, Wirt George	*Des Moines, Ia.*
Cohoe, Welby Carlton	*Chisholm, Minn.*
Coleman, Arthur Leonard	*Ashton, S. D.*
Collier, Robert, Jr.	*Patch Grove*
Cook, William Carpenter	*Menominee, Mich.*
Corry, William James	*Madison*
Craig, Harry Worthington	*Cleveland, O.*
Craig, Lloyd	*Janesville*
Craven, Edith Myrtle	*Kadoka, S. D.*
Crownhart, George	*Madison*
Crump, William Gordon	*Madison*
Curran, Francis Richard	*Edgerton*
Dame, Ralph Ward	*Beloit*
Dana, Walter Duncan	*National Home*
Dohr, Donald	*Madison*
Doyle, Elmer Michael	*Cobb*
Drake, Sanford Pond	*Keokuk, Ia.*
Drinkwater, Paul Edwin	*Kokomo, Ind.*
Earle, William Watson	*Tomah*
Duwe, Henry J.	*Middleton*
Ebbs, Paul Allen	*St. Louis, Mo.*
Elliott, Horace Reed	*Evanston, Ill.*
Elliott, Theron Wesley	*Dodgeville*
Erdmann, Willard V.	*Sheboygan*
Ernst, Leo Wainwright	*Chicago, Ill.*
Fendrich, Charles Welles	*Evansville, Ind.*
Fenn, Kenneth Newton	*Prophetstown, Ill.*
Fladoes, Martin Alfred	*Menomonie*
Freese, Herbert George	*Sioux Falls, S. D.*
Frick, Arthur Clement	*Milwaukee*
Gallagher, Claude Francis	*Green Bay*
Gass, George Frederick	*Shenandoah, Ia.*
Gausman, Wallace Fay	*Madison*
Gerrits, Christopher Columbus	*Waupun*
Gibson, John Currie	*Oshkosh*
Gildermaster, Henry Herman	*Princeton, Ill.*
Goetz, Fred William	*Stratford*
Gotfredson, Henry Lawrence	*Green Bay*
Gotti, Harry Dominck	*Libertyville, Ill.*
Grede, William John	*Milwaukee*
Green, Thomas Henry	*Ligonier, Ind.*
Grieve, Gilbert George	*Madison*
Gross, Arthur Albert	*Milwaukee*
Gurney, William Walter	*Madison*
Haley, John Wendell	*Madison*
Hanson, Harry Erving	*Chippewa Falls*
Hardy, Earle William	*Waukesha*
Hardy, Robert Ray	*Ashland*
Hart, Irene Eleanor	*Cumberland*
Hatch, Vernon Victor	*Eau Claire*
Hayden, James Matthew	*Madison*
Hayter, Harry Clifton	*Shawano*
Heilemann, Alfred William	*Jefferson*

Hemsing, James Franklyn	*Milwaukee*
Hewett, Lloyd Fisher	*Arlington, S. D.*
Horn, William Edward	*Muskego*
Hornaday, Howard Blair	*Danville, Ind.*
House, Edward Francis	*Marinette*
Hunter, James Jefferson	*Milwaukee*
Ives, John Bryant	*Irvington, Ia.*
Jacobson, Robert Louis	*Kilbourn*
Jameson, Arthur Da Costa	*Madison*
Johnson, Edwin R.	*Shell Lake*
Johnson, Roscoe Elwin	*Eureka, Kas.*
Jones, Frank Vincent	*Racine*
Jones, George Gage	*Warren, Ind.*
Judevine, William Kenneth	*Oakdale*
Kaiser, William Theodore	*Chilton*
Keck, Kenneth Fielman	*Wapello, Ia.*
Kentzler, Paul Reinhart	*Madison*
Keyes, Ralph Everett	*Marion, Ia.*
Kircher, Paul Edgar	*Kiel*
Kitz, George Louis	*Chicago, Ill.*
Knutson, Oley Elmer	*Boscobel*
Kress, Fred Raymond	*Tomah*
Langemak, Wesley Erving	*Evansville*
Leopold, Frederic	*Burlington, Ia.*
Levy, Edward David	*Augusta*
Lieber, Carl Theodore	*Indianapolis, Ind.*
Linehan, Raymond Francis	*Genesee Depot*
Little, Harvey Bonnell	*Appleton*
Loeser, Milton Neil	*Ligonier, Ind.*
Loomis, George Willis	*Barronette*
McCandless, Donald Sisson	*Davenport, Ia.*
McDowell, Dyer Silas	*Logansport, Ind.*
McHugh, Kenneth La Valle	*Milwaukee*
McNamee, Shurley Lawrence B.	*Madison*
McWilliams, Gerald Shearn	*Milwaukee*
Maier, Walter Louis	*Mellen*
Malzahn, Walter Ernst William	*West Bend*
Mandel, Walter	*La Grange, Ill.*
Mann, Frederick John	*Evansville, Ind.*
Marshall, Thomas George	*Belvidere, Ill.*
Martin, Joseph H.	*Grand Rapids, Mich.*
Matzen, Herbert James	*Milwaukee*
Meyers, Ross Bacharach	*Darlington*
Mills, Frederic Theodore	*Nevada, Ia.*
Moran, Edward Leonard	*Superior*
Mishelow, Edward David	*Westfield*
Morgan, James Allison	*Freeport, Ill.*
Munz, Arthur John	*Milwaukee*
Mylecraine, Earl A.	*Philadelphia, Pa.*
Niebergall, Floyd	*Pawpaw, Ill.*
Nelson, Frederick Washington	*Racine*
O'Donnell, Frank Rowan	*Racine*
Ogle, Samuel Eugene	*Waldo*

O'Malley, Stella Ethelbert	*Madison*
Owen, Gordon	*Madison*
Pagel, Herman Emil	*Stevens Point*
Pantzer, Frederick Morris	*Sheboygan*
Pardee, C. Arthur	*Appleton*
Parker, Walter William	*Ashland*
Pelton, Jack Milford	*Middleton*
Penewell, Stanley William	*Madison*
Perkins, Edward Lee	*Joliet, Ill.*
Pinther, Harold Otto	*Fond du Lac*
Plumb, Walter Fitz Gerald	*Grand Rapids, Mich.*
Pogue, Kenneth Hunt	*Paw Paw, Ill.*
Polacheck, Jean Leon	*Milwaukee*
Pope, Henry Peirce	*Glencoe, Ill.*
Presser, Erwin Joseph	*Milwaukee*
Quinn, Thomas John	*Waterford*
Reeves, Joseph Oscar	*Albany*
Ruth, Peter Alfonza	*Sun Prairie*
Rinder, George Henry	*Sioux Falls, S. D.*
Rogers, Roland Hanks	*Superior*
Rohsenberger, Carl John	*Evansville, Ind.*
Row, Frank Damon	*Grand Rapids, Mich.*
Rowlett, John McNess	*Murray, Ky.*
Russell, Jim Bradford	*Bonham, Texas*
Rylander, Harry Byron	*Wausau*
Sachse, Erwin George	*Sheboygan*
Scholl, Maynard Michael	*Fond du Lac*
Schweers, Malcolm L.	*Shawano*
Seelbach, Otto E.	*Louisville, Ky.*
Shakshesky, Willard Merrill	*Jefferson*
Shellenberger, J. Herbert	*Madison*
Sherman, Howard C.	*Grand Rapids, Mich.*
Sichler, Clarence Robert	*Madison*
Sinnen, Harry Peter	*Racine*
Smalley, Theodore Sutphen	*Gladstone, N. J.*
Smiley, Russell Glenn	*Janesville*
Smith-Aubrey Campbell	*Ladysmith*
Smith, Harold Clinton	*Madison*
Snell, Joseph Warren	*Madison*
Snow, William Patrick	*Ashland*
Spurrier, Donald Parrish	*Whiting, Ind.*
Stamm, Walter Albert	*Dillon, Mont.*
Stewart, Earl Moffett	*Richland Center*
Stout, Richard Harding	*Indianapolis, Ind.*
Strope, Loyd Morton	*Coshocton, O.*
Stuhler, Frederick Stewart	*Monticello, Ia.*
Sullivan, Floyd Edmond	*Wausau*
Sweet, Ben	*Madison*
Toomey, John Joseph	*Boardman*
Townsend, Alan Hardy	*Racine*
Trainor, Roy Daniel	*Madison*
True, Lloyd Otho	*Fairbury, Nebr.*
Tye, Paul Farrell	*West Chicago, Ill.*

Vanden Brack, Gail	*So. Pasadena, Cal.*
Vogt, Frank Philip	*Kilbourn*
Wahl, Victor Theodore Karl	*Eau Claire*
Ward, Truman Lane	*Madison*
Ward, Walter James	*Fond du Lac*
Ware, Austin Rees	*Livingston, Mont.*
Weisse, Henry Charles	*Sheboygan Falls*
Welsh, Scott Daniel	*Madison*
West, Lyle Wayland	*Darien*
Whedon, Vyse Beckwith	*Appleton*
White, Mabel Florence	*Rhinelander*
Wiedenbeck, Gerald	*Madison*
Wilder, Lloyd Leonard	*Evansville*
Wolff, Alfred	*Janesville*
Wood, John	*Cairo, Ill.*
Wright, Will Orin	*Lyndon Station*
Wurlitzer, Raimund Billing	*Cincinnati, O.*
Yegen, Peter Trepp	*Billings, Mont.* —206

Course in Chemistry

Adler, Erna	*New York City*
Beckman, Orville Charles	*Madison*
Brickbauer, Benjamin George	*Elkhart Lake*
Cheetham, Harold Cowan	*Milwaukee*
Gooding, Ralph Urban	*Fond du Lac*
Hackbert, Clarence Rinold	*Poynette*
Heinecke, Karl George	*Sheboygan*
Helfaer, Bertram	*Milwaukee*
Hoffmann, Ralph Max	*Forest Junction*
Hoppert, Carl Arthur	*Sheboygan*
Hoewitz, Lazarus Herman	*Sheboygan*
Jung, Frederic Theodore	*Sheboygan*
Lamb, Jeannette Jones	*Erie, Pa.*
Lee, Ta Chong	*Ka Yin, China*
Maleckar, William Richard	*Marinette*
Melaas, Margaret Isabelle	*Stoughton*
Nash, George Walter	*Milwaukee*
Newberry, Edwin Wilson	*Burlington*
Park, Benjamin Herbert	*Fond du Lac*
Pepper, John Phillip	*Washington, D. C.*
Rietow, William Howard	*Sheboygan*
Short, Robert Wright	*Elkhart, Ind.*
Sinaiko, Herman Harvey	*Madison*
Wiethaup, Roland Albert	*Milwaukee*
Winberg, Raymond Phillip	*Kenosha*
Young, John Henry	*Eau Claire* —26

Course in Journalism

Armson, Ruth Marguerite	*Stillwater, Minn.*
Ball, Ruth Lucile	*Muncie, Ind.*
Baumgartl, Joseph Mathew	*Hartford*
Benedict, Russell Edison	*Pleasant Prairie*

Bishop, Walter	*Guilford, Conn.*	
Bitker, Bruno Voltaire	*Milwaukee*	
Bogan, Eleanore Mary	*Mackinac Island, Mich*	
Bristol, Fern W.	*Oakfield*	
Brownlee, Agnes Helen	*Bettendorf, Ia.*	
Burch, Harriet Imogene	*Minneapolis, Minn.*	
Comstock, William Thurston	*Oconto*	
Cranefield, Paul Frederic	*Madison*	
Evans, Mildred Campbell	*Grand Rapids, Mich.*	
Farrington, Joseph Rider	*Honolulu, Hawaii*	
Fedde, Katherine	*Peotone, Ill.*	
Foley, John James	*Madison*	
Herz, Robert Thal	*Logansport, Ind.*	
Jones, Donald Coffin	*Billings, Mont.*	
King, Frances Isabelle	*Madison*	
Klein, J. Norman	*Chicago, Ill.*	
Klumph, Helen Mo	*Chicago, Ill.*	
Laird, Nellie Marie	*Milford, Ill.*	
Lehrbas, Lloyd Allan	*Pocatello, Idaho*	
McGinley, John Robert	*Janesville*	
Matheney, Edward Taylor	*Newton, Ill.*	
Maurseth, Lars Hvem	*Stoughton*	
Maw, Dora Elizabeth	*Madison*	
Mooney, Roger Joseph	*Edgerton*	
Nafziger, Ralph Otto	*Benton Harbor, Mich.*	
Obenauer, Victor Jackson, Jr.	*Kokomo, Ind.*	
O'Meara, Walter Andrew	*Cloquet, Minn.*	
Palmer, Joseph Fowler	*Buffalo, N. Y.*	
Palmer, Russell Raymond	*Madison*	
Prussing, Ernest John	*Chicago, Ill.*	
Richards, Archer Card	*Savanna, Ill.*	
Sinclair, Norris Albert	*Loraine, O.*	
Smertenko, Johan Jacobs	*Brooklyn, N. Y.*	
Smith, Dorothy Paul	*Madison*	
Sperry, Frederick Lewis	*Oak Park, Ill.*	
Sperry, Margaret Berenice	*Rochester, N. Y.*	
Stromme, Ruth	*Madison*	
Taylor, Bradley Richardson	*Rhinelander*	
Thudium, Elizabeth Meigs	*Arena*	
Wheelock, Hugo Harris	*Cleveland, O.*	
Wilander, Elmer Theodore	*Hayward*	—45

Course in Pharmacy

FOUR YEAR COURSE

Boies, Lawrence R.	*Centuria*	Freshman
Fisher, Karl Frederic	*Baraboo*	Junior
Hoffman, Frank Joseph	*Tigerton*	Senior
Kesten, Homer Davies	*Milwaukee*	Freshman
Miller, Henry Farrand	*Madison*	Senior
Salentine, Joseph Henry	*Calhoun*	Junior

Schmidt, Emil	*Osceola*	Freshman
Schwarz, Leonard John	*Chilton*	Senior
Weber, Carlos Levern	*Fennimore*	Freshman
		—9

TWO YEAR COURSE

Allen, George Buell	*Beloit*	Freshman
Amo, Alma Adreina	*Hixton*	Sophomore
Bartlett, William Guy	*New Glarus*	Sophomore
Beattie, Ena Revel	*Arlington*	Freshman
Boberg, Harriet Agnes	*Eau Claire*	Freshman
Butcher, Guy Henry	*La Farge*	Sophomore
Clifgard, Roy Alvin	*Madison*	Sophomore
Dickey, Dean Richard	*Spencer, Ia.*	Freshman
Dodge, Harold A.	*Darien*	Freshman
Falstead, Clarence Henry	*Eau Claire*	Freshman
Gabler, Elmer	*Highland*	Freshman
Haack, Robert Conrad	*Monroe*	Freshman
Hansen, Hans Andrew	*Neenah*	Sophomore
Hare, Earl Saladea	*Clinton*	Freshman
Hassinger, Charles William	*Milton Junction*	Sophomore
Herr, Oliver Paul	*Plymouth*	Freshman
Lanz, Arthur	*Monroe*	Freshman
Loftus, George Elmer	*Walworth*	Sophomore
McHenry, Clarence Francis	*Milwaukee*	Freshman
Mahre, Ronald Henry	*Amery*	Sophomore
Ostlund, Leonard Josephus	*Cambridge*	Sophomore
Paynter, Charles Perry	*Mineral Point*	Freshman
Pugh, Clifford Luzern	*Richland Center*	Freshman
Rupp, Claude Earl	*La Crosse*	Freshman
Solberg, Lawrence Avery	*Mondovi*	Sophomore
Staples, Irene Foster	*Osceola*	Sophomore
Stiles, Helen Margaret	*Sturgeon Bay*	Freshman
		—27

Adult Special Students

Birchler, Henry Waldemar	*Milwaukee*	Freshman
Bloch, Louis Harry t c	*Madison*	Senior
Boette, Cecilia Rose	*St. Louis, Mo.*	Freshman
Brown, Ernest J.	*Madison*	Freshman
Burnham, Dorothy	*Glenview, Ill.*	Freshman
Child, Frances Brown	*Janesville*	Freshman
Conley, Irene Grace	*Revillo, S. D.*	Freshman
Cook, Charles Ira, Jr.	*Madison*	Freshman
Cooper, Flora Belle	*Merrimack*	Sophomore
Dengel, Mary Bowles	*Madison*	Freshman
Dorrans, James Morgan	*Madison*	Junior
Fagerstrom, Hattie Andromey	*Racine*	Freshman
Fessler, Kenneth Frank	*Madison*	Freshman
Fox, Milford Gerald	*Madison*	Freshman
Gaylord, Miriam Olive	*Milwaukee*	Freshman
Gibson, Charles Archie m	*Madison*	Senior

Goedecke, Walter Scott	*Ableman*	Freshman
Green, Walter Elmer	*Milwaukee*	Junior
Grinstead, Inez Hawkins	*Richmond, Ky.*	Freshman
Hagberg, Loreta Boies	*Madison*	Freshman
Hamilton, Clara Dill	*Wilmington, Del.*	Sophomore
Hanson, Dora May	*Madison*	Freshman
Hanson, Louis	*Madison*	Sophomore
Hartman, Blanche Marie	*Madison*	Freshman
Haussmann, Olga Kuhlmeyer	*Madison*	Freshman
Hindman, Harry Hingston	*Madison*	Freshman
Howell, Elsie Margaret	*Woodhull, Ill.*	Sophomore
Jackson, Sydney Charles	*Madison*	Sophomore
Kernan, Lillian Marie	*Madison*	Freshman
Kittleson, Arthur Isaac	*Madison*	Freshman
Klassy, Ernest Robert	*Monticello*	Freshman
Koepp, Otto August	*Madison*	Freshman
Kohl, John Charles	*Marshfield*	Junior
Koss, Alfred Carl	*Madison*	Freshman
Kronquist, Emil Arthur	*Madison*	Sophomore
Loevenhart, Minnie	*Madison*	Freshman
Lowry, Ina Scott	*Madison*	Sophomore
McGilvary, Elizabeth Paton	*Madison*	Freshman
McMillen, Dorothy	*Albuquerque, N. M.*	Freshman
Mahoney, Joseph David	*Muncie, Ind.*	Freshman
Mathie, Helmuth	*Berlin, Germany*	Freshman
Mikkelson, Asta Matilda	*Garske, N. D.*	Freshman
Minor, Charles Samuel	*Madison*	Freshman
Moore, Mary Eliza	*Madison*	Freshman
Moran, Mary Rose	*Madison*	Freshman
Morris, Percy Jay	*West Allis*	Freshman
Murphy, Samuel Alfred	*Madison*	Junior
O'Neil, Roy James	*St. Paul, Minn.*	Freshman
Oppet, Clara Louise	*Weyauwega*	Freshman
Oskamp, Alex McLeod	*Wyoming, O.*	Freshman
Paape, Carl Edward	*Milwaukee*	Freshman
Paulson, Clara Olive	*Hollandale*	Freshman
Perel, Rose	*Madison*	Junior
Perry, Arline Lorne	*Madison*	Junior
Poulsen, Benjamin Leonard	*Racine*	Freshman
Powell, Elias	*Madison*	Junior
Pudor, Elizabeth Walker	*Madison*	Freshman
Purtell, Edna Maie	*Madison*	Freshman
Rahr, Carl Theodore	*Oshkosh*	Freshman
Riha, Joseph Wencel	*Kewaunee*	Sophomore
Saposs, David Joseph	*Madison*	Senior
Schoen, Franklin Martinie	*Madison*	Freshman
Schroeder, Alma Louise	*Madison*	Freshman
Sister Mary Jeannette Bodoh	*Fond du Lac*	Freshman
Smith, Nellie Gibbens	*Madison*	Sophomore
Sneeberger, William Alvin m	*Racine*	Senior
Snyder, Ethel Fairmont	*Kansas City, Mo.*	Freshman
Solon, Ruth	*Chicago, Ill.*	Junior
Sommer, Fanny Elizabeth	*Denton, Texas*	Freshman

Stein, Herman	*Madison*	Freshman
Strasser, William m	*Madison*	Junior
Thomas, Jane Austin	*Cambridge, Mass.*	Freshman
Titus, Florence Grace	*Madison*	Sophomore
Town, Henry Galloway	*Madison*	Freshman
Wakeman, M. Lydia	*Madison*	Freshman
Webb, Alice Lindsey	*Madison*	Sophomore
White, Adeline	*Madison*	Freshman
Witts, Milford	*Madison*	Sophomore
Woldenberg, Hevial Malcomb	*Madison*	Freshman
Wuflestad, Krag Pederson	*Madison*	Freshman

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Course in Commerce

Burg, Leo Louis	*Platteville*	Sophomore
Cleary, Maurice Joseph	*Fond du Lac*	Freshman
Fruetel, Sheldon William	*Winona, Minn.*	Freshman
Guthrie, Harry Conn	*Oklahoma City, Okla.*	Freshman
Isele, Walter Sandmeyer	*Peoria, Ill.*	Freshman
Mattice, Paul Edward	*Footville*	Junior
Monohan, Anne Louise, Cody	*Wausau*	Freshman

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Course in Journalism

Bessey, Marie Magdalen	*Madison*	Sophomore
Brink, Stanley Ludington	*Evansville*	Senior
Fehrenbach, August John	*Marshfield*	Freshman
Lefebvre, Anne Dorothy	*Ashland*	Freshman
Meyer, Alfred Wallace	*Oshkosh*	Senior
Noyes, Charles Evans	*Janesville*	Freshman
Rawlings, Charles Alfred	*Rochester, N. Y.*	Freshman
Shaw, Henry Millard	*Fond du Lac*	Freshman
Tovey, Frank Henry	*White Lake, S. D.*	Freshman
Weiss, David	*New York, N. Y.*	Freshman

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Course in Chemistry

Hey, Clement	*Sterling, Ill.*	Sophomore
Nichols, Merle Starr	*Williamstown, Mo.*	Senior
Town, George Galloway	*Madison*	Junior

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Course in Pharmacy

FOUR YEAR COURSE

Reif, Herman Peter	*Madison*	Junior

—1

SCHOOL OF MUSIC

Seniors

Humiston, Floy Matilda t c	*Madison*	
Paltz, Marie Anna Elizabeth	*Madison*	—2

Juniors

Piper, Helen Elizabeth	*Madison*	—1

Sophomores

Barwig, Elsa Marie	*Mayville*	
Campbell, Lucille Eleanor	*Madison*	
Dieter, Esther Evangeline	*Montfort*	
Fauerbach, Clara Vierling	*Madison*	
Grant, Helen	*Kalamazoo, Mich.*	
Hoppman, Ruth Bertha	*Madison*	—6

Freshmen

Davis, Pauline	*Crawfordsville, Ind.*	
Eastman, Orpha Marie	*Bellevue, Ia.*	
Elston, Frances Marie	*Duluth, Minn.*	
Gausman, Rachael Marie	*Madison*	
Gibson, Charlotte Katherine	*Grand Rapids*	
Hafner, Irene Mary	*Oak Park, Ill.*	
Horner, Catherine Adele	*Grand Rapids, Mich.*	
Jones, Jessamine Barbara	*Madison*	
Levitan, Ethel	*Madison*	
Ofstie, Elsie Synnove	*Eau Claire*	
Pengelly, Melva Marion	*Madison*	
Schneider, Esther Irene	*Madison*	
Schwerke, Irving Charles	*Appleton*	
Sichler, Agnes Elizabeth	*Alma Center*	
Zillmann, Ruth	*Thorpe*	—15

SUPERVISOR'S COURSE

Second Year

Andrews, Lilly Maude t c	*Baraboo*
Benesh, Emilie Crecencia t c	*Menominee, Mich.*
Bradford, Elizabeth Helen t c	*Grand Rapids*
Daly, Annina t c	*Grand Rapids*
Edwards, Irene Clara t c	*Ashland*
Feeney, Mary Elizabeth t c	*Madison*
Finney, Marie t c	*Madison*
Fox, Blanche Irene t c	*Madison*
Gnagi, Gladys Elvira t c	*Monroe*
Harker, Myra Susan t c	*Madison*

Hittner, Genevieve Marguerite t c	*Seymour*	
Kuhns, Thelma Caroline t c	*Baraboo*	
Lappley, Irene Mary t c	*Mazomanie*	
Nachtigall, Elfrieda Adelaide t c	*Marinette*	
Parkinson, Kathryn	*Madison*	
Paulson, Mabelle Idelia t c	*Stoughton*	
Preston, Charlotte Elizabeth t c	*Madison*	
Rueping, Estelle Wilhelmina	*Fond du Lac*	
Skelton, Agnes Cecelia t c	*Madison*	
Stevenson, Carlisle Edward	*Marinette*	
Van Hecke, Kathleen Rosamond t c	*Merrill*	
White, Vila Elizabeth t c	*Carbondale, Ill.*	—22

First Year

Arneson, Lila Emelin t c	*Barneveld*	
Bischoff, Leonora Lena	*Madison*	
Boyden, Vivian Josephine t c	*Seymour*	
Briggs, Ann	*Madison*	
Burrichter, Dorothy	*Galena, Ill.*	
Dresen, Leona Emma	*Prairie du Sac*	
Glynn, Maude Elizabeth	*Superior*	
Grimstad, Agnes t c	*Mt. Horeb*	
Hanson, Herdis Parker t c	*Milwaukee*	
Hemstock, Lilah t c	*Sparta*	
Hinzie, Anne Blessington t c	*Two Rivers*	
Jones, Helen Truran t c	*Shullsburg*	
Knutson, Louise M t c	*Marinette*	
Korman, Claire Elizabeth t c	*Neillsville*	
La Billois, Edith Mary t c	*Menominee, Mich.*	
Lloyd, Beulah Cecilia	*Randolph*	
Martin, Helen May t c	*Plainwell, Mich.*	
Mayer, Hilda Henriette t c	*Jefferson*	
Nielson, Esther Marina	*Neenah*	
Polk, Irene Genevieve t c	*Madison*	
Shafer, Helen Marie t c	*Monroe*	
Smith, Ruth Carol t c	*Wauwatosa*	
Trier, Edrye Mary t c	*Hurley*	
Tyler, Laura Claire t c	*Hurley*	
Widenbeck, Emilie Agnes t c	*Madison*	
Willman, Madelon Charity t c	*Madison*	—26

Adult Specials

SUPERVISOR'S COURSE

Stark, Anna Lydia t c	*Madison*	Freshman
Tovey, Minnie Blanche	*Madison*	Sophomore
		—2

Unclassified

Anderson, Margaret	*Madison*
Ayer, Mary Lucile	*Madison*
Brandenburg, Catherine Sarles	*Madison*
Brown, Anna McCurdy	*Urbana, Ill.*

Congdon, Ferne Lina	*Delavan*	
Daley, Kaia Gunilda	*McFarland*	
Davis, Marjory Anna	*Madison*	
Gorham, Nellie Elvira	*Monroe*	
Harker, Laura Ellen	*Shullsburg*	
Houghton, Bertha Killen	*Madison*	
Levitan, Esther	*Madison*	
Ludlow, Adela S.	*Waukesha*	
Quinn, Lucile Regina	*Madison*	
Schmitt, Pearl Ruby	*Madison*	
Silverstein, Sadie Morris	*Madison*	
Stury, Anton	*Elkhorn*	
Watzke, Zelma Alberta	*Madison*	
Wolley, Hilda Lydia	*Madison*	—18

MEDICAL SCHOOL

Second Year

Bloor, Edwin Garfield l s	*Oconomowoc*
Bogart, Franklin Blevins ls	*N. Chattanooga, Tenn.*
Bonar, Barnet Edward ls	*Streator, Ill.*
Bond, Harry William ls	*Wheeling, W. Va.*
Campbell, Meredith Fairfax ls	*Madison*
Chandler, Fremont Augustus ls	*Bradley*
Collentine, George Ernest ls	*Monroe*
Dean, James Reeve ls	*Madison*
Downs, Frank Emmett ls	*Hurley*
Estrem, Theo Adolph ls	*Petersburg, Nebr.*
Fardy, Martin Joseph B. S. g	*Mukwonago*
Farisy, Arthur Thomas ls	*Franklin, Minn.*
Finnerud, Clark Wiley ls	*Watertown, S. D.*
Gibson, Charles Archie ls	*Madison*
Hanson, Joel Hjalmar ls	*Eau Claire*
Heinrich, William Anthony ls	*Cedarburg*
Henken, Jacob Frank ls	*Racine*
Hillberry, Maud Eva ls	*Blue River*
Horwitz, Jack ls	*Milwaukee*
Jackson, Arnold Stevens ls	*Madison*
Kading, Earl Christian ls	*Deer Lodge, Mont.*
Kerr, Harold Dabney ls	*Cantonsville, Ind.*
Kiley, William Earl ls	*Byron, Ill.*
McKittrick, Leland Sterling B. S. g	*Eau Claire*
Marsh, Harry Gilmore ls	*Waunakee*
Martin, Hilmar George B. A. g	*Milwaukee*
Mehlig, Lee Percy B. S. g	*Madison*
Moll, Arthur Mackenzie ls	*Kenton, Mich.*
Newbury, Horace Charles ls	*Waukesha*
Noble, Thomas Benjamin ls	*Indianapolis, Ind.*
O'Malley, Thomas Stanley ls	*Madison*
Opstedal, Joseph Arnold ls	*Madison*
Palit, Barendra Kumar B. S. g	*Madison*

Ritzman, Ralph Roscoe B. A. g	*Madison*
Robinson, Byron Lewis B. A. g	*Oconomowoc*
Schlossmann, Bernard ls	*Waukesha*
Schneider, Chester Clayton ls	*Milwaukee*
Shearer, Harry Arthur ls	*Madison*
Skavlem, John Harvey ls	*Stoughton*
Smith, Curtis Everett B. A. g	*Paris, Tenn.*
Sneeberger, William Alvin ls	*Racine*
Taylor, Joseph Vincent ls	*Marple, Nebr.*
Thompson, Roland Louis ls	*Elroy*
Tomhagen, Edith Somer B. A. g	*Madison*
Wegge, William Edward ls	*Milwaukee*
Wright, Katharine Marcia ls	*Forest Glen, Md.*

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First Year

Armen, George Krikor ls	*Racine*
Axley, Harold ls	*Cleveland*
Bachhuber, Carl Alvin, ls	*Mayville*
Benton, Joseph Levi ls	*Richland Center*
Bleckwenn, William Jefferson ls	*New York, N. Y.*
Brown, Alois Anthony ls	*La Crosse*
Brown, Marion Clarkson ls	*Webster Groves, Mo.*
Burns, Robert Emmett ls	*Madison*
Carter, Fred Gay B. A. g	*Madison*
Ewing, Elizabeth Learoyd M. A.	*Madison*
Feinberg, Samuel Maurice ls	*Watertown*
Felsher, Augusta Rose ls	*Madison*
Felsher, Hannah ls	*Madison*
Finnegan, Charles Robert B. A. g	*La Valle*
Fischer, Roy Frederick ls	*Lancaster*
Gasser, William Pope ls	*Freeport, Ill.*
Guequierre, Jacques Pierre ls	*Madison*
Gunderson, Gunnar ls	*La Crosse*
Gunderson, Sigurd Bjarne ls	*La Crosse*
Hall, Earl Hopkins ls	*Oconto*
Hamilton, Florence Irene ls	*Tomah*
Hannon, Leo John ls	*Sturgeon Bay*
Helmes Lloyd Oscar ls	*Madison*
Hodges, Fred Jenner ls	*Madison*
Hyslop, Robert James ls	*Madison*
Kehl, Sylvester Carl ls	*Madison*
Lake, Thomas Owens ls	*Oshkosh*
McCoy, Leslie Layton ls	*Pittsville*
Mackedon, William ls	*Milwaukee*
McMahon, Arthur Emerson ls	*Madison*
Nelson, Wilford Merriam ls	*Madison*
Olson, Henry John ls	*Beloit*
Phillips, Harold Edward ls	*Chicago, Ill.*
Piggins, Ralph Sproule ls	*Milwaukee*
Rainey, Edward Carlysle ls	*Black River Falls*
Reichert, John Lester ls	*West Bend*
Richdorf, Lawrence Francis ls	*Maribel*

Roantree, Robert Peter ls	*Parker, S. D.*	
Ryan, Mark Edward ls	*Oconomowoc*	
Stang, Hartwick Martinus ls	*Eau Claire*	
Starry, Leo Joseph ls	*Madison*	
Strasser, William ls	*Madison*	
Thompson, Fred Rush ls	*Cedarville, Ill.*	
Truitt, John William ls	*Naperville, Ill.*	
Tupper, Warren Ernest ls	*Clarkston, Wash.*	
Van Den Berg, William John ls	*Madison*	
Van Liere, Edward Jerald ls	*Bristol*	
Wahle, George Henry ls	*Marshfield*	
Wall, John Irving ls	*Antigo*	
Welker, Ernest Gottlieb ls	*Fall Creek*	
Weller, Charles Grafton ls	*Fond du Lac*	
Westgate, Clyde James ls	*Cadott*	
Wilde, Edwin ls	*Milwaukee*	
Wooll, Gerald Kelley ls	*Madison*	
Zellmer, Carl Edward ls	*Antigo*	
Young, Isabel Helen ls	*Madison*	—56

COURSE IN PUBLIC HEALTH

Müller, Hugo, M. D. g	*Carter*	—1

COLLEGE OF ENGINEERING

Seniors

Andrae, George Henry Joseph	*Milwaukee*	E. E.
Andrew, Edwin Lee	*Tacoma, Wash.*	E. E.
Ayres, Albert Owen	*Madison*	C. E.
Ballard, George Lysle	*Beloit*	E. E.
Barnett, Nelson Dater	*Sharon*	M. E.
Bash, Francis Edwin	*Madison*	Ch. E.
Bennett, Thomas Edmund	*Madison*	E. E.
Booth, George Edward	*New Richmond*	E. E.
Bothum, George Gilbert	*Chicago, Ill.*	C. E.
Brockhausen, Edward Erp	*Madison*	M. E.
Brown, Thomas Coburn	*Socorro, N. M.*	Min. E.
Broyles, John	*Madison*	C. E.
Buckmaster, Ben Stalker	*Kenosha*	M. E.
Burke, Kenneth Richard	*Manitowoc*	Ch. E.
Cargill, William Wallace	*Madison*	C. E.
Carlson, David Napolean	*Marinette (Adv. Course)*	Ch. E.
Casey, Thomas Bernard	*Chicago, Ill.*	C. E.
Chang, Moses Y.	*Ningpo, China*	C. E.
Christiansen, Clarence John	*Grand Rapids*	M. E.
Connelly, Robert Michael	*Green Bay*	C. E.
Connit, Fred Lyman	*Milwaukee*	M. E.
Cope, Kenneth Heltzell	*Madison*	E. E.
Coughlin, Robert Jerry	*Baraboo*	E. E.
Dexheimer, Earl Chambers	*Ft. Atkinson (Adv. Course)*	Ch. E.

Doeringsfeld, Harry August	*Boscobel (Adv. Course)*	C. E.
Eby, Samuel Hilary	*Baltimore, Md.*	C. E.
Edwards, Seren Harold	*Des Moines, Ia.*	C. E.
Egbert, Paul Spier	*La Crosse*	C. E.
Ehrgott, Karl	*Milwaukee*	E. E.
Eldred, George	*Berlin*	C. E.
Falge, Robert Newton	*Manitowoc*	E. E.
Feiler, William Revel	*Evanston, Ill.*	E. E.
Fellows, Harrison Edward	*Racine*	M. E.
Fisher, Erwin William	*Mondovi*	C. E.
Fulton, Arthur Davis	*Madison (Adv. Course)*	M. E.
Gamble, Raleigh Welch	*Chicago, Ill.*	C. E.
Gilder, Thomas Nelson	*Milwaukee*	M. E.
Goldfein, Irving	*New York City, N. Y.*	C. E.
Gollmar, Herbert Arthur	*Baraboo*	Ch. E.
Green, William Carl	*Green Bay*	C. E.
Gross, Johan Frederick	*Edgerton (Adv. Course)*	M. E.
Grosskopf, John William	*Pella*	M. E.
Harvey, William Dow	*Aurora, Ill.*	M. E.
Henkel, Carl Albert William	*Mason City, Ia*	C. E.
Henny, David	*Portland, Ore.*	C. E.
Heuser, John Ulrich	*Madison*	E. E.
Hollister, Solomon Cady	*Portland, Ore.*	C. E.
Jameson, Philip Alexander	*Ogdensburg, N. Y. (Adv. Course)*	E. E.
Janda, Harold Frederick	*Portage (Adv. Course)*	C. E.
Jens, Roland	*New Holstein*	M. E.
Jewett, Clarence Gardner	*Plymouth*	E. E.
Johnson, John Franklin	*Madison*	E. E.
Kaumheimer, Edwin Andrew	*Milwaukee*	E. E.
Kernan, Thomas Harold	*Madison*	Min. E.
Krause, Emil Friederich	*Madison*	E. E.
Krueger, Carl Henry	*Stevens Point*	E. E.
Lewis, Charles McLeod	*Milwaukee*	M. E.
Lohr, Freeman Doolittle	*Orange City, Ia.*	Ch. E.
Loynes, Owen Hayward	*Fontana (Adv. Course)*	E. E.
McGilvary, Lewis Paton	*Madison*	E. E.
McKinney, John V.	*Madison*	M. E.
Magatagan, Robert Sylvester	*Denuba, Cal.*	Ch. E.
Maucini, Joseph John	*Madison*	C. E.
Maurer, Claude Norman	*Madison*	M. E.
Mensel, Robert Joseph	*Bremen, Ind.*	M. E.
Michel, Rudolph	*Baltimore, Md. (Adv. Course)*	M. E.
Mitchell, Paul Donald	*Milwaukee*	C. E.
Moon, Herbert Jacob	*Madison (Adv. Course)*	Ch. E.
Mueller, Fred Paul Gehart	*Ableman*	E. E.
Nelson, Louis Fred	*Clinton*	C. E.
Neubert, Armin Karl	*Madison*	E. E.
Nicholson, Charles Henry	*Crowley, La.*	Ch. E.
Norris, Ralph Fosbush	*Milwaukee*	Ch. E.
Olson, William Arthur	*Colfax*	E. E.
Orr, Roswell Park	*Mount Hope*	E. E.

