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THE UNIVERSITY OF WISCONSIN CATALOGUE

1916-1917

BULLETIN OF THE UNIVERSITY OF WISCONSIN
Serial No. 856; General Series No. 650

THE

UNIVERSITY OF WISCONSIN

CATALOGUE

University of Wisconsin
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Vol.
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1916-17

MADISON
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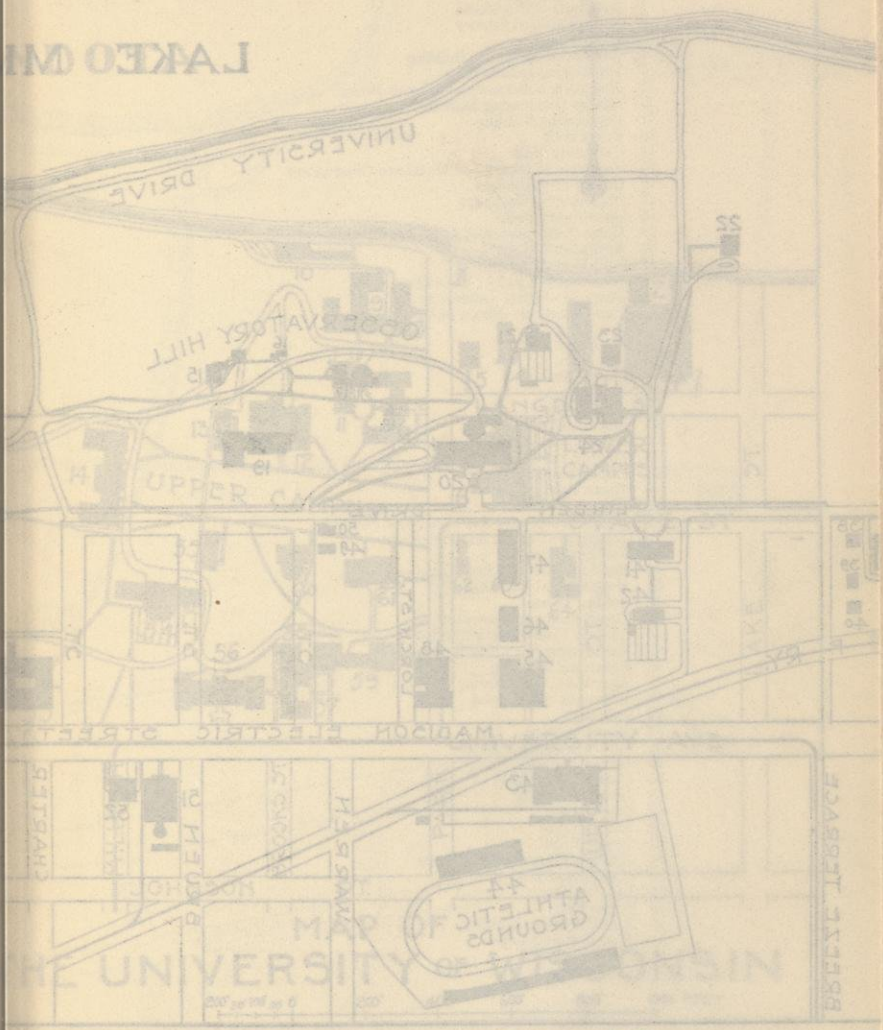
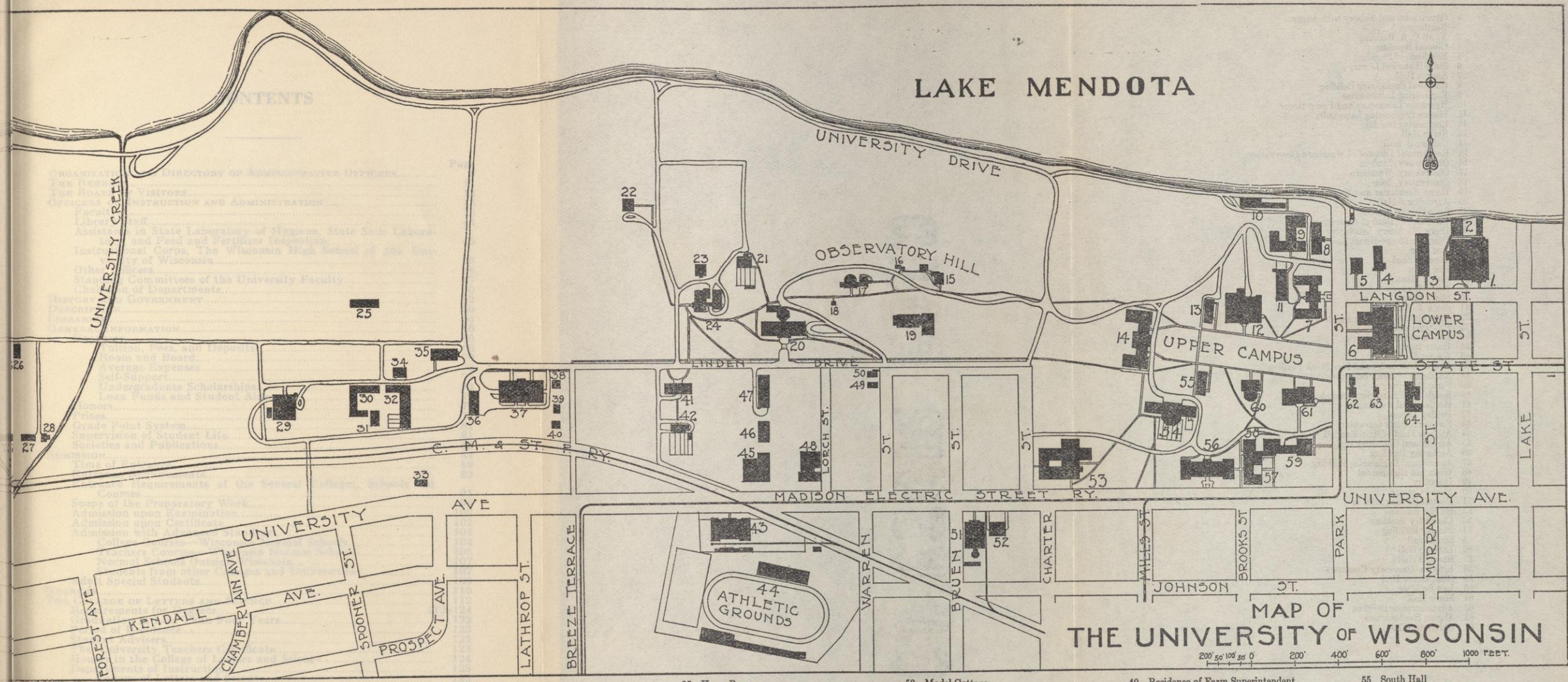