Parker, Robert Hughes	*Madison*	C. E.
Parlett, Raymond Coleman	*Baltimore, Md. (Adv. Course)*	M. E.
Pederson, John Peter	*Tunnel City*	M. E.
Petersen, Robert Peter	*Madison*	C. E.
Phelps, Raymond Adelbert	*Beloit*	C. E.
Plate, Harry Victor	*Milwaukee*	M. E.
Pollak, Harry Charles	*Milwaukee*	E. E.
Popelka, Charles Jerry	*Racine*	C. E.
Pott, Herman Theodore	*Madison*	C. E.
Pynchon, Edwin Albert	*Chicago, Ill.*	C. E.
Rau, Charles Alexander	*Madison*	E. E.
Rau, Harold Lippert	*Milwaukee*	Min. E.
Re Qua, Eugene Miner	*Sioux Falls, S. D.*	C. E.
Richardson, Glenn Carrol	*Milwaukee*	M. E.
Roadhouse, Wilbur	*Beloit*	E. E.
Rodriguez, Sumner	*Madison*	M. E.
Royce, Wilfred Alexas	*Lead, S. D.*	E. E.
Salmon, Wallis Samuel	*Madison*	E. E.
Schad, James Albert	*Baltimore, Md. (Adv. Course)*	C. E.
Schmitz, Nicolas Joseph	*Madison*	E. E.
Skirm, Joseph Gaskill	*Princeton, N. J.*	Min. E.
Spayde, Keith Crawford	*Madison*	C. E.
Steere, Maynard Joseph	*Kalispell, Mont.*	C. E.
Steuber, Milton Carl	*Madison*	C. E.
Stimson, Paul Reeve	*Appleton*	Ch. E.
Strand, Loyd Mabie	*Madison*	E. E.
Stuart, Charles Whitman	*Monroe*	M. E.
Su, Kan	*Kwangsi, China*	C. E.
Swetting, Joseph Rodney	*Berlin*	M. E.
Swietlik, Walter Michael	*Milwaukee*	C. E.
Tabor, Henry Whitney	*St. Ignatius, Mont.*	C. E.
Tanghe, John William	*Milwaukee*	C. E.
Thwaits, Howard	*Milwaukee*	C. E.
Umbreit, Stanton	*Milwaukee*	Ch. E.
Walthers, William Kearney	*Milwaukee*	E. E.
Watzke, Gustave Hugo	*Madison*	Ch. E.
Weaver, Warren	*Madison (Adv. Course)*	C. E.
Weber, Joseph Aloys	*Appleton*	M. E.
Wilkinson, John Butler	*Milwaukee*	M. E.
Williams, Louis Howell	*Stoughton*	M. E.
Willmore, Charles Blake	*Madison*	Ch. E.
Wise, John Edwin	*Durand*	E. E.
Woodson, James Pettigrew	*Tryon, N. C. (Adv. Course)*	C. E.

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Juniors

Affleck, Gregor Sidney	*Muscoda*	Ch. E.
Akenhead, James Earl	*Sparta*	E. E.
Almon, Grover Cleveland	*Weyauwega*	M. E.
Ashenbrenner, Rudolph Alois	*Stratford*	E. E.

Axtell, Wayne Osmon	*Rochester*	C. E.
Baebler, Harold Z.	*Bangor*	E. E.
Balch, Cleon Faville	*Milwaukee*	E. E.
Baxter, Robert Addison	*Kansas City, Mo.*	Ch. E.
Bendfelt, Herbert Albert	*Chicago, Ill.*	E. E.
Bennett, Joseph Gardner	*Madison*	C. E.
Boeck, Christian Frederick	*Waukesha*	E. E.
Bostwick, George Lawrence	*Eau Claire*	E. E.
Brock, Harold William	*Madison*	E. E.
Brown, Herbert Henry	*Milwaukee*	C. E.
Bruce, Warren Richardson	*Boise, Idaho*	M. E.
Buck, Howard	*Eau Claire*	C. E.
Canar, Alford George	*Milwaukee*	Ch. E.
Candlish, Robert Harrison	*Fond du Lac*	C. E.
Carlson, Fred August	*St. Charles, Ill.*	E. E.
Carlson, Thorwald Alexander	*East Helena, Mont.*	Ch. E.
Carus, Gustave Krueger	*La Salle, Ill.*	M. E.
Casberg, Angus Milton	*La Crosse*	E. E.
Case, Percival Fuller	*Racine*	M. E.
Chapin, Huber Alva	*Winfred, S. D.*	Ch. E.
Clausing, Benjamin J.	*Grafton*	M. E.
Cole, Everett Leland	*Hollis, Kas.*	E. E.
Collentine, Ralph Joseph	*Monroe*	C. E.
Conaty, Bernard Martin	*Whitewater*	C. E.
Cooper, Clarence Edward	*Ashland*	Ch. E.
Cotter, Chester	*Madison*	M. E.
Dahlman, Arthur Frederick	*Sheboygan*	C. E.
Dames, Erwin	*Chicago, Ill.*	C. E.
Dehler, Rudolph Walter	*Helena, Mont.*	E. E.
Dobbratz, John Walter	*Milwaukee*	E. E.
Dodge, Chester Carlton	*Devils Lake, N. D.*	E. E.
Eichhorn, Harry Louis	*La Crosse*	M. E.
Ellison, Charles Elwood	*Fond du Lac*	E. E.
Engelke, Leroy Jerome	*Ashland*	E. E.
Evans, Wilfred	*Madison*	C. E.
Fanta, Erwin Krainik	*Manitowoc*	M. E.
Farley, John Leverett	*River Falls*	E. E.
Farrell, James Howard	*Superior*	Ch. E.
Filtzer, Robert Louis	*Milwaukee*	C. E.
Fleckenstein, Clemens Thomas	*Marshfield*	Ch. E.
Foeste, Arthur Bruno	*Sheboygan*	E. E.
Fowler, Dwight Smith	*Fond du Lac (Adv. Course)*	C. E.
Galvin, Malcolm Errett	*Glendive, Mont.*	Ch. E.
Geisse, John Harlin	*Fond du Lac*	M. E.
Giaver, Finn Joachin	*Madison*	C. E.
Gill, Terence Alister	*Chicago, Ill.*	Ch. E.
Gloger, William Hugo	*Watertown*	C. E.
Gockel, Arthur Philip	*Cleveland, O.*	Ch. E.
Goldammer, Charles James	*Elkhart Lake*	E. E.
Gould, Edwin Fish	*Superior*	C. E.
Gould, Stephen Grover, Jr.	*Superior*	C. E.
Gower, Arthur William	*Chippewa Falls*	E. E.
Grant, Eugene Ladewick	*Chicago, Ill*	C. E.

Grant, Ralph Anderson	*Milwaukee*	M. E.
Gregson, William Fuller	*Chicago, Ill.*	M. E.
Gribble, Stephen Charles	*Linden*	Ch. E.
Grimm, John Edward, Jr.	*Dayton, O.*	E. E.
Grubb, Walter Frank	*Stanley*	C. E.
Gruetzmacher, Walter John Robert	*Burnett*	M. E.
Hagen, Oscar Edwin	*Stoughton*	M. E.
Haggart, William Henry Robinson	*Fargo, N. D.*	C. E.
Hallock, Neill Carey	*Taylorville, Ill.*	C. E.
Harper, John Fletcher	*Milwaukee*	E. E.
Harris, John Wallis	*Waupun*	C. E.
Hartung, Raymond Clarence	*Appleton*	E. E.
Haubrick, Alfred Frederick	*Kenosha*	M. E.
Hay, Donald Leith	*Stevens Point*	M. E.
Helmle, William Clarence	*Oak Park, Ill.*	Ch. E.
Henderson, Burnie Oliver	*Eau Claire*	C. E.
Henkel, George John, Jr.	*Milwaukee*	C. E.
Henry, Archibald Edgar	*Jefferson*	E. E.
Hill, Edgar Rice	*Chicago, Ill.*	M. E.
Hills, Ralph Winchester	*Madison*	M. E.
Hodgson, Herbert Edwin	*Bisbee, Ariz.*	Min. E.
Holmes, Charles Arthur	*Trempealeau*	C. E.
Hoppe, Alfred George	*Milwaukee*	M. E.
Hosler, Harold John	*Reedsburg*	C. E.
Houghland, Glen Sanford	*Chetek*	Ch. E.
Huntley, Harold Reviere	*Ashland, Ore.*	E. E.
Jehle, Carl Winterfield	*Elgin, Ill.*	Ch. E.
Johnson, Frank, Jr.	*Lake Geneva (Adv. Course)*	C. E.
Johnson, Gordon Gasmann	*Amherst*	M. E.
Johnson, Robert Colton	*Madison*	C. E.
Johnson, William Spencer	*Beloit*	C. E.
Kauffman, Clark Emory	*Chicago, Ill.*	M. E.
Kelty, Asher Esaias	*Rice Lake*	M. E.
Kenney, Edward Leander	*Elkhorn*	E. E.
Knocke, Louis Thielemann	*Waukesha*	M. E.
Knott, Richard Francis, Jr.	*Marseilles, Ill.*	M. E.
Knudstad, Amos Lee	*Argyle*	E. E.
Kreuz, Louis George	*Marinette*	Ch. E.
Kurtz, Edwin Bernard	*Cedarburg*	E. E.
Lane, Richard Kelvin	*Dodgeville*	M. E.
Lawson, Stuart Condit	*Orange, N. J.*	Min. E.
Lindow, Rudolph Frederick	*Elkhorn*	E. E.
Ludden, Homer Jameson	*Mineral Point*	E. E.
McAteer, James Robert	*Winnetka, Ill.*	C. E.
McHugh, Keith Stratton	Madison	Ch. E.
Mackey, Walter Curriden	*Madison*	Ch. E.
Mackowski, John Edward	*Princeton*	E. E.
Margenau, Milo Louis	*Ashland*	E. E.
Martin, Byron Harold	*Delavan*	E. E.
Mendesohn, Isador William	*Madison*	C. E.
Merrill, John Franklin	*Neshanic Station, N. J.*	M. E.
Merten, John Gregg	*Waukesha*	C. E.
Meyers, Harry Carlyle	*Milwaukee*	Ch. E.

Mielenz, Harold Frederick	*Milwaukee*	C. E.
Miller, Edmund	*Milwaukee*	Ch. E.
Miller, James Justin	*Madison*	E. E.
Mosher, Frank Bartlett	*New Richmond*	Ch. E.
Nash, Lucius Byron	*Eau Claire*	E. E.
Nelson, Hubert Everet	*Madison*	Ch. E.
Nelson, Leslie Vernon	*Duluth, Minn.*	E. E.
Nethercut, Donald Warren	*Wauwatosa*	E. E.
Newton, Louis Christie	*Superior*	M. E.
Nigoghosian, Nigoghos Avedis	*Madison*	E. E.
Norris, Charles Brazer	*Milwaukee*	M. E.
Norton, Paul Thornley, Jr.	*Madison*	E. E.
Oakey, Warren	*Madison*	C. E.
Oestreich, Carl Ralph	*Milwaukee*	C. E.
Ogden, Dana Presley	*Menomonie*	E. E.
Pamperin, Arnold Trudell	*Oconto*	E. E.
Paul, Parry Hines	*Moorestown, N. J.*	M. E.
Pergande, Arthur George	*Cedarburg*	E. E.
Perry, Eugene Sheridan	*Danville, Ill.*	Min. E.
Pinney, Arthur Joseph	*West Depere*	E. E.
Poe, Charles Roy	*Madison*	E. E.
Porter, Raymond Edwin	*Milwaukee*	M. E.
Powers, Martin Aloysius	*Fond du Lac*	Ch. E.
Pritchard, Owen John	*Fond du Lac*	Ch. E.
Ramsay, Ralph Edwin	*Beloit*	Ch. E.
Reinhardt, Joseph Albert	*Madison*	Ch. E.
ReQua, Frederick Livingston	*Chicago, Ill.*	E. E.
Scheinfeld, Emmanuel	*Milwaukee*	C. E.
Schubring, Albert Howard	*Milwaukee*	E. E.
Schustedt, Frederick Nathaniel	*Madison*	C. E.
Scott, Allison Fendall H.	*Washington, D. C.*	E. E.
Shufflebarger, Frank David	*Albuquerque, N. Mex.*	C. E.
Sinnen, Fred Emil	*Racine*	E. E.
Sizer, Frank Milton	*San Francisco, Cal.*	C. E.
Slichter, Louis Byrne	*Madison*	M. E.
Soelch, George Fred	*Madison*	M. E.
Storer, Richard Milton	*Des Moines, Ia.*	Ch. E.
Suhm, Clarence Falk	*Milwaukee*	Ch. E.
Taussig, Warren Allen	*St. Louis, Mo.*	M. E.
Truran, Walter Weatherby	*Pierre, S. Dak.*	E. E.
Turner, Urban Victor	*Wilkinsburg, Pa.*	M. E.
Tyrrell, Donald William	*Lake Geneva*	Ch. E.
Utegaard, Thomas	*Eau Claire*	C. E.
Van Ermen, Louis	*Green Bay*	Ch. E.
Vigneron, Eugene Morgan	*Chicago, Ill.*	E. E.
Vorlop, Edward William	*Reedsburg*	E. E.
Wadsworth, Randolph Lincoln	*Fort Thomas, Ky.*	M. E.
Wahle, Walter Edwin	*Davenport, Ia.*	Ch. E.
Waldron, Russell Eli	*Wolcottville, Ind.*	M. E.
Wall, James Joseph	*Eau Claire*	E. E.
Whipple, Newton Dean	*Waukegan, Ill.*	Ch. E.
Williams, Ralph Stanley	*Madison*	C. E.
Wolverton, Fred Melville	*Oshkosh*	Min. E.

Wood, John Morgan	*Albany*	M. E.
Wood, Raymond	*Waupun*	E. E.
Wyatt, Ralph Moore	*Fond du Lac (Adv. Course)*	E. E.
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Sophomores

Alaniva, William John	*Lead, S. D.*	Min. E.
Anderson, Edward	*Racine*	M. E.
Anderson, Laurence Winchester	*Milwaukee*	C. E.
Andrews, Arthur Martin	*Baraboo*	M. E.
Avery, Herbert Laflin	*Shreveport, La.*	E. E.
Barrows, Kenneth Campbell	*Duluth, Minn.*	E. E.
Baxter, Charles Frederick	*Montfort*	E. E.
Berteling, Charles Neill	*South Bend, Ind.*	C. E.
Bohn, Donald Ivan	*Madison*	M. E.
Bohner, Clarence Arthur	*Watertown, S. D.*	Ch. E.
Bond, Aubrey H.	*Eugene, Ore.*	C. E.
Bragg, Robert Russell	*Norwood, Wyo.*	Min. E.
Brandt, Ellis Rolland	*Edgerton*	M. E.
Breslauer, Daniel Fried	*Milwaukee*	E. E.
Brewer, Vivian Walter	*Richland Center*	M. E.
Brown, Hugh Farrington	*St. Louis, Mo.*	C. E.
Brown, Stacy Lewis	*Beloit*	Ch. E.
Buchholtz, Arthur Otto Frederick	*Winona, Minn.*	M. E.
Buchholz, Rudolph Otto	*Lemmon, S. D.*	C. E.
Burgess, Charles McFetridge	*Geneva, Ill.*	E. E.
Burzynski, Ladislaus E.	*Milwaukee*	M. E.
Butler, Jerome Roger	*Watertown*	C. E.
Buzzell, Harold Winfield	*Delavan*	E. E.
Call, Lloyd Lenard	*Marshall*	E. E.
Camlin, Harold Andrew	*Rockport, Ill.*	M. E.
Camlin, William John	*Madison*	C. E.
Carroll, Lawrence Kinzie	*Madison*	Ch. E.
Charlson, Melvin Robert	*Eau Claire*	C. E.
Charmock, Elroy Jonas	*Racine*	E. E.
Collar, George Creighton	*Phillips*	E. E.
Collins, Clark Smith	*Chicago, Ill.*	E. E.
Conley, Brooks Lawson	*Blandville, W. Va.*	E. E.
Copeland, John Bird	*Jefferson*	Ch. E.
Cox, Eldon Frederick	*Madison*	M. E.
Cronkhite, Morris Frederick	*Oshkosh*	Ch. E.
Davis, Malvin	*Reedsburg*	E. E.
Davis, Russell Gardiner	*Milwaukee*	M. E.
Degan, James Edwin	*Baraboo*	E. E.
Dequine, George Frederick	*Fond du Lac*	E. E.
Dickinson, James Gilbert	*Milwaukee*	E. E.
Donaldson, Chase	*Washington, D. C.*	E. E.
Drake, Ronald Irwin	*Mendota*	Ch. E.
Durgin, Trueworthy Orin David	*Racine*	Ch. E.
Ellwood, Charles Davidson	*Madison*	M. E.
Espeland, Arthur	*Tacoma, Wash.*	M. E.
Evans, Samuel	*Oak Park, Ill.*	M. E.

Fisbeck, Finley Leland	*Terre Haute, Ind.*	E. E.
Foehringer, Arthur Henry	*Cassville*	E. E.
Fowler, Allen Walter	*Superior*	M. E.
Frank, Reimar August	*Milwaukee*	M. E.
Fredericksen, Frederick Arthur	*Milwaukee*	M. E.
Frick, Karl Saenger	*Janesville*	E. E.
Fuller, Howard Hastings	*Madison*	E. E.
Gayton, Fred Irvin	*Beloit*	M. E.
Gefke, Jerome Henry	*Windsor*	E. E.
Gerhardt, Fred Peter	*Milwaukee*	C. E.
Grams, Raymond Carl	*La Crosse*	E. E.
Griem, Harvey	*New Holstein*	E. E.
Gumprecht, Henry Herman	*Rice Lake*	C. E.
Haddorff, Carl Leopold	*Rockford, Ill.*	M. E.
Hagen, Berger Amandus	*Stoughton*	M. E.
Hahn, William Requartte	*Brodhead*	E. E.
Hansen, Waldo G.	*Beloit*	M. E.
Hanson, Malcolm Parker	*Milwaukee*	M. E.
Hatlen, Hjelmer Oscar	*Chippewa Falls*	E. E.
Hayden, Carl Frederick	*Milwaukee*	Ch. E.
Hayden, Luke Thomas	*Altoona*	E. E.
Heintzen, Harry Richard	*Milwaukee*	E. E.
Hilton, Earl	*Chippewa Falls*	E. E.
Hirshheimer, Harry West	*La Crosse*	M. E.
Holling, Harold Herman	*Plymouth*	M. E.
Holmes, Harold Frederick	*Trempealeau*	C. E.
Hooker, Jerome Beardsley	*Chicago, Ill.*	M. E.
*Huguenin, James Clinton	*Racine*	Ch. E.
Jackson, George Stephenson	*De Pere*	E. E.
Jentz, Carl Diedrich	*Niagara*	Ch. E.
Johnson, Russell Shults	*Milwaukee*	Ch. E.
Jones, Victor Hugo	*Mankato, Minn.*	E. E.
Joyce, Harold John	*New Richmond*	M. E.
Kaffenberger, Leonard Emil	*Red Bud, Ill.*	Ch. E.
Kalvelage, Clem	*Milwaukee*	E. E.
Kartheiser, Leo Henry	*Chilton*	E. E.
Kielsmeier, Edward Henry	*Milwaukee*	Ch. E.
King, Tower Wadsworth	*Butte, Mont.*	E. E.
Kirch, Louis Adolf	*Mazomanie*	C. E.
Kitzman, Walter Leslie	*Eau Claire*	E. E.
Kleimenhagen, Karl Christian	*Kilbourn*	Ch. E.
Klemme, Glenn Harmon	*Belmont, Ia.*	C. E.
Kottler, Carl Frederic	*Milwaukee*	E. E.
Kovanda, Louis Peck	*Milwaukee*	Min. E.
Krueger, Henry Christopher	*Milwaukee*	E. E.
Kurz, Louis David	*Appleton*	E. E.
Lange, Herbel Arthur	*Beloit*	M. E.
Lange, William Hobart	*West de Pere*	C. E.
Lapham, Frank Willard	*Lake Beulah*	M. E.
Liang, Wen Paul	*Hongkong, China*	E. E.
Lord, Herbert Overton	*Oconto*	C. E.

*Died November 25, 1915.

Lyman, Alfred Tileston	*Milwaukee*	M. E.
McAdams, Frank Clarence	*Madison*	E. E.
McCallum, Verni Ernest	*Mendota*	E. E.
McCullough, Allan Chase	*Oshkosh*	E. E.
McKinlay, Marcellus James	*Dodgeville*	E. E.
McMullen, Cleve A.	*Dodgeville*	E. E.
Mansfield, Robert Dustin	*Williston, N. D.*	M. E.
Meihack, Albert William	*Eagle River*	E. E.
Meiselwitz, Adolph William	*Kiel*	C. E.
Merrill, John Ogden	*St. Paul, Minn.*	C. E.
Meyers, Paul Duncan	*Milwaukee*	Ch. E.
Miller, Raymond	*Milwaukee*	M. E.
Moore, George Thomas	*Madison*	M. E.
Morse, Ernest Benedict	*Appleton*	E. E.
Moulton, Frank Stillman	*Madison*	C. E.
Murat, Walton Belford	*Scandinavia*	M. E.
Nathan, Walter Solomon	*Milwaukee*	E. E.
Negley, William Henry	*Dayton, O.*	Ch. E.
Newton, Jay Earl	*Fort Atkinson*	E. E.
Nielson, Arthur Charles	*Berwyn, Ill.*	E. E.
Nordby, Marshall Bertrand	*Mellen*	E. E.
Nordmeyer, Carl Louis	*St. Louis, Mo.*	M. E.
Nordness, Elmer Lynn	*Madison*	C. E.
Olson, Victor Axel	*Marinette*	Ch. E.
Owen, Halsey, Franklin	*Milwaukee*	M. E.
Peachy, James Alfred	*Burnett*	M. E.
Peterson, Arthur Frederick	*Ironwood, Mich.*	Min. E.
Polacheck, Stanley	*Milwaukee*	E. E.
Porath, Arthur Albert	*Milwaukee*	C. E.
Pottinger, Clarence Albert	*Fort Atkinson*	E. E.
Prescott, Don Southard	*Menomonie, Mich.*	M. E.
Prince, Earl Samuel	*Downers Grove, Ill.*	Min. E.
Rankl, Fred Anthony	*Milwaukee*	C. E.
Rasmussen, John Peter	*Oshkosh*	C. E.
Roberts, Ernest Edwin	*Indianapolis, Ind.*	M. E.
Roberts, James Frank	*Madison*	M. E.
Roberts, Morgan Evan	*Superior*	Min. E.
Roddewig, Gilbert Ferd	*Davenport, Ia.*	M. E.
Rood, Arnold E.	*Whitewater*	E. E.
Rove, Louis Claude	*Milwaukee*	M. E.
Rowland, Harry Eugene	*Hutchinson, Kas.*	E. E.
Ryan, William Dennis	*South Kaukauna*	C. E.
Saberhagen, Edward Elmer	*Sheridan, Wyo.*	M. E.
Schmidt, Clarence W.	*Brillion*	E. E.
Schmidt, Edwin	*Milwaukee*	M. E.
Schneider, Claire Leslie	*Madison*	E. E.
Schrader, Herbert Eugene	*South Kaukauna*	M. E.
Schrank, Edward Sylvester	*Ashland*	M. E.
Schrom, Theodore James	*Madison*	M. E.
Schwartz, Ernest Henry	*Mayville*	Min. E.
Searight, Hamilton Folts	*Austin, Texas*	C. E.
Seybold, Lawrence Frederick	*Forest Junction*	E. E.
Shaw, Harold Nichols	*Milwaukee*	E. E.

Sherwood, Theodore Clayton, Jr.	*Kansas City, Mo.*	Min. E.
Shiels, Kenneth Grinnell	*Madison*	M. E.
Shnable, Earl Potter	*Wilmette, Ill.*	M. E.
Smith, Philip Harold	*Oconto*	C. E.
Smith, Robert Evans	*Milwaukee*	C. E.
Smith, Robert Harold	*Wauwatosa*	C. E.
Snyder, Charles Judson	*South Haven, Mich.*	Ch. E.
Staidl, Joseph Arnold	*Shawano*	Ch. E.
Stibbe, Erving Henry	*Peshtigo*	E. E.
Striegl, Albert Rollin	*Edgerton*	C. E.
Swift, John Disnouef	*Portage*	M. E.
Tan, Nelson Bo	*San Francisco, Cal.*	Ch. E.
Thwaits, Edmond Harrison	*Milwaukee*	C. E.
Tillisch, Michael Ravn	*Merrill*	E. E.
Tufty, Harold Guilford	*Duluth, Minn.*	E. E.
Turnock, Enoch Hill, Jr.	*Elkhart, Ind.*	Ch. E.
Van Patten, Everett Hoxie	*Evansville*	M. E.
Vernon, Joseph Rexford	*Madison*	C. E.
Viden, Joseph Daniel	*Milwaukee*	E. E.
Walsh, Gregory James	*Milwaukee*	C. E.
Walz, Chester Davison	*Louisville, Ky.*	E. E.
Webb, Loren George	*Fort Atkinson*	E. E.
Weber, Herbert Welden	*Des Moines, Ia.*	C. E.
Whitcomb, Kenneth Fred	*La Salle, Ill.*	M. E.
White, Arthur Sampson	*Oskaloosa, Ia.*	Min. E.
White, Robert Bruce	*Wilmette, Ill.*	M. E.
Whitson, Edward Willits	*Tomahawk*	E. E.
Wichnovitz, Peter Ernest	*Marinette*	E. E.
Wilcox, Burr Curtis	*Superior*	M. E.
Wilder, Willard Smith	*Ashland*	E. E.
Williams, John Wesley	*Racine*	Ch. E.
Wing, Sherwood Ellsworth	*La Crosse*	M. E.
Wirka, Raymond Mathew	*Madison*	M. E.
Wright, David Samuel	*Spring Green*	Ch. E.
Yates, De Witt Edward	*Chippewa Falls*	E. E.
Young, Adlai Cyrus	*Menomonie*	C. E.
Zielsdorf, Eugene	*Milwaukee*	C. E.

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Freshmen

Adams, Edward Ernest	*Madison*
Adams, Thomas Edward	*Madison*
Albers, Walter Leland	*Prairie du Sac*
Allen, Donald Thomas	*Milwaukee*
Allen, Floyd Ensley	*Berkeley, Cal.*
Amel, Floyd Adelbert	*Shawano*
Arnold, Everitte Favor	*Augusta*
Athanasious, Michael Meena	*Cairo, Egypt*
Bachhuber, Gilbert Eugene	*Mayville*
Balderston, William, Jr.	*Boise, Idaho*
Baery, Donald Benedict	*Chilton*
Behrrns, Ray Emil	*West Allis*

Blanchard, Nathaniel Bradley	*Beloit*
Blattner, David Jones	*Sulphur, Okla.*
Blowney, Walter Edward	*Waukegan, Ill.*
Blume, George Martin, Jr.	*New York City*
Bolte, Roswell Anson	*Chicago, Ill.*
Bradley, Lee Harold	*Princeton, Ill.*
Braun, Alvin Charles	*Milwaukee*
Brenner, Erwin Charles Julius	*Wauwatosa*
Breuer, Orval William	*Manitowoc*
Brewster, Herbert George	*East Troy*
Breyvogel, Allie Lloyd	*Brodhead*
Brown, Theron Adelbert	*Madison*
Bullen, John Nixon	*Oconomowoc*
Charlton, Alexander Richard	*Milwaukee*
Christensen, Harold	*Berlin*
Chudacoff, George	*Peshtigo*
Clements, Floyd Alfred	*Lodi*
Collier, William Handley	*Patch Grove*
Collins, Carl Harold	*Madison*
Connor, Edward Hanson	*Leavenworth, Kas.*
Couffer, Lewis Prentiss	*Wilmette, Ill.*
Cross, Charles Willard	*Waldo*
Crowell, Bryan Cecil	*Shell Lake*
Dahlen, Andrew Oliver	*Madison*
Dahlen, Caleb Manuel	*Madison*
Davies, Lynn Eugene	*Milwaukee*
De Sombre, Karl Herman	*Fond du Lac*
Dobberpuhl, Raymond	*Cedarburg*
Doolittle, Charles Crandall	*Fish Creek*
Dresen, Joseph Ignatius Herman	*Madison*
Drew, Francis Leo	*McAlester, Okla.*
Edwards, Max Hadsell	*Victoria, Texas*
Elliott, Walter Alfred	*Madison*
Farrington, Ralph Waldo	*Wyocena*
Flatley, Dominick Francis	*Green Bay*
Foster, Joseph O'Kane	*Milwaukee*
Frater, George Gordon	*Elkhorn*
Gallun, Edwin Alfred	*Milwaukee*
Gardner, Arthur Otto, Jr.	*Milwaukee*
Glaettli, Herbert	*Milwaukee*
Greenslade, Irving Jones	*Milwaukee*
Gregg, Scranton Hugh	*Milwaukee*
Gregory, Maklem Wallis	*Delavan*
Griswold, Milton Pettit	*Madison*
Hague, Sigmund	*Livingston, Mont.*
Hamilton, James William	*Madison*
Hansen, Herman Palmer	*La Crosse*
Hanson, Maurice Miller	*Madison*
Hanson, Paul Edward	*Mondovi*
Hasenpflug, John Leroy	*Geneva, O.*
Hawley, Lyle Herbert	*Oregon*
Hayes, Frederick Harrison	*Milwaukee*
Haznow, Louis Frank	*Watertown*

Hitchon, Robert Charles	*Marinette*
Holcombe, Russell W.	*Madison*
Holmes, Presley Dixon	*South West Harbor, Me.*
Holmes, Thomas Griscom	*Riverton, N. J.*
Hook, Harmon Porter	*Oak Park, Ill.*
Howland, Gerald Firestone	*Cleveland, O.*
Huntzicker, Paul	*Greenwood*
Hymer, Howard Golden	*Lancaster*
James, Burton Egbert	*La Crosse*
James, Roy Walter	*Madison*
Jaquish, Casper Henry	*Madison*
Jones, David Roswell	*Spring Green*
Keating, Paul Hepburn	*Pueblo, Colo.*
Keats, John	*Milwaukee*
Keeley, Calvert Constant	*West Bend*
Kelley, William Harold	*Milwaukee*
Kinsey, Milton Mansfield	*St. Louis, Mo.*
Koehler, Walter	*Mishicot*
Koerner, Edwin Otto	*Sheboygan*
Kraetsch, Herbert Ernst	*Random Lake*
Kurtz, Henry William	*Sheboygan*
Kurtz, Paul Henry	*Two Rivers*
Ladwig, Willie John	*Juda*
Larratt, Frank Ernest	*Hartland*
Lehman, Donald Griffith	*Waupaca*
Lepien, Henry Martin	*Hartford*
Light, Robert	*Dayton, O.*
Link, Marcus William	*Madison*
Loeb, Ralph Ellis	*Milwaukee*
Loomis, Casey Vaughn	*Madison*
Lord, Reginald Beach	*Waupaca*
McClintock, Alan Carr	*Oshkosh*
McGraw, Vincent George	*Racine*
Mainland, Irvine Chadwick	*Kenosha*
Mantonya, William George	*Chicago, Ill.*
Mariotte, Walter William	*Elroy*
Marshall, Orren Herbert	*East Troy*
Mather, Lyman M.	*Chicago, Ill.*
Maurer, Eugene Dickens	*Madison*
Meath, Charles Arthur	*Cylon*
Meisekothen, Edwin Edward	*Madison*
Melcher, Burton Walter	*Madison*
Menzel, Harry Frank	*Oshkosh*
Mertes, John Peter	*Eden*
Meyer, Royal Lewis	*Kewaunee*
Mikna, Alois Joseph	*Milwaukee*
Miller, Chester Joseph	*Milwaukee*
Miller, George Paul Jr.	*Madison*
Miller, Robert Lee	*Milwaukee*
Mueller, Emmet John	*Milwaukee*
Mueller, Harold Paul	*Milwaukee*
Nachtrab, John Lawrence	*Oshkosh*
Nelson, Delmar Wood	*Peshtigo*

Nelson, Elmer Frederic	*Racine*
Nelson, Harvey Terry	*Madison*
Nelson, Hilding Franklin	*Rockford, Ill.*
Newell, John Sanford	*Seymour*
Nolan, James Martin	*Soperton*
Nuetzel, Carl Alfred	*Louisville, Ky.*
Oberly, John Joseph	*Milwaukee*
Parks, Beaumont Donald	*Whiting, Ind.*
Partridge, Paul Earl	*Oshkosh*
Peters, Leo J.	*Edgemont, S. D.*
Peterson, Clarence William	*Salem*
Peterson, Lynnford Lawrence	*Deming, N. Mex.*
Puerner, Bertram Harvey	*Jefferson*
Puerner, Russell Edward	*Jefferson*
Quayle, John James	*Virginia, Minn.*
Radke, Orville Edward	*Madison*
Reedy, Leo Patrick	*River Forest, Ill.*
Robison, Bryan	*Chippewa Falls*
Roessler, Leslie Albert	*Jefferson*
Rounseville, Edson Louis	*Oak Park, Ill.*
Schaal, Norbert	*Princeton*
Schaper, Harold Henry	*Milwaukee*
Schlosser, William Clarence	*Madison*
Schlotthauer, Oscar George	*Madison*
Schlueter, Henry John	*Richland Center*
Schmidt, Carlton Leonard	*Spring Green*
Schmidt, Ethan Warner	*Chicago, Ill.*
Schwebke, Harry John	*Milwaukee*
Siecke, Kurt Hugo	*Freeport, Ill.*
Spees, Edgar Addison	*Plainfield*
Stamm, Frederick Carlton	*Grand Rapids*
Stech, Howard	*Rushville, Ind.*
Steele, Will Robert	*Lodi*
Stern, Emil Fred	*West Allis*
Stevens, John III	*Appleton*
Stoddart, Albert Tuttle	*Fond du Lac*
Svitavsky, Robert Ingersoll	*Racine*
Sykes, Sherman Mead	*Grand Rapids*
Taylor, Edwin Lucius	*Westfield*
Torgeson, Oscar Windfield	*Madison*
Townsend, John Banes	*St. Joseph, Mo.*
Trantin, Ernest	*Madison*
Ward, Cyril	*Boone, Ia.*
Warren, Glenn Barton	*Girard, Kas.*
Werba, Edward Otto	*Milwaukee*
Westbrook, Phillip Fulmer	*Summit, N. J.*
White, Ralph Beverly	*Maiden Rock*
Wilhelm, Arthur Henry	*Marshfield*
Williams, Edward Barnes	*Milwaukee*
Wise, Edmund Merriman	*Fond du Lac*
Works, Lawrence Perry	*Madison*
Zarse, Clarence Henry	*Milwaukee*

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Adult Specials

Babush, Joseph Samuel	*Milwaukee*	M. E., Junior
Bloomquist, Gustave Emanuel	*Benton*	E. E., Sophomore
Brill, Alfred	*Milwaukee*	C. E., Senior
Casberg, Carl Herbert	*La Crosse*	M. E., Junior
Colbert, Thomas Peter	*Beloit*	Freshman
Fahlberg, Ernest David	*Madison*	Ch. E., Sophomore
Flatman, George James	*Madison*	Freshman
Goff, Harold Wheeler	*Eau Claire*	E. E., Junior
Hameister, Victor Carl	*Cleveland, O.*	Ch. E., Senior
Hodgkins, Walter John	*Madison*	C. E., Junior
Kelly, James Alexander	*Milwaukee*	Freshman
Lorig, Robert Alexander	*Milwaukee*	M. E., Sophomore
Meckenstock, Ernest J.	*Madison*	C. E., Sophomore
Royce, Charles Frank	*Black Creek*	Freshman
Schroeder, Alfred George	*Madison*	Min. E., Sophomore
Wertheim, Ferd Eliel	*Madison*	M. E., Junior

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LAW SCHOOL

Third Year

Beers, Stanley Emerson	*Sun Prairie*
Collette, William Harold	*Green Bay*
Conant, Rellis Gilbert	*Hancock*
Conway, Cornelius Michael	*Elroy*
Crawford, John Jennings, B. A.	*Madison*
Dickens, Harold Forster	*Milwaukee*
Ely, Richard Sterling, B. A.	*Madison*
Erikson, Clarence, B. A.	*Madison*
Fisher, Guyon Tompkins	*Minocqua*
Fordyce, John Martin	*Butternut*
Haberla, Howard Paul	*Milwaukee*
Hartwig, Harvey Clarence, B. A.	*Milwaukee*
Homet, Roland Stevens	*Madison*
Jenkins, Floyd E.	*Bangor*
John, Walter Alfred	*Milwaukee*
Jolley, Albert Rembrandt	*Whitewater*
Kleinpell, Arthur, B. A.	*Cassville*
Larkin, Bert Leo	*Whitewater*
Lovequest, George Howard	*Racine*
Luce, Roscoe Rudolph	*Madison*
MacQuarrie, Archibald Ernest	*Madison*
Martin, William Amberg	*Middle Inlet*
Merkel, Harold Leland B. A.	*Milwaukee*
Meuer, William Joseph B. A.	*Madison*
Morrison, Elton Joseph, Jr., B. A.	*Chetek*
Murphy, John William	*Platteville*
Newman, Harry George	*Madison*
Osborn, John Searle	*Madison*

Otjen, Christian John, B. A.	*Milwaukee*	
Quale, Milton, Norman, B. A.	*Madison*	
Reddy, Walter Francis	*Madison*	
Shanhouse, Louis Jacob, B. A.	*Rockford, Ill.*	
Shannon, Aloysius David	*Oconomowoc*	
Sletteland, Perry Arthur, B. A.	*Pigeon Falls*	
Stephens, Glenn William	*Madison*	
Stolts, Victor Merlin	*Sechlerville*	
Strehlow, Robert Reinholt, B. A.	*Madison*	
Toomey, Edmond Galbraith	*Madison*	
Turner, Glenn Patterson	*Madison*	
Whitcomb, Arthur Joseph	*Abrams*	
Wickem, John Dunne, B. A.	*Madison*	
Wilson, Charles Earl	*Madison*	
Wright, Gustave de Neveu	*Madison*	—43

Second Year

Allman, Major Fisher	*Crown Point, Ind.*	
Anderson, Norman Leonard, B. A.	*Milwaukee*	
Asbahr, Albert Allen	*Madison*	
Bishop, Stuart Alfred	*Madison*	
Boreson, Bradner Frank	*Beloit*	
Breakstone, Irving Abram	*Oconto*	
Brendel, Roy Albert, B. A.	*Milwaukee*	
Broadfoot, Grover Lee	*Mondovi*	
Brunkow, Arthur Herman	*Marshall*	
Brunner, Louis John	*Leopolis*	
Bull, Benjamin Henry	*Galesville*	
Carey, George	*Beloit*	
Carpenter, Byron Joseph	*Stevens Point*	
Carter, Kenneth Drought	*Geneva, O.*	
Davidson, Kenneth Wilde	*Oshkosh*	
Gleick, Harry Samuel, B. A.	*Webster Groves, Mo.*	
Gullickson, Gerhardt Oscar, B. A.	*Eau Claire*	
Hass, George Edward	*Reedsburg*	
Horner, Louis Cowdick	*Madison*	
Jackson, Raymond Thomas, B. A.	*Mineral Point*	
King, George Yeldham	*Tigerton*	
Loomis, Orlando Steen	*Mauston*	
Malone, Donald Bourke	*Beaver Dam*	
Napiecinski, Peter Anthony	*Two Rivers*	
Neuenschwander, Adolph Herman	*Athens*	
Neuenschwander, Edward John	*Athens*	
Pomeroy, Herbert Stuart	*Madison*	
Pors, William Emil	*Marshfield*	
Potter, Louis Richard	*Milwaukee*	
Pottinger, Earl Henry	*Fort Atkinson*	
Puetz, Harold Henry	*Madison*	
Roberts, Royal Arlington ls	*Racine*	
Sanborn, Philip Golder	*Madison*	
Schmidt, Oscar William	*Milwaukee*	

Smith, Kenneth Blume, B. A.	*Viroqua*	
Smith, Walton Kimball, B. A.	*Madison*	
Wallach, Marvin Weil, B. A.	*Oshkosh*	
Werba, Arthur Marcus	*Milwaukee*	
Wilson, Charles Atwater	*Superior*	
Wood, John Lynn	*Waterloo*	
Young, Carl Fred, B. A.	*Green Bay*	—41

First Year

Altenhofen, Roland Frederick	*Cedarburg*
Anderson, Morgan MacDonald, B. A.	*Milwaukee*
Arvold, William Vernon, B. A.	*Whitewater*
Balliette, Ralph Earnest	*Lodi*
Biart, Nathaniel Paul, B. A.	*Madison*
Bogner, Ernst Wilhelm George	*Tanunda, S. Australia.*
Brendemuehl, Alvin Gottfried	*Watertown*
Brody, Lawrence John	*Cashton*
Brunner, Stephen Walter	*Madison*
Davis, Martha Ella	*Madison*
Fahrion, Louis Edward, B. A.	*Madison*
Fairweather, Carl William	*Milwaukee*
Forehand, Harry Verne	*Platteville*
Gilbertson, Victor Gilbert	*Eau Claire*
Glassner, William, B. A.	*Milwaukee*
Godfrey, Alfred Laurence, B. A.	*Whitewater*
Gooding, Laurence Earl	*Fond du Lac*
Gross, John, Jr., B. A.	*La Farge*
Immell, Ralph Maxwell	*Blair*
Jolivette, Guy Alvin	*La Crosse*
Kuehnl, John Frederick	*Madison*
Kumm, Davis Wallace, Ph. B.	*Madison*
McWilliams, Glenn John	*Darlington*
Moses, Edward Walter, B. A.	*Kansas City, Mo.*
O'Connell, William Daniel	*Stevens Point*
Park, Lyman Barnes	*Stevens Point*
Pelkey, Heber Halwy	*Oconto*
Perry, Ralph Haney ls	*Algoma*
Pickering, Hayden Macey	*Superior*
Porter, Orville Brandon, B. A.	*Wauzeka*
Raeder, Lester William	*Cedarburg*
Robinson, Philip Kyle, B. A.	*Madison*
Schmidt, Karl August	*Wausau*
Schroeder, Amos Benjamin	*Viola*
Shuttleworth, Farrand Dames	*Madison*
Slocumb, Ira Otis	*Neillsville*
Toohy, John Croft	*Superior*
Tuteur, Armand Joseph	*La Crosse*
Warner, Robert Leman	*Madison*
Whiffen, Clarence Fred, B. A.	*Sheboygan*
Whyte, Malcolm Kenneth	*Madison*
Wilberscheid, Jacob Charles	*Valders*

Wilkinson, James Richard, B. S.	*Goodchow, China*	
Winton, Eugene Ward	*Appleton*	—44

STUDENTS IN LETTERS AND SCIENCE ELECTING LAW STUDIES

Alvord, Ellsworth Chapman	*Washburn*	
Bernstein, Charles Ralph	*Cleveland, O.*	
Briggs, Henry Russell	*Madison*	
Cunningham, Robert John	*Janesville*	
Dunn, Charles Bryan	*Madison*	
Frawley, James Robert	*Eau Claire*	
Frazee, John Paul	*Madison*	
Grover, Stephen Freeman, Jr.	*Grantsburg*	
Janes, Arthur De Witt	*Tomah*	
Johnson, Russell Lowell	*New Ulm, Minn.*	
Keeley, Clarence Armand	*Mayville*	
Langer, Harold Myron	*Waterloo*	
Lebowsky, Charles Adolph	*Milwaukee*	
McHugh, Glenn Eller	*Milwaukee*	
Peterson, Evan Hugo	*Stockholm*	
Pfeiffer, Reuben Roland	*Plymouth*	
Porter, Carl Elder	*Madison, S. D.*	
Pradt, Louis Atwater	*Wausau*	
Ramsdell, Glenn Lewis	*Wausau*	
Rawson, Harry Walker	*Plainfield*	
Ruder, George Louis	*Wausau*	
Salsman, Thomas Jefferson, Jr.	*Oak Park, Ill.*	
Schulz, Arthur Karl Frederick	*Oshkosh*	
Seibold, Fred Carl	*Camp Douglas*	
Swanton, Milo Kendell	*Madison*	
Thomas, Charles Signor, Jr.	*Chicago, Ill.*	
Volk, Hubert Thomas	*Plymouth*	
Wickham, J. Arthur	*Eau Claire*	—28

Law Specials

Blanchard, Knight	*Blanchardville*	First
Briggs, Guy E.	*Spencer*	Second
Brunner, Marie Angelina	*Galloway*	First
Danielson, George Norman	*Appleton*	First
Dean, James Stanley	*Milwaukee*	Second
Foote, John Joseph	*Hartford*	Third
Hartman, George Anthony	*Juneau*	Second
Hoffmann, Nicholas Joseph	*Port Washington*	First
Kaul, Willie	*Hustisford*	First
Landry, Leo John	*Tomahawk*	First
Lefevre, Joseph William	*Green Bay*	First
Lehner, Otto Phillip	*Oconto*	First
Loftsgordon, Henry Albert	*Madison*	First
Lowry, James Kerr	*Madison*	Third
McGowan, Murray Sanborn	*Madison*	First
Mac Quaid, John Harrison	*Milwaukee*	First

North, Reynolds Bacon	*Green Bay*	Second
Petersen, James Daniel	*La Crosse*	First
Pinkerton, Milo Blish	*Madison*	Third
Roberts, John Maurice	*Moorestown, N. J.*	Second
Sapira, Ida Edith	*Milwaukee*	First
Schultz, Edward Emil	*Juneau*	Second
Shemick, Frank William	*Marinette*	Second
Smith, Fred Michael	*De Pere*	First
Stewart, John James	*Madison*	Third
Swennes, Oscar Joseph	*La Crosse*	First
Van Laanen, John Vance	*Green Bay*	First
Whipple, Herbert E.	*Superior*	Third
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COLLEGE OF AGRICULTURE

LONG COURSE

Seniors

Anderson, Hilding Edward	*North Crandon*
Bailey, Ernest Hayden t c	*Madison*
Basherov, Samuel t c	*Madison*
Beckwith, Ralph Monroe	*Wyoming, O.*
Benedict, Frank Westby	*Beloit*
Bensend, Louis Adolf	*Whitehall*
Bodenbach, Cyril Robert	*Milwaukee*
Bohn, Ralph Maxwell t c	*Madison*
Bowman, Jacob Kreider	*Campbelltown, Pa.*
Brady, Laurel Andrew t c	*Mukwonago*
Bullis, Irving Verne	*Eau Claire*
Burke, Arthur de Vries	*Wheeling, W. Va.*
Byse, Gage Bird	*Wautoma*
Cappell, Edmund Peter	*Cincinnati, O.*
Carr, Carlyle t c	*Madison*
Carson, Joseph	*Madison*
Coapman, Verne E.	*Wyocena*
Colville, Clarence Leroy	*Rogers, N. D*
Cooper, Earl John t c	*Bloomington*
Cramer, Albert Julius	*Merrill*
Cummings, Leo Bradford t c	*Eau Claire*
Cusick, Edward Timothy t c	*Oregon*
Desnoyers, Philip Baird	*Green Bay*
Dopkins, Clyde De Forrest t c	*River Falls*
Dunwiddie, Walter Rockwood t c	*Delavan*
Elliott, James Newton	*Waco, Texas*
Field, Albert Martin	*Madison*
Flickinger, Dan Wilson	*Indianapolis, Ind.*
Forsberg, Axel Carl	*Prentice*
Foshinbaur, George Anton	*Madison*
Foshinbaur, Victor Grover	*Madison*
Greene, Joseph Kingsbury	*Upper Montclair, N. J.*
Hales, Guy Smithers t c	*Granton*

Hanson, Karl Burchard	*Madison*
Hargrave, Archibald R.	*Ripon*
Hart, Milton Edward	*Chicago, Ill.*
Hauser, Edwin Joseph	*Anaconda, Mont.*
Helland, Randolph Olaf t c	*Madison*
Houser, Byron Ricks	*Madison*
Huston, Harold Herbert t c	*Seattle, Wash.*
Jackson, Charles Arthur	*South Bend, Ind.*
Jensen, Lester Jay	*Manawa*
Jones, Ira David	*Wales*
Jordan, Julius Leo t c	*Madison*
Keating, Fred Earl t c	*Ogdensburg*
Kessenich, Alois Michael	*Madison*
Kloser, Martin Mathias	*Cassville*
Knudson, Oscar Martin t c	*Sherwood, N. D.*
Krueck, Walter Balthazar t c	*Milwaukee*
Lamberson, Raymond Alfred t c	*Whitehall*
Landry, Wallace Joseph t c	*Thorp*
Lerner, Nathan Hyman	*New York City*
Leukel, Walter Anthony	*Brillion*
Lewis, Stevenson Paul	*East Cleveland, O.*
Lillie, Albert Reed Trenholm	*Chicago, Ill.*
McCutcheon, Robert	*Arena*
McCutchin, John Alex t c	*Arena*
McGillivray, Joseph Emmett	*Chippewa Falls*
Mac Gilvra, Ralph Alexander t c	*Baraboo*
McMaster, Paul Herbert	*Frankfort, Ind.*
MacQueen, Loren t c	*Madison*
Magnus, Alexander	*Glen Flora*
Maxwell, Arnold Ivan	*Fort Atkinson*
Melvin, Homer Clark t c	*Glenbeulah*
Merriam, Leslie Joseph t c	*Darlington*
Merriman, Clifford	*Fort Atkinson*
Moore, Merton t c	*Oshkosh*
Morris, D. Benjamin t c	*Dodgeville*
Mucks, Arlie Max	*Oshkosh*
Murphy, Arthur Cyriak	*Hayton*
Murray, Reid Fred	*Manawa*
Neumann, Arthur Henry t c	*Milwaukee*
Nord, Johannes Kleofas t c	*Rice Lake*
Ostrander, Ralph Lester t c	*Richland Center*
Palmer, Gail Wesley	*Wauwatosa*
Parfrey, Alfred Clyde	*Richland Center*
Pratapas, Dominikas Benedict	*Racine*
Raine, John Thomas	*Evenwood, W. Va.*
Robertson, Richard Douglas	*Patch Grove*
Roske, Melvin Posson t c	*Madison*
Rovner, Jacob	*Cleveland, O.*
Sanborn, Frederick t c	*St. Paul, Minn.*
Sasman, Louis Milton	*Black Creek*
Sazama, James J.	*Kewaunee*
Sell, Gustav Adolph t c	*New Ulm, Minn.*
Sholl, Lloyd Banks	*Milwaukee*

Sieker, Oscar John t c	*Elkhart Lake*	
Simmons, Joseph Ellsworth	*Hazel Green*	
Slaby, Frank Joseph, Jr., tc	*Algoma*	
Smith, Carman Bigelow	*Bay City, Mich.*	
Smith, Winfield Scott	*Madison*	
Spengler, George Edward	*Fort Atkinson*	
Steul, Edwin Karl	*Madison*	
Stone, Francis Downing tc	*South Range*	
Stone, Ralph William	*Madison*	
Storrs, Albert Miller	*Fort Thomas, Ky.*	
Strehlow, Peter Carl	*Madison*	
Suhr, Edmund Julius	*Chicago, Ill.*	
Sure, Barnett tc	*Milwaukee*	
Sykora, James	*Madison*	
Teige, Malvin Helmer tc	*Marinette*	
Thompson, Edmund Harry	*Blair*	
Towler, James Andrew	*Charlotte, Va.*	
Truesdell, Horace Warner	*Madison*	
Van Ostrand, A. Mortimer	*Madison*	
Weber, Eldon John	*New Holstein*	
Webster, Charles Emerson	*Hudson*	
Weimar, Albert Carl	*La Crosse*	
Wheeler, John Taylor tc	*Madison*	
White, Henry Ellis tc	*Comer, Ky.*	
White, Morris Densmore tc	*Superior*	
Whitmore, Lester McClellan tc	*Madison*	
Williams, Joseph Lloyd tc	*Eldorado*	
Woelfel, George Henry	*Chilton*	—114

Juniors

Aeppler, Carl William tc	*Campbellsport*
Ames, Norton Travis	*Oregon*
Anderson, Harold	*Sylvania, O.*
Ayres, Paul Kester	*Sheldon, Ia.*
Bailie, Arthur Ray	*Lancaster*
Baldwin, Harry McLaughlin tc	*Brooklyn*
Banta, George	*Logansport, Ind.*
Barlass, Robert McFarlane	*Janesville*
Barrett, John Walton	*Freeport, Ill.*
Bauman, Adolph Gustav	*Quincey, Ill.*
Beck, Arnold Joel	*Arcadia*
Becker, Oscar John	*Melvina*
Belden, John Ellsworth	*Racine*
Belden, Stanley Raymond	*Racine*
Benedict, Murray Reed tc	*Neillsville*
Blaisdell, James Brooks	*Madison*
Blatchford, Percival John	*Chicago, Ill.*
Brant, Selwyn Augustus, Jr.	*Madison*
Brusse, William	*Baldwin*
Burch, John Henry, Jr.	*Ashland*
Burnham, Donald Robert tc	*Waupaca*
Burwell, Edward Langworthy, Jr. tc	*Madison*

Byers, Dow Jackson	*Des Moines, Ia.*
Cahoon, Edward David	*Racine*
Caldwell, Edward Milton	*South Salem, O.*
Campbell, John Walter tc	*Lakeside, O.*
Carson, William Walter	*Madison*
Casterline, Charles Ross	*West Salem*
Chandler, George Anthony	*Chicago, Ill.*
Clarke, Carroll Curtis	*Madison*
Conrey, Hugh Franklin	*Madison*
Crothers, Donald Hayne	*Neillsville*
Dorsey, Louise Lydia	*Anchorage, Ky.*
Downing, Charles James	*Kansas City, Mo.*
Downing, John Fonda	*Louisville, Ky.*
Duddleston, Benjamin Harrison	*La Valle*
Edler, Ray Charles	*Chippewa Falls*
Erwin, Grant West	*Milwaukee*
Eyers, William, Jr.	*Superior*
Fang, Sze Voo	*Tali, China*
Feuling, Leonard Valentine	*Madison*
Frazier, William Carroll tc	*Madison*
Freeman, Charles Marble	*Hinsdale, Ill.*
Geimer, Maxmillian Peter	*Madison*
Giese, John William tc	*Kewaunee*
Gilman, Carl Callon	*Linden*
Grams, William Theodore	*Watertown*
Greene, Robert Eugene tc	*Milton Junction*
Gross, Erwin George	*Merrimac*
Gunderson, Borge Carl	*La Crosse*
Harbach, Ralph August	*Milwaukee*
Hay, Ellsworth	*Beloit*
Heider, Frederick Alonso tc	*Kewaunee*
Hill, George O'Neil	*Rosendale*
Hodgson, Albert Lee	*Mazomanie*
Holdeman, Albert Franklin	*Goshen, Ind.*
Hopper, Ward Loan tc	*Oshkosh*
Horst, Edward Gustav tc	*Superior*
Horton, Raymond Edgar	*Chicago, Ill.*
Jahsman, William Edward tc	*Manawa*
Johnson, Leland Sylvester	*Grand Rapids*
Jungkunz, William Kunz tc	*Freeport, Ill.*
Kasten, Albert William	*Madison*
Kaufman, William Frederick	*Madison*
Kelley, Kenneth Moseley tc	*Tomah*
Kellogg, Robert E.	*Randolph*
Kletzsch, Gustav Adolf	*Milwaukee*
Knott, Arthur William	*Eau Claire*
Lehman, Elmer Ernest	*Wakarusa, Ind.*
Loescher, Clarence Albert	*Menasha*
McAdams, Arthur James	*Mukwonago*
McCallan, Earl George	*Oshkosh*
McCudden, Louis Daniel tc	*Madison*
McCullough, Joseph Frank	*Madison*
Machlis, Joseph Arthur	*Madison*

Marquardt, Julius Charles tc	*La Crosse*
Martin, Henry August tc	*Reedsburg*
Martin, Ross George tc	*Oregon*
Massee, Richard Drew	*Dayton, O.*
Mengel, Joseph Torbitt	*Louisville, Ky.*
Moore, George William	*Burke*
Morgan, Robert Edward	*Oshkosh*
Mosher, James Barnes	*Prophetstown, Ill.*
Nelson, Elmer Martin	*Grand Rapids*
Noble, Harrison Robert	*Manitowoc*
Norton, Earl Timothy	*Medford*
Oeflein, Milton Fred	*Hartland*
Pettis, Charles Semple	*Madison*
Pope, Charles Alfred	*Racine*
Quick, Victor Hugo tc	*Peshtigo*
Raymundo, Mariano Bartolome	*Morong, Rizal, P. I.*
Roberts, Harlow Pliny	*Madison*
Roberts, John Basil tc	*Madison*
Robinson, Arthur Harrison	*Madison*
Rogan, Herbert Edward tc	*Racine*
Ross, Herbert Harry	*Milwaukee*
Schafer, Harold George	*Chilton*
Schapper, Ferdinand Edwin	*Powers Lake*
Schelling, Edward William tc	*Racine*
Sedgwick, James Howard	*Peoria, Ill.*
Settle, Edward J.	*Madison*
Shear, Sherwood William	*Vienna, Va.*
Sheffer, Lafayette Miles	*Morganfield, Ky.*
Skalitsky, Ernest Elmer tc	*Marshall*
Slagg, Charles Mervyn	*Cambridge*
Smith, David William	*Mazomanie*
Smith, Francis Noel	*Baltimore, Md.*
Strelzin, Morris Harry tc	*Milwaukee*
Thompson, John Abbott	*Madison*
Trojahn, Albert August tc	*Chelsea*
Wagner, Melvin Ferdinand	*Haven*
Wallrich, William	*Shawano*
Walton, Charles William	*Scales Mound, Ill.*
Weaver, Russell Oran	*Dayton, O.*
Wells, James Earl	*Mitchell, S. D.*
Wentzel, Harvey Julius	*Oshkosh*
Williams, Robert Newton	*New York City, N. Y.*
Young, Robert Archer	*Wyocena*
Zellmer, Milton Clyde	*Oshkosh* —119

Sophomores

Anderson, Harry Gerdhart	*Washburn*
Barnes, William, Jr.	*Decatur, Ill.*
Bascom, Deane Smith	*Madison*
Becker, Raymond Woodworth	*Arlington*
Behling, Fred Louis	*Johnson Creek*
Bell, Augustus Foss	*Richland Center*

Benkert, Roy Frederick	*Monroe*
Bergen, Lloyd Vanderveer	*Highland Park, Ill.*
Billerbeck, Lawrence Markert	*Milwaukee*
Binney, Thomas Henry	*Gilbert, Minn.*
Blodgett, Ralph Baker	*River Falls*
Brace, Charles Curtis	*Lone Rock*
Bradford, William Russell	*Bonham, Texas*
Brann, Andrew Jacob	*Baileys Harbor*
Brown, Raymond	*Rhinelander*
Brown, Sidney Thompson	*Waterloo*
Brown, Walter Vernon	*Boise, Idaho*
Brue, Sigurd	*Madison*
Brunkow, Orvin Richard	*Darlington*
Button, Milton Harold	*Lone Rock*
Byers, Edmund Eugene	*Des Moines, Ia.*
Campbell, Stuart Van de Veere	*Kansas City, Mo.*
Carter, Lula May	*Madison*
Carter, William Jamison, Jr.	*Chicago, Ill.*
Cass, Daniel Edward	*Rhinelander*
Chandler, William Stephen	*Waupaca*
Clapp, Howard G.	*Ashland*
Conrow, Walter Thomas	*Moorestown, N. J.*
Corey, Silas Grover	*Ripon*
Cornish, Harry Bridges	*Fort Atkinson*
Craig, Walter Scott	*Janesville*
Cramer, Herbert Lyle	*Mendota*
Cummings, John Holbrook	*Chicago, Ill.*
Dally, Walter Robert	*Milwaukee*
Davis, Deane Griswold	*Duluth, Minn.*
Dixon, Herschel Spurgeon	*Madison*
Dormeyer, William George	*Chicago, Ill.*
Dunn, Leon Wallace	*Waupaca*
Ellis, Ned Royce	*Lancaster*
Fardy, Charles Michael	*Mukwonago*
Fargo, John Merrill	*Mt. Horeb*
Finner, Emil Erich	*Dodge*
Flynn, Frederick Trebein	*Xenia, O.*
Follett, Albert Oscar	*Genoa Junction*
Frederixon, Reider Ronold	*Blair*
Fütterer, Wolfram Alexander	*Chicago, Ill.*
Gallentine, Julian Seymour	*Morrison, Ill.*
Gates, Philip Wilde	*Madison*
Gibson, Harry Irven	*Madison*
Gibson, Irven Gray tc	*Platteville*
Graff, Edward Crolins	*Hinsdale, Ill.*
Gratiot, Edward Collins	*Shullsburg*
Hammen, Edwin August	*Douglas, Wyo.*
Harris, Carl Quartick	*Chicago, Ill.*
Hartwell, Richard Winsor	*Mazomanie*
Hatleberg, Clarence Nels Bugge	*Madison*
Heck, Christian George	*Racine*
Hendrickson, Clarence Irving	*Argyle*
Hill, John Hugh	*Wyocena*

Hills, Carroll Cody	*Evanston, Ill.*
Hoesly, Henry Chester	*Monroe*
Horlamus, Orlando Oswald	*West Bend*
Jantzen, Alfons	*Milwaukee*
Jeffers, Austin Pierpont	*Jeffers, Mont.*
Jensen, Severt Martin	*Clinton*
Johnson, Clarence Stanley	*Iron River, Mich.*
Kappel, Gustav Ulrich	*Waldo*
Katz, Neumon	*Chicago, Ill.*
Kendall, Elizabeth Norris	*Chicago, Ill.*
King, Francis Carpenter	*Detroit, Mich.*
Kivlin, Vincent Earl	*Oregon*
Korst, Fred Alexander	*Janesville*
Kralovec, Arthur James	*Chicago, Ill.*
Lacy, James Jerome	*South Wayne*
Lau, Zan-ding	*Shanghai, China*
Lee, Julian Orville	*Clinton*
Liebenstein, Franklin Leslie	*Cascade*
Lindegren, Carl Clarence	*Rhinelander*
Lord, John Boardman	*Madison*
Mansfield, Oral Wilson	*Indianapolis, Ind.*
Mathys, Louis Ambrose	*Green Bay*
Meyer, William Frederic	*Milwaukee*
Moore, Glenn Edward	*Albion, Ind.*
Moore, Robert Lyman	*Alma Center*
Murray, J. R., Jr.	*Greenville, Cal.*
Neuenfeldt, Gordon Henry	*Oshkosh*
Oliver, Myrl Lee	*Eau Claire*
Osborn, Guy Asa	*Kenilworth, Ill.*
Overbaugh, Merrill Herbert	*Hartland*
Oyaas, John, Jr.	*Eau Claire*
Payton, James Martin Anthony	*Madison*
Phillips, William Butterworth	*Evanston, Ill.*
Priewe, Elmer Clarence	*Orangeville, Ill.*
Remsberg, Oscar Zachariah	*Buckeystown, Md.*
Richard, Paul William	*Boston, Mass.*
Ross, Charles Waldo	*Mansfield, Pa.*
Ross, William Herman	*Milwaukee*
Roth, Edward Walter	*Milwaukee*
Ryall, Ernest Van Rensselaer	*Ladysmith*
Sadtler, David Taylor	*Pittsburgh, Pa.*
Schacht, Harland George	*West Bend*
Schrader, Albert Lee	*South Kaukauna*
Schwartze, Rudolph Alfred	*Milwaukee*
Scott, Cornelius Chapman, Jr.	*Darlington, S. C.*
Shapiro, Harold Jack	*Milwaukee*
Shearman, William Hugh	*Madison*
Smith, Dudley Chase	*Normal, Ill.*
Sommer, Hugo Henry	*Cleveland*
Stueber, George Henry	*Juneau*
Sullivan, Francis Thomas	*Arena*
Sullivan, Thomas Andrew	*Forestville*
Tai, Fang Lan	*Shasi, China*

Vallier, Mead	*Milwaukee*	
Varney, Verne Vincent	*Greenwood*	
Vaughn, Stanley Thomas	*Westfield*	
Walker, William Allen	*Racine*	
Wallin, Franklin Whittelsey	*Grand Rapids, Mich.*	
Walsh, Charles Earl	*Eau Claire*	
Wanzer, Howard Stanley	*Chicago, Ill.*	
Warner, John Clement	*Madison*	
Wenstadt, Julius Louis	*Shawano*	
Whitney, Francis Edward	*Milwaukee*	
Wild, Seargent Peabody	*Chicago, Ill.*	
Wilson, Joseph Orin	*Oshkosh*	
Wolfram, Julius	*Fort Atkinson*	—125

Freshmen

Adams, Glenn De Forrest	*Sun Prairie*
Albrecht, Harold Taylor	*Merrill*
Altschwager, Edwin Henry	*Sheboygan*
Anderson, Daniel Alvin	*Chippewa Falls*
Anderson, Lawrence Wortendyke	*Norwalk, O.*
Aura, Carl Alfred	*Hibbing, Minn.*
Barker, George Stevenson	*Cleveland, O.*
Bethke, Roland Martin	*Elkhart Lake*
Bilharz, Oscar William	*St. Louis, Mo.*
Black, Archie	*Ft. Atkinson*
Boerner, Charles Frederick	*Wheeling, W. Va.*
Bowstead, John E.	*Milwaukee*
Bruder, Edgar George	*Mayville*
Burr, Allen Russell	*Waterloo*
Campbell, Francis James	*Chicago, Ill.*
Caradine, Winford Hugh	*Monroe*
Cleveland, Washington Irving	*Washington, D. C.*
Cole, Harold Harrison	*Marshall*
Conger, Paul Sidney	*Prairie du Sac*
Corstvet, Thomas Edward	*Milwaukee*
Crandall, Allan Russell	*Genoa Junction*
Dasso, Augusto Caesar	*Lima, Peru*
Davidson, Charles Mowbray	*Boise, Idaho*
Davidson, Robert Mowbray	*Boise, Idaho*
Dayton, Willard Louis	*Rhinelander*
Deuss, Edward Louis	*Sheboygan*
Dix, Lionel Bowen	*St. Paul, Minn.*
Dopke, August Eric	*North Milwaukee*
Dreier, Allman Vernon	*Norwalk*
Eke, Paul Axle Clarence	*Bruce*
Elkington, Harold Vale	*Baraboo*
Erbach, William	*Athens*
Flogans, William Albert	*Chicago, Ill.*
Garnsey, Edward Grant, Jr.	*Chicago, Ill.*
Gaylord, Spencer Cranor	*Lander, Wyo.*
Gibson, Percy De Witt	*Washington, D. C.*
Gilmore, Albert Frank	*Madison*

Grashorn, Robert Andrew	*Greenwood*
Griem, Milton Emil	*New Holstein*
Griswold, Lincoln Bon	*Tomah*
Hales, Harry Orin	*Granton*
Hammond, Robert L.	*Cottage Grove*
Hardell, Robert Edwin	*Washington, D. C.*
Harlan, Roger King	*Fort Smith, Ark.*
Hayes, William Platt	*West Asheville, N. C.*
Heassler, Earl Albert	*Madison*
Heisig, Adolph William	*Mt. Horeb*
Held, Roland Riesen	*Milwaukee*
Henn, John Erwin	*Waukesha*
Hill, Gillette	*Galveston, Texas*
Hitchcock, Morris Leroy	*Edgerton*
Holmes, George Leonard	*Madison*
Hood, Robin	*Chicago, Ill.*
Humphreys, Edward Twining	*Tyson, Vt.*
Hunsader, Arthur John	*Algoma*
Hurley, Edward Knight	*Chicago, Ill.*
Jacques, James Theodore	*Neillsville*
Jones, James Hazlitt	*Spring Green*
Jungbluth, Joseph Henry	*Pewaukee*
Kaasa, Leonard Jerome	*Merrill*
Keane, Homer Emmett	*London*
King, C. Howard	*Madison*
Koeniger, Edward Russell	*East Orange, N. J.*
Kuhlmann, Elmer George	*Lowell*
Lacey, David Robert	*Madison*
Lade, Arthur William	*Campbellsport*
Lasher, Phillip Henry	*Chicago, Ill.*
Lindow, Harry Edward	*Manawa*
Lindsay, John Ernest	*Reedsburg*
Little, George Clifford	*Park Falls*
Lobdell, Harrison	*Chicago, Ill.*
Lupton, Adelma	*Hartford City, Ind.*
McNulty, John Enas	*Avoca*
Madden, Thomas Joseph	*New London*
Meacham, Elmer Reynolds	*Downing*
Meineke, Norman Theodore	*Two Rivers*
Meyland, Guenther Christian	*Milwaukee*
Mobley, Basil	*Derwood, Md.*
Nadeau, Louis B.	*Nadeau, Mich.*
Nightingale, William Isaac	*Crandon*
Olson, Lloyd Burnette	*Stoughton*
Olson, Otto James	*Richland Center*
Overton, Robert Edward Lee	*Nashville, Tenn.*
Patterson, Leon Shreve	*Evansville*
Peck, George Burbank	*Chicago, Ill.*
Person, Clark Reynolds	*Madison*
Pond, Willard Tucker	*Chicago, Ill.*
Puerner, Wilfred Julius	*Jefferson*
Quasigroch, Leopold	*Madison*
Reeve, Charles Morton	*Allison, Ia.*

Roberts, Clarence Hugh	*Mazomanie*
Roehm, Linus Theodore	*Ashland*
Schernecker, Edward George	*Madison*
Schimmel, Harold William	*Milwaukee*
Schmitt, Leslie Dryden	*Chicago, Ill.*
Schoeninger, William Jacob	*Chicago, Ill.*
Schroeder, Guido Christian	*West Bend*
Shape, Carl Theodore	*Milwaukee*
Shepard, Gordon Hastings	*Mineral Point*
Sheridan, Martin James, Jr.	*South Orange, N. J.*
Smith, Robert George	*Frankfort, Ind.*
Smith, Robert Norman	*Mineral Point*
Splittgerber, Albert Herman	*Waterloo*
Sponholz, Herman Herbert	*Milwaukee*
Spoor, Francis Perlt	*Berlin*
Stewart, John Elden Lee	*West Allis*
Stokdyk, Ellis Adolph	*Sturgeon Bay*
Stoltenberg, Hugo Adolph	*Timothy*
Stumpf, Harry A.	*Menasha*
Tillotson, Robert Forrest	*Detroit, Mich.*
Treloar, J. Berlyn	*Linden*
Turner, Charles Wesley	*Madison*
Tuttle, Thomas Westley	*Verona, N. J.*
Ufford, Celian	*Spokane, Wash.*
Van Sweringen, Harry M.	*Chicago, Ill.*
Vennus, Elizabeth Mary	*Menasha*
Von Schenk, Karl Richard	*Madison*
Walderbach, William Edward	*Hartford*
Walton, Joseph Levi	*Moorestown, N. J.*
Watkins, Sherman Sheldon	*Chicago, Ill.*
Weld, Cyril Gordon	*Madison*
Weller, Walter Trowbridge	*Fond du Lac*
Wendt, Walter Alfred	*Juda*
Wertz, Virgil Roe	*Stevens Point*
Wilcox, Arthur Noble	*Madison*
Williams, Russell Lawrence	*Baraboo* —126

MIDDLE COURSE

Second Year

Atwood, Almon Lester	*Brandon*
Bachmann, Earl Arthur	*Mosinee*
Barrington, Harold Packard	*Waupaca*
Biery, Edward Andrew tc	*Wheeling, W. Va.*
Bloecher, Raymond Francis tc	*Wittenberg*
Brooks, Charles Roy	*Granton*
Carlson, George Nathaniel	*Waukegan, Ill.*
Carns, Lester Burton tc	*Platteville*
Carter, Warren Tuttle	*Madison*
Chiles, Henry	*East Orange, N. J.*
Clarke, Walter Lyons	*New Orleans, La.*

Crowell, Solon Donald	*Paw Paw, Ill.*
Dalzell, David	*Wheeling, W. Va.*
Davis, James Willard	*Hurley*
Doup, Scott	*Columbus, Ind.*
Dyer, Porter Smith	*De Soto*
Fisher, Carl Victor	*Great Falls, Mont.*
Fowler, Harold Douglas	*Superior*
Gatter, Lincoln Otto	*Evanston, Ill.*
Gorman, Norbert David	*Madison*
Hancock, Howard Joseph tc	*Shullsburg*
Hanson, Gerald Jay	*Wautoma*
Hembre, Julius Ole tc	*Greenwood*
Holloway, Walter Albert	*Bradley*
Jacobi, Walter Paul	*Milwaukee*
Joyce, Howard Francis	*Ashland*
Kleberg, Robert Justus	*Kingsville, Tex.*
Koch, William Walter	*Davenport, Ia.*
Kritz, Gordon Frank tc	*Hibbing, Minn.*
Landt, Bryce Sheldon	*Kilbourn*
La Porte, Frank	*Paw Paw, Ill.*
Loomis, Dorothy	*Madison*
Mac Arthur, Hugh	*Superior*
Martin, Milton	*Bagley*
Miller, Forrest Felver	*Ashland*
Peterson, Roger Franklin	*Chicago, Ill.*
Potter, Harold Wiswell	*Elkhorn*
Preston, Nathaniel Gifford	*Madison*
Prouty, Everett Samuel	*Sandusky*
Reese, Gordon Braman	*Milford, N. H.*
Riley, Victor Bradford	*Chippewa Falls*
Roberts, Robert John	*Hart, Mich.*
Rouse, Julius Howard	*Paynes Depot, Ky.*
Schmidt, Oscar John	*Arcadia*
Shoemaker, Frederick Warren	*Waupaca*
Stiles, Philip Gleason	*Chicago, Ill.*
Sullivan, Phillip Robert	*Iron River*
Talbert, William Herald	*Wabash, Ind.*
Telfer, Sidney Smith	*Fort Atkinson*
Thompson, Grover Cleveland, Jr.	*Paris, Ky.*
Thull, George Edward	*Marinette*
Travis, Robert Henry	*Chicago, Ill.*
Van Horne, Philip Burt	*Madison*
Vorpahl, Arthur Walter tc	*New Holstein*
Williams, Guy P. tc	*Oconto*
Williams, Joseph Lucas tc	*Genoa Junction*
Williams, Judson Sparks	*Bristol*
Wright, Morris Harry	*New London*
Zuehlke, Ulrich Randolph	*Milwaukee* —59

First Year

Amundson, Robert Andrew	*Rio*
Bailey, Perry Wilson	*E. Cleveland, O.*
Blow, Harold Matt	*Waupun*
Bovee, Lemuel Franklin	*Bayfield*
Cole, Dwight Eliot	*Marshall*
Cook, Arthur Marsh	*Grand Rapids, Mich.*
Dance, Benjamin Dixon	*Brookfield*
Davis, Evan Raymond	*Green Bay*
Dawson, Thomas Bainbridge	*Benton*
Deckert, Garrett A.	*Sylvan*
Drew, Floyd Richard	*McAlester, Okla.*
Duffin, Laurel Ardien	*Whitewater*
Ellenson, Eugene Argard	*Madison*
Ellenson, Katherine Flinn	*Chippewa Falls*
Faerber, George August	*Cleveland, O.*
Farrington, Edgar George	*Mondovi*
Fish, Warren Lyman	*Delton*
Green, George Emil	*Ligonier, Ind.*
Hall, Clarence Hayes	*Yorkville, Ill.*
Harris, Kenneth Demast	*Viroqua*
Hines, Raymond Louis	*Prescott*
Jensen, Francis Field	*Manawa*
Johnson, Stanley Eli	*Mazomanie*
Kellicut, Harold Burgess	*Viroqua*
Knickerbocker, Judd Maurice	*Elroy*
Kutil, Clarence Leonard	*Manitowoc*
McIlraith, Hugh Rae	*Medford*
Mainland, Kenneth William	*Kenosha*
Manz, Alvin Henry	*Eau Claire*
Martin, Loren Ormus	*McHenry, Ill.*
Millington, Fred Meader	*La Crosse*
Moe, Harold Irving	*Monroe*
Nicoll, Edward William	*Kenosha*
Norgaard, Uffe Jensen	*Withee*
Nutter, Parks Adair	*Martinsville, Ind.*
O'Keefe, William Arthur	*Waunakee*
Olson, Pierce Terrel	*Amherst*
Ormond, Roy Bazanquith	*Brookfield*
Pattinson, Lester Lee	*Darlington*
Ries, Oscar	*Mt. Vernon, Ind.*
Roberts, Charles Von Lunen	*Johnstown, Pa.*
Sabine, Ralph Paul	*Washington, D. C.*
Sargent, Harold James	*Madison*
Sargent, Lawrence Densmoor	*Madison*
Saul, Willis	*De Pere*
Schwantes, Arthur John	*Kewaunee*
Stehn, Richard John	*Chicago, Ill.*
Stillman, Jay Howard	*Hammond, La.*
Sylvester, Walter Herbert	*Wauwatosa*
Throne, Clare Woodruff	*Eau Galle*

Tolman, Blanche Stevens	*Chicago, Ill.*	
Turner, Victor Caesar	*Madison*	
Van Lone, Orlo Winfield	*Jefferson*	
Van Skiver, John Lyal	*Amherst*	
Wells, David Cyrus	*Fontana*	
Wilson, Allen Barnum	*Chicago, Ill.*	
Wolf, Homer Herbert	*La Crosse*	—57

COURSE IN HOME ECONOMICS

Seniors

Ackermann, Florence Mathilda tc	*Grand Rapids, Mich.*
Andrews, Gladys tc	*Richland Center*
Aurland, Helen	*Minot, N. D.*
Barnes, Dora Russell tc	*Madison*
Boyce, Inez Mae	*De Kalb, Ill.*
Brookins, Florence Evelyn tc	*Madison*
Brooks, Helen Winifred tc	*Madison*
Cobb, Hope Elizabeth	*Wheaton, Ill.*
Cooper, Dorothy Beatrice tc	*Walworth*
Damon, Edith May tc	*Madison*
Dreger, Emma Adele tc	*Mayville*
Eastland, Lillian tc	*Superior*
Ely, Florence Marie tc	*Mauston*
English, Honora Elisabeth tc	*Waterford*
Esch, Irene Esther tc	*La Crosse*
Frederick, Irene Helen tc	*Madison*
Godfrey, Mary Grace tc	*Whitewater*
Hawley, Villetta Irene tc	*Oregon*
Hibbard, Carrie Adelle tc	*Madison*
Howard, Beatrice Marguerite tc	*Greenwood*
Iversen, Ingeborg Marie tc	*Stoughton*
Klemme, Ruth	*Belmond, Ia.*
Laing, Dorothy tc	*Berlin*
Larson, Mabel Josephine	*Cooperstown, N. D.*
Le Feber, Alice Marie tc	*West Allis*
Leland, Gertrude Church	*Whitewater*
Meloche, Gladys Louise tc	*Madison*
Morris, Lulu	*Dodgeville*
Peck, Alice Louise tc	*Chicago, Ill.*
Piper, Rena Kate tc	*Madison*
Porter, Sarah Harriet tc	*River Forest, Ill.*
Richards, Avis Marie tc	*Milwaukee*
Seymour, Helen Elmina tc	*Madison*
Shepard, Ida May	*Mineral Point*
Sime, Eleanor Adelaide tc	*Stoughton*
Spinney, Vera Belle tc	*Madison*
Stanley, Martha Ellen	*East Alton*
Starr, Bertha McClure	*Greeley, Col.*
Stewart, Alice Victoria	*Metropolis, Ill.*
Strickler, Leola May tc	*New Ulm, Minn.*

Taylor, Margaret Lincoln tc	*Lancaster*	
Turner, Florence Nightingale tc	*Madison*	
Warwick, Sarah Elizabeth tc	*Keokuk, Ia.*	
Wattawa, Katherine Elizabeth tc	*Madison*	
Whitehead, Margaret tc	*La Grange, Ill.*	
Whitney, Alice tc	*Madison*	
Willson, Inez Searles tc	*Madison*	—47

Juniors

Alderson, Vera Louise tc	*Chicago, Ill.*
Barkey, Florence Irene	*Chicago, Ill.*
Beatty, Mary Elizabeth	*Davenport, Ia.*
Bishop, Della	*Wyandotte, Mich.*
Breitenbach, Vera Mae	*Madison*
Briggs, Rosa Fitch tc	*Madison*
Brundage, Dorothy M. tc	*Grand Rapids*
Buchner, Gladys Rhodes	*Milwaukee*
Cook, Dorothy Margaret tc	*Madison*
Cooley, Margaret Hamilton	*Jamica, N. Y.*
Dahle, Thea Otelia	*Mt. Horeb*
Dillon, Dorothy Hutchins tc	*Madison*
Eckert, Helen Elizabeth tc	*Webster, Mo.*
Gaubatz, Alma Therese tc	*Chilton*
Gunderson, Nellie May tc	*Madison*
Gunn, Christina Rouwenhorst	*Madison*
Hanpeter, Hildegard Elizabeth tc	*St. Louis, Mo.*
Hayes, Joanna Rose	*Janesville*
Hudson, Katharine	*Charleston, Ill.*
Humphrey, Martha Estelle	*Madison*
Jones, Marjorie Helen	*Portage*
Juby, Carolyn Cathryn	*Elgin, Ill.*
Kent, Hazel Eva tc	*Madison*
Kleinheinz, Frances Margaruite tc	*Madison*
Koch, Elizabeth Emma tc	*Madison*
Kuehl, Helen tc	*Eau Claire*
Lewis, Jane Deborah tc	*Portage*
Lottes, Marie Kathryn tc	*Madison*
Lubeno, Vera	*Trevor*
Main, Dorothy Turner	*Madison*
Matthewson, Norma Naomi tc	*Dekalb, Ill.*
Nagler, Genevieve Catherine tc	*Osceola*
O'Callaghan, Helen Florence tc	*Norway, Mich.*
Overholser, Vinnie	*Sterling, Ill.*
Ray, Florence tc	*Madison*
Ray, Margaret Elizabeth tc	*Madison*
Reed, Helen Morse tc	*Necedah*
Roberts, Margaret Emma	*Cambria*
Rukgaber, Theresa Victoria tc	*Madison*
Scheid, Emerald Amelia tc	*Madison*
Scheinpflug, Marie Mabel tc	*Boscobel*
Schuler, Ann Gabrielle	*Milwaukee*

Scott, Juanita tc	*Des Moines, Ia.*
Shadall, Norma Carolyn	*Milwaukee*
Sims, Hazel Angeline tc	*Kingston*
Speerstra, Ruth Brons tc	*Whitehall*
Sprecher, Florence Mildred	*Madison*
Stevens, Margaret Frances tc	*Yankton, S. D.*
Thornby, Mary Youmans	*Deadwood, S. D.*
Travis, Gladys tc	*Evanston, Ill.*
Tyler, Marion Esther	*Glidden*
Waring, Grace Anna	*Washington, D. C.*
Weaver, Lillian Ruth tc	*Cumberland, Ia.*
Weir, Leda Marie tc	*Mukwonago*
Wengel, Edith Magdalene	*Madison*
White, Amy Gertrude tc	*Mineral Point*
Whittemore, Thelma Attalie	*Huntington, W. Va.*

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Sophomores

Anderson, Esther Henrietta	*Cambridge, Ill.*
Arthur, Helen Hesketh	*Madison*
Barbour, Ethel Holmes	*East Troy*
Barker, Helen Elizabeth	*North Freedom*
Beatty, Florence Esther	*Davenport, Ia.*
Bertrand, Pearl Eta	*De Forest*
Bigelow, Vieva Marion	*Madison*
Bird, Carol	*Madison*
Branine, Hazel Eliot	*Hutchinson, Kas.*
Brown, Frances	*Ottumwa, Ia.*
Browne, Katherine Warren	*Waupaca*
Campbell, Sara Eugenia	*Detroit, Mich.*
Chickering, Ruth Bennett	*Menomonie*
Churchill, Helen Petrovna	*Monroe*
Cooley, Ray	*Chicago, Ill.*
Cronin, Helen Catherine	*Madison*
Cronin, Magdalen	*Oconomowoc*
Cumming, Helen Maria	*Milwaukee*
Danielson, Mabel Isabel	*Madison*
Davis, Helen McKie	*Delavan*
Dickerson, Dorothy Wheeler	*Helena, Mont.*
Enger, Frances Mildred	*Chicago, Ill.*
England, Emma Alvina	*Prairie du Chien*
Findorff, Dorothy Catherine	*Madison*
Fultz, Edith	*Wichita, Kas.*
Garrow, Leona May	*Madison*
Gasser, Mary Elizabeth	*Platteville*
Gifford, Esther Emeline	*Franksville*
Goldfarb, Esther Laura	*Baraboo*
Hagerty, Mildred Isabel	*Knapp*
Haner, Reba Cordelia	*Sun Prairie*
Healey, Martha	*Webster Groves, Mo.*
Heisig, Esther Helen	*Madison*
Helmes, Dorothy Alma	*St. Paul, Minn.*

Hodges, Virginia Cley	*Madison*	
Jobse, Myrtle Elvira	*Milwaukee*	
Johnson, Hazel Orena	*Madison*	
Johnson, Mildred Emma	*Madison*	
Johnson, Verna Louise	*Great Falls, Mont.*	
Keyes, Sadie Catherine	*Madison*	
Kuhns, Ruth Cordelia	*Madison*	
McClymont, Alice	*Milwaukee*	
MacDougall, Edwina Mae	*Whitewater*	
McNulty, Sadie Agatha	*Spring Green*	
Magnus, Edna Mable	*Glen Flora*	
Martin, Helen Anna	*St. Louis, Mo.*	
Martin, Ramona Theora	*Michigan City, Ind.*	
Moffett, Frances Jean	*Wichita, Kas.*	
Morey, Marjorie Janet	*Racine*	
Morrisey, Nellie Ethel	*Bloomington*	
Noer, Ruth Douglas	*Wabeno*	
O'Malley, Frances Mary	*Madison*	
Orr, Flora Gracia	*Mt. Hope*	
Paine, Dorothy	*Milwaukee*	
Parkinson, Helen Elizabeth	*Madison*	
Peters, Avis Marie	*Madison*	
Porter, Ella Mae	*River Forest, Ill.*	
Poundstone, Marie Eve	*Mellen*	
Reid, Janet Ella	*Hurley*	
Reul, Myrtle Frieda	*Baraboo*	
Riley, Maysel Luella	*Pardeeville*	
Rogers, Margaret Gertrude	*Oak Park, Ill.*	
Russell, Gertrude Estelle	*Madison*	
Sage, Martha Ross	*Delavan*	
Scheid, Garnetta Elsie	*Madison*	
Schnackenberg, Myrtle May	*Madison*	
Sichler, Ida Mary	*Alma Center*	
Sinaiko, Rhena Sarah	*Madison*	
Smith, Hazel Helen	*Peoria, Ill.*	
Smith, Helen Florence	*Madison*	
Smylie, Hannah Bigelow	*Omaha, Nebr.*	
Stout, Llewellyn	*Rice Lake*	
Thielke, Adele Marie	*Mayville*	
Thomson, Margaret Elizabeth	*Chicago, Ill.*	
Townsend, Marion Margaret	*Des Moines, Ia.*	
Ullrich, Dorothy Wilhelmina	*Evanston, Ill.*	
Van Wart, Ethel	*Evansville*	
Walsh, Helen Marguerite	*Beloit*	
Ward, Marion Elizabeth	*Milwaukee*	
Wilson, Elizabeth Nancy	*Keokuk, Ia.*	—80

Freshmen

Anderson, Lela Bateman	*Enterprise, Miss.*	
Andrews, Daisy Maude	*Highmore, S. D.*	
Bailey, Louise	*Omaha, Nebr.*	

Barry, Grace Maurine	*Richland Center*
Beattie, Marguerite Reno	*Madison*
Bellinger, Frances	*Plainwell, Mich.*
Beyer, Sylvia	*Horton, Kas.*
Bollenbeck, Ida Kathryn	*Madison*
Brewer, Frances Field	*Battle Creek, Mich.*
Brickson, Eva Matilda	*Stoughton*
Bull, L. Irene	*Beloit*
Bur, Catherine Hedwig	*Green Bay*
Cahalan, Gertrude Esther	*Miller, S. D.*
Carpenter, Rachel Jane	*Iron River, Mich.*
Cobban, Ethel Elizabeth	*Madison*
Coldwell, Vera Iris	*Blue Mounds*
Cunningham, Elizabeth Doris	*Richland Center*
Dickson, Mary Margaret	*East Chicago, Ind.*
Dolan, Winifred	*Cashton*
Dunwiddie, Jennette Martha	*Delavan*
Erickson, Joyce Mildred	*Grantsburg*
Erikson, Kathryn Mary	*Crystal Falls, Mich.*
Feeney, Regina Mary	*Madison*
Fernald, Mabel Grace	*Madison*
Finncane, Grace Rosalind	*Antigo*
Fischer, Marie Caroline	*Spokane, Wash.*
Fisher, Eleanor	*Milwaukee*
Fitzmaurice, Mary Teresa	*Beaver Dam*
Foote, Josephine Agnes	*Hartford*
Fuller, Elizabeth	*Oak Park, Ill.*
Garbutt, Jewel	*Valrico, Fla.*
Geil, Helen Elizabeth	*Milwaukee*
Geissler, Gladys Emily	*Elmhurst, Ill.*
Gerber, Estelle Marjorie	*Ligonier, Ind.*
Gibbs, Kathryn A.	*Princeton, Ill.*
Gough, Genevieve Elizabeth	*Boonville, Ind.*
Grace, Dorothy Patterson	*Oak Park, Ill.*
Graper, Florence Marie	*Ft. Atkinson*
Hart, Irene Mary	*Glidden*
Henry, Mary Muir	*Wonewoc*
Hoffman, Lavona Mary	*Madison*
Horton, Mae	*Pardeeville*
Hutton, Margaret Isabel	*Madison*
Krueger, Dorothy Adelaide	*Oak Park, Ill.*
Ives, Harriet Ruth	*Delavan*
Larson, Marion Anthony	*Madison*
Lentz, Adelia Edith	*Mayville*
Luther, Breta Marie	*Rhinelander*
McConnell, Bessie Harriet	*Woodstock, Ill.*
Mason, Edith Marian	*Selma, La.*
Mayfield, Maude Hazel	*Madison*
Meyers, Zelpha Edna	*Baraboo*
Moses, M. Elizabeth	*Mitchell, S. D.*
Nerdrum, Ruth Alfrieda	*Milwaukee*
Nienaber, Katherine Mable	*Madison*
Olbrich, Marion Grace	*Harvard, Ill.*

O'Neil, Miriam Catherine	*Chippewa Falls*	
Outhouse, Julia Pratt	*Madison*	
Paine, Adelaide	*Milwaukee*	
Patton, Stella Trout	*Madison*	
Paull, Helen Grace	*Woodruff*	
Pieh, Margaret Elizabeth	*Madison*	
Portz, Mildred Helen	*Hartford*	
Primm, Ida May	*Hannibal, Mo.*	
Ryan, Marjorie Pearl	*Baraboo*	
Schlotthauer, Norma Brigette	*Chicago, Ill.*	
Schneider, Veronica	*Madison*	
Schultz, Louise Henrietta	*Madison*	
Sell, Mariana Theresa	*Madison*	
Seston, Inez Maude	*Mazomanie*	
Showers, Gladys Marguerite	*Delavan*	
Simon, Florence	*Youngstown, O.*	
Stanchfield, Eleanore Jean	*Fond du Lac*	
Swinson, Marion	*Madison*	
Tamblingson, Wava Beth	*Fort Atkinson*	
Tennant, Hazel Louise	*Madison*	
Trickey, Dorothy May	*Berlin*	
Utman, Mary Isabelle	*Hudson*	
Uzzell, Helen	*Denver, Colo.*	
Ward, Dolores	*Madison*	
Woodcock, Adelaide Tracy	*Spencer, Ia.*	
Yates, Lucile Margaret	*Oak Park, Ill.*	—82

Adult Special Students

LONG COURSE

Adams, Grace Arlene	*Omro*	Freshman
Anderson, John Arlington	*Racine*	Freshman
Brown, Laurence Murphy	*Washington, D. C.*	Sophomore
Couture, Arthur Joseph	*Rice Lake*	Sophomore
Farladansky, Benjamin	*Chicago, Ill.*	Freshman
Fiedler, Albert Charles tc	*Madison*	Junior
Geraldson, Morton Lea tc	*Manitowoc*	Senior
Hughes, Daniel Patrick	*Union, Mont.*	Sophomore
Hussey, Joseph Michael tc	*Whitelaw*	Senior
Kirsch, William	*Madison*	Sophomore
Low, Francis	*Syracuse, N. Y.*	Freshman
Moen, Herman Cornelius	*Cambridge*	Freshman
Nelson, August	*Madison*	Sophomore
Peragen, Dessie Leota	*Madison*	Freshman
Petrushansky, Bernard P.	*Madison*	Freshman
Reynolds, Elizabeth Clarke	*Madison*	Freshman
Ross, Maurice	*Milwaukee*	Sophomore
Rubert, William Frederick	*Bellevue, O.*	Freshman
Sergeant, Marshall William	*Sheldon*	Sophomore
Tosterud, Martin O	*Madison*	Junior
		—20

MIDDLE COURSE

Anderson, Alfred N.	*Eau Claire*	Freshman
Borgeson, George Leroy	*Le Sueur, Minn.*	Freshman
Collentine, Roy Thomas	*Monroe*	Freshman
Hammer, Lloyd Allen	*Madison*	Sophomore
Johnson, Morris Waldron	*Madison*	Freshman
Kennedy, Orrin Blaine	*Bristol, Ill.*	Freshman
Kidder, Delos Bliss	*New York City, N. Y.*	Freshman
Manley, Peter Eugene	*Menomonie*	Sophomore
Pickarts, Jessie C. V.	*Madison*	Freshman
Pickarts, Lucien John	*Madison*	Freshman
Rock, Kingsley Carlton	*Lake Charles, La.*	Freshman
Rogge, Earl David	*Oshkosh*	Freshman
Scott, Robert Lee	*Greenville, S. C.*	Freshman
Smith, Louis Fry	*Viola*	Freshman
Stanbury, Edward Ogilvie	*Superior*	Freshman
Theurer, Louis Fred	*Milwaukee*	Freshman
Woodford, Joseph Scott	*Paris, Ky.*	Freshman

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HOME ECONOMICS COURSE

Ackland, Ruth Birdie	*Winfield, Kas.*	Freshman
Altman, Fannie	*Superior*	Freshman
Birong, Estella Marguerite	*Madison*	Sophomore
Dice, Anna Mary	*Louisville, O.*	Freshman
Keller, Sophia Dorothea	*Fond du Lac*	Sophomore
Kundert, Elizabeth	*Martintown*	Freshman
Lindsay, Katharine Breed	*Marion, Ind.*	Freshman
Oakey, Madeline Nina	*Madison*	Sophomore

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WISCONSIN LIBRARY SCHOOL

Andrews, Sirie	*Escanaba, Mich.*
Baskerville, Stella E.	*Madison*
Batchelor, Winifred G.	*Detroit, Mich.*
Chappell, Ruby B.	*Eau Claire*
Cochrane, Helen R.	*Sheffield, Pa.*
Cochrane, Ava L.	*Madison*
Davenport, Margaret E.	*Freeport, Ill.*
Davis, Winifred L.	*Madison*
Day, Florence C.	*Madison*
Dewees, Anna M.	*Whittier, Ia.*
Ellison, Gertrude L.	*Duluth, Minn.*
Estes, Grace W.	*Janesville*
Fifield, Alta D.	*Janesville*
Flagg, Lillian M.	*Louisiana, Mo.*
Hall, Sophia	*Oshkosh*
Harvie, Henrietta R.	*Montreal, Canada*
Hogg, Frances M.	*Melrose*
Jaggard, Clara L.	*Madison*

Lawrence, Juliet	*Duluth, Minn.*	
Little, Vivian G.	*St. Louis, Mo.*	
Long, Hazel F.	*Whiting, Ind.*	
McAfee, Georgie G.	*Shelby City, Ky.*	
Meyer, Amy L.	*Red Wing, Minn.*	
Montgomery, Jessie F.	*Strathcona, Canada*	
Ohr, Elizabeth	*Indianapolis, Ind.*	
Petterson, Esther L.	*Ephraim*	
Roeseler, Edna L.	*Superior*	
Rolfs, Clara E.	*West Bend*	
Ross, Evelyn T.	*Waupaca*	
Schwab, Gertrude A.	*Milwaukee*	
Sias, Louise	*Buhl, Minn.*	—31

Joint Course

Farr, Helen E.	*Eau Claire*	
Smith, Charlotte E.	*Chicago, Ill.*	—2

Library Administration and Public Service

Ketcham, Dorothy	*Indianapolis, Ind.*	—1

SUMMER SESSION OF 1915

GRADUATES

Allen, Benjamin Franklin — *Jefferson City, Mo.*
M. A., Atlanta University

Allen, Mabel Emily — *Grand Rapids, Mich.*
B. A., University of Michigan

Alley, John — *Norman, Okla.*
B. A., Harvard University

Altmeyer, Arthur Joseph — *De Pere*
B. A., University of Wisconsin

Anderson, Erwin Oliver — *Shelby, Mich.*
B. S., Michigan Agricultural College

Anderson, Margaret — *Eau Claire*
B. A., University of Wisconsin

Anderson, Merl V. — *Preston, Minn.*
B. A., Northwestern University

†Anderson, Nels Andreas — *Chetek*
Ph. B., University of Wisconsin

Armstrong, Susan N. — *Madison*
B. A., University of Wisconsin

Arneson, Ben Abbott g — *Madison*
M. A., University of Wisconsin

Ash, Irvin Oda — *Middlebourne, W. Va.*
B. A., West Virginia University

Atwood, William Henry — *Holland, Mich.*
B. A., Hope College

Bachtell, Myron Ansel — *Columbus, O.*
B. S., Ohio State University

Badgley, Howard James — *Cincinnati, Ohio*
B. A., Miami University

Baird, Edgar Alan g — *Clayton*
M. A., University of Wisconsin

Bailey, Frances Willard — *Geneva, Ill.*
B. A., Beloit College

Bain, Bertha — *Kansas City, Mo.*
Ph. B., University of Chicago

Baker, Charles Walter — *Marion, S. C.*
B. S., Clemson Agricultural College

†Advanced course for the training of teachers.

Baker, Edward Donald — *Manhattan, Kansas*
B. A., University of Chicago
Baker, June — *Evansville*
B. A., Beloit College
Ballard, Virginia Sallie — *Chicago, Ill.*
B. A., Northwestern University
Barland, Margaret Dorothea — *Eau Claire*
B. A., Oberlin College
Barnes, Beatrice Frances — *Madison*
B. A., Trinity College
Barns, Viola Florence — *Albion, Neb.*
M. A., University of Nebraska
Barthe, Jeanne de La — *Seaside, Oregon*
B. A., University of Wisconsin
Bate, Clara Morse — *Pasadena, Cal.*
B. A., Cornell College
Batte, Rubie A. — *Memphis, Tenn.*
B. S., Blue Mountain Female College
Baum, Harry Neal g — *Madison*
B. A., University of Wisconsin
Bauman, Frank Augustus — *Traverse City, Mich.*
B. A., Olivet College
Bauman, Walter John — *Monroe*
B. A., University of Wisconsin
Beach, Sarah Morehouse g — *Bridgeport, Conn.*
M. A., University of Wisconsin
Beaird, Jane Caroline — *Birmingham, Ala.*
B. A., Centinary Female College
Bean, Gertrude S. — *Waukesha*
B. A., Carroll College
Bechtold, Anna Dorothea — *Marysville, Kans.*
B. A., University of Kansas
Beck, Charles Oscar — *Highland Park, Mich.*
B. A., Hillsdale College
Beck, Robert J. — *Columbia, N. J.*
B. A., Pennsylvania State College
Beckwith, Emily Hubbard — *Hartford, Conn.*
B. A., Mt. Holyoke College
Beebe, Gordon A. — *Beloit*
B. S., University of Wisconsin
Bellis, William — *Mount Pleasant, Mich.*
B. S., University of Chicago
Bender, Janette Martha — *Fayette, Iowa*
Ph. B., Upper Iowa University
Benger, Ernest Boden g — *Madison*
M. S., University of Wisconsin
Bennett, John Newton — *Crete, Nebraska*
M. A., University of Nebraska
Benson, William Clarence — *Northfield, Minn.*
M. A., University of Minnesota
Bentzen, Frederick Whelpley — *Warrens*
B. S., University of Wisconsin

Berry, William Milton — *Wilberforce, O.*
B. A., Lincoln University
Berryman, Thomas — *Pittsburgh, Pa.*
B. S., Antioch College
Bewick, William Medhurst — *Madison*
B. S., University of Wisconsin
Bilkey, H. Edward — *Dodgeville*
B. A., University of Wisconsin
Binford, Jesse Hinton — *Richmond, Va.*
B. A., Richmond College
Binninger, Marie Katherine — *Indianapolis, Ind.*
B. A., Butler College
Bird, Eugene Calvin — *Madison*
B. A., Oberlin College
Birge, Julius Stanley — *Madison*
M. S., University of Wisconsin
Bishop, Bertha Gertrude — *Mineral Point*
B. A., Lawrence College
Bishop, Fred G. — *Wonewoc*
B. A., University of Wisconsin
Bishop, George Holman g — *Ann Harbor, Mich.*
B. A., University of Michigan
Bixler, Roy — *Canton, Mo.*
B. A., Christian University
Black, John Donald g — *Fort Atkinson*
M. A., University of Wisconsin
Blackburn, Antoinette Milner — *Atlanta, Ga.*
B. A., Agnes Scott College
Blackburn, Lura — *Mount Vernon, Ind.*
B. A., University of Wisconsin
Blackwell, William Albert — *Henry, Ill.*
M. A., State University of Iowa
Blankenagel, John Carl — *Madison*
B. A., University of Wisconsin
Bleck, Clara — *Naperville, Ill.*
B. A., Northwestern College
Blodgett, Rachel Nell — *Rapid City, S. D.*
B. A., University of Nebraska
Blood, Laura Lillian — *Kenosha*
B. A., University of Wisconsin
Blood, Wayland Potter — *Buffalo, N. Y.*
M. A., Harvard University
Bodden, Amanda Marie — *Oshkosh*
Ph. B., University of Wisconsin
Boeing, Agnes — *Minto, N. D.*
B. S., University of Wisconsin
Boethin, Louise Clara — *St. Peter, Minn.*
B. A., Gustavus Adolphus College
Boggess, Eula Elizabeth — *Excelsior Springs, Mo.*
B. A., Missouri University
Bohstedt, Gustav g — *Victor, Ia.*
B. S., University of Wisconsin

Bolt, Cornelius Frederick — *Grand Haven, Mich.*
B. A., University of Michigan
Boss, Sophia — *Oshkosh*
M. A., University of Wisconsin
Bowler, Joseph Lyndel — *Wichita, Kas.*
B. A., University of Kansas
Bowser, Goldie May — *Gibsonburg, O.*
B. A., Oberlin College
Boyd, Ellinor Fitzgerald — *Independence, Kans.*
B. A., University of Kansas
Boyd, William Joseph — *Sturgeon Bay*
B. A., University of Wisconsin
Bradley, Robert Foster Jr. g — *Madison*
M. A., University of South Carolina
Brand, Willa Norvella — *Morgantown, W. Va.*
M. A., University of Michigan
Brandenburg, George Clinton — *Des Moines, Ia.*
M. A., University of Colorado
Braun, Adolph Rudolph — *Milwaukee*
B. A., University of Wisconsin
Breckon, William Darche g — *Ridgetown, Ontario, Can.*
Toronto University
Bressler, Raymond George — *College Station, Tex.*
M. A., Woffard College
Brigman, Bennett Mattingly — *Louisville, Ky.*
M. S., University of Louisville
Brogan, Anna Helen — *Emporia, Kans.*
B. A., State Teachers' College, Emporia, Kans.
Bronson, Reuben Havland — *Waupun*
B. S., Beloit College
Brooks, Ruth Steele — *Bloomington, Ind.*
B. A., Indiana University
Brothers, Vera Lilian — *Menominie*
M. A., Hamline University
Brower, Mary Letitia — *Fullerton, Nebr.*
B. A., University of Nebraska
Brown, Mabel Mary g — *Platteville*
B. A., University of Wisconsin
Brown, Paul Murphy — *Madison*
B. S., University of Wisconsin
Brown, William Orrel — *Carbondale, Ill.*
B. A., Dixon College
Brownell, Percy Leonard — *Chaffee, N. D.*
B. S., Grinnell College
Brownson, Mary Wilson — *Washington, Pa.*
M. A., Washington and Jefferson College
Brunelle, Augustus Hall g — *Madison*
M. A., University of Wisconsin
Brusse, Mae Louise — *Holland, Mich.*
B. A., Hope College
Bryan, Walker Edward — *Boaz, Ala.*
B. S., Alabama Polytechnic Institute

Bulger, Charles L. *Akron, O.*
M. A., University of Wisconsin
Burch, Hazel Olive *St. Louis, Mo.*
B. A., Washington University
Burnham, Ethel Romelia *Onalaska*
B. A., University of Wisconsin
Bussard, Alita *Kaukauna*
B. A., Lawrence College
Bussewitz, Walter Richard *Madison*
B. A., University of Wisconsin
†Buswell, Margaret *Lewiston, Minn.*
B. A. Goucher College
Butcher, Ethel Ruth *Greencastle, Ind.*
B. A., De Pauw University
Butcher, Ruth Moore g *Alliance, O.*
Ph. B., Mount Union College
†Byrne, Catherine Berenice *Fitchburg*
B. A., University of Wisconsin
Byrne, Eugene Hugh *Madison*
B. L., University of Wisconsin
Byrne, Helen Cecilia *Chicago, Ill.*
B. A., University of Illinois
Cain, Helen Elizabeth *Kokomo, Ind.*
B. A., Hanover College
Calkins, Kathleen Clinch g *Evansville*
B. S., University of Wisconsin
Calland, Forest Emberson *Beloit*
M. A., Drury College
Cameron, Hugh Albert *Sylvania, Pa.*
B. A., Oberlin College
Cameron, Neil Alexander *Sylvania, Pa.*
B. A., Oberlin College
Campbell, Ida Cora *Pittsburgh, Pa.*
B. A., Grove City College
Canright, Blanche Ione *Manitowoc*
B. A., University of Wisconsin
Carlson, Ethel *Canton, O.*
B. A., Western Reserve University
Carpenter, Otto F. *Weston, O.*
B. A., Ohio Northern University
Carr, Minnie Pearl *Greeley, Colo.*
Pd. M., Colorado Teachers College
Carsner, Eubanks g *Princeton*
M. S., University of Wisconsin
Carter, Hazel Virginia *St. Louis, Mo.*
B. A., Washington University
Carter, Martha May *Madison*
B. A., Beloit College
Cederberg, William Emanuel *Rock Island, Ill.*
M. A., University of Wisconsin

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Chafin, Helen MacNaughton — *Mukwonago*
M. A., University of Wisconsin
Chamberlin, Hattie May — *Beloit*
B. L., University of Wisconsin
Chandler, Harvey West — *Rochester, Ind.*
B. A., Franklin College
Chang, Moses Yuntsi e — *Ningpo, China*
E. E., University of Wisconsin
Chapin, Gertrude Frances — *Chicago, Ill.*
B. A., Northwestern University
Chase, Katherine Trusdell — *Urbana, Ill.*
B. A., University of Illinois
Chase, Paul Weaver — *Evansville*
B. S., University of Wisconsin
Chatham, Leslie Willis — *Lorington, Ill.*
B. S., Ewing College
Chen, Beihan H. — *Shanghai, China*
B. S., Cornell University
Chewning, James Walter — *College Station, Tex.*
B. S., University of Texas
Chickering, Arthur Merton — *Beloit*
Ph. B., Yale University
Childs, Mary Louise — *Evanston, Ill.*
B. S., Northwestern University
Christensen, Blanche Lina — *Necedah*
B. A., University of Wisconsin
Chworowsky, Karl Moses Christian — *Madison*
B. A., Wartburg College
Chien, Kohniv — *Haining, China*
B. S., University of Wisconsin
Clark, Robert E. — *Hemlock, W. Va.*
B. S., West Virginia Wesleyan College
Clarke, Alfred Henry — *Chicago Heights, Ill.*
B. S., Illinois Wesleyan University
Clark, Mary Virginia — *Kansas City, Mo.*
B. A., Missouri Valley College
Cleveland, Ewart — *Madison*
B. A., University of Wisconsin
Clifford, Charles William, g — *Madison*
B. A., University of Denver
Close, George Frederick — *Aledo, Ill.*
B. A., University of Illinois
Cobb, Ollie Christopher — *Sun Prairie*
B. S., Michigan Agricultural College
Coen, Benjamin Franklin — *Fort Collins, Col.*
B. L., University of Wisconsin
Cole, Georgia Lena — *English, Ind.*
B. A., Indiana University
Collentine, Margaret Loretta — *Argyle*
B. A., University of Wisconsin
Collins, Victor Homer — *Jefferson City, Mo.*
M. A., Lincoln Institute

Conger, Agnes H. *Rice Lake*
B. A. Mount Holyoke College
Conger, George Perrigo *Rice Lake*
B. A., Cornell University
Conrad, Elizabeth g *Madison*
M. A., University of Wisconsin
Converse, Paul Dulaney *Morristown, Tenn.*
M. A., Washington and Lee University
Conwell, John William *Madison*
B. A., Ohio State University
Cook, Henry Allen *Arena*
B. A., University of Wisconsin
Cook, May Estelle *Oak Park, Ill.*
M. A., University of Chicago
Cooke, Reginald Bancroft *Madison*
M. A., University of California
Cooper, Herbert Press *Blythewood, S. C.*
B. S., Clemson, Agricultural College
Cotterill, Robert S. *Madison*
M. A., University of Virginia
Crawford, Helen Martha *Winfield, Kas.*
B. A., Southwestern College
Creutz, Lester *Beaver Dam*
B. A., University of Wisconsin
Crossland, Viola June *Sheldon, Ill.*
B. S., University of Illinois
Crouse, Laura Louise *Cincinnati, O.*
B. A., University of Wisconsin
Crumpton, Claudia *Evergreen, Ala*
M. A., University of Chicago
Cushman, Minnie May *Dubuque, Iowa*
B. A., State University of Iowa
Cutler, Mary Helen *Boston, Mass.*
M. A., Radcliffe College
Dana, Irene Brockway *Muskegon, Mich.*
B. S., Columbia University
Davies, Henry Richard *Richmond, Cal.*
B. A., University of Oregon
Davis, Charles Wesley *Memphis, Tenn.*
M. S., Iowa State College of Agriculture and Mechanic Arts
Davis, Winifred L. w l s *Madison*
B. S., Ohio Wesleyan University
Dean, Jeanette Grace *Kalamazoo, Mich.*
B. A., University of Michigan
Degeler, Alida *Milwaukee*
M. A., University of Wisconsin
Deming, Helen W. *Neillsville*
B. A., University of Wisconsin
DeMombron, Mary Pansy *Horse Cave, Ky.*
Ph. B., Greenville College
†Denman, P. James *Marshall, Ind.*
B. S., Earlham College

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Dennison, Jackson Belden — *Omslow, Ia.*
B. S., Lenox College
Desmond, Frank James — *Dunkirk, N. Y.*
B. S., Kalamazoo College
Dewald, Carl Coffman — *Tiffin, Ohio*
B. S., Heidelberg University
Dexter, Elise Forsythe g — *Madison*
B. A., University of Wisconsin
Dickes, Herman William — *Canton, O.*
B. A., Christian University
Dickinson, Mary Virginia — *Chicago, Ill.*
B. A., University of Wisconsin
Dickoré, Marie Paula g — *Madison*
M. A., University of Cincinnati
Doan, Martha — *Westfield, Ind.*
D. Sc., Cornell University
Dobbs, Zoe Malinda — *Talladega, Ala.*
B. A., Tuscaloosa Female College
Dodge, Florence Adele — *Madison*
M. A., University of Wisconsin
Dolch, Edward William — *St. Louis, Mo.*
B. A., Washington University
Doneghy, Dagmar — *Kirksville, Mo.*
B. A., University of Wisconsin
†Dorris, Johnathan Truman — *Mount Carmel, Ill.*
B. A., Illinois College
Dort, Blessie Elise — *Wichita, Kan.*
B. A., Fairmont College
Doyle, James Harold — *Madison*
M. A., University of Wisconsin
Drake, Harvey Stewart — *Juneau*
M. A., University of Wisconsin
Duggins, Myrtle Belle — *St. Louis, Mo.*
Ph. B., Marvin College
Dunbar, Merlin Malcom — *Bluffton, Ind.*
Ll. B., Indiana University
Duncan, Margaret Louise — *Joilet, Ill.*
B. A., Lake Forest College
Dunham, Amelia Hickenlooper — *Cincinnati, O.*
B. S., University of Cincinnati
Dunn, Fannie Wyche — *Farmville, Va.*
B. S., Columbia University
Dunn, May Vanancia — *Madison*
B. A., University of Wisconsin
Durfee, Winifred Hackley — *Holland, Mich.*
B. A., New York University
Dyer, Mildred — *Des Moines, Iowa*
B. A., Drake University
Earlle, Florence Muriel — *Greencastle, Ind.*
B. A., DePauw University

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Eastman, Clarence Winans — *Great Falls, Mont.*
B. S., University of Wisconsin
Eckert, Dana Zug — *Lebanon, Pa.*
B. S., University of Pittsburgh
Edinger, Lillian — *Laporte, Ind.*
B. A., Indiana University
Edwards, Frank Merle — *Fort Atkinson*
B. A., Oberlin College
Edwards, Martha Letitia — *Madison*
M. A., University of Wisconsin
Edwards, Murray French — *Lexington, Va.*
M. A., University of Wisconsin
Eichhorn, Anna Paulina — *Barnesville, O.*
Ph. B., University of Chicago
Ellwood, Sarah Maria — *Madison*
B. A., Greenville College
Elmendorf, Armin g — *Madison*
B. S., University of Illinois
Elmer, Jacob Ulrich — *Monroe*
B. S., Northwestern College
Elsen, Matt — *Winfield, Ill.*
B. A., Wheaton College
Ely, Elsie May — *West Toledo, O.*
B. A., Oberlin College
English, Mary Elsie — *Delaware, O.*
B. A., Ohio Wesleyan University
Erdmann, Henry Ernst — *Mitchell, S. D.*
B. S., South Dakota State College
Erf, Norma — *Bellevue, Ohio*
Pd. B., Michigan State Normal College
Esgate, Edith — *Marion, Ia.*
B. A., Cornell College
Essex, Low R. — *St. Louis, Mo.*
M. A., Washington University
Etter, Arthur Edward g — *Monroe*
B. A., University of Wisconsin
Evans, Julia Farwell — *Oak Park, Ill.*
B. A., Northwestern University
Ewalt, Clara Converse — *Hamilton, O.*
M. A., Ohio State University
Ewing, Elizabeth Learoyd m — *Madison*
M. A., University of Wisconsin
Eyerly, Elmer Kendall — *Vermillion, S. D.*
M. A., Franklin and Marshall
Eyring, Carl Ferdinand — *North Provo, Utah*
B. A., Brigham Young University
Farlow, Lilith M. — *West Middleton, Ind.*
B. A., Earlham College
Farman, Florence — *Lincoln, Neb.*
B. A., University of Nebraska
Fenton, Frederick Azel — *Willimantic, Conn.*
B. A., Clark College

Filsinger, Irma Louise — *St. Louis, Mo.*
B. A., Washington University
Finegan, Clive Malcolm — *Kirksville, Mo.*
B. A., Kirksville Missouri State Normal School
Finnegan, William Leo — *La Valle*
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Fischer, Christine — *St. Louis, Mo.*
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Fiske, George Foster — *Lake Forest, Ill.*
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†Flint, Rebecca Punchard — *Madison*
B. A., Wellesley College
Foglesong, Grace Eva — *Idaho Falls, Idaho*
Pd. B., New Mexico Normal School
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B. A., Vassar College
Foote, Lucy Dodds — *St. Louis, Mo.*
B. A., Park College
Foster, Guy Kenneth — *Youngstown, O.*
B. A., University of Missouri
Francis, Emma g — *Canton, O.*
B. S., Teachers College, Columbia University
Frank, Helen Lois — *Greenfield, O.*
B. A., Wellesley College
Frear, Marguerite — *Washington, D. C.*
B. A., University of Wisconsin
Freeman, Henry Alonzo — *Honea Path, S. C.*
B. S., Clemson Agricultural College
Freden, Gustof Efraim Natanael — *Nashville, Tenn.*
B. A., University of Stockholm
Fry, Henry Jacob — *Philadelphia, Pa.*
B. A., Muhlenberg College
Fry, Thornton Carl — *Madison*
M. A., University of Wisconsin
Fuchs, Gustave Otto — *Stanton, Neb.*
B. A., University of Nebraska
Fulmer, Henry g — *Batesburg, S. C.*
M. S., University of Wisconsin
Gardner, Max William g — *Princeton*
M. S., University of Wisconsin
Garey, Alva Edward g — *Edgerton*
B. A., Milton College
Garrett, Homer Lycurgus — *Eros, La.*
B. A., Louisiana State University
Garrett, Violetta Belle — *Lawrence, Kansas*
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Gehrand, Gustav William — *Madison*
Ph. B., University of Wisconsin

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B. A., Hiram College
Gibbons, Lois Oliphant — *Philadelphia, Pa.*
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Giddings, Levi Alexander — *Magnolia, Ia.*
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Gilman, Joseph Charles — *Madison*
Ph. D., Washington University
Glascock, Hardin Roads — *Muncie, Ind.*
B. A., Ohio Wesleyan University
Glyer, George Arthur — *Superior*
B. A., Carroll College
Goddard, Mabel — *Freeport, Ill.*
B. A., University of Wisconsin
Goggio, Charles — *Madison*
M. A., University of Wisconsin
Gonzalez, Bienvenido Maria g — *Apalit, Pampanga, P. I.*
M. S., University of Wisconsin
Goodall, Milo Blanchard — *Delton*
Ll. B., George Washington University
Goss, Alice Driven — *Bloomington, Ind.*
M. A., Indiana University
Gower, Ruth Frances — *Chippewa Falls*
B. A., Ripon College
Graff, Marshall Conant — *Elkhorn*
B. A., University of Wisconsin
Gray, George Harrison g — *Madison*
B. S., Massachusetts Institute of Technology
Greene, Mark H., g — *Madison*
B. S., Utah Agricultural College
Greene, Mary Elizabeth — *Evansville*
Ph. B., Greenville College
Greiner, Martha Nathalie — *Pella, Ia.*
M. A., University of Michigan
Greubel, Otto Washington — *Pittsburgh, Pa.*
M. A., University of Wisconsin
Griffin, Florence Adelia — *Fairdale, Ill.*
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Gruber, Charles Merl — *Albany, N. Y.*
Ph. D., Harvard University
Gutsch, Milton Rietow — *Austin, Tex.*
M. A., University of Wisconsin
Gutsche, Frank Carl — *Manhattan, Kan.*
B. S., University of Minnesota
Haesecke, Edith Frances — *St. Peter, Minn.*
B. A., Gustavus Adolphus College
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B. A., Princeton University

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B. A., Beloit College
Hamilton, Frederick Rutherford *Lawrence, Kans.*
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Hamilton, Maud g *Madison*
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Hanna, Claude Clark *Worthington, Ind.*
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Hanson, Josephine Helena *Mondovi*
B. A., Lawrence College
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Hardinger, Clerc Temple *Pattonsburg, Mo.*
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M. A., University of Wisconsin
Harrington, Evaline *Columbus, O.*
M. A., Ohio State University
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B. A., Missouri Valley College
Harrison, Ruth Frances *Marshall, Mo.*
B. A., Missouri Valley College
Hartung, Erwin *Detroit, Mich.*
B. A., University of Michigan
Hathaway, Edward Sturtevant *Greenville, Tenn.*
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B. A., Indiana State Normal College
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Ph. B., University of Wisconsin
Hein, William H. *Racine*
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B. A., Butler College
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B. A., Western College

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Herr, Sue M. — *La Grange, Ky.*
B. A., University of Louisville
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B. S., Mississippi Agricultural and Mechanical College
Herstein, Lillian — *Chicago, Ill.*
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Herzog, Emily Eugenie — *Massillon, O.*
B. A., Ohio Wesleyan University
Herzog, Otto Adam — *Osterdock, Ia.*
B. A., Wartburg College
Hicks, John Donald g — *Douglas, Wy.*
M. A., Northwestern University
Highsaw, James Leonard — *Memphis, Tenn.*
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B. S., Alabama Polytechnic Institute
Hill, Marguerite — *Richmond, Ind.*
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Hoover, William H. g — *Madison*
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B. A., University of Wisconsin
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Howard, Neal F. — *Madison*
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Howe, Joseph Edwin — *Chrisney, Ind.*
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Hsun, Swei — *Nanchang, China*
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Hughes, Alice Ethel — *Portland, Ore.*
B. A., St. Mary's College
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Hull, Leonard Clark g — *Madison*
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Ibsen, Heman Lauritz g — *Madison*
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B. S., Wilmington College
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Jenkins, Mary Elizabeth *Glenwood, N. C.*
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Johann, Helen *Canton, Mo.*
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John, Rex Kephart *Fairbault, Minn.*
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B. A., Oberlin College
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Ph. B., Western Reserve University
Jones, Maldwyn Lloyd g *Racine*
B. S., University of Wisconsin
Jones, Richard Uriah g *Madison*
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Jones, Silas l s *Eureka, Ill.*
B. A., Eureka College
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Kay, Madge *Chicago, Ill.*
B. S., University of Chicago
Keith, Wilma *Memphis, Tenn.*
B. A., Barnard College
Keller, Grace Harris *Madison*
M. A., Northwestern University
Kelley, Anne Bassett *Waupun*
B. A., Beloit College
Kelley, Frank James g *Madison*
B. S., University of Pennsylvania
Kelly, Nina *Cincinnati, O.*
B. A., University of Cincinnati

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Kendall, Calla Frances — *Byron, Minn.*
B. A., Carleton College
Kennebrew, Elizabeth Billups — *Columbus, Miss.*
B. A., Industrial Institute and College
Kenngott, Alfred — *St. Louis, Mo.*
M. A., Washington University
Kietzman, Franklin Adolph — *Sandwich, Ill.*
B. S., Northwestern College
Kinney, Samuel Marks g — *Madison*
B. A., Oberlin College
Kliewer, Johann Carl — *Burton, Kans.*
M. A., University of Kansas
Knappen, Russell Stafford — *Madison*
B. S., Ohio Wesleyan University
Knipprath, George Frank — *Omaha, Nebr.*
B. A., Beloit College
Knutsen, Martin Halvor g — *Ridgeway*
B. S., University of Wisconsin
Koenig, Alfred Edmund — *Minneapolis, Minn.*
M. A., University of Minnesota
Kratli, William Frank — *Knox, Ind.*
B. A., Indiana University
Krausnick, Gertrude — *St. Louis, Mo.*
B. A., Washington University
Kremer, Anna Margaret — *Detroit, Mich.*
B. A., University of Michigan
Krienke, Edmund Otto — *Hawkins*
Ph. B., University of Wisconsin
Krummel, Charles Albert — *Altamont, Ill.*
Ph. M., Syracuse University
†Krusé, Samuel Andrew — *College Station, Tex.*
M. A., University of Wisconsin
Kwank Sen Zung — *Shanghai, China*
B. S., Cornell University
Kyner, Karl H. — *Pioneer, Ohio*
B. S., Tri State College
Ladd, Robert Mark — *Elgin, Ill.*
B. S., Ohio Wesleyan University
Laing, Royden Arthur — *Hixton*
B. A., Carroll College
Lamberton, Agnes Ruth — *Redwood Falls, Minn.*
B. A. Carleton College
LaMotte, Frank Linton g — *Baltimore, Md.*
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Lane, May Rogers — *Chevy Chase, Md.*
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Lang, Helen Rose — *Indianapolis, Ind.*
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Langworthy, Amy Eunice — *Leavenworth, Kans.*
B. A., University of Kansas

Larsen, Arthur William — *St. Paul, Minn.*
B. A., University of Wisconsin

Larsen, Harvey Earl — *Clintonville*
B. A., Ripon College

Larson, Ada Margaret — *Oak Park, Ill.*
Ph. B., Grinnell College

Larson, Arthur Quentin — *Oak Park, Ill.*
B. A., State University of Iowa

Larson, Selmar Christopher — *Forest City, Iowa*
B. A., St. Olaf College

Laurence, Jeannette Laura — *Fremont, Nebr.*
B. A., University of Nebraska

Lear, John Emery — *Northfield, Vt.*
E. E., Texas Agricultural and Mechanical College

Lebert, Eugene M. g — *Madison*
M. A., University of Wisconsin

Lee, John Samuel — *Forest City, Pa.*
M. A., Oskaloosa College

Leedy, John Wentworth g — *University Park, Iowa*
B. S., University of Minnesota

Lehmiller, Ruth — *Canton, O.*
B. A., Wilson College

Lepley, Frederick Oliver — *Madison*
B. A., Oberlin College

Leufgren, Gunmar Julius — *Wimbledon, N. D.*
B. A., Boston University

Liebmann, Lotta Beetrix — *Reedsburg*
B. A., Ripon College

Lind, Frances Clara — *Canal Dover, O.*
Ph. B., Wooster College

Little, Roy Clarence — *Carthage, Ill.*
B. A., Carthage College

Little, William Herbert — *Hickory, N. C.*
M. A., Lenoir College

Loeper, Addie W. — *Prairie du Chien*
B. A., University of Wisconsin

Loughlin, Rosemary g — *Cherokee, Ia.*
B. A., State University of Iowa

Lyman, Richard Dana — *Chicago, Ill.*
B. A., Harvard University

Lyon, Leslie Walter — *Burlington, Ia.*
B. A., Wheaton College

McCarter, John K. — *Pimento, Ind.*
B. A., Indiana State Normal

McCarty, Leslie Combes — *Preston, Minn.*
B. A., Indiana University

†McClintock, Robert David — *LaJunta, Colo.*
B. A., Geneva College
McConnell, Elizabeth — *Madison*
B. S., University of Chicago
McConnell, Wallace Robert — *Platteville*
B. A., University of Illinois
McCormick, Ada May — *Cleveland, O.*
B. A., Hiram College
McDaniel, Maude — *St. Joseph, Mo.*
M. A., University of Wisconsin
MacGarr, Katherine Llewellyn l s — *Sandy Lake, Pa.*
B. S., Ohio Northern University
McGinnis, Mary Ola — *Springfield, Ill.*
M. A., University of Illinois
MacGregor, Ford H. g — *Madison*
M. A., University of Wisconsin
McKee, Madge — *Kewaunee, Ill.*
B. A., Indiana University
MacKinney, Loren Carey — *Milwaukee*
B. A., Lawrence College
McKittrick, Leland Sterling g m — *Eau Claire*
B. S., University of Wisconsin
McLeod, John Hoyne — *Fayetteville, Ark.*
B. S., Texas Agricultural and Mechanical College
Macintosh, Elsie — *Hays, Kansas*
B. S., Fort Hayes Kansas State Normal School
Mack, Katherine — *Canton, O.*
Ph. B., Denison University
Major, David Maggard — *Polytechnic, Tex.*
B. A., Polytechnic College
Manahan, William Leonard — *Belle Center, O.*
B. A., Ohio Northern University
Mangum, Autrey William — *Luka, Miss.*
B. S., University of Mississippi
Mann, Albert Z. — *Lawrence, Ind.*
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Marsh, Jennette Eliza — *Eau Claire*
Ph. B., Oberlin College
Marshall, Irene — *Lead, S. D.*
B. A., Simpson College
Marshall, Lucile Mary — *Marion, Ia.*
B. A., University of Montana
Marshall, Tirza May — *Pittsburgh, Pa.*
B. S., Grove City College
Martin, Florence M. — *Joliet, Ill.*
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Martin, Henry Arthur — *Fond du Lac*
B. A., Carroll College
Martin, Hilmar George g. m — *Milwaukee*
B. A., University of Wisconsin

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Mattson, Olive May — *Chicago, Ill.*
B. A., University of Illinois
Mehlig, Lee Percy g m — *Madison*
B. S., University of Wisconsin
Melby, Sigurd — *Madison*
B. A., Augsburg Seminary
Melville, Andrew Hutton — *Oshkosh*
Ph. B., University of Wisconsin
Menge, Edward John — *Fond du Lac*
B. A., University of Dallas
Mersereau, Edward Burkhart — *Beaver Dam*
Ph. B., Baylor University
†Mewaldt, Nathanael Herman — *Kaukana*
M. A., University of Wisconsin
Meyer, Dorothea Anna — *Parkville, Mo.*
B. A., Park College
Middleton, Edna Mae — *Unionville, Mo.*
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Miller, Clara Hedges — *Logan, Ia.*
B. A., University of Nebraska
†Miller, Edgar Allan — *Pataskala, O.*
B. A., Ohio State University
Miller, Jessie Fay — *Gilman, Ill.*
M. A., University of Illinois
Miller, Marie Blanche — *Leavenworth, Kans.*
B. A., University of Kansas
Miller, Mary Georgeanna — *Koshkonong, Mo.*
B. S., Iowa State College
Miller, Maude g — *Madison*
B. A., University of Wisconsin
Millner, Samuel Moorehead g — *Danville, Va.*
B. S., Virginia Military Institute
Mills, Albert Payne — *Albany, New York*
M. A., Hamilton College
Minsart, Anton — *Green Bay*
B. A., University of Wisconsin
Mitchell, Morton Leslie — *Webster City, Iowa*
B. A., Simpson College
Mitzenberg, Frances Katharine — *Columbus, O.*
B. A., Ohio State University
Mohaupt, Arthur G. — *Milwaukee*
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Monroe, Noel Gates — *Spooner*
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Moore, Charles Ellet g — *Berryville, Va.*
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Moore, George Elkington — *Madison*
B. S., University of Wisconsin
Moore, Milton Donaldson — *Washington, D. C.*
B. A., George Washington University
Moore, Ruth Mary — *Area, Ill.*
B. A., Northwestern University
Morgan, DeWitte Schuyler g — *Tulsa, Okla.*
B. A., Henry Kendall College
Morgan, John William — *Madison*
B. A., Richmond College
Morris, Olive Christine g — *Minneapolis, Minn.*
Ph. B., Syracuse University
Morse, Max — *Madison*
Ph. D., Columbia University
Mosher, Orville Watson — *New Richmond*
B. L., Princeton University
Muench, Alice Frances — *St. Louis, Mo.*
B. A., Washington University
Murphy, Ray V. — *Manhattan, Kans.*
B. S., Illinois Wesleyan University
Murray, Frances Josephine g — *Madison*
B. A., University of Wisconsin
Mussehl, Frederick Otto — *Madison*
Ph. B., University of Wisconsin
†Mutch, James C. — *Ripon*
B. A., Ripon College
Muttkowski, Richard Anthony g — *Milwaukee*
B. A., University of Wisconsin
Myrick, Donald — *Springfield, Mass.*
B. L., Princeton University
Nash, Francis Ralph — *Waupun*
Ph. B., University of Wisconsin
Nash, Leo — *Grand Rapids*
B. A., University of Wisconsin
Neff, Isaac Franklin — *Des Moines, Ia.*
M. S., Drake University
Nelson, Agnes — *Washington, D. C.*
B. A., George Washington University
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Ph. D., University of Wisconsin
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B. S., Kansas State Agricultural College
Nugent, Milton Benjamin *Elnora, Ind.*
B. A., Indiana State Normal College
Odegard, Sigurd Louis *Madison*
B. A., University of Wisconsin
Odell, Arthur Allen *Champaign, Ill.*
B. A., University of Illinois
Oksamen, Otto William *Brule*
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B. A., Hanover College
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Owen, Maude Olivia *Clinton, Mo.*
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Paine, Catherine *Lake View, Ia.*
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Pate, Henry Oscar *Agricultural College*
M. S., Mississippi Agricultural and Mechanical College
Patterson, Percival P. *Pewaukee*
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Paul, Joseph B. g *Madison*
M. A., University of Wisconsin
Paul, Mary Helen *Milton Junction*
B. A., Milton College

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B. A., University of Wisconsin

Perkins, Mary Louise — *Cincinnati, O.*
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Perley, Mary Elizabeth — *Fargo, N. D.*
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Perry, Hazel Belle — *Elgin, Ill.*
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Peterson, Gudmund — *Minneota, Minn.*
B. A., Michigan State Normal College

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Pfeiffer, Charles Albert — *Plymouth*
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Phillips, Henry L. — *St. Louis, Mo.*
B. S., University of Pennsylvania

Phillips, Nathan Harley — *North Girard, Pa.*
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Pickel, Ruth — *Kirkwood, Mo.*
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Pierce, Harrison Morton — *Milton*
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M. A., Central College

Pietenpol, W. Brasser g — *Waupun*
M. A., University of Wisconsin

Pinkle, Emma Bertha — *Massilon, O.*
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Pinkston, Eleanor Almira — *Greenville, Ga.*
B. A., Agnes Scott College

Piper, Homer Allen — *Madison*
B. S., University of Wisconsin

Pixler, John Van Fleet — *Rockford, O.*
B. A., Miami University

Plaisance, Sarah de Maupassant — *New Orleans, La.*
M. A., University of Colorado

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Polk, Alma Burnett — *New Vienna, O.*
B. A., Miami University
Pollard, Luther John — *Madison*
M. A., University of Wisconsin
Pollock, Willits — *Milwaukee*
Ph. B., University of Wisconsin
Post, Beulah Celecta — *Madison*
M. A., University of Wisconsin
Post, Katherine Demarest — *Duluth, Minn.*
B. L., University of Wisconsin
Pound, Joseph Horace — *Hannibal, Mo.*
B. S., University of Missouri
Powers, Marion Louise — *Grand Rapids, Mich.*
B. A., University of Michigan
Prentice, Lloyd Greenleaf — *Magnolia, Ark.*
B. S., Mississippi Agricultural and Mechanical College
Pressentine, Marie Louise — *Madison*
B. A., University of Wisconsin
Pressley, Elias Hardin — *Chester, S. C.*
B. S., Clemson College
Price, Elizabeth Johnson — *Mexico, Mo.*
B. A., Hardin College
Price, Neil — *Almont, Mich.*
B. A., Olivet College
Prucha, Edward Joseph — *Mishicot*
B. S., University of Wisconsin
Pugh, Grace Madeline — *Madison*
B. A., University of Wisconsin
Raaen, Aagot — *Hatton, N. D.*
B. A., University of Wisconsin
Raddatz, William Godfrey g — *Madison*
B. A., Lawrence College
Rakshit, Hemendra Kisor g — *Dacca, Bengal, India*
B. A., University of Wisconsin
Rands, Robert Delafield g — *Madison*
M. S., University of Wisconsin
Rankin, John Owen — *Madison*
M. A., George Washington University
Rawson, Harry C. — *Beloit*
B. A., Olivet College
Reel, Stella M. — *Columbus, O.*
M. A., Ohio State University
Reid, Dwight Logan — *Aberdeen, S. D.*
B. A., University of Wisconsin
Reid, Margaret — *Clinton, Ia.*
B. A., Cornell College
Reid, Mary Elizabeth — *Oconomowoc*
B. A., University of Wisconsin
Reid, Samuel Fraser — *Abbeville, S. C.*
B. S., Clemson College
Reinhart, George Stanley — *Toledo, O.*
B. A., University of Wisconsin

Reitz, Carrie Jean — *Madison*
B. A., University of Wisconsin
Resor, Elsie Annie — *Kahoka, Mo.*
B. A., University of Missouri
Reutsch, Anna Mary — *Pittsburgh, Pa.*
B. A., University of Pittsburg
Reynolds, Maude Elizabeth — *Richmond, Ind.*
B. A., Earlham College
Rice, Caroline Montgomery — *Peoria, Ill.*
B. A., University of Chicago
Richardson, Olive — *Menasha*
B. A., Lawrence College
Richmond, Mildred Ella — *Geneseo, Ill.*
B. A., University of Michigan
Rider, William Morrison — *Syracuse, N. Y.*
B. S., Michigan Agricultural College
Rieder, Rudolph Theodor — *Seattle, Wash.*
B. A., University of Wisconsin
Riley, John William — *Hayward*
Ph. B., University of Wisconsin
Roark, Eugene Washburn g — *Madison*
M. S., University of Wisconsin
Roberts, Elizabeth Mae — *Meadville, Pa.*
B. A., Allegheny College
Roberts, Harold Stine g — *Merchantville, N. J.*
M. A., Princeton University
Roberts, Lucy George g — *Berea, Ky.*
M. A., University of Wisconsin
Robinson, Agnes L. — *Council Bluffs, Ia.*
Ph. B., State University of Iowa
Robinson, Grace May — *Gilman, Ill.*
B. A., University of Illinois
Roecker, William Frederick — *Madison*
Ph. B., University of Wisconsin
Rogers, Bertha Mabel — *Pittsburgh, Pa.*
B. A., Oberlin College
Rollman, Hulda Z. — *St. Louis, Mo.*
B. S., University of Missouri
Rollman, Jane Mathilde — *St. Louis, Mo.*
B. S., University of Missouri
Roseman, William Packard — *La Crosse*
Ph. B., University of Wisconsin
Rosen, Harry Robert — *Madison*
M. S., University of Wisconsin
Ross, Mary Elizabeth — *Buffalo, N. Y.*
B. A., Vassar College
Rossberg-Leipnitz, Elizabeth — *Madison*
B. A., University of Wisconsin
Rowe, Morris Henry — *Madison*
B. A., Beloit College
Roxas, Manuel Luz g — *Lipa, P. I.*
M. S., University of the Philippines

Rucker, Maria — *Terre Haute, Ind*
B. A., Indiana State Normal School
Rundstrom, Inez Celina — *St. Peter, Minn.*
Ph. D., Augustana College
Runyan, Lillie Stuart — *St. Louis, Mo.*
B. A., University of Missouri
Runzler, Arthur Charles — *Milwaukee*
B. A., University of Wisconsin
Runzler, William Theodore — *Milwaukee*
M. A., Harvard University
Rupert, Frank Everett — *Geneva, N. Y.*
B. S., University of Michigan
Russell, Adelaide Towel — *Cape Girardeau, Mo.*
B. Pd., Missouri State Normal
Rutledge, Ralph Merrell, g — *Corvallis, Ore.*
B. S., Oregon Agricultural College
Ryan, Gertrude Eva g — *Dubuque, Ia.*
B. A., Vassar College
Salstrom, Mary Magdeline — *Rockford, Ill.*
B. A., University of Michigan
Saltus, Charles Napoleon — *Sterling, Colo.*
B. A., Colorado State Teachers College
Sanders, Stella Elsie — *Hillsboro, Ind.*
B. A., DePauw University
Sargent, Harvey Owen — *Hamilton, Ala.*
M. S., Alabama Polytechnic Institute
Sawtelle, Donald Wing — *Madison*
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Sayre, Ralph — *Madison*
B. S., Beloit College
Schaal, Albert Amiel g — *Cassville*
B. S., University of Wisconsin
Schaeffer, Paul Biglow — *Juda*
B. A., University of Kansas
Schalkhausser, Erich George — *Logansville*
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Schellschmidt, Olga — *Indianapolis, Ind.*
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B. S., Grinnell College
Schlater, Edith Louise — *Anderson, Ind.*
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Schmidt, Gustavus Adolphus — *Dubuque, Ia.*
B. A., University of Illinois
Schmitz, Sylvester — *Atchison, Kans.*
Ph. B., St. John's University
Schneider, Clara Beth — *Canton, O.*
B. L., Western Reserve University
Schneider, Flora Ruth — *Canton, O*
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Schoeninger, Amelia — *Akron, O.*
B. A., Municipal University of Akron
Schoeninger, Anna Bertha — *Akron, O.*
B. A., Municipal University of Akron
Schorer, Oscar Charles — *Plymouth*
B. A., University of Wisconsin
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Schuler, Dominic H. — *Milwaukee*
B. S., University of Wisconsin
Schuler, Margaret Mary — *Milwaukee*
B. A., University of Wisconsin
Schuster, Matilda Katherine — *Lakewood, O.*
B. A., Western Reserve University
Schwalbe, Gertrude Helen — *Milwaukee*
Ph. B., University of Wisconsin
Schweitzer, Louise — *Grand Rapids, Mich.*
B. A., University of Michigan
Scoles, Dwight L. — *Monroe*
B. S., Berea College
Scoon, Helen Louise — *Superior*
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Seawright, Wilmer Hamilton — *New Brighton, Pa.*
Ph. B., Mount Union College
Sessinghaus, Bertha Charlotte — *St. Louis, Mo.*
B. A., Washington University
Seybolt, Ottilie g — *Madison*
M. A., University of Wisconsin
Seyster, Oscar Barton — *Concordia, Kas.*
M. A., University of Kansas
Shaw, George Robert — *Frederick, Md.*
B. A., Washington and Lee University
Sheafor, Jean Thomas — *Richland Center*
B. A., University of Wisconsin
Sheets, Olive Amy — *Columbus, O.*
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Shillinglaw, Hazel Dorothy — *Cedar Falls, Ia.*
B. A., Iowa State Teachers College
Shine, Mary Lambert — *Newport, Ky.*
M. A., University of Cincinnati
Shire, Ann Matilda — *Kansas City, Mo.*
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Shower, Albert Edward — *Chicago, Ill.*
M. A., University of Chicago
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Simon, Hollis B. — *Norfolk, Nebr.*
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B. A., Northwestern University
Simpson, Herbert Downs g — *Madison*
M. A., Princeton University

Sister Camillus — *Sinsinawa*
B. A., Washington University
Sister Mary Coronata — *Sinsinawa*
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Sister Mary Fidelis g — *Madison*
B. A., University of Wisconsin
Slagle, Lorenzo Ozro — *Lebanon, Ind.*
B. A., Indiana University
Slivka, John — *Cleveland, O.*
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Sloan, Sam Berkley — *Iowa City, Ia.*
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Smiley, Virgil Dowe — *Franklin, Ind.*
B. S., Franklin College
Smith, Glenn Charles — *Iowa Falls, Ia.*
B. A., Ellsworth College
Smith, John Earl — *Lawrenceburg, Ind.*
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Smith, Justine Mabel — *Lake Forest, Ill.*
B. A., Lake Forest College
Smith, Marie Louise — *Milwaukee*
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Smith, Walter Forrest — *Marshfield*
B. S., Knox College
Smithey, William Royall — *Harrisonburg, Va*
M. A., Randolph Macon College
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B. A., Lafayette College
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B. S., Purdue University
Sorenson, Ray — *Rhinelander*
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Soutar, Richard Gray — *Lake Geneva*
B. A., University of Wisconsin
Sparks, Lillian May — *Marshall, Mo.*
Ph. B., Warrensburg, Missouri, State Normal School
Spillman, Ramsey — *Washington, D. C.*
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Springsteed, Clara Belle — *Albany, N. Y.*
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Spurgin, William Herbert — *Bloomington, Ill.*
B. S., Illinois Wesleyan University
Stanton, Alvord Cooper — *Richview, Ill.*
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Stanton, Homer Lester — *Muncie, Ind.*
B. S., Adrian College
Starbird, Myrtle — *Chicago, Ill.*
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Starkey, Lawrence Vincent — *Ravenswood, W. Va.*
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Stephens, Charles Robert — *Syracuse, N. Y.*
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Stoll, Charles August — *Evansville*
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Stoll, Emma Baldwin — *Evansville*
Ph. B., Greenville College
Stout, Helen Louise — *Kansas City, Mo.*
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B. S., Milwaukee Downer College
†Straw, Olive Eleanor — *Dixon, Ill.*
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Stringer, Caroline Effie — *Omaha, Neb.*
M. A., University of Nebraska
Stringer, Caroline Effie — *Omaha, Neb.*
M. A., University of Nebraska
Stuckert, John Frederic — *La Crosse*
B. A., University of Wisconsin
Struck, Charles Mengel — *Louisville, Ky.*
B. S., Rose Polytechnic Institute
Sunderlin, Ralph J. — *Bird Island, Minn.*
B. S., Iowa State College
Sutherland, Margaret g — *Eau Claire*
Ph. M., University of Wisconsin
Sutherland, William Anderson — *Jacksonville, Fla.*
B. A., University of Virginia
Swanson, Inez Florence — *Elkhart, Ind.*
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Syftestad, Anna Emelia — *Madison*
B. A., University of Wisconsin
Taylor, Emma Hazel — *Chicago, Ill.*
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Taylor, John Wills — *Linden*
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Teeters, William Ray — *Anderson, Ind.*
B. A., Indiana University
Teetzel, Clayton Trym — *Logan, Utah*
LL. B., University of Michigan
Terry, Ella Lou — *Columbus, Miss.*
B. S., University of Nashville
Teter, John Worth — *Sheridan, Ind.*
B. A., Indiana University
Tetlow, Frances Howard — *Brookline, Mass.*
B. A., Radcliffe College
Theobald, Harold Stephen — *Sheboygan Falls*
B. S., Beloit College
Thomas, Berkeley John — *Chicago, Ill.*
M. A., Emory and Henry College
Thomas, Ethel May — *Superior*
B. A., University of Wisconsin
Thomas, Iva Louise — *Kansas City, Mo.*
B. S., University of Missouri
Thompson, Earnest Elizah — *Alexandria, S. D.*
B. S., Dakota Wesleyan University
Thompson, Olive — *Jamaica, N. Y.*
B. A., Columbia University
Thornton, Richard Hurt — *Chapel Hill, N. C.*
M. A., Columbia University
Thornton, Ruby Clarke — *Atchinson, Kans.*
B. A., University of Kansas
Tiefenthaler, Gustave Edward — *Milwaukee*
LL. B., Marquette University
Tillett, Kate Schoolfield — *Nashville, Tenn.*
M. A., University of Wisconsin
Tisdale, Wendell Holmes g — *Bluff Springs, Fla.*
B. S., Alabama Polytechnic Institute
Tomlinson, Willard Pyle — *Swarthmore, Pa.*
M. A., Harvard University
Toner, Winifred — *St. Louis, Mo.*
B. S., University of Missouri
Toole, Eben Henry g — *Madison*
B. A., University of Wisconsin
Torr, Minnie Almeda — *Greencastle, Ind.*
Ph. B., DePauw University
Towneley, Ruth — *Pittsburgh, Pa.*
B. A., Allegheny College
Treakle, Helen E. — *Madison*
B. A., University of Wisconsin
Trent, Ray Shearer — *Madison*
B. A., Emory and Henry College
Tucker, Agnes Young — *Wausau*
Ph. B., University of Wisconsin

Tucker, Robert H. — *Danville, Va.*
M. A., William and Mary College
Turner, Clarence Lester g — *Milwaukee*
M. A., Ohio Wesleyan University
Tyrrell, Helen Christmas — *Milwaukee*
B. A., University of Wisconsin
Uhlendorf, Bernhard Alexander — *St. Louis, Mo.*
B. A., Washington University
Ullrich, Laura Foster — *Evanston, Ill.*
M. A., Northwestern University
Vaughan, James Elisha — *Alliance, O.*
B. A., Mount Union College
Vickroy, Wilhelm Rees — *St. Louis, Mo.*
Ph. B., Washington University
Volkman, Hilda Caroline — *Madison*
B. A., University of Wisconsin
Wade, Mabel — *Sherburne, N. Y.*
B. A., New York State College for Teachers
Wade, Mabel — *Wauwautosa*
B. S., Beloit College
Walker, Adam Alexander — *Albany, N. Y.*
M. A., University of Wisconsin
Walker, Anita J. — *Dowagiac, Mich.*
B. A., Kalamazoo College
Walker, J. Charles g — *Madison*
M. S., University of Wisconsin
Walrath, Abbie J. — *Lebanon, Ill.*
B. A., McKendree College
Wanner, Theo. Louis g — *Fargo, N. D.*
M. A., Hamline University
Warburton, Lucy Allen — *Williamsburg, Va.*
B. S., Columbia University
Ward, Audley Hoffman — *Timmonsville, S. C.*
B. S., Clemens College
Ward, Emma Johnson — *Los Angeles, Cal.*
B. A., University of Wisconsin
Warner, Paul J. — *Beaver Dam*
B. S., Baldwin-Wallace College
Warren, Mary Eulalia — *Jackson, Tenn.*
B. A., Memphis Conference Female Institute
Waterbor, George Raymond — *Easton, Pa.*
B. A., Lafayette College
Watson, George Locke — *Colorado Springs, Colo.*
B. A., University of Wisconsin
Watts, Claude Harrison — *Saunemin, Ill.*
B. A., University of Illinois
Way, James Earl — *Mt. Cory, O.*
B. S., Ohio Northern University
Weber, Mary Amalia — *Pana, Ill.*
B. A., University of Michigan
Wedeking, Albert Jesse — *Dale, Ind.*
M. A., Indiana University

Weems, Edna Mahala — *Fullerton, Nebr.*
B. A., University of Nebraska
Weiss, Florence Marie — *Madison*
B. S., University of Wisconsin
Wells, Agnes Ermina — *Saginaw, Mich.*
B. A., University of Michigan
Weniger, Wanda g — *Milwaukee*
B. S., Oregon Agricultural College
Werner, Raymond Clarence — *Milwaukee*
B. A., University of Wisconsin
Wetmore, Mary Rhoda g — *Allegan, Mich.*
M. D., University of Michigan
Whinnery, Karl E. — *Akron, O.*
Ph. B., Mount Union College
White, Elizabeth B. — *Gettysburg, Pa.*
B. A., Cornell University
White, Horace Loring — *Fargo, N. D.*
M. A., Columbia University
White, Irvin Arnold — *Antigo*
B. A., University of Wisconsin
Whitehouse, James William — *Berea, Ky.*
B. S., University of Kentucky
Whitson, Walter Wilkin — *Rockaway, N. Y.*
M. A., Haverford College
Wichers, Wynand — *Holland, Mich.*
B. A., Hope College
Wickhem, Elizabeth Marie — *Beloit*
B. A., Beloit College
Wickhem, Valerie Catherine — *Beloit*
B. A., Beloit College
Wiebe, Hermann H. g — *Beatrice, Nebr.*
B. A., Nebraska University
Wilbur, Eleanor — *Milton*
B. A., Milton College
Wildish, James Elmer — *Kansas City, Mo.*
B. A., University of Missouri
Wiley, Gertrude — *Arkansas City, Kans.*
B. A., University of Kansas
Williams, Anna Frances — *Madison*
B. A., University of Wisconsin
Wilson, Mabel Margaret l s — *Green City, Mo.*
B. A., Kirksville Mo. State Normal School
Wilson, Ruth — *Milton*
B. A., Lawrence College
Wilson, Sarah Edna — *Chicago, Ill.*
B. A., Wheaton College
Winger, Reinhard Conrad — *DePere*
Ph. B., University of Wisconsin
Winslow, Joseph Charles — *Omro*
B. A., University of Wisconsin
Wisewell, George Ellas — *Beloit*
M. A. Johns Hopkins University

Wissler, William Oscar — *Richmond, Ind.*
B. A., Earlham College
Witmer Samuel Wenger — *Sondersburg, Pa.*
B. A., Goshen College
Witte, Edwin Emil g — *Watertown*
B. A., University of Wisconsin
Wolcott, Grace Geer — *Oshkosh*
B. S., Washburn College
Wolf, George Paul — *Wahpeton, S. D.*
M. A., University of Wisconsin
Woodbridge Dudley g — *Duluth, Minn.*
B. L., Mount Holyoke College
Woodmansee, Wilson Robb — *Ripon*
M. A., University of Wisconsin
Woodworth, Clyde Melvin g — *Madison*
M. S., University of Wisconsin
Woodworth, Spencer Wyndham — *Cataract*
B. A., Lawrence College
Worthington, Asenath Drucilla — *Beloit*
B. A., Beloit College
Wright, Andrew Hamilton g — *Fowler, Kans.*
B. S., Kansas Agricultural College
Wright, Frank Lee — *Madison*
B. A., Kansas State Normal College
Wright, William Harmon — *Madison*
M. S., University of Wisconsin
Young, Gertrude Stickney — *Sioux Falls, S. D.*
B. A., University of Wisconsin
Young, Kwang Pi g — *Tientsin, China*
B. S., University of Wisconsin
Young, Marvin Hooper — *College Station, Tex.*
B. S., University of Texas
Young, Robert Vivian — *Beaver Dam*
B. A., Ripon College
Young, Vive Hall g — *Madison*
Ph. M., University of Wisconsin
†Young, Wilmer J. — *Springville, Ia.*
B. S., Haverford College
Zimmerman, Elisabeth — *Kalamazoo, Mich.*
B. A., University of Michigan
Zimmerman, Robert Paul — *Chilton, Tex.*
B. A., University of Illinois
Zürcher, Emilie — *Canton, O.*
M. A., Western Reserve University

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UNDERGRADUATES AND TEACHERS

College of Letters and Science

Abbott, Harry Franklin	*Paragon, Ind.*
Acker, Ruth Dorothy	*Fayette, Ohio*
Adair, Samuel Lee	*Quincy, Ill.*
Adams, Adelaide Angela ls	*Milwaukee*
Adams, Marjorie Mae ls	*Chicago, Ill.*
Ader, Ola Cleo	*Kirksville, Mo.*
Adler, John Henry ls	*Milwaukee*
Aikins, John Thomas ls	*Viroqua*
Albright, Raymond William ls	*Milwaukee*
Allen, Lilla May	*Benton*
Allen, Thurma Marguerite	*Laurens, Ia.*
Almy, Hubert Claire	*River Falls*
Alton, Helene Marguerite	*Fremont, Mich.*
Altpeter, Mabel Gerdena	*Chicago, Ill.*
Altpeter, Ohpelia	*Milwaukee*
Ames, Marian Ellen	*Viola*
Ames, Walter Ray ls	*Viola*
Anderson, Clifford N.	*Scandianavia*
Anderson, Earl Canute ls	*Grantsburg*
Anderson, John Willard	*Galesburg, Ill.*
Anderson, Luella	*Muncie, Ind.*
Anderson, Mary	*Bellevue, Pa.*
Anspaugh, Ruth Elnora	*Mount Pleasant, Mich.*
Antelman, Marion Lucy	*Superior*
Appleyard, George Seaborne ls	*Ashland*
Armstrong, Matilda Teresa	*Cincinnati, O.*
Arnold, Walter Jacob	*Menominee Falls*
Arzberger, Ida Barbara	*Helenville*
Ashby, Helen Sarah	*Evansville, Ind.*
Ashley, Lawrence Floyd	*Ladysmith*
Astell, Mollie	*Madison*
Atwood, Fannie Elizabeth ls	*Madison*
Aufderheide, Elizabeth Marie	*Toledo, O.*
Ausman, Gladys Magdalena ls	*Eau Claire*
Axtell, Lee Reuben	*Rockford, Ill.*
Aylward, Thomas James	*Oconomowoc*
Bachhuber, Carl Alvin ls	*Mayville*
Baer, Hilda	*Milwaukee*
Bagley, John Earl	*New London*
Bailey, Rex Deeden	*Elmwood, Neb.*
Baker, Beatrice ls	*West Bend*
Baker, Charles William	*Muscatine, Ia.*
Baker, Elizabeth g	*Oconomowoc*
Baker, Elizabeth ls	*Evansville*
Baker, Jessie	*Kansas City, Mo.*
Ballard, Abbie Erminie ls	*Milwaukee*

Bancroft, June Seifried	*Cincinnati, O.*
Bangsberg, Myrtle Othilda	*La Crosse*
Barker, Robert Isaac ls	*Boscobel*
Barnebey, Ethel Edessa ls	*Madison*
Barnes, Cyrus C.	*Emporia, Kans.*
Barnes, John Jr.	*Madison*
Barnes, Roy Hassett	*Quincy, Ill.*
Barnett, Frank Frees	*McCook, Neb.*
Barnett, Margaret Sarah	*Neenah*
Barnett, Anna Emma	*Rowley, Ia.*
Barto, Harriet Thompson	*Urbana, Ill.*
Bassford, George Ainslee	*Algoma*
Batman, Nancy Miles	*Louisville, Ky.*
Bayler, Clarence Elton	*Zion City, Ill.*
Beach, Bertha	*Madison*
Beach, Maud May	*Springfield, Ill.*
Bechtold, Margaret	*Atchison, Kans.*
Beck, Rena Belle	*Madison*
Beck, Victor Van ls	*Madison*
Beebe, Sarah Irene	*Beloit*
Beecher, Alice Dorothy	*Peoria, Ill.*
Behrens, Henry Adolph	*East St. Louis, Ill.*
Belgum, Bernard N.	*Manitowoc*
Belknap, Charlotte Louise	*Waukesha*
Bell, Donald Chesbrough ls	*Madison*
Bender, Lloyd Lantzer	*Sioux Falls, S. D.*
Bender, Lola Fae	*Kent, Ill.*
Berg, Elnora Mildred	*Madison*
Berryman, Lena Mabel	*Fredericktown, Mo.*
Bess, Ada	*Hamilton, O.* ,
Beyer, Bert John ls	*Milwaukee*
Bicknell, Helen Chase	*Omaha, Neb.*
Bill, Edward Lyman ls	*New Rochelle, N. Y.*
Bill, Hester ls	*New Rochelle, N. Y.*
Binzel, Cora Ellen	*Beaver Dam*
Birdsell, Dorothea Elizabeth	*Antigo*
Bischoff, Lenora Lena mu	*Madison*
Bishop, Bernice Olive	*Portland, Ind.*
Bishop, Lawson Waterman ls	*Mallet Creek, O.*
Bitker, Bruno Voltaire ls	*Milwaukee*
Blackmun, Jay W. ls	*Springfield, Minn.*
Blair, Helen Irene	*Russiaville, Ind.*
Blanding, Pearl	*St. Croix Falls*
Blanton, Margaret Gray	*Madison*
Blazer, Richard Rockingham	*Beloit*
Blumenfeld, Franklin David ls	*Madison*
Bobbs, Julian	*Indianapolis, Ind.*
Bodden, Isabelle ls	*Milwaukee*
Bodenstein, Margaret Frances	*Madison*
Boelte, Leda Henrietta ls	*Columbus*
Bohan, Mary Zilpha ls	*Avoca*
Boles, Marion Augusta	*Wausau*
Bonar, Barnet E. ls m	*Madison*

Bond, Harry William ls m	*Wheeling, W. Va.*
Bonfoey, Jennie Prudence	*Milwaukee*
Bonzelet, Mary Augusta	*Madison*
Borden, Don Albert	*Milton*
Borden, William Henry ls	*Madison*
Born, Lucile Dorothy M. ls	*Toledo, O.*
Borst, Robert Elroy	*Rolla, N. D.*
Borwell, Frank Caine ls	*Oak Park, Ill.*
Boswell, Sallie Parmelee	*Louisville, Ky.*
Boucher, Nettalie Harriet ls	*Oshkosh*
Boulware, Lemuel Ricketts ls	*Springfield, Ky.*
Bowden, Everett	*Brodhead*
Bowe, Lucy Evelyn	*Northfield, Minn.*
Bowers, Della Jeannette	*Lima Center*
Bowles, Winifred Patricia ls	*Madison*
Boyd, Bertha B.	*Ridgewood, N. J.*
Boyd, Edith	*Sheffield, Ill.*
Boyle, Ruth Murrin ls	*Butte, Mont.*
Brabant, Josephine Mary ls	*Madison*
Bradbury, Laura May	*LaPorte, Ind.*
Bradish, Norman Conyers ls	*Decorah, Ia.*
Bradley, Gertrude Patricia ls	*Milwaukee*
Bradley, Melcena	*Wellington, Kans.*
Brady, Victoria Virginia ls	*Chicago, Ill.*
Brand, Warner Holmes ls	*Chicago, Ill.*
Braun, Harold ls	*Milwaukee*
Brennan, Cleo Mary	*Fort Dodge, Va.*
Brethorst, Stephen Wesley	*Lennox, S. D.*
Brewer, Fred F. ls	*Menominie*
Bribach, Carrie Patience	*St. Louis, Mo.*
Briggs, Howard Bovee ls	*Arena*
Briggs, Norman Randolph ls	*Coeymans, N. Y.*
Brinkerhoff, Verne William	*Rock Island, Ill.*
Brittingham, Harold Hixon	*New Haven, Conn.*
Bronson, Alice Maren	*Milwaukee*
Brooks, Belle	*West De Pere*
Brown, Alois Anthony ls, m	*La Crosse*
Brown, Althea H.	*Madison*
Brown, Earl Franklin	*Downing*
Brown, Louise W.	*Omaha, Nebr.*
Brown, Marion Clarkson ls, m	*Poynette*
Brown, Mary Blackledge	*St. Louis, Mo.*
Brown, Oscar Phelps	*Junction City, Kans.*
Brown, Ruth Isabel	*Ann Harbor, Mich.*
Browne, Lee William	*Denver, Colo.*
Browne, Ruth Mary	*Edina, Mo.*
Brueckner, Erna Katherine	*Cincinnati, O.*
Bruehl, Joseph Andrew	*Menasha*
Brunner, Edwin James	*Madison*
Bryan, Jennie Maude	*Beloit*
Buboltz, William Frank	*Milwaukee*
Buck, L. Grace	*Los Angeles, Cal.*
Buck, Marjorie ls	*Chicago, Ill.*

Buckeridge, Charles Rex	*Beloit*
Buell, Helen De Yoe ls	*Madison*
Bunde, Florence Mae	*Milwaukee*
Burleigh, Robert Stanley	*Pittsburgh, Pa.*
Burlingame, LeRoy James ls	*Madison*
Burlingame, Lois Arlina ls	*Madison*
Burmeister, Roy Frederick ls	*Gratiot*
Burmeson, Alma Lillie	*St. Louis, Mo.*
Burnham, Margaret Caroline	*La Crosse*
Burns, Frank Lenoir	*E. Dubuque, Ill.*
Burns, John Leo	*Prescott*
Burns, Robert Emmett ls, m	*Madison*
Burton, Alfred Harrison, ls	*Chicago, Ill.*
Burwell, Consuelo	*Madison*
Burwell, Marjorie ls	*Madison*
Byrne, Miriam	*Chicago, Ill.*
Cadwallader, Laura Hanes ls	*Philadelphia, Pa.*
Cagg, Miles Herbert	*Nelsonville, O.*
Calef, Ellis Neil	*Alma Center*
Campbell, Arabel	*Valparaiso, Ind.*
Campbell, Cora	*Springfield, Ill.*
Campbell, Meredith Fairfax ls, m	*Madison*
Canfield, Ellen B.	*Arlington, Vt.*
Canniff, Maud	*Toledo, O.*
Cantrall, Fay Lankford	*Springfield, Ill.*
Carey, Edith I.	*Mt. Clemens, Mich.*
Carns, Bertha L.	*Cuba City*
Carpenter, Nellie Edna	*Darlington*
Cartier, Vincent George ls	*Ludington, Mich.*
Cauwenberg, Winfred Joseph ls	*Green Bay*
Cavanagh, May Genevieve	*Chicago, Ill.*
Cecil, Clifford Buchanan	*Muncie, Ind.*
Chamberlain, Alice Blanche	*Amery*
Chandler, Arthur Luther ls	*Madison*
Chandler, Fremont A, ls m	*Bradley*
Chandler, George Ernest	*Austin, Minn.*
Chapman, Charles McCoy	*Blanchardville*
Chapman, Katharine Harriet	*Detroit, Mich.*
Chapman, Nellie	*Indianapolis, Ind.*
Chase, Ruby Fern	*Oshkosh*
Cheng, Tsung-Hai ls	*Shihshih, China*
Chilcote, Jane	*South Bend, Ind.*
Chloupek, R. E.	*Manitowoc*
Christensen, Dorothy Bess ls	*Madison*
Church, Emeline Adela	*Walworth*
Church, Rupert	*Oshkosh*
Clague, Stanley Richard ls	*Winnetka, Ill.*
Clark, Lulu	*Martinsville, Ind.*
Clark, Robert Hawley ls	*Grand Rapids, Mich.*
Clark, George Leonard	*Depue, Ill.*
Clark, Irma Marie	*Superior*
Clark, Josephine Freeman ls	*Marietta, Ga.*
Clausen, Malvina Charlotte	*Neenah*

Claussen, Elsa M.	*Chicago, Ill.*
Cleaveland, Grace	*Chillicothe, Mo.*
Clifford, William Foster ls	*Madison*
Coe, Allan Kent	*Clinton, Ia.*
Cohoe, Awrey Wilmont l s	*Madison*
Coit, Clarence Guernsey	*Grand Rapids, Mich.*
Colby, Abby Stuart	*Chicago, Ill.*
Colby, Grace l s	*Madison*
Cole, Helen	*Oconto*
Coleman, Dora Leeanna l s	*Madison*
Collins, Catherine Doris	*Fond du Lac*
Collins, Esther Agnes	*Fond du Lac*
Comstock, Mary Cecelia Everett l s	*Madison*
Condit, Pauline	*Muncie, Ind.*
Confer, Robert Rodney	*Madison*
Conlin, Joseph M.	*Madison*
Connors, Harold Francis l s	*Hurley*
Conway, Elizabeth	*Rockford, Ill.*
Cook, Alvan Bailey	*Madison*
Cook, Charles Ira l s	*Madison*
Cook, Earl McDonald	*Des Moines, Ia.*
Cook, Sherman Robley	*Menominie*
Cook, William Carpenter l s	*Menominee, Mich.*
Cooley, Harry Clyde	*New Glarus*
Cordon, Catherine Mary	*Indianapolis, Ind.*
Corrigan, Gertrude	*Atlanta, Ga.*
Corry, William James l s	*Madison*
Costerisan, George Wesley	*Richland Center*
Coubal, Laudimire Joseph	*Manitowoc*
Coumbe, Sarah S.	*Blue River*
Cox, Charles C.	*Detroit, Mich.*
Cox, Claude Gaylord	*Urbana, Ill.*
Cox, Elizabeth Jean l s	*Madison*
Cox, John Van Brunt l s	*Horicon*
Cox, William Harry	*Detroit, Mich.*
Craig, Glen Clifford	*Kewaunee, Ill.*
Crain, Clayton Carl	*Elmwood*
Cramer, Clarence Everett l s	*Madison*
Crawford, George Marshall	*Topeka, Kans.*
Crawford, Glenn	*Martinsville, Ind.*
Crockett, Samuel Edward	*Westfield*
Crosby, Helen Alyce	*Fond du Lac*
Crosby, Helen Blanche	*Madison*
Cullings, Sidney James	*Elmwood, Ill.*
Cummings, Charles Milton l s	*Oberlin, O.*
Cummings, John Holbrook a	*Oberlin, O.*
Cummings, Lucile Beatrice	*Pauls Valley, Okla.*
Cunningham, Louise	*Marion, O.*
Curran, Stanley Thompson	*New York, N. Y.*
DaCosta, Harold Fouseca	*Chicago, Ill.*
Daetsch, Lillian	*Milwaukee*
Dahlberg, Hatty R.	*Stanley*
Dahle, Clarence Arthur	*Minneapolis, Minn.*

Dahlman, Frank	*Kingsville, Tex.*
Dannenfelser, Frederick Martin	*New York, N. Y.*
Davidson, Nina Louise	*Marshall, Ill.*
Davies, Nellie Eleanor	*Oshkosh*
Davis, Dudley Hopkins l s	*Madison*
Davis, Ethel Jane	*Blue Earth, Minn.*
Davis, Frank Dewey	*Juda*
Davis, Marguerite Vivian l s	*Williams Bay*
Davis, William Grover	*Hardinsburg, Ind.*
Day, Elizabeth Belle	*Wilkinsburg, Pa.*
DeBolt, Albert C. l s	*Madison*
Decker, Myrtle May l s	*Roswell, N. M.*
Delaney, Hazel Frances	*Chicago, Ill.*
Denison, Clara Elizabeth	*Mount Washington, O.*
Dennis, Ada Beebe	*Beloit*
DesCombes, Lonna Louis	*Warrensburg, Mo.*
Desmond, Mae Elizabeth	*Woodstock, Ill.*
Deutsch, Margaret Frances	*Milwaukee*
DeVilbiss, Bess Beatrice	*Ft. Wayne, Ind.*
DeWitt, Roy M.	*Montford*
Dickerhoff, Elsie Catherine	*Milwaukee*
Diebold, Carrie Elise	*Milwaukee*
Dierksmeier, Ida	*Watertown*
Diers, Charles Bernhard	*Duluth, Minn.*
Dinwiddie, Martha Dalney	*Clarksville, Tenn.*
Dismore, Violet Blanche	*Arden Northwood, Eng.*
Dittmar, Ada Alice l s	*Milwaukee*
Dittmar, Mabel Emily l s	*Milwaukee*
Dobberpuhl, Raymond Henry e	*Cedarburg*
Dockar, James Watt	*Winnipeg, Canada*
Docken, Clarence Oliver l s	*Mt. Horeb*
Dodge, Newell Phelps l s	*Madison*
Doherty, Helen	*Williamsburg, Ia.*
Doherty, Mary Louis l s	*Williamsburg, Ia.*
Doherty, Stella K.	*Green Bay*
Dolan, Mary Regina	*Cashton*
Donahue, Isabelle A.	*Chicago, Ill.*
Donalds, Beatrice	*Superior*
Donalds, Elliott Raphael l s	*Superior*
Donlan, Nell Patricia	*Madison, Ind.*
Donnally, Paul Andrew	*Washington, D. C.*
Donnelly, John William	*Beloit*
Doudna, Edgar George	*Richland Center*
Dougherty, Daniel Benedict	*Freeport, Ill.*
Dougherty, Glenn Robert	*Milwaukee*
Downs, Frank Emmett l s, m	*Hurley*
Draper, Anna	*Springfield, Ill.*
Drescher, George William	*Sun Prairie*
Drewry, Lucile M.	*Waldo*
Ducke, Carl Julius	*Hokah, Minn.*
Duffert, Frances Louise	*St. Louis, Mo.*
Duggan, May Ellen	*Oshkosh*
Dungan, Amber Estella	*Franklin, Ind.*

Dunham, Edith Riteman	*Milwaukee*
Dunkel, Marion Murry	*Phillips*
Dunn, Calvert Zeph l s	*Chicago, Ill.*
Durrie, Agnes l s	*Madison*
Durst, Willis H. l s	*Madison*
Dutton, Harriett A.	*Beloit*
Dyer, Frances Margaret	*Milwaukee*
Eagan, Mayme	*Wautoma*
Eastman, Lula Evelyn	*South Wayne*
Eastman, Mary Eleanor l s	*South Bend, Ind.*
Eastman, Walker Parrish l s	*Chicago, Ill.*
Eaton, Howard Ormsby l s	*Madison*
Eaton, Starr Sedgwick l s	*Madison*
Ebert, Norma Julia	*Evansville, Ind.*
Edward, Ann Elizabeth l s	*Madison*
Edwards, Marguerite Duncan	*Quincy, Ill.*
Eickhoff, Emma Marie	*Woodstock, Ill.*
Eising, Cora Bertha	*Milwaukee*
Ellian, Elmer Rufus	*Milwaukee*
Ellis, Mabel Evangeline l s	*Madison*
Ellis, Margaret Helen	*Terre Haute, Ind.*
Emerson, Helen Louise	*LaFayette, Ind.*
Emmond, Wyatt Goan	*LaGrange, Ill.*
English, Izero V.	*Baraboo*
Eppels, Conrad Joseph g	*Madison*
Eppert, Josie	*Mt. Washington, O.*
Erd, Willis Joseph l s	*Wonewoc*
Ernst, Hilmar Furst l s	*W. Chicago, Ill.*
Ernst, Marion Josephine	*Chicago, Ill.*
Ernst, Norman Conrad l s	*Chicago, Ill.*
Errickson, Robert	*Cashton*
Eskelson, Carl Ludvig	*Rushford, Minn.*
Estrem, Theodore Adolph l s, m	*Petersburg, Nebr.*
Etchison, Coila Estelle	*Gallatin, Mo.*
Etheridge, Edith Grimshaw	*Mexico, Mo.*
Eubank, Myrtle Ann l s	*Madison*
Euler, Arthur l s	*LaCrosse*
Eustice, Lenice Alberta	*Platteville*
Evans, Harold Boice l s	*Madison*
Everhart, Florence	*Germantown, O.*
Ewald, Louis Philip l s	*Madison*
Eyring, Fern Chipman	*Provo, Utah*
Faber, Minnie Wilhelmina	*Marshfield*
Failing, Estelle Rachel	*Ottawa, Ill.*
Fairfield, Maude	*Normal, Ill.*
Faith, Don Carlos	*Washington, Ind.*
Fannon, Ralph William	*Appleton*
Farisy, Arthur Thomas l s, m	*Franklin, Minn.*
Farnum, Regina Catherine	*Madison*
Farrand, Jack Easton l s	*Fargo, N. D.*
Farrell, Paul Dean l s	*Madison*
Farrer, Katherine J.	*Mason City, Ia.*
Fassig, Elizabeth Russell	*Columbus, O.*

Fassig, Fannie	*Columbus, O.*
Feathers, Leonard Clark	*Troy, N. Y.*
Feldman, Louis Charles l s	*Thiensville*
Feller, Ella	*Toledo, O.*
Felten, Clarence Bernard	*Milwaukee*
Fendrich, Charles Welles l s	*Evansville, Ind.*
Ferguson, William Friend l s	*Madison*
Filtzer, Flora Marie	*Milwaukee*
Findorff, Milton Bremer l s	*Madison*
Finnegan, Florence Marie	*Fond du Lac*
Finnerud, Clark Wylie l s, m	*Watertown, S. D.*
Fisher, Tessie Pearl	*Warren, Ind.*
Fiske, Gertrude	*Fall River*
Fitch, Jeannette E.	*Detroit, Mich.*
Fitch, Joseph Gibson	*Madison*
Fitch, Mary Ursula	*Detroit, Mich.*
Fitzgibbon, Bernice Bridget l s	*Waunakee*
Flanagon, Arthur Eugene	*Lannon*
Flatman, George e	*Madison*
Fogo, Hugh	*Gillingham*
Forbes, Merlin Arthur l s	*Horicon*
Ford, Edith Lulu	*Rockville, Md.*
Ford, Maude Leola	*Minneapolis, Minn.*
Ford, William Eleazor	*Minneapolis, Minn.*
Ford, William Harold	*Cleveland, O.*
Forkey, Mildred	*Prophetstown, Ill.*
Forsythe, Ethel Gladys ls	*Oconomowoc*
Foster, Mary Louise	*Indianapolis, Ind.*
Fowler, Esther Lucile ls	*Fithian, Ill.*
Fox, Arthur Julius	*Madison*
Franks, James Irving	*Muskegon, Mich.*
Frear, Philip A. ls	*Madison*
Frederick, Netah Emma	*Fond du Lac*
Frederickson, Florence Mildred	*St. Paul, Minn.*
Freeman, James Richard	*Sparta*
French, Elizabeth Belle	*West Toledo, Ohio*
Friday, Clara Augusta	*Oshkosh*
Frish, Evelyn Agnes ls	*Madison*
Fristoe, Nancy	*St. Louis, Mo.*
Froelich, Armand L. ls	*Milwaukee*
Fuehring, Fred John	*Evansville, Ind.*
Fuehring, Laura A.	*Evansville, Ind.*
Fuerste, Fritz	*Gutenberg, Ia.*
Funke, Lawrence S.	*Madison*
Furman, Eleanor Frances	*Greenville, S. C.*
Furter, Warner Huszagh	*Chicago, Ill.*
Gagnon, Lynne	*Marinette*
Gallagher, Kathryn Anna	*Oconto Falls*
Gannon, Fannie Alice	*Gilman, Ia.*
Gapen, Clara Marie ls	*Whitewater*
Gardner, Dorothy Genevieve	*Platteville*
Gardner, Marguerite Aleda	*Platteville*
Garibaldi, Francis Christopher	*Chicago, Ill.*

Garibaldi, John George ls	*Chicago, Ill.*
Garritson, Hillard DeWitte	*Marion, Ind.*
Garvin, Vernice Josephine	*Ontonagon, Mich.*
Gasser, William Pope ls, m	*Madison*
Gath, Flora M.	*Madison*
Gath, Helen Dorothy ls	*Madison*
Gay, Hobart R.	*Rock Port, Ill.*
Gaylord, Miriam Olive ls	*Milwaukee*
Gentzen, Harold John	*Beaver Dam*
Gerke, William George	*Madison*
Gerrits, Irma Dorothy ls	*Cedarsburg*
Gevers, Carl Montague ls	*Racine*
Giddings, William Werner	*Mendota*
Giffey, Hertha	*Oak Park, Ill.*
Gilbert, Otto Gustav	*Milwaukee*
Gill, Thomas Buell	*Medina, O.*
Gilmore, Eugene Allen	*Madison*
Gilmore, Harry Frederick	*Fall Creek*
Giryotas, Emelia Josephine	*Cicero, Ill.*
Glaettli, Emma	*Milwaukee*
Glasgow, Ruth Miriam	*Milwaukee*
Glassner, Esther M. ls	*Milwaukee*
Gleason, Inez Evangeline ls	*Madison*
Gleerup, Virginia Loring	*Madison*
Glenn, Ray Fielding	*Madison*
Glos, Walter Adam	*Elmhurst, Ill.*
Goeller, Lawrence Ebert	*Circleville, O.*
Golden, Jennie Alberta	*Marinette*
Goodsitt, Lorenz Manfred	*Milwaukee*
Gordon, Sidney Richard	*Milwaukee*
Gordon-Smith, Gladys ls	*Madison*
Gorman, Robert Nester ls	*Cincinnati, O.*
Gottwald, Frank Jr.	*Duluth, Minn.*
Gould, Catherine Mary	*Cincinnati, O.*
Graner, Richard Fischer	*Peoria, Ill.*
Granger, Clifford Elzer, ls	*Peshtigo*
Grant, James Evert ls	*Madison*
Gray, Ralston	*Greensburg, Ind.*
Graybeal, Elizabeth	*DeBeque, Colo.*
Grede, William John ls	*Milwaukee*
Greenbaum, Bertha Bunetta	*Grand Rapids, Mich.*
Greene, Alfred Earl	*Evansville, Ind.*
Greenhill, Ida Kristine	*Elgin, Ill.*
Gregory, Emory Zirkle	*Madison*
Griffith, Mina Helen	*Oak Park, Ill.*
Grinde, Harry Andrew	*Madison*
Griswold, Mabel Elizabeth ls	*Madison*
Grover, Stephen Freeman ls, l	*Grantsburg*
Guggenheim, Irene	*Chicago, Ill.*
Gumz, Martha Emily	*Aurora, Ill.*
Haagen, Cordelia Laura	*St. Louis, Mo.*
Haegg, Martha Helena	*Rockford, Ill.*
Hagerty, Bernice Icylena ls	*Knapp*

Hagopian, Bedros ls	*Troy, N. Y.*
Hahn, Allan Richard	*Menomonie*
Hahn, Emanuel	*St. Louis, Mo.*
Hahn, Rose Linz	*St. Louis, Mo.*
Hainer, Ida Linton	*Eau Claire*
Halbert, Howard Valmore ls	*Chicago, Ill.*
Haley, Lillian Claire ls	*Madison*
Hall, Mildred	*Greenwood, Miss.*
Hall, Nellie Maud	*Darlington*
Halline, Eleanor	*De Pere*
Halsor, Anna Semelie ls	*De Forest*
Halverson, Henry Magmus ls	*Stevens Point*
Hamel, Delphine Alberta	*St. Louis, Mo.*
Hamilton, Mabel Delia	*Grand Rapids*
Hamilton, Mary Jeannette ls	*Berlin*
Hammer, Lloyd Allen a	*Madison*
Hanke, Walter Herman	*Menomonie*
Hansen, Elmer Harry	*Grand Forks, N. D.*
Hansen, Lambert Anthony	*Cashton*
Hanson, Joel Hjalmar ls, m	*Eau Claire*
Hanson, Mary Ann	*Wausau*
Hanssen, John Louis ls	*Davenport, Ia.*
Harding, Abigail Victoria	*Marion, O.*
Harn, John Ivan ls	*Madison*
Harpel, Charlotte Beverly ls	*La Crosse*
Harshaw, Marguerite Rachel	*Stevens Point*
Hart, Jeannette	*Muscatine, Ia.*
Hartmeyer, Helen Elizabeth ls	*Madison*
Harwell, Edward Allen	*Jackson, Miss.*
Harwood, Myrtle Viola	*Homewood, Ill.*
Haas, Melvin Herman ls	*Fond du Lac*
Hassinger, Charles William ls	*Milton Junction*
Hatch, Lucile	*Aberdeen, Miss.*
Haverstick, George W. ls	*Waukesha*
Hawes, Walter ls	*Madison*
Hayes, Charles Addison ls	*Chippewa Falls*
Hayes, Matthew Raymond ls	*Milwaukee*
Hayward, Earl LeRoy	*Grand Rapids*
Heaston, Anna Margaret	*Marion, Ind.*
Heckmann, Michael William	*Kiel*
Hefferan, Thomas Edward Maley ls	*Chicago, Ill.*
Heffernan, Nora L.	*Chicago, Ill.*
Heffron, Norman	*Chicago, Ill.*
Hegner, Nancy Alice	*Wyoming, O.*
Heiliger, Ella C.	*Madison*
Heimerl, William Arthur ls	*Madison*
Hein, Elizabeth May	*North Freedom*
Hein, Fred William ls	*S. Milwaukee*
Heiner, Jessie Margaret	*Columbus, O.*
Heinrich, William A. ls, m	*Cedarburg*
Heiser, Juliet Eloys	*Marion, Ind.*
Helms, Lloyd Oscar ls	*St. Paul, Minn.*
Helms. Arthur Trent	*Knoxville, Tenn.*

Hemenway, Homer Selmo	*Carter*
Hemenway, Mary ls	*Madison*
Henderson, Thomas Edgar	*New Lisbon*
Hendricks, Marjorie Ethel ls	*Madison*
Hendrickson, Clarence W. ls	*Madison*
Henkel, Albert John	*Pardeeville*
Henkel, Almira Lisetta ls	*Milwaukee*
Henry, Mary Ette ls	*Reedsburg*
Herr, Oliver Paul ls	*Plymouth*
Herrick, Roy Jefferson ls	*Horicon*
Herzog, Flora Louise	*Cincinnati, O.*
Hess, Louisiana	*Louisville, Ky.*
Heublein, Clarence Martin ls	*Fox Lake*
Heuman, Edith Elizabeth	*Elgin, Ill.*
Heyman, Edna May	*Louisville, Ky.*
Higgins, Arthur Eugene	*La Grange, Ill.*
Higgins, Donald Hugh	*Madison*
Higgins, Martin Henry ls	*Madison*
Hight, Anna Louise	*Arkansas City, Kans.*
Hill, Lora Frances	*Onalaska*
Hill, Lydia Alice	*Lake Geneva*
Hill, Samuel Chester	*Paoli, Ind.*
Hillberry, Maud Eva ls, m	*Blue River*
Hilton, Dewey	*New Glarus*
Hinckley, Marguerite Josetta	*Stevens Point*
Hineline, Harris Dale ls	*Madison*
Hines, John Henry	*Royal Center, Ind.*
Hintz, Bruno Ludwig	*Albee, S. D.*
Hintzman, William Frederick ls	*Madison*
Hirsch, Everett Charles	*Loyal*
Hoffman, Edith May	*Lake Mills*
Hoffman, Otis E. ls	*Madison*
Holbrook, Laura Prudence	*Philadelphia, Pa.*
Hollahan, Margaret Louise	*Dayton, O.*
Hollem, Amy Irene	*Rockford, Ill.*
Holliday, Cecilia	*Sioux Falls, S. D.*
Holmes, Annie Isabelle	*State College, Pa.*
Holt, Fred John	*Middleton*
Holt, Hermann ls	*Madison*
Homburg, Frederick	*Cincinnati, O.*
Hootman, Grace Marguerite	*Greencastle, Ind.*
Hoppe, Edwin Oscar	*Milwaukee*
Hoppin, Edith	*Milwaukee*
Horn, Matilda Olga	*Brillion*
Horter, Philip Matthew ls	*Milwaukee*
Hosford, Susan Eunice	*Genesee, Ill.*
Hosman, David Fay ls	*Madison*
Hosty, Margaret Mary	*Chicago, Ill.*
Householder, J. Clark	*La Farge*
Hsieh, Zen	*Chingtu, China*
Hsun, Ching Lee	*Nanchang, China*
Huang, Feng-hua ls	*Canton, China*
Huger, Emily Hamilton	*New Orleans, La.*

Hughes, Anna Myra ls	*Madison*
Huhn, Natalie Theodora	*Oshkosh*
Huhn, Sophie Leonie	*Oshkosh*
Humbar, John Davis	*Greenville, N. C.*
Hummel, Earl Philip	*Green Bay*
Huntington, Vina Lyzette	*Darlington*
Hutchison, Esther	*Ottumwa, Ia.*
Hutchison, Mabel Dixon	*Ottumwa, Ia.*
Hyland, Anna	*Rockford, Ill.*
Hyslop, Robert James ls, m	*Madison*
Ibach, Herbert F.	*Alma*
Idzikowski, Paul Edward	*Milwaukee*
Isenberg, Walter Carl	*Madison*
Ives, Sadie Bray	*Hartford*
Jack, Mary Abigail	*Hazleton, Pa.*
Jackman, Flossie Esther ls	*Madison*
Jackson, Arnold Stevens ls, m	*Madison*
Jackson, Genevieve ls	*Aberdeen, S. D.*
Jackson, Sydney Charles ls	*Madison*
Jacobi, Florence	*Mondovi*
Jacobs, Clara	*Madison*
Jacobs, Mary Olena	*Bowling Green, Mo.*
Jacobsen, Esther Helena ls	*Madison*
Jacobson, Victor Clarence	*La Crosse*
Jacobus, Garrett ls	*Wauwatosa*
Jacques, Marjorie	*Neillsville*
Jaggard, Clara Louise w l s	*Madison*
James, Anna Alberta	*Salisbury, Mo.*
James, Laurah Ellen	*Fort Worth, Tex.*
Jamieson, Arthur ls	*Poynette*
Jardine, Alice Dovina	*Detroit, Mich.*
Jennings, Blandford ls	*Washington, D. C.*
Jennings, Elsa Gertrude	*Milwaukee*
Jennings, Irene ls	*Grand Rapids, Mich.*
Jennings, Robert Edward	*Menominee, Mich.*
Jensen, Ben Melvin ls	*Grantsburg*
Jensen, Esther Andrea ls	*Racine*
Jerabek, Joseph August ls	*Algoma*
Jillson, M. Louise ls	*Ripon*
John, Walter Alfred l	*Milwaukee*
Johns, Violette Ella	*Richland Center*
Johnson, Agnes Hansea ls	*Markesan*
Johnson, Charles Wallace ls	*Chicago, Ill.*
Johnson, Clarence Lee	*Cleveland, O.*
Johnson, Edwin ls	*Washburn*
Johnson, Eleanor Hildina	*Elgin, Ill.*
Johnson, Gertrude K. ls	*Madison*
Johnson, Lester Dean	*Prophetstown, Ill.*
Johnson, Paul A.	*Muskegon, Mich.*
Johnson, Ruth Isabel	*Chicago, Ill.*
Johnson, Selma Jonethe ls	*Ellsworth*
Johnston, Ivy L.	*Camp Douglas*
Jones, Bertha May	*Oshkosh*

Jones, Clarence Winthrop	*Joliet, Ill.*
Jones, Clyde Daniel	*Ada, Okla.*
Jones, Dorris Elizabeth ls	*Madison*
Jones, Kathlyn Janette ls	*Fond du Lac*
Jones, Letitia	*Chicago, Ill.*
Jones, May Eleanor	*Mitchell, S. D.*
Jones, Northrope ls	*Chicago, Ill.*
Jordan, Medora	*Tomah*
Jorgensen, Anna Metha	*Chicago, Ill.*
Josephson, Clifford Ivar ls	*Moline, Ill.*
Judd, Florence Ethel	*Greenwood*
Judson, Verna Eleanor ls	*Marshfield*
Kading, Earl Christian ls, m	*Madison*
Kaltenbach, Frances Gertrude	*Kenosha*
Kammerer, Marie	*St. Louis, Mo.*
Karges, Edwin Ferdinand	*Evansville, Ind.*
Karow, Edna Cornelia ls	*De Forest*
Kasak, Michael	*Madison*
Kaulfuss, Arthur Frederick	*La Crosse*
Kay, Rosalind ls	*Madison*
Keck, Kenneth Fielman ls	*Wapello, Ia.*
Keeley, Florence Rose	*Hudson*
Kehl, Dora Barabara	*Madison*
Keller, Bessie C.	*Dallas, Tex.*
Keller, Drusilla Loraine	*Greensburg, Ind.*
Keller, Frank John	*Cincinnati, O.*
Kemmer, Frank Leonard ls	*Madison*
Kenney, Helen Todd	*Tiskilwa, Ill.*
Kentzler, Ruth Purdy ls	*Madison*
Kenyon, Martha Asenith	*Indianapolis, Ind.*
Ketcham, Hazel Mae ls	*Grand Rapids, Mich.*
Ketcham, Iva Nodene ls	*Madison*
Keys, Freda L.	*Richland Center*
Kidder, Charles Joseph	*Madison*
Kidder, Mattie A. ls	*Madison*
Kiff, Margaret	*Bloomington, Ind.*
Kilburn, Henry Clay	*Racine*
Kiley, William Earl ls, m	*Byron, Ill.*
Killian, Minna Matilda	*Dayton, O.*
Kimmel, Estella	*La Fayette, Ind.*
King, James Carroll	*Rockford, Ill.*
King, Louise Albertine	*Columbus*
Kingsbaker, Rae	*Kansas City, Mo.*
Kingsley, Susanna ls	*Minden, Neb.*
Kinney, Mark Curtis	*New York, N. Y.*
Kinnie, Martha Belle	*Rockford, Ill.*
Kirk, Julia	*Reynoldsville, Pa.*
Kitchell, Francis Robert	*Chicago, Ill.*
Kittelson, Kyrren Becca	*Junction*
Kline, Estelle Bertha	*South Bend, Ind.*
Klingholz, Oscara	*Manitowoc*
Klink, Flora Mathilde	*Montgomery, Ill.*
Klumb, Ewald Ulrich	*Milwaukee*

Knapp, Isabelle Woodman	*Grand Rapids, Mich.*
Knowlton, Margaret Roper ls	*Madison*
Koch, Elmer John	*Brillion*
Kocher, Lillian Alma	*Elgin, Ill.*
Koeniger, Edward Russell a	*East Orange, N. J.*
Koepp, Otto August ls	*Madison*
Koepp, William Paul ls	*Madison*
Kohlstaedt, Helene	*Indianapolis, Ind.*
Koons, Ernest Nahum	*Temple, Okla.*
Kozina, Joseph Edward	*Kewaunee*
Krause, Caroline Alma	*Green Bay*
Krebs, Martha Marie	*St. Louis, Mo.*
Krieger, Fred Silas	*Milwaukee*
Krieger, Frida Johanna	*Milwaukee*
Krippene, Harry Peter ls	*Oshkosh*
Kriskey, Imogene Clarissa ls	*Wausau*
Kum, Keen-Seen	*Shanghai, China*
Kurz, Louis David e	*Appleton*
Lackey, Esther Hutchins ls	*Oak Park, Ill.*
Laemle, Leah Florence ls	*Marshfield*
Laitem, Frances	*Cleveland, O.*
Laitem, Helene Josephine	*Cleveland, O.*
Lake, Frances Gertrude ls	*Brodhead*
Lambert, Helen Kathryn ls	*Merrill*
Lambert, Wilbur ls	*Ocean Grove, N. J.*
Landwehr, Margaret Emma	*Milwaukee*
Lane, Erma May	*Kenosha*
Lang, Edgar Franklin	*Jefferson*
Lange, John Robert ls	*Wausau*
Langellier, Lenore	*Watseka, Ill.*
La Perriere, Nell Marie	*Menominee, Mich.*
Larck, Miriam Messner	*Chicago, Ill.*
Larsen, Esther Amalie ls	*Madison*
Larsen, Nellie May ls	*Lake Geneva*
Larson, Viola Luella	*Madison*
Lasher, John Howard	*Thorp*
Lassfolk, Esther	*Benton Harbor, Mich.*
Latham, Gwendoline ls	*Madison*
Lathrop, Francis Child ls	*Madison*
Lawton, Blanche Agnes	*Toledo, O.*
Layde, Joseph Bernard	*Seneca*
Leasure, Ernestine Rose	*Arkansas City, Kans.*
Lebowsky, Charles A. l s, l	*Milwaukee*
Leeden, Hebe	*Kewaunee, Ill.*
Leggett, Marvin Charles l s	*Madison*
Legler, Fredric Mills l s	*Chicago, Ill.*
LeGrand, Maude Elizabeth	*St. Louis, Mo.*
Lehman, Lewis Harry	*Mattoon, Ill.*
Leming, Willis	*Ligonier, Ind.*
Lent, Margaret	*Washington, D. C.*
Lenz, Edwin Robert	*Wausau*
Lenzer, Julia Ella	*Canton, O.*
Lerman, Frances	*Nashville, Tenn.*

Leslie, Ethel Bernice	*Upper Sandusky, O.*
Leslie, Robert Wilson l s	*Antigo*
Levake, Edith Pearl	*Spring Green*
Levenick, Leo Benjamin l s	*Madison*
Lewis, Harold Arthur g	*Fond du Lac*
Liang, Wen Paul e	*Hongkong, China*
Liebig, Pauline Gottsleben	*West Bend*
Lind, Alberta Augusta l s	*Canal Dover, O.*
Lindersmith, Bernice	*Toledo, O.*
Link, Othmar Charles l s	*Madison*
Linwell, Delia	*Northwood, N. D.*
Littig, Esther Eugene l s	*Flandreau, S. D.*
Littig, Isabel Josephine	*Flandreau, S. D.*
Little, Burtis McGie	*Lexington, Mo.*
Little, Theresa	*Peshtigo*
Lloyd-Jones, Thomas Clark	*Spring Green*
Loflin, Ella Kyle	*Grand Rapids, Mich.*
Logan, Alvin E.	*Columbus, Ind.*
Lohrie, Robin F.	*Arcadia*
Long, Floyd Daniel	*Pimento, Ind.*
Loverud, Emma	*Viroqua*
Lowe, Amy Frances	*Aurora, Ill.*
Lowe, Brundege Chloe	*Eureka, Mo.*
Luce, Marion D. l s	*Chicago, Ill.*
Ludachka, Frances	*Madison*
Luehring, Arthur Herman	*Milwaukee*
Lynch, Agnes	*Superior*
Lyons, Arthur James	*Chicago, Ill.*
McBride, James C.	*Newtown, Ind.*
McCabe, Raphaella Catherine l s	*Abbotsford*
McCarthy, Emerson Joseph l s	*Madison*
McChesney, Martha Bracken	*St. Louis, Mo.*
McClean, Grace Margaret	*Toledo, O.*
McClelland, William Everett	*Topeka, Kans.*
McComb, Harvey Godfrey	*Corvallis, Ore.*
McCool, George Ellery	*Pittsburgh, Pa.*
McDougle, Verne Russell l s	*Madison*
McDowell, Donald Clarence	*Soldiers Grove*
McDowell, Mary Elizabeth	*Monroe*
McEachron, Fred C.	*Racine*
McFetridge, George William	*New Richmond*
McGrath, Robert Timothy l s	*Madison*
McGruer, Earl	*Langdon, N. D.*
M'Guire Edna Elizabeth	*Madison*
McHenry, Ada Dorothy	*Milwaukee*
McIntosh, Imogene	*Toledo, O.*
McIntyre, Elwood Richards	*Madison*
McKay, Fred William l s	*Oshkosh*
McKay, Robert C.	*Huron, S. D.*
McKee, Lynn C.	*Indiana, Pa.*
McKenzie, Geneva Ehler	*Madison*
McKinley, Grace Porter	*Lansing, Mich.*
McLain, Addison Theodore	*Marinette*

McLain, Carl P.	*Detroit, Mich.*
Mac Lean, Libbie Whitman	*Zanesville, O.*
McLean, Robert Henry	*Kinsman, O.*
McMahon, Rolla James	*Maiden Rock*
MacMillan, J. Irene	*Elroy*
McNamee, Shurly Lawrence l s	*Madison*
McNeil, John Edward l s	*Madison*
McNulty, Enos John a	*Avoca*
Mack, William Davis l s	*Madison*
Mackway, Louise	*Oak Park, Ill.*
Maginn, Gertrude	*St. Louis, Mo.*
Mahler, Herbert Phillip l s	*Milwaukee*
Mailer, Andrew Robert	*De Pere*
Malliem, Frank James	*Brussels*
Mallon, Mary Josephine	*Chicago, Ill.*
Manring, Mary Minnetta	*Elwood, Ind.*
Marine, Fay	*Toledo, O.*
Marshall, Amy Anne	*Omro*
Marshall, Marion Genevieve l s	*Lodi*
Martin, Ada North	*Madison*
Martin, Elsie Vance	*Attica, Ind.*
Martin, Mary Cotter	*Indianapolis, Ind.*
Martiny, Jessie Catharine	*Baraboo*
Mason, Josephine	*Madison*
Mason, Ermine Lamma	*Indianapolis, Ind.*
Mathews, Madeline Eleanor l s	*Ashland*
Matthews, Annie Laura	*St. Louis, Mo.*
Matthews, Fannie L.	*St. Louis, Mo.*
Mattson, Oscar Fredrick	*Madison*
Maurer, Catharine l s	*Madison*
Maxfield, Elizabeth	*Palmyra, Ill.*
Mayer, Edna	*Milwaukee*
Meacham, Mary Vermelle	*Henryetta, Okla.*
Mead, Fergus l s	*Milwaukee*
Meisekothen, Hildegarde Mary	*Madison*
Merser, Claudia	*Rock Elm*
Mercer, Nellie May	*Rock Elm*
Mereen, Donald Kenneth	*Minneapolis, Minn.*
Merriam, Martha McLain	*Toledo, O.*
Metcalf, Alice	*Chicago, Ill.*
Metcalf, Lael Frances	*Spring Green*
Metcalf, Minnie Wilson	*Chicago, Ill.*
Meyer, Elmer Ephraim l s	*Kiel*
Midgard, Judith May	*Stoughton*
Miles, Helen A.	*Chicago, Ill.*
Miller, Ada Elizabeth	*Madison*
Miller, Alpha Maud	*Millersville, Mo.*
Miller, Lucile Dorothy	*Aurora, Ill.*
Miller, Lyndon Thayer	*Milwaukee*
Miller, Nina M. R. l s	*Madison*
Miller, Viola Hazel l s	*Evansville*
Miller, Walter Hubert	*Decatur, Ill.*
Mills, Joseph Alderman l s	*Madison*

Mills, Mark Carter	*West Newton, Ind.*
Miltimore, William	*Dorchester*
Mink, Fred Clair	*Cassville*
Mitchell, Edna Leota	*Madison*
Mitchell, John Lendrum l s	*Milwaukee*
Mitchell, Manley Partee	*Madison*
Mitchell, Vera l s	*Hillsboro*
Mitchell, Winifred	*Chicago, Ill.*
Moen, Ole Theodore	*Forest City, Ia.*
Monk, Robert William	*Neillsville*
Moody, Earl Atlas	*Beloit*
Moore, Laura Edna	*Elgin, Ill.*
Moore, Leah Rachel	*Poynette*
Moore, Leonard Fisk	*Ligonier, Ind.*
Moore, Lulu Mary	*Toledo, O.*
Moran, Mary l s	*Madison*
Morehart, Malcolm Butler l s	*Mankato, Minn.*
Morford, Ella Loretta	*Bippus, Ind.*
Morgan, Florence Jessie	*Rockford, Ill.*
Morgan, Frederic Evan	*St. Louis, Mo.*
Morgan, James Allison l s	*Freeport, Ill.*
Moroney, Lelia	*Dallas, Tex.*
Morris, Percy Jay l s	*Milwaukee*
Morrison, Gordon Glenn	*St. Louis, Mo.*
Morrow, Irvin Leroy	*Muncie, Ind.*
Morse, Helen Estelle	*Olney, Ill.*
Morse, Helen Ide	*Williams Bay*
Morse, Lucy Allen	*Clinton, Mo.*
Morton, Rubye Myrtle	*Jackson, Mo.*
Moser, Robert	*River Falls*
Moser, Will Charles	*River Falls*
Moyer, Sara Jane	*Juda*
Mueller, Amy Fredericka l s	*Madison*
Mueller, Eleanor l s	*South Bend, Ind.*
Mueller, Elsa Dora	*Cincinnati, O.*
Mueller, Hanna Carolina	*Indianapolis, Ind.*
Mueller, Helen Brandes	*Cape Girardeau, Mo.*
Mueller, Henrietta Margaret	*Madison*
Mull, William Louis l s	*Muscatine, Ia.*
Mullane, Alice H.	*Louisville, Ky.*
Müller, Herbert Arthur l s	*Reedsburg*
Mullowney, Nora l s	*Milwaukee*
Munkwitz, Richard Charles	*Edgar*
Murley, Leone	*Boscobel*
Murphy, Ambrose Edward l s	*La Crosse*
Murphy, Clare Roy	*Madison*
Murphy, Harry Saunders l s	*Madison*
Murphy, Lawrence William l s	*Madison*
Murphy, Martin	*Hilbert*
Murphy, Samuel Alfred l s	*Madison*
Murray, Hyacintha Bertha	*Madison*
Myers, Burton Allen l s	*Madison*
Myrland, Otto Eugene l s	*Madison*

Naffz, Alice Camille	*Madison*
Nagle, Leonora Claire	*St. Louis, Mo.*
Naidl, George Matthew l s	*Whitelaw*
Nau, Dorothy Elizabeth	*Columbus, O.*
Neeb, Gilcher E.	*St. Louis, Mo.*
Neff, Roy H.	*Lake City, Minn.*
Nelson, Signor Elmer	*Ada, Minn.*
Nelson, Wilford Merriam ls, m	*Heroult, Cal.*
Neubauer, Paul Fred George	*Milwaukee*
Neumann, Roland Ferdinand	*New Ulm, Minn.*
Neupert, Frieda Lenore	*Lake Mills*
Nevison, Jean Eva	*Cincinnati, O.*
Newbury, Horace Charles ls, m	*Waukesha*
Newlun, Chester Otto	*Hillsboro*
Newman, Esther	*Evansville, Ind.*
Nicely, Ruth S. ls	*South Bend, Ind.*
Nichols, Charles Solen	*Kalamazoo, Mich.*
Nichols, Merle Starr ls	*Kahoka, Mo.*
Nicoll, Edward William a	*Kenosha*
Niebaum, Irene Charlotte	*Pittsburgh, Pa.*
Nienaber, Katherine Mable a	*Madison*
Nill, Mary Elizabeth	*Massillon, O.*
Nipe, Myrtle Helen	*Beloit*
Noble, Thomas Benjamin ls, m	*Indianapolis, Ind.*
Nolan, Edward Paul ls	*Madison*
Nordmeyer, Alice Elizabeth ls	*Madison*
Norton, Lucie Carolin	*Somerville, Mass.*
Nuzum, Ralph Edgar ls	*Viroqua*
Oberbeck, Walter Carl	*Grand Rapids*
O'Brien, Marie Eileen ls	*Madison*
O'Connell, John Francis	*Madison*
O'Connell, Margaret Mary	*Chicago, Ill.*
O'Connor, John Peaslee	*Superior*
O'Connor, Vernon William	*Madison*
Oesau, Theo J.	*New Holstein*
Ogden, Benjamin Miles	*Swissvale, Pa.*
Oge, Martha	*Chicago, Ill.*
O'Hora, Raphael McNulty ls	*Madison*
O'Leary, Clarence	*Hammond*
Olsen, Mabel Elaine	*Elgin, Ill.*
O'Malley, Mary Josephine	*Chicago, Ill.*
O'Malley, Thomas Stanley ls, m	*Madison*
O'Meara, Allan Richard	*Chicago, Ill.*
O'Neil, Marion Eugenie ls	*Chippewa Falls*
Opgenorth, Olive Carolyn ls	*Kewaskum*
Opper, Anna Page ls	*Weyauwega*
Opper, Clara Louise	*Weyauwega*
Opstedal, Joseph Arnold ls, m	*Madison*
Osborne, Robert Henry ls	*Baraboo*
Ostlund, Leonard Josephus ls	*Cambridge*
Otterson, Joseph Orlando ls	*Madison*
Overton, Sadie Elizabeth	*Wilberforce, O.*
Paddock, Rychen Mayhew	*Wyoming, O.*

Palmer, Frances Angeline ls	*Vernon Center, Minn.*
Parfrey, Lela Verne	*Richland Center*
Parizak, Josephine Margaret	*Green Bay*
Park, Maxwell Gerald	*Cole Camp, Mo.*
Parke, Vera Janet ls	*Madison*
Parkhurst, Caroline Elizabeth	*Manchester, N. H.*
Parks, Clara	*Hamilton, Ill.*
Parrott, Frances Isabel	*Dayton, O.*
Parson, Minnie Alice	*Greentown, Ind.*
Pasold, Clara May	*Boscobel*
Patchin, Nelle E.	*Wyocena*
Pate, Sudie Martha	*Coffeeville, Miss.*
Patt, Roscoe Foote	*Madison*
Patterson, Bertha Louise ls	*Appleton*
Patterson, Ruby	*Bowling Green, Mo.*
Paulson, Florence Matilda	*Rockford, Ill.*
Pearson, Cecil Philip ls	*Madison, N. J.*
Peebles, Grace Elizabeth ls	*Oconomowoc*
Peebles, Lucia Gloriene	*Boone, Ia.*
Peisch, Archie Marcus	*Eau Claire*
Pelton, Glenn Edwin	*Oshkosh*
Peniwell, Goldie Mae	*Wichita, Kans.*
Perel, Rose ls	*Chicago, Ill.*
Pergande, Loretta M. ls	*Milwaukee*
Perkins, John Raymond ls	*Madison*
Perrin, Ellenor Bates	*San Francisco, Cal.*
Peterman, Mynie Gustav ls	*Merrill*
Peters, Edwin Reaves	*Warrensburg, Mo.*
Peters, Elsie Vogt	*Milwaukee*
Petersen, Anna Jeannette	*Berlin*
Petersen, Estelle Lillian ls	*Racine*
Petersen, Rebecca Orpha ls	*Madison*
Pfeiffer, Grover	*Quincy, Ill.*
Philipp, Ernest Joseph ls	*Milwaukee*
Phillips, Harold Edward ls, m	*Chicago, Ill.*
Phillips, Martha Toombs	*Wayne, Neb.*
Philpott, Eva Victroice	*Prairie du Sac*
Phipps, Cecil Vivian	*Milwaukee*
Pierce, A. Lois	*Hudson, S. D.*
Pierce, Cordelia	*Waukesha*
Pierce, Dorothea	*Duluth, Minn.*
Pierce, Gladys Marie ls	*Brodhead*
Pierce, Leo Francis	*Grinnell, Ia.*
Pierce, Myrtle Louise	*Duluth, Minn.*
Piggins, Ralph Sprowle ls, m	*Milwaukee*
Pittenger, Edward Mills ls	*Madison*
Pitts, Joseph Samuel	*River Falls*
Place, Olive Blanche	*Pennville, Ind.*
Polson, Grover Cleveland	*Kirksville, Mo.*
Powell, Elias ls	*Madison*
Pratt, Don Forrester	*Madison*
Pray, Carrie Lucretia	*Indianapolis, Ind.*
Preble, Barbara	*Chicago, Ill.*

Prescott, E. Marguerite ls	*Cambridge*
Prescott, Leroy Albert	*Muskegon, Mich.*
Price, George Gustav	*Winnipeg, Man., Can.*
Pritchard, Nellie Austin	*Omaha, Neb.*
Pritchett, Norton Goodier	*Louisville, Ky.*
Puchta, Lawrence G.	*Cincinnati, O.*
Purdy, Lawrence H.	*Avoca*
Quinn, Mathew James	*Ellsworth*
Quisling, Axel Goodwin	*Madison*
Radke, Etta Ida ls	*Madison*
Radtke, Roy Arthur	*West Allis*
Ramaker, Clara Grace	*Milwaukee*
Ranahan, Margaret	*Terre Haute, Ind.*
Rauschenberger, Ernst John	*Milwaukee*
Redmond, Elizabeth Kathryn	*Aurora, Ill.*
Reed, Grace ls	*Sparta*
Reese, Gordon Braman a	*Milford, N. H.*
Rehfeld, Frances Eugenia ls	*Milwaukee*
Reichelt, Norma Augusta	*La Crosse*
Reif, Herman Peter ls	*Madison*
Reimers, Fred Henry ls	*La Crosse*
Reinhart, Ruth D.	*Indianapolis, Ind.*
Renick, Brink Coleman	*Paris, Ky.*
Reppen, Nels Oliver	*Northwille, S. D.*
Reszke, Felix Eugene	*Cincinnati, O.*
Rex, Hazel Dietz	*Toledo, O.*
Reynolds, Mildred Marguerite	*Cottage Grove*
Richards, William ls	*South Bethlehem, Pa.*
Richardson, Helen	*Evansville*
Richardson, Marion	*Kendall*
Richardson, Porter Alex	*Evansville*
Rieger, Harry William ls	*Sterling, Ill.*
Rilling, Florence Frances	*Milwaukee*
Risdon, Roland Howard	*West De Pere*
Ritter, Elizabeth Mary	*Chicago, Ill.*
Ritter, George J.	*Wausaukee*
Ritzman, Ralph Roscoe ls, m	*Madison*
Robb, Madge Munroe	*St. Louis, Mo.*
Roberts, Blanche Edna	*Union Grove*
Robertson, Walter Kempster	*River Forest, Ill.*
Robinson, Marie Ethel	*Menominee, Mich.*
Robison, Bryan e	*Chippewa Falls*
Rodda, Melvin Trewartha	*Hazel Green*
Rodger, Mary	*Decatur, Ill.*
Rodgers, Bertha	*Washington, D. C.*
Rodgers, Frances G.	*Texarkana, Tex.*
Roettig, Gladys Maries	*Chicago, Ill.*
Roetzer, Olga C.	*Milwaukee*
Rogers, Mary Reubena	*Union Mills, Ind.*
Rohan, Benjamin	*Oconto*
Rohr, Charles Davis	*Burlington*
Rohsenberger, Carl John ls	*Evansville, Ind.*
Rolfe, Jean Francis	*La Farge*

Rolfe, Ruth Sackett	*Waukesha*
Rolland, Marius	*Thief River Falls, Minn.*
Rollmann, Edwin	*Chilton*
Ronald, Louise	*Evansville*
Ronge, Olive Marie	*Milwaukee*
Rosanes, Albert	*Milwaukee*
Rose, Byrtha Alta	*Franklin, Ind.*
Rosenberg, Louis R.	*Madison*
Rosenkrans, Elizabeth R.	*Oconomowoc*
Rosenow, Gustav Adolph ls	*Menasha*
Rosenthal, Hattie	*St. Louis, Mo.*
Rosenthal, Olga Judith	*Milwaukee*
Ross, Amanda Ida ls	*Milwaukee*
Rothwell, Paul Taylor	*Madison*
Roudebush, Mary Torrey	*Memphis, Tenn.*
Rousseau, Lousene Gwendolynne ls	*Rib Lake*
Rowan, Frank Brien	*St. Louis, Mo.*
Rowe, Miltanna	*Spearfish, S. D.*
Rowlands, Robert David ls	*Racine*
Rubado, Clarence Arthur	*Cameron*
Rudersdorf, Bertha	*Janesville*
Ruehl, Wilbur Herman ls	*Beaver Dam*
Rueth, Peter Alphonso ls	*Sun Prairie*
Runge, Elizabeth Agnes ls	*Milwaukee*
Runge, Florence Clara	*Milwaukee*
Rusch, Ella Louise	*Wausau*
Rusch, Gertrude	*Wausau*
Ryan, Bessie	*Chicago, Ill.*
Ryan, Edith Millicent	*Appleton*
Ryan, Helena Margaret	*Quincy, Ill.*
Sadler, Omar T. ls	*Hart, Mich.*
Saleski, Felicitas	*Madison*
Sanborn, Philip Golder l	*Madison*
Sanders, Hazel A. ls	*Madison*
Sanderson, Pearl E.	*Milwaukee*
Sather, Ingabor Johannah	*Madison*
Saunders, Fairfax Garner ls	*Waterloo*
Schaefer, Ruth Marian	*Chicago*
Scherf, Etta ls	*Indianapolis, Ind.*
Scherf, Walter Carl	*Green Bay*
Scheuber, Frank Adolph ls	*Livingston, Mont.*
Schickedanz, Louis Herman	*Pontiac, Ill.*
Schierz, Ernest Rudolph ls	*Milwaukee*
Schiesser, Kathryn	*Monroe*
Schilling, Ethel Florence	*Green Bay*
Schilling, Fred Carl ls	*Horicon*
Schilling, Vida	*Duluth, Minn.*
Schlech, Leo Peter	*Madison*
Schlegel, Erna ls	*Westfield*
Scholsser, Francis Frederick	*Eau Galle*
Schmidt, Emma Augusta	*Milwaukee*
Schmidt, Ernst Conrad ls	*Chicago, Ill.*
Schmidt, George Adolph ls	*Chicago, Ill.*

Schmidt, Irma Bertha ls	*Evansville, Ind.*
Schmidt, Willmer Garwin	*Menominee Falls*
Schneider, Bertha J.	*St. Louis, Mo.*
Schoonover, Arthur Floyd	*Richland Center*
Schuber, Herman Jay	*Huntington, Ind.*
Schuler, Ann Gabrielle ls	*Milwaukee*
Schultz, George Howard ls	*Milwaukee*
Schultz, Magnus Petersen ls	*Madison*
Schwarz, Leonard J. ls	*Chilton*
Schwittay, Margaret Marie	*Pound*
Scilley, Jean Irene ls	*Billings, Mont.*
Seavert, Eloise Susan ls	*Chicago, Ill.*
Secrest, Frances Louise	*Cincinnati, O.*
Seibel, Glee Page	*Manlius, Ill.*
Seids, James Vane ls	*Moline, Ill.*
Settle, Edward J. a	*Bozeman, Mont.*
Severinghaus, Aura Edward	*Toledo, O.*
Sevringhaus, Elmer Louis ls	*New Albany, Ind.*
Shafer, Edna	*South Milwaukee*
Sharp, Malcolm Pitman	*Madison*
Sharretts, Marguerite	*Baltimore, Md.*
Shaw, Cornelia Elizabeth	*Zion City, Ill.*
Shea, Gertrude	*Chicago, Ill.*
Sheldrew, Frederick H.	*Spring Valley*
Shepherd, Louise ls	*Madison*
Shepherd, Sarah C.	*Madison*
Sheppard, Otilla M.	*Pittsburgh, Pa.*
Sherman, Ivan Ashley ls	*Marshall*
Shilliday, Agnes Gray	*Pittsburgh, Pa.*
Shilliday, Sara A.	*Pittsburgh, Pa.*
Shorey, Inez Ann	*Oshkosh*
Shuler, Charles	*Davenport, Ia.*
Sibley, Caroline Anna	*Muskegon, Mich.*
Sievert, Theodore Walter	*Fort Atkinson*
Simmons, William Francis	*Milwaukee*
Simonson, Marian ls	*Madison*
Sister Marian	*Milwaukee*
Sister Marie Bernard	*Sinsinawa*
Sister Mary Laurentina	*Sinsinawa*
Sister Mary Samuela	*Milwaukee*
Sister Mary Virginia	*Sinsinawa*
Skinner, Helen	*Madison*
Skowlund, William Nels	*Oshkosh*
Smiley, Paul Hamline	*Garnett, Kan.*
Smith, Charlotte Estelle ls, w l s	*Chicago, Ill.*
Smith. Earl Duane	*Berlin, Mich.*
Smith. Edith M. ls	*Port Washington*
Smith. Elizabeth Inness	*Middleburg, Va.*
Smith. Homer John	*Milwaukee*
Smith. Loretta Leone	*Superior*
Smith. Lulu Belle	*Milwaukee*
Smith, Lynwood Herbert ls	*Madison*
Smith, Marie	*Milwaukee*

Snaddon, George Hutton	*Madison*
Snyder, Harry Evan	*Marinette*
Solberg, Victor	*Eau Claire*
Sommer, Fanny Elizabeth ls	*Denton, Tex.*
Sommer, Mary Theresa Rose	*Denton, Tex.*
Sorenson, Cora Josephine	*Klevensville*
Sowers, Vivian King	*Indianapolis, Ind.*
Spain, Helen Frances ls	*Madison*
Speer, Bedell Hudson ls	*Pittsburgh, Pa.*
Spencer, Paul Richards	*River Falls*
Sperry, Donald Draper ls	*Oak Park, Ill.*
Spicer, Claude Earle	*Detroit, Mich.*
Spicer, Myrle Harrison	*Madison*
Spielmacher, Margaret	*Superior*
Spooner, Truman Rhodes ls	*Whitewater*
Sproesser, William Charles	*Milwaukee*
Stadelbauer, Fred Walker ls	*Madison*
Stander, Arthur Earl ls	*Madison*
Stang, Hartwick M. ls, m	*Eau Claire*
Staples, Flora Della	*Iola*
Starker, Ernest August ls	*Burlington, Ia.*
Staska, Frances Marion	*Lake Forest, Ill.*
Steele, F. Irene	*Philadelphia, Pa.*
Steele, Linda	*Wyocena*
Steelsmith, Clarence Alfred	*Troy, Idaho*
Steere, Edith Alice	*Ann Arbor, Mich.*
Stein, Frieda Marie	*Chicago, Ill.*
Stein, Hermon ls	*Madison*
Steinmetz, Edith Margaret	*Indianapolis, Ind.*
Steketee, Paul L.	*Grand Rapids, Mich.*
Stelberg, Edward Carl	*Racine*
Stenjem, Eldon M. ls	*Madison*
Stephens, Stephen DeWitt ls	*Madison*
Stern, Louise	*Green Bay*
Steuer, Joseph True	*Chicago, Ill.*
Steuerwald, Gilbert Earl	*Milwaukee*
Stevens, Eleanor Graham	*St. Louis, Mo.*
Stevens, Mary Edith	*Bristol*
Stevenson, Jane Alexander	*Milwaukee*
Stickling, Nora Benedicta	*Elgin, Ill.*
Stillman, George Holzer	*Duluth, Minn.*
Stivers, Grace Helen	*Dayton, O.*
Stocking, Myrtle Holmes ls	*Lindenwood, Ill.*
Stone, Frank Moore ls	*Madison*
Storbraaten, Herbert John	*Rio*
Stouffer, David Andrew	*Lanark, Ill.*
Stough, Elizabeth	*Canton, O.*
Stoughton, Nellie May	*Duluth, Minn.*
Stover, Isabelle Byington	*Milwaukee*
Straub, Julia Gertrude	*Evansville, Ind.*
Straub, Marie Louise	*Evansville, Ind.*
Straus, Michael Wolf ls	*Hinsdale, Ill.*
Strieter, Ottomar George	*Seward, Neb.*

Strossman, Marion Rae	*Aurora, Ill.*
Stuart, George Van Norman ls	*Milwaukee*
Sturtevant, Imogen ls	*Madison*
Sturtevant, Walter Wells	*St. Paul, Minn.*
Sullivan, Isabel	*Oak Park, Ill.*
Sutherland, Leah Elizabeth ls	*Madison*
Sutton, Henry Francis	*Green Bay*
Swanson, Amy Marie	*Ironwood, Mich.*
Sweet, Benjamin Franklin ls	*Fond du Lac*
Swett, Lewis Wentworth	*Springfield, Ill.*
Swift, Olive Lucetta	*De Kalb, Ill.*
Sword, Julia Cecil ls	*Madison*
Sylvester, Grace Darling	*Chicago, Ill.*
Tammen, Thomas Peter ls	*Nokomis, Ill.*
Tanis, Lawrence Henry	*Vriesland, Mich.*
Tapper, Benjamin William	*Chippewa Falls*
Tarney, Clyde Harold	*Wonewoc*
Taylor, Adeline Alcott	*La Crosse*
Taylor, Joseph Vincent ls, m	*Marple, Nebr.*
Taylor, Walter Lane	*Kansas City, Mo.*
Teare, John Lawrence	*Monmouth, Ill.*
Teare, Robert Cable	*Monmouth, Ill.*
Teschner, Else ls	*Milwaukee*
Thamm, Louis Ferdinand Herman	*Milwaukee*
Thayer, Vivian Trow	*Ashland*
Theiss, Anna Theresa	*Milwaukee*
Thiele, Victoria Carolyn	*Oshkosh*
Thies, Arthur Richard l s	*Pepin*
Thomas, Charlotte B.	*Oneonta, N. Y.*
Thomas, Edward John	*River Falls*
Thomas, Emma Louise Grant	*Philadelphia, Pa.*
Thomas, Emma Maxon	*Chicago, Ill.*
Thomas, Georgia M.	*Grand Rapids, Mich.*
Thomas, Maurice Loyd	*St. Louis, Mo.*
Thomas, Ruth Marie l s	*Chicago, Ill.*
Thompson, Bernice Louise	*Racine*
Thompson, Esther Katherine l s	*Elmwood*
Thompson, Fred Rush l s, m	*Cedarville, Ill.*
Thompson, Genevieve	*Spring Valley, Minn.*
Thompson, James Everett	*Madison*
Thompson, Jessica A.	*Madison*
Thompson, Victor Emmanuel l s	*Madison*
Thompson, W. Leonard	*Oshkosh*
Thomson, William White	*Rockville, Ind.*
Thrall, Earl W.	*Oconomowoc*
Threadgill, Virginia Grace	*St. Louis, Mo.*
Threlkeld, Archie Loyd	*Unionville, Mo.*
Tidmarsh, Ruth Mable	*Whitewater*
Tiegs, Ernest Walter	*Peshtigo*
Torgerson, Irma Bithey	*Lodi*
Torgerson, Theodore L.	*Lodi*
Torney, Juliana	*Milwaukee*
Torney, Norma Amalia	*Milwaukee*

Tornquist, Alpha Caroline	*Champaign, Ill.*
Toule, Emma	*Green Bay*
Town, George Galloway l s	*Madison*
Tracy, Anne Chester	*Peoria, Ill.*
Traeger, Ernest Lawrence	*Milwaukee*
Tredennick, Emma	*Johnstown, Pa.*
Trewartha, Evangeline	*Hazel Green*
Tribe, Ruth May	*Milwaukee*
Trissler, Georgiana Gwendoline	*Middletown, O.*
Trottman, Joseph Stafford	*Milwaukee*
Trueblood, Basil Carl	*Salem, Ind.*
Tsao, John Mou	*Kwong-chow, China*
Tseng, Yu Mei l s	*Haimen Hsien, China*
Turner, Charles Wesley a	*Madison*
Tuttle, Ray Charles	*Madison*
Twetten, Jennie O.	*Milltown*
Twohig, Laura Anna	*Fond du Lac*
Twohig, Marie Evangeline l s	*St. Cloud*
Vail, Samuel Crane l s	*Detroit, Mich.*
Valentine, Edwin Earnest	*Green Bay*
Van Arsdale, Maurice William l s	*Racine*
Vanden Brook, Nona Dorothy	*Green Bay*
Van Duzee, Roy Ralph	*Menomonie*
Van Dyke, Madge Patterson l s	*Kilbourn*
Van Heise, Olive May	*Demarest, Ga.*
Van Horne, Mildred	*Evanston, Ill.*
Van Norman, Lorina Montague	*Milwaukee*
Van Steenberg, Nina	*Lansing, Ill.*
Vinnedge, Clarence Edward l s	*Anderson, Ind.*
Vishnevskiy, Feodosiy	*Madison*
Vivian, Robert Stansmore l s	*Mineral Point*
Voss, Edward Fritz l s	*Madison*
Voss, Ervin Arnold	*Elkhorn*
Vrooman, Gertrude Sherman l s	*Washington, D. C.*
Wachter, Frances Marie	*Chicago, Ill.*
Wackman, Clarence Frederick	*St. Louis, Mo.*
Wahle, George Henry l s, m	*Marshfield*
Waite, Fanny Maud	*Rockton, Ill.*
Wakeman, M. Lydia l s	*Madison*
Waldron, Mabel	*Belvidere, Ill.*
Walker, Grover Cleveland	*Wapakoneta, O.*
Walkup, Helen	*Crawfordsville, Ind.*
Wallace, William Thompson	*Hastings, Mich.*
Walser, May Dora	*Northwood, Ia.*
Walters, Grace	*Lafayette, Ind.*
Ward, Edmund James	*River Falls*
Ward, Elizabeth Lane l s	*Madison*
Ward, Joseph Leon l s	*Decatur, Ill.*
Warner, Kenneth Baird	*Bridgeport, Conn.*
Warner, Nellie l s	*Madison*
Warren, Anna Lucile l s	*Baraboo*
Wartinber, Francis Donald	*Eagle River*
Warzinik, Anne Marie	*Milwaukee*

Watson, Florence Giddings l s	*River Forest, Ill.*
Watson, John Charles	*Ironwood, Mich.*
Webb, Alice Lindsey l s	*Madison*
Webster, Margaret Rebecca l s	*Milwaukee*
Weck, Charles W. l s	*Madison*
Wedel, Sylvia Carmen l s	*St. Louis, Mo.*
Weiss, David l s	*New York, N. Y.*
Weiss, David William l s	*Milwaukee*
Weisse, Henry Charles l s	*Sheboygan Falls*
Welles, Paul Thompson	*Elmwood, Ill.*
Wells, Agnes	*River Falls*
Wells, Caroline Mary l s	*Stevensville, Mont.*
Welter, Helen Margaret	*Moorhead, Minn.*
West, Ray D.	*Menominee, Mich.*
West, Susanna	*Cincinnati, O.*
Westcott, May Kendall l s	*Baltimore, Md.*
Westcott, Penelope Sheild l s	*Baltimore, Md.*
Weston, Genevieve Lucy	*Madison*
Weston, Leone Avenell	*Hartington, Nebr.*
Wheeler, Crawford l s	*Eau Claire*
Wheeler, Ella Belle	*Madison*
Whelan, Allen	*Mondovi*
Whelan, William Miller	*Mondovi*
Whitbeck, Florence l s	*Madison*
Whitcomb, Eleanor	*Indianapolis, Ina.*
White, Addie M.	*Madison*
White, Charles Leland	*Madison*
White, Emma Brenneman	*Chicago, Ill.*
White, Olive Annie l s	*Madison*
Whitefield, Grace Woodley	*Danville, Va.*
Whiteford, Winnifred Anne	*Beardstown, Ill.*
Whittaker, Emily Cecelia	*Chicago, Ill.*
Wickham, William E. l s	*Eau Claire*
Wickliffe, Eleanor Hunt	*Louisville, Ky.*
Wickwire, Gail	*Clyde, O.*
Wiesner, Erwin Frank	*Manitowoc*
Wilber, Hazel Elizabeth l s	*Galesville*
Wilcox, Guy Chester l s	*De Pere*
Wilde, Edwin l s, m	*Milwaukee*
Wilger, Charles Albert l s	*Madison*
Williams, Lawrence Henry l s	*Delavan*
Williams, Myron Charles l s	*Wausau*
Wilson, Ann Elizabeth l s	*Brookings, S. D.*
Wilson, Marguerite Elizabeth	*Madison*
Wilson, Nellie Jane	*Belleville*
Wilson, Rowena Angie	*Portland, Ind.*
Wilson, Vera Gabrielle	*Portland, Ind.*
Wilson, Willie May	*Memphis, Tenn.*
Winger, Alice Vanderveer	*Springfield, O.*
Winship, Amy D.	*Madison*
Winter, Elizabeth G.	*Crawfordsville, Ind.*
Wittlin, Julia Catherine	*Appleton*
Witlmayer, John G.	*Wichita, Kans.*

Wittwer, Elgia Lela l s	*Madison*
Wolcott, Virginia	*Rockford, Ill.*
Wood, Henrietta Holmes l s	*Madison*
Wood, John Lynn l	*Waterloo*
Woodard, William Herbert	*Detroit, Mich.*
Woodbury, Newell Brown	*Beverly, Mass.*
Woods, Sam Edison	*Purvis, Miss.*
Woodward, Henry Robert l s	*Peoria, Ill.*
Worthing, Hugh Otis	*Madison*
Wright, John Jesse l s	*Antigo*
Wright, William Edward	*Garrett, Ind.*
Yeager, Susan Amelia	*Darlington*
Yocum, William Kerns l s	*Glen Moore, Pa.*
York, Pansy Celia	*Osseo*
Young, Adelbert Jacob	*Colby*
Young, Dorothy Evelyn	*La Crosse*
Young, Isabel H. l s, m	*Madison*
Young, Mary M.	*Pittsburgh, Pa.*
Youngquist, Alvin	*Whitehall, Mich.*
Yznaga, Fernando del Valle	*Baton Rouge, La.*
Zimmerman, Theresa Elizabeth	*Peshtigo* —1392

Music

Andrews, Lilly Maude mu	*Baraboo*
Ayer, Mary Lucile mu	*Verona*
Baer, Bessie T.	*Baraboo*
Bird, Carol a	*Madison*
Boecklen, Emma Caroline	*Chicago, Ill.*
Burmester, Calla Lillian June	*Madison*
Campbell, Lucile Eleanor mu	*Madison*
Chandler, Helen	*La Crosse*
Dunlap, Ellen Mae	*N. Fond du Lac*
Edwards, C. Irene mu	*Ashland*
Elwood, Vera Brown	*Madison*
Feeney, Mary Elizabeth mu	*Madison*
Fox, Blanche I. mu	*Madison*
Gjertson, Pearl Constance	*Stoughton*
Gnagi, Gladys mu	*Monroe*
Gumz, Martha Emily	*Aurora, Ill.*
Hanson, Evelyn Cornelia ls	*Rio*
Harker, Myra Susan mu	*Madison*
Jencks, Vescey Belle	*Lodi*
Johnson, Eunice May	*Waterloo*
Leland, Elizabeth Isabel	*Des Moines, Ia.*
Levitan, Esther	*Madison*
Linse, Margaret	*La Crosse*
Loughlin, Agnes Celestine ls	*Cherokee, Ia.*
Lovejoy, Edna Gurina	*Stoughton*
Lynch, Fannie Elizabeth	*Chicago, Ill.*
McGaw, Anna Elizabeth	*Pittsburgh, Pa.*
Morrow, Mary Bernice	*Danville, Ill.*

Paltz, Marie Anna E. mu	*Madison*	
Piper, Helen Elizabeth mu	*Madison*	
Portman, Margaret Henrietta	*Chicago, Ill.*	
Preston, Charlotte Elizabeth mu	*Madison*	
Ramsay, Susan Bowen	*Madison*	
Reppen, Meda Frances	*Northville, S. D.*	
Schautz, Carrie C.	*Milwaukee*	
Sheehy, Etta	*Green Bay*	
Shafer, Helen mu	*Monroe*	
Simpson, Olive	*Shullsburg*	
Skelton, Agnes Cecelia mu	*Madison*	
Stevens, Margaret	*Madison*	
Thomas, Oka	*Kansas City, Mo.*	
Tovey, Minnie Blanche mu	*Madison*	
Weaver, Paul John g	*Madison*	
West, Saida Wood	*Cincinnati, O.*	
Whipp, Phebie Jane	*Oshkosh*	
White, Vila Elizabeth mu	*Madison*	
Wichers, Alyde De Pree	*Holland, Mich.*	
Woolhiser, Tresa Ivy	*Madison*	—48

College of Engineering

Allen, William Seabury	*Davenport, Ia.*
Anderton, Harry Charles	*Dayton, Ohio*
Andrews, Arthur M. e	*Baraboo*
Ayres, Albert Owen e	*Madison*
Babush, Joseph Samuel e	*Milwaukee*
Ballard, George Lysle e	*Beloit*
Barrett, Charles	*Bellevue, Pa.*
Barrows, Kenneth Campbell e	*Madison*
Bendfelt, Herbert Albert e	*Madison*
Bennett, Thomas E. e	*Madison*
Berteling, Charles Niell e	*South Bend, Ind.*
Bissell, Clark Dean	*Richland, Mich.*
Bleyer, Addison Milton	*Manitowoc*
Bothum, George Gilbert e	*Madison*
Brandt, Ellis Rolland e	*Beloit*
Brewer, Vivian Walter e	*Richland Center*
Brinkmann, Walter Norman	*Menomonie*
Brock, Harold William e	*Madison*
Brown, Herbert Henry e	*Milwaukee*
Brown, Thomas Coburn e	*Socorro, N. M.*
Buchanan, Perry Baker ls	*Winnetka, Ill.*
Buckmaster, Ben S. e	*Kenosha*
Burke, Kenneth Richard e	*Manitowoc*
Carlson, David N. e	*Marinette*
Case, Percival Fuller e	*Racine*
Casey, Thomas Bernard e	*Chicago, Ill.*
Charlton, Alexander Richard e	*Milwaukee*
Clark, Henry Wesley	*Madison*
Clayton, Hoy Benjamin	*Monroe*

Coatsworth, Ralph	*Mexico, Mo.*
Collins, Carl Harold e	*Madison*
Conley, Brooks Lawson e	*Waukesha*
Connit, Fred Syman e	*Milwaukee*
Copeland, John Bird e	*Jefferson*
Cotter, C. Chester e	*Rowley, Mass.*
Cummings, Albert Edward	*St. Louis, Mo.*
Dahlman, Arthur Frederick e	*Sheboygan*
Davis, Roy Harold	*Topeka, Kans.*
Degan James Edwin e	*Baraboo*
Dexheimer, Earl Chambers e	*Fort Atkinson*
Dobbratz, John Walter e	*Milwaukee*
Donaldson, Chase e	*Madison*
Ducray, Raymond Giblot	*Baton Rouge, La.*
Eby, Samuel Hilary e	*Baltimore, Md.*
Ellwood, Charles Davidson e	*Madison*
Fanta, Erwin Krainik e	*Manitowoc*
Farley, John Leverett e	*River Falls*
Farrell, James Howard e	*Madison*
Feiler, William Revel e	*Evanston, Ill.*
Filtzer, Robert Louis e	*Milwaukee*
Frank, Reimar August e	*Milwaukee*
Gay, Henry Foreman	*Westboro*
Gehring, Ray William	*Appleton*
Gibert, Alfred Lincoln	*St. Louis, Mo.*
Giryotas, Walter Joseph	*Madison*
Gloger, William H. e	*Watertown*
Gollmar, Herbert Arthur e	*Baraboo*
Gonzaga, Josè Cesar	*Rua Bambina, Brazil*
Gottschalk, Chesley O.	*Scandinavia*
Grant, Eugene Lodewick e	*Chicago, Ill.*
Gray, Donald Underwood	*Fergus Falls, Minn.*
Green, William Carl e	*Green Bay*
Greenslade, Irving Jones e	*Milwaukee*
Grosser, Clarence Reynold ls	*Chicago, Ill.*
Gruetzmacher, Walter John Robert e	*Burnett*
Hague, Clifford Wilson	*Lake Mills*
Hallock, Neil Carey e	*Madison*
Hameister, Victor Carl e	*Madison*
Hansen, Ross Peter	*Withee*
Harries, George Harry	*Milwaukee*
Harvey, William Dow e	*Madison*
Heintzen, Harry Richard e	*Milwaukee*
Helmle, William Clarence e	*Oak Park, Ill.*
Henderson, George von Bunsen ls	*Dublin, N. H.*
Henkel, George J. e	*Milwaukee*
Heuser, John Ulrich e	*Madison*
Hilton, Earl e	*Chippewa Falls*
Hodgkins, Walter e	*Ashland*
Holmes, Charles Arthur e	*Trempealeau*
Holtum, Alfred	*Clinton*
Hosler, Harold J. e	*Reedsburg*
Howson, Arthur Wessels	*Madison*

Hughes, Robert William	*Madison*
Huntley, Harold R.	*Madison*
Johnson, Alvin Carlton ls	*Eau Claire*
Johnson, Frank e	*Lake Geneva*
Johnson, William Spencer e	*Beloit*
Jones, Victor Hugo e	*Mankato, Minn.*
Krueger, Carl Henry e	*Stevens Point*
Ku, Yen Tung	*Tientsin, N. China*
Lyman, Alfred Tileston e	*Milwaukee*
McAdams, Frank Clarence e	*Madison*
McCormack, Harry Jones	*Birmingham, Ala.*
McCracken, Alan Reed	*Paxton, Ill.*
MacDougall, Robert Marvin	*Downers Grove, Ill.*
McGilvary, Lewis Paton e	*Madison*
McHugh, Keith, S. e	*Madison*
McMullen, Cleve A. e	*Dodgeville*
Mackey, Walter Curridan e	*Madison*
Mackowski, John Edward e	*Princeton*
Magatagan, Robert Sylvester e	*Denuba, Cal.*
Mansfield, Robert Duston e	*Williston, N. D.*
Maucini, Joseph John e	*Madison*
Mead, Harold Washburn	*Madison*
Meckenstock, Ernest John e	*Madison*
Mendelsohn, Isador W. e	*Madison*
Merrill, John Franklin e	*Madison*
Mielenz, Harold Frederick e	*Milwaukee*
Mikna, Alois Joseph e	*Milwaukee*
Miller, George E. e	*Fairmont, W. Va.*
Moon, Herbert J. e	*Madison*
Mosher, Frank Bartlett e	*New Richmond*
Nathan, Walter Solomon e	*Milwaukee*
Nelson, Hubert E. e	*Madison*
Nicholson, Charles Henry e	*Crowley, La.*
Nordmeyer, Carl Louis e	*Madison*
Norris, Ralph Forbush e	*Milwaukee*
Norton, Paul Thornley e	*Madison*
Oakey, Warren e	*Madison*
Oestreich, Carl Ralph e	*Milwaukee*
Parker, Robert H. e	*Madison*
Patterson, Robert Paul	*Luck*
Paul, Parry Haines e	*Moorestown, N. J.*
Peeples, Marion Allen	*Indianapolis, Ind.*
Pergande, Arthur George e	*Cedarburg*
Peterson, Lynnford Lawrence e	*Deming, N. Mex.*
Phelps, Raymond A. e	*Beloit*
Poe, Charles Roy e	*Madison*
Polacheck, Stanley e	*Milwaukee*
Pott, Herman Theodore e	*Madison*
Prince, Earl Samuel e	*Downers Grove, Ill.*
Proetz, Charles	*St. Louis, Mo.*
Quasigroch, Leo a	*Grand Rapids*
Rankl, Fred Anthony e	*Milwaukee*
Reinhardt, Joseph Albert e	*Madison*

Re Qua, Eugene Miner e	*Sioux Falls, S. D.*
Richardson, Marston Samuel l s	*Madison*
Roberts, Ernest E. e	*Madison*
Roddewig, Gilbert Ferdinand e	*Davenport, Ia.*
Royce, Frank e	*Black Creek*
Ryan, James Thurston	*Wausau*
Ryan, William Dennis e	*South Kaukauna*
Saigh, Nicholas Abram	*Janesville*
Schad, James Albert e	*Madison*
Scheinfeld, Emmanuel e	*Milwaukee*
Schmid, John Michael	*Cudahy*
Schroeder, Alfred George	*Madison*
Schumacher, Charles John	*Johnson Creek*
Scott, Allison Fendall Hannay e	*Washington, D. C.*
Shufflebarger, Frank David e	*Madison*
Sizer, Frank Milton e	*Dos Cabezas, Ariz.*
Smith, Philip Harold e	*Oconto*
Souza, Jacy Tolentino de	*S. Paulo, Brazil, S. A.*
Standish, Miles Everett	*South Milwaukee*
Steere, Maynard Joseph e	*Kalispell, Mont.*
Steffens, David Burton	*Racine, Minn.*
Steinle, Clinton Rolland	*Madison*
Steuber, Milton Carl e	*Madison*
Stevens, Charles Leigh	*Muskegon, Mich.*
Stimson, Paul Reeve e	*Appleton*
Stites, Luke Sells	*Kirkwood, Mo.*
Strong, Albert J.	*Gainesville, Fla.*
Stuart, Chas. Whitman e	*Monroe*
Su, Kan e	*Kwangsi, China*
Taussig, Warren Allen e	*Kirkwood, Mo.*
Taylor, George Conant	*N. Marshfield, Mass.*
Templeman, Raymond B.	*Kenosha*
Thatcher, Frederick Robert	*Elgin, Ill.*
Thomas, Rush E.	*Madison*
Tifft, Thomas De Colon	*Wauwatosa*
Townsend, John Banes e	*St. Joseph, Mo.*
Ulmer, George Frederick	*Mt. Oliver Sta., Pa.*
Umbreit, Stanton e	*Milwaukee*
Van Patten, Everett Hoxie e	*Evansville*
Wadsworth, Randolph Lincoln e	*Ft. Thomas, Ky.*
Wahle, Walter Edwin e	*Davenport, Ia.*
Walden, George Ballard	*Franklin, Ind.*
Waldron, Russel Eli e	*Madison*
Walker, William Louis	*Mendota*
Ward, Cyril e	*Boone, Ia.*
Watzke, Gustav H. e	*Madison*
Weaver, Warren e	*Madison*
Weber, Joseph Aloys e	*Appleton*
Wells, Grant Robert	*Oakfield*
Wertheim, Ferd Eliel e	*Madison*
Willmore, Charles Blake e	*Madison*
Woodson, James P. e	*Madison*
Young, John Ward	*La Crosse*
Zahorik Peter Anton	*Mliwaukee* —189

College of Agriculture

Adams, Grace Arlena a	*Omro*
Aeppler, Carl William a	*Campbellsport*
Albee, Nellie Blye	*Waterford*
Albertz, Hugo William	*Watertown*
Ames, Norton Travis a	*Oregon*
Antelman, Alice Anna	*Superior*
Antholz, Henry J.	*Manitowoc*
Arnold, Anna	*Kiel*
Baker, Jennie	*Prairie du Sac*
Barnes, Dora R. a	*Madison*
Bauman, Gus Adolph a	*Quincy, Ill.*
Beckwith, Ernest Garfield	*Madison*
Belden, John Ellsworth a	*Racine*
Belden, Stanley R. a	*Racine*
Bender, Harry	*Evansville*
Benecke, Ernest H. A.	*Milwaukee*
Benedict, Murray Reed a	*Neillsville*
Berge, Abel John	*Brooklyn*
Bertrand, Pearl Eta a	*De Forest*
Bingham, Harold Spencer	*Milton*
Birong, Estella Marguerite a	*Madison*
Bishop, Lois Grace	*Grand Rapids, Mich.*
Blatchford, Percival John a	*Chicago, Ill.*
Boerke, Edison Morse	*Wausau*
Boerke, Elmer George	*Wausau*
Bohn, Ralph Maxwell a	*Madison*
Boucher, Sylvester Morris	*Kirksville, Mo.*
Bowman, Jacob Kreider a	*Campbelltown, Pa.*
Breitenbach, Vera Mae a	*Madison*
Briggs, Paul Austin a	*St. Paul, Minn.*
Brown, Allan G.	*Almond*
Brusse, William a	*Baldwin*
Bryarly, Katharine Lee	*Milwaukee*
Burch, John Henry a	*Ashland*
Burgess, Milo David	*Maiden Rock*
Burnham, Donald R. a	*Waupaca*
Burns, Clifford Clare	*Madison*
Burwell, Edward Langworthy a	*Madison*
Byers, Maple Morgan	*Franklin, Ind.*
Cameron, Isabella Catherine	*Chippewa Falls*
Campbell, Katherine	*Houston, Tex.*
Cannon, Earl James	*Minoqua*
Cantwell, William Henry	*Shawano*
Cappell, Edmund Peter a	*Cincinnati, O.*
Carter, Bernice	*College Station, Texas*
Challoner, Bessie Eunice	*Green Bay*
Chang, Tien Tsai	*Canton, China*
Chinnock, Raymond J. C.	*Rib Lake*
Christensen, Wiggo	*Hudson*
Christian, Elizabeth Langston	*Little Rock, Ark.*

Church, Nancy Jane	*Walworth*
Coapman, Verne E. a	*Wyocena*
Cobb, Hope Elizabeth a	*Wheaton, Ill.*
Coon, Fay Burdick	*Hartland*
Corey, Silas Grover a	*Ripon*
Cramer, Albert Julius a	*Merrill*
Cusick, Edward Timothy a	*Oregon*
Dasso, Augusto Caesar a	*Boston, Mass.*
Decker, Marguerite Anna	*Evansville, Ind.*
De Quire, George	*Milltown*
Denny, Elsie	*St. Louis, Mo.*
Dopkins, Clyde De Forrest a	*River Falls*
Dormeyer, William George a	*Madison*
Downing, Charles James a	*Kansas City, Mo.*
Dray, Oscar Sherman	*Richland Center*
Eastlund, Lillian a	*Superior*
Eger, Harold Anderson l s	*Madison*
Elliott, James N.a	*Waco, Texas*
England, Emma Kaspar a	*Madison*
Evans, Sydney	*Merion, Pa.*
Fidlar, Orville Fred	*Vincennes, Ind.*
Fisher, Janon	*Eccleston, Md.*
Flynn, Frederick T. a	*Xenia, Ohio*
Forsberg, Carl Axel a	*Prentice*
Foshinbaur, George A. a	*Madison*
Freeman, Chas. Marble a	*Hinsdale, Ill.*
Fütterer, Wolfram Alexander a	*Chicago, Ill.*
Gahagan, John Martin	*Milton Junction*
Ganske, Grace Vera	*St. Francis*
Gillies, Mary Catherine	*Chicago, Ill.*
Godfrey, Mary Grace a	*Whitewater*
Goetz, Anna Frances	*Milwaukee*
Gratiot, Edward Collins a	*Shullsburg*
Gray, Georgia Hamilton	*Louisville, Ky.*
Gress, Elizabeth Bird	*Little Rock, Ark.*
Guehma, Flora	*Sheboygan*
Gundersen, Borge Carl a	*La Crosse*
Gunderson, Nellie May a	*Cherokee, Ia.*
Hansen, William Carl	*Withee*
Hanson, Karl Burchard a	*Madison*
Hatch, Lisle Campbell	*Augusta*
Hawley, Villetta Irene a	*Oregon*
Hedges, Arthur F.	*Madison*
Heit, Florence Josephine	*Fort Wayne, Ind.*
Hembre, Julius Ole a	*Greenwood*
Henry, Alexander Lloyd	*Wonewoc*
Hibbard, Carrie Adelle a	*Madison*
Hills, Carroll Cody a	*Evanston, Ill.*
Hoag, Margaret Maria	*Ann Arbor, Mich.*
Holden, Eugene Davenport	*Chicago, Ill.*
Houser, Byron Ricks a	*Madison*
Hughes, Earl	*Wild Rose*
Humphrey, Martha Estelle a	*Wild Rose*

Jacka, Warren Stanway	*Mineral Point*
Jackson, Joseph Walter	*Monroe*
Jacobi, Paul Walter a	*Milwaukee*
James, Earle Butler	*Blue Island, Ill.*
Jensen, Lester Jay a	*Madison*
Jewett, Eleanor Rountree	*Chicago, Ill.*
Johnson, A. Oscar	*Lake Geneva*
Johnson, Hazel Orena a	*Madison*
Johnson, Mildred Emma a	*Madison*
Johnson, Oluf Elmer	*Westby*
Jones, Frances Louise	*Cincinnati, O.*
Jones, Ira D. a	*Wales*
Jordan, Julius Leo a	*Madison*
Jungkunz, William Kunz a	*Freeport, Ill.*
Karnopp, Evelyn Grace	*Mishicot*
Kelley, William M.	*Mitchell, S. D.*
Kent, Hazel Eva a	*Duluth, Minn.*
King, Viva	*Wonewoc*
Kinsey, Jack	*Mackinaw, Ill.*
Kirsch, William a	*Madison*
Kralovec, Arthur James a	*Chicago, Ill.*
Krueck, Walter B. a	*South Milwaukee*
Krueger, Arthur F.	*Kenosha*
Kuehn, Otto Robert a	*Milwaukee*
Kyle, John Clarence	*Menomonie*
Larson, Lulu Viola	*Forest City, Iowa*
Lau, Zan-ding a	*Shanghai, China*
Leiper, Florence	*Little Rock, Ark.*
Leiske, Matilda Anna	*Milwaukee*
Leukel, Robert Whilmer	*Brillion*
Leukel, Walter Antony a	*Brillion*
Lewis, Jeannette Florence	*Chisholm, Minn.*
Liddle, Earl Loren	*Onalaska*
Livingston, William Francis	*Robinson, Ill.*
Lottes, Marie Kathryn a	*Madison*
Lycan, Winifred Glenn	*Milton*
Lyman, Margaret E.	*Cincinnati, O.*
McAdams, Arthur James a	*Mukwonago*
McBride, Nellie H.	*Newtown, Ind.*
McCutcheon, Robert	*Arena*
McCutchin, Johy Alexander a	*Arena*
MacGilvra, Ralph Alexander a	*Baraboo*
McGlothing, Adolph Vincent	*Austin, Texas*
McMaster, Paul Herbert a	*Frankfort, Ind.*
McQueen, Loren a	*Madison*
Maas, Frank Addison	*Waldo*
Marshall, Charles Robert l s	*Madison*
Marshall, Richard Hughes	*Madison*
Martin, Ross George a	*Oregon*
Martindale, Katherine	*La Crosse*
Massee, Richard Drew a	*Madison*
Matheson, Elizabeth Collina	*Grand Rapids, Mich.*
Mathews, Catherine H.	*Ashland*

Matteson, Angela Barbara	*Unity*
Maxwell, Arnold Ivan a	*Fort Atkinson*
Melvin, Homer Clark a	*Glenbeulah*
Mengel, Joseph Torbitt a	*Louisville, Ky.*
Merryfield, Ula	*Minneapolis, Kans.*
Meyer, William Frederic a	*Milwaukee*
Middleton, George Innis	*Ripon*
Miller, Clara Josephine	*Madison*
Moen, Minnie Clara	*Forest City, Ia.*
Moore, Merton a	*Oshkosh*
Morgan, Robert Edward a	*Oskhosh*
Morris, D. Benjamin a	*Dodgeville*
Morris, Mildred	*Shelbyville, Ind.*
Morse, Mariam Sarah	*Pine River*
Morton, Wm. Everette	*Marinette*
Mosher, James Barnes a	*Prophetstown, Ill.*
Moulton, Henry Harper	*Glen Ellyn, Ill.*
Moulton, Wesley Hillman	*Glen Ellyn, Ill.*
Mull, Ruth	*Indianapolis, Ind.*
Neal, Hazel B.	*Terre Haute, Ind.*
Nelson, August a	*Madison*
Nolin, Nancy H.	*Castle Shannon, Pa.*
Nolin, Sara Elizabeth	*Castle Shannon, Pa.*
Nord, Johannes Kloefas a	*Rice Lake*
Norton, Pansy Irene	*Franklin, Ind.*
Oakey, Madeleine Nina a	*Madison*
O'Malley, Frances Mary a	*Madison*
Osborn, Guy A. a	*Kenilworth, Ill.*
Ospina, Rafael	*Medillin, Colombia, S. A.*
Ostrander, Ralph Lester a	*Richland Center*
Overton, Edward Beardslee	*Mobile, Ala.*
Pallett, Earl Manley	*Fennimore*
Patterson, Belle	*Bowling Green, Mo.*
Patton, Stella Trout	*Knightstown, Ind.*
Peck, Alice Louise a	*Chicago, Ill.*
Peterson, Roger Franklin a	*Chicago, Ill.*
Pettis, Charles Semple a	*Madison*
Preston, Esther Anne l s	*Madison*
Prill, Margaret	*Augusta*
Reddy, Charles Steven a	*Madison*
Reiman, Marie Agnes	*Terre Haute, Ind.*
Remsberg, Oscar Zachariah a	*Buckeystown, Md.*
Roberts, Harlow Pliny a	*Madison*
Robinson, Albert Gordon	*Carrollton, Ga.*
Robinson, Carl Louis	*Manning, N. D.*
Roewekamp, Henry	*Oshkosh*
Rogan, William James	*Amery*
Rogers, Belle Clarinda	*Dundee, Mich.*
Ross, Livingston	*Rensselaer, Ind.*
Rukgaber, Theresa Victoria a	*Madison*
Sazama, James J. a	*Kewaunee*
Schaub, Carl Frederick	*Marion*

Schaumberg, Elizabeth Anna	*St. Louis, Mo.*
Schmidt, Lola	*New Holstein*
Schmitz, Herbert Walter l s	*Manitowoc*
Schomberg, Edith	*Milwaukee*
Schroeder, Alma Louise	*Madison*
Seiler, Bonnie	*Auburn, Ind.*
Self, Helen Louise	*Indianapolis, Ind.*
Sellon, Elizabeth	*Kansas City, Mo.*
Silver, Gurd	*Cleveland, O.*
Silverson, Charlotte Marie	*Cincinnati, O.*
Simmons, Joseph Ellsworth a	*Hazel Green*
Sinaiko, Sarah a	*Madison*
Sister Mary Ellen	*Sinsinawa*
Sister Mary Evangeline	*Madison*
Sister Mary Raphaela	*St. Louis, Mo.*
Sister Mary Rosalia	*St. Louis, Mo.*
Slagg, Charles Mervyn a	*Cambridge*
Smith, Arthur Joseph	*Wilmot*
Smith, Floyd	*Mondovi*
Smith, Howard P.	*Corvallis, Oregon*
Smith, Muriel Frances	*Romeo, Mich.*
Smith, Winfield Scott a	*Madison*
Steele, Lula L.	*Dover, Ill.*
Steul, Edwin Karl a	*Madison*
Stone, Ralph William a	*Madison*
Strelzen, Morris Harry a	*Milwaukee*
Sure, Barnett a	*Milwaukee*
Swick, M. Elizabeth	*Baltimore, Md.*
Sykora, James a	*Chicago, Ill.*
Taylor, Clifford Chaffee	*Madison*
Taylor, Homer Rolland	*New Carlisle, Ind.*
Taylor, Margaret Lincoln a	*Lancaster*
Thomas, Rachel Freeman	*Stuart, Fla.*
Towler, James Andrew a	*Madison*
Ullrich, Dorothy Wilhelmina a	*Evanston, Ill.*
Van Den Berg, William John l s, m	*Madison*
Van Ostrand, A. Mortimer a	*Madison*
Van Wicklin, Edith M.	*Grand Rapids, Mich.*
Vennus, Elizabeth Mary a	*Menasha*
Wagner, John Joseph	*Cynthiana, Ind.*
Wallin, Franklin Whittelsey a	*Grand Rapids, Mich.*
Wallrich, Wm. a	*Shawano*
Way, Milden	*Minneapolis, Minn.*
Weil, Olga	*Carthage, Mo.*
Wengel, Edith M. a	*Madison*
Wertz, Virgil Roe a	*Madison*
White, Henry Ellis a	*Madison*
Whitney, Alice a	*Madison*
Williams, Joseph Lloyd a	*Eldorado*
Williams, Joseph Lucas a	*Genoa Junction*
Williams, Robert Newton a	*New York, N. Y.*
Willson, Inez Searles a	*Duluth, Minn.*
Wilsey, Stanley Miller	*Madison*

Wilson, Graham Eugene	*Platteville*
Wood, George Hudson	*Kansas City, Kans.*
Woodward, Overton Sidney	*Madison*
Wurst, Clara Emeline Margaretha	*Chicago, Ill.*
Wyman, Grace	*Madison*
Young, Annie Little	*Kansas City, Mo.*
Young, Robert Archer a	*Madison* —268

Law School

Anderson, Norman Leonard, B. A. l	*Milwaukee*
Beck, Thorwald Martin, B. A.	*Racine*
Brunner, Marie Angelina l	*Madison*
Brunner, Stephen Walter l	*Madison*
Byrnes, Charles Winfield	*Green Bay*
Cady, Loris Vaughn	*La Porte, Ind.*
Caradine, Mahlon Humphrey l s	*Monroe*
Clemens, Albert H., B. A.	*Madison*
Conant, Rellis Gilbert l	*Hancock*
Crawford, John Jennings, B. A. l	*Madison*
Dahl, John Leon, Ph. B.	*Strum*
Davis, Martha Ella l	*Madison*
Elliott, Clifford Withrow B. A.	*Hamilton, O.*
Ely, Richard Sterling, B. A. l	*Madison*
Erikson, Clarence, B. A. l	*Stoughton*
Gallagher, Clyde A.	*Madison*
Gaskill, Moses Elmer, B. A.	*El Reno, Okla.*
Gullickson, Gerhardt Oscar, B. A. l	*Eau Claire*
Haberla, Howard Paul l	*Milwaukee*
Hare, Arthur Merlin, B. A.	*Albion, Nebr.*
Hartwig, Harvey Clarence. B. A. l	*Milwaukee*
Hassett, Emmett Albert, B. A.	*Merrill*
Heilman, Raymond Julius	*Oconomowoc*
Hill, Jay Milton	*Fond du Lac*
Homet, Roland Stevens l	*Camptown, Pa.*
Hydle, Lars Larsen, B. A.	*Bowbells, N. Dak.*
Immell, Ralph Maxwell l	*Blair*
Jenkins, Floyd E. B. A. l	*Bangor*
Kauffman, Jacob Lorelle, B. A.	*Madison*
Kelly, Frank J.	*Milwaukee*
Knapp, Herman John, B. A.	*Fort Collins, Colo.*
Kumn, Davis W., B. A. l	*Madison*
Lanham, Ward B. S.	*Grafton, W. Va.*
Larkin, Bert Leo l	*Whitewater*
Lewis, Ritchie David	*Sun Prairie*
Lewis, Theodore Conrad	*Stoughton*
Loftsgordon, Henry A. l	*Madison*
Lowell, Clarence Timothy	*St. Paul, Minn.*
Lowry, James Kerr l	*Madison*
McCormick, John Vincent, B. A.	*Madison*
McGaughey, Guy E.	*Lawrenceville, Ill.*
MacQuarrie, Archibald Ernest l	*Madison*

Martin Patrick Henry	*Madison*	
Mills, Fred Leon	*Oak Park, Ill.*	
Murphy, John William l	*Platteville*	
Nau, John Harold, B. A.	*Columbus, O.*	
Newman, Harry George l	*Madison*	
Pendarvis, Wilbur Otis, B. A.	*Media, Ill.*	
Petersen, Le Roy	*Amery*	
Pomeroy, Herbert Stuart, B. A. l	*Oconomowoc*	
Potter, Louis Richard l	*Milwaukee*	
Pottinger, Earl Henry l	*Ft. Atkinson*	
Proctor, Roy Harrison, B. A.	*Madison*	
Rademacher, Henry Stephen, Ll. B.	*Milwaukee*	
Ramsdell, Bailey Edwin	*Madison*	
Reddy, Walter Francis	*Platteville*	
Reinholdt, Richard Theodore	*Madison*	
Risk, Thomas Marion	*Wautoma*	
Rosenthal, Aaron Bernhard	*Milwaukee*	
Ruckweed, Martin A.	*Plymouth*	
Sazama, Joseph Elias, B. A.	*Kewaunee*	
Schlabach, Rudolph, B. S.	*La Crosse*	
Schlueter, Walter Henry, B. Pd.	*Appleton, Mo.*	
Schmidt, Oscar William l	*Milwaukee*	
Schultz, Edward Emil l	*Juneau*	
Shy, Joseph January	*Madison*	
Slichter, Sumner Huber, B. A.	*Madison*	
Smith, Leon Logan	*Sheboygan*	
Stewart, John James l	*Madison*	
Stolts, Victor Merlin l	*Sechlerville*	
Strehlow, Robert Reinholt, B. A. l	*Madison*	
Teeter, Thomas Anderson Hendricks, B. S.	*Corvallis, Ore.*	
Werba, Marcus Arthur l	*Milwaukee*	
Whitcomb, Arthur J. l	*Abrams*	
Wickhem, John D. B. A. l	*Madison*	
Wylie, Frederick M.	*Madison*	
Young Carl Fred, B. A. l	*Green Bay*	—77

SUMMARIES

FACULTY

President and Deans	9
Professors	88
Associate Professors	58
Assistant Professors	133
Lecturers (giving part time)	18
Instructors	244
Assistants (mainly half time, but a few more than half time, and a considerable number less than half time)	161
Student Assistants (small part of time)	16
Total	727

The above summary includes:

a. Members of the instructional staff at Madison, both for resident instruction and for extension.

b. Extension workers throughout the State.

c. Administrative officers and librarians having the rank of any member of the instructional staff.

Included in the above summary are the following who are on leave of absence for the academic year, 1915–16: Professors, 2; Assistant Professors, 3; Instructors, 1.

There are seven emeritus professors not included in the above summary.

STUDENTS

GRADUATE SCHOOL—484		
Fellows	35	
Scholars	20	
Other Graduate Students	429	
(Not carried to totals because included in lists below.)		
COLLEGE OF LETTERS AND SCIENCE		3,159
Graduate Students	358	
Senior Class	513	
Junior Class	651	
Sophomore Class	638	
Freshman Class	871	
Adult Special Students	101	
Two-Year Pharmacy Students	27	

Included in the above are the following:

Letters and Science Students not in special Courses—2,003.		
Graduate Students	346	
Senior Class	254	
Junior Class	307	
Sophomore Class	426	
Freshman Class	590	
Adult Special Students	79	
Course in Commerce—554		
Senior Class	62	
Junior Class	120	
Sophomore Class	159	
Freshman Class	206	
Adult Special Students	7	
Course for Normal School Graduates—50		
Senior Class	23	
Junior Class	27	
Course in Journalism—114		
Senior Class	15	
Junior Class	20	
Sophomore Class	24	
Freshman Class	45	
Adult Special Students	10	
Course in Pharmacy—37		
Four Year Course		
Senior Class	3	
Junior Class	2	
Sophomore Class	0	
Freshman Class	4	
Adult Special Students	1	
Two Year Course		
Second Year	11	
First Year	16	
Course in Chemistry—106		
Senior Class	18	
Junior Class	30	
Sophomore Class	29	
Freshman Class	26	
Adult Special Students	3	
Course for Training of Teachers—316		
Graduates	12	
Seniors	150	
Juniors	153	
Adult Special Students	1	

(12 Seniors and 8 Juniors are in both the Teachers' Training Course and the Course for Normal School Graduates.)

College of Engineering		677
Graduate Students	20	
Senior Class—118		
Civil Engineering Course	41	
Mechanical Engineering Course	27	

Electrical Engineering Course		32	
Chemical Engineering Course		14	
Mining Engineering Course		4	
Junior Class—166			
Civil Engineering Course		40	
Mechanical Engineering Course		36	
Electrical Engineering Course		54	
Chemical Engineering Course		32	
Mining Engineering Course		4	
Sophomore Class—187			
Civil Engineering Course		34	
Mechanical Engineering Course		54	
Electrical Engineering Course		67	
Chemical Engineering Course		23	
Mining Engineering Course		9	
Freshman Class		170	
Adult Special Students		16	
Students in Advanced Courses included in the above:			
Civil Engineering Course	7		
Mechanical Engineering Course	4		
Electrical Engineering Course	3		
Chemical Engineering Course	3–17		
COLLEGE OF AGRICULTURE			1,017
Graduate Students		106	
Long Course			
Senior Class	114		
Junior Class	119		
Sophomore Class	125		
Freshman Class	126		
Adult Special Students	20	—504	
Middle Course			
Second Year	59		
First Year	57		
Adult Special Students	17	—133	
Home Economics			
Senior Class	47		
Junior Class	57		
Sophomore Class	80		
Freshman Class	82		
Adult Special Students	8	—274	
Included in the above are the following:			
Course for Training of Teachers			
Seniors	78		
Juniors	58		
Second Year, Middle Course	9		
Adult Special Students	3–148		
LAW SCHOOL			184
Third Year		43	
Second Year		41	
First Year		44	
Students in Letters and Science electing law studies		28	
Unclassified Students		28	

MEDICAL SCHOOL			103
Second Year		46	
First Year		56	
Course in Public Health		1	
SCHOOL OF MUSIC			92
Senior Class		2	
Junior Class		1	
Sophomore Class		6	
Freshman Class		15	
Supervisors' Course			
Second Year		22	
First Year		26	
Adult Special Students		2	
Included in the above are the following:			
Course for Training of Teachers—40.			
Seniors	1		
Second Year, Supervisors' Course	19		
First Year, Supervisors' Course	19		
Adult Special Students	1		
Unclassified Students		18	
Students in other colleges electing music—201			
WISCONSIN LIBRARY SCHOOL			34
Library Course		31	
Joint Course		2	
Course in Library Administration and Public Service		1	
TOTAL			5,266
Deducting twice enumerated			135
NET TOTAL, REGULAR YEAR			5,131
SUMMER SESSION OF 1915—2,784			
Letters and Science			
Graduate Students	701		
Undergraduates and Teachers	1,392		
Music	48		
Students in other colleges electing music.....85			
Law School	77		
Engineering			
Graduate Students	10		
Undergraduates	189		
Agriculture			
Graduate Students	99		
Undergraduates	268	2,784	
Included in the above are the following:			
Advanced Teachers' Course	14		
Deducting students now attending the university		859	1,925
ADDITIONAL ENROLLMENT, COLLEGE OF AGRICULTURE			568
Short Course in Agriculture		402	
Second Year	168		
First Year	234		
Dairy Course		166	

GRAND TOTAL, EXCLUDING EXTENSION STUDENTS 7,624

In the enumeration of adult special students above, the classification by courses is as follows: Letters and Science, fourth year, 7; third year, 12; second year, 15; first year, 67. Music Supervisors', second year, 1; first year, 1. Civil Engineering, fourth year, 1; third year, 1; second year, 1. Mechanical Engineering, third year, 3; second year, 1. Electrical Engineering, third year, 1; second year, 1. Chemical Engineering, fourth year, 1; second year, 1. Mining Engineering, second year, 1. First year students in Engineering, 4. Agriculture, fourth year, 2; third year, 2; second year, 7; first year, 9. Agriculture (Middle Course), second year, 2; first year, 15. Home Economics, second year, 3; first year, 5.

Twice counted, 135, composed of students in Medicine, 101; Course in Public Health, 1; Law, 30; Course in Library Administration and Public Service, 1; and Wisconsin Library School, 2.

EXTENSION DIVISION (EXTRA MURAL COLLEGE—)
Correspondence-Study Department 7,543

This total enrollment comprises all those who have enrolled for correspondence instruction within the current year, and also those carried over who had enrolled prior to July 1, 1915, but whose registration was then in force and whose time limit for completion of work had not terminated. Correspondence-Study enrollments are made at any time throughout the entire year.

SUMMARY BY STATES, FOREIGN COUNTRIES, AND SEX

	Men	Women	Total
Wisconsin	3,438	1,498	4,936
Illinois	376	301	677
Indiana	141	137	278
Ohio	91	110	201
Iowa	94	84	178
Missouri	71	106	177
Michigan	70	77	147
Minnesota	79	52	131
South Dakota	45	31	76
Pennsylvania	38	37	75
New York	47	20	67
Kansas	29	32	61
Kentucky	27	17	44
North Dakota	27	13	40
Nebraska	18	20	38
Montana	25	8	33
District of Columbia	23	9	32
Texas	23	8	31
New Jersey	23	3	26
Tennessee	10	12	22
Maryland	13	7	20
Colorado	9	10	19
Oregon	14	5	19
West Virginia	16	3	19
California	11	7	18
Washington	13	4	17
Louisiana	11	5	16
Massachusetts	8	8	16
Oklahoma	13	3	16
Virginia	10	5	15
Odaho	11	3	14
Mississippi	6	8	14
South Carolina	13	1	14
North Carolina	10	2	12
Alabama	6	3	9
Arkansas	3	6	9
Connecticut	6	2	8
Georgia	1	7	8
New Mexico	5	2	7
Vermont	4	2	6
Wyoming	6	0	6
Utah	4	1	5
Florida	2	2	4
New Hampshire	1	1	2
Rhode Island	2	0	2
Arizona	1	0	1
Delaware	0	1	1
Maine	1	0	1

	Men	Women	Total
China	25	0	25
Canada	5	4	9
Philippine Islands	3	0	3
Brazil	2	0	2
England	1	1	2
Germany	2	0	2
Hawaii	2	0	2
India	2	0	2
Mexico	2	0	2
Australia	1	0	1
Colombia	1	0	1
Egypt	1	0	1
Japan	1	0	1
Norway	1	0	1
Peru	1	0	1
Porto Rico	1	0	1
Total	4,946	2,678	7,624

	Men	Women	Total
Students registered for regular year, 1915–16			
Resident	2,519	1,130	3,649
Non-resident	959	523	1,482
Total	3,478	1,653	5,131
Students registered in Summer Session of 1915, not included in above			
Resident	428	364	792
Non-resident	479	654	1,133
Total	907	1,018	1,925
Additional Enrollment, College of Agriculture			
Resident	491	4	495
Non-resident	70	3	73
Total	561	7	568

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