UNIVERSITY DRIVE
OBSERVATORY HILL
UPPER
MADISON ELECTRIC STREET
ATHLETIC GROUNDS
BREESE TERRACE



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

1 Gymnasium and Armory with Annex
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10 Hydraulic Laboratory and Pump House
11 Mining Engineering Laboratory
12 Engineering Building
13 North Hall
14 University Hall
15 Residence of Director of Washburn Observatory
16 Observatory, Student
17 Observatory, Washburn
18 Observatory, Solar
19 Home Economics and Extension Division Building
20 Agricultural Hall
21 Soils-Physics Building
22 Residence of Dean of Agriculture
23 Dairy Machinery Laboratory
24 Dairy Building—Hiram Smith Hall
25 Hog Barn
26 Tobacco Shed
27 Hog Barn
28 Serum Plant
29 Dairy Barn
30 Sheep Barn
31 Stock Auditorium
32 Experimental Breeding Building
33 Poultry House
34 Implement Shed
35 Horse Barn
36 Wagon Shed
37 Animal Husbandry and Live Stock Pavilion
38 Residence of Stock Superintendent
39 Farm Dormitory
40 Residence of Farm Superintendent
41 Horticultural Building
42 Potting House
43 Forest Products Laboratory
44 Athletic Field—Camp Randall
45 Agricultural Chemistry Building
46 Agronomy Building
47 Agricultural Engineering Building
48 Wisconsin High School
49 Infirmary
50 Model Cottage
51 Central Heating Station
52 Service Building
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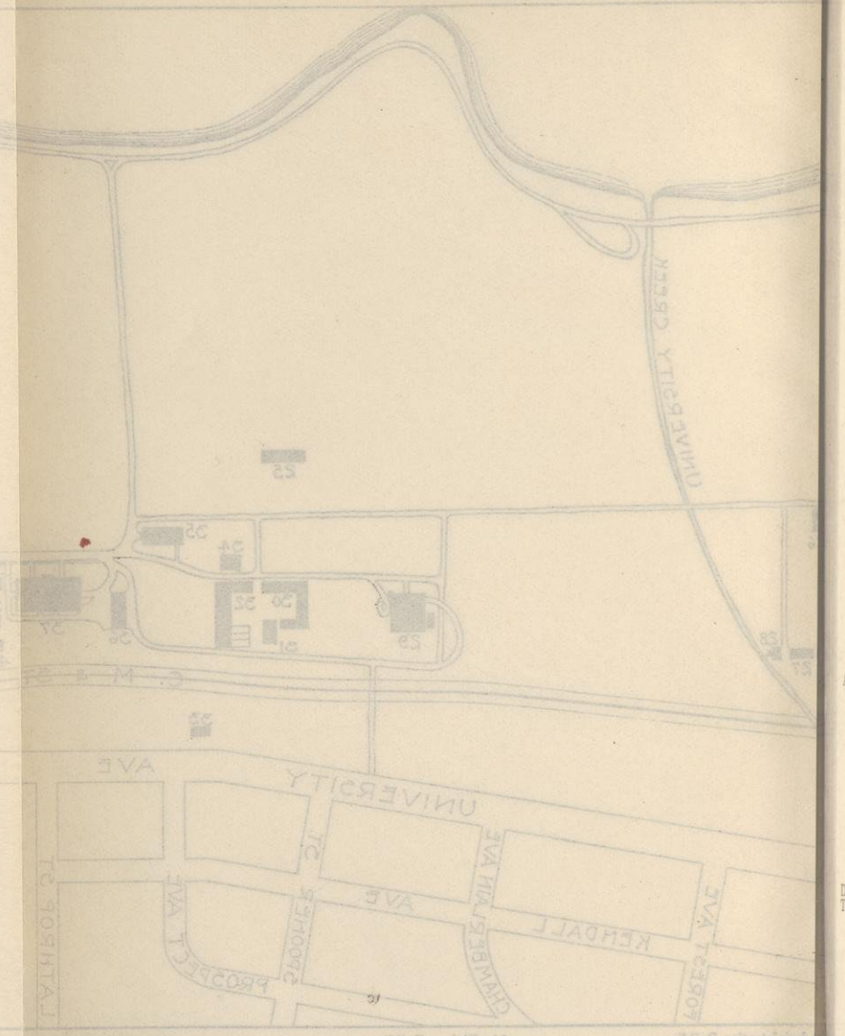
63 Alumni Headquarters
64 University Club



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Days when the University is in session are indicated by bold face figures; registration days, examination periods, etc., are indicated by italic figures; all vacation periods and holidays, by roman figures.

1917

January.

S	M	T	W	T	F	S
....	1	2	3	4	5	6
7	8	**9**	**10**	**11**	**12**	**13**
14	**15**	**16**	**17**	**18**	**19**	**20**
21	**22**	**23**	**24**	**25**	**26**	**27**
28	*29*	*30*	*31*	....	....	....
....	....	....	....	....	....	....

February.

S	M	T	W	T	F	S
....	....	....	....	*1*	*2*	*3*
4	*5*	*6*	*7*	*8*	*9*	*10*
11	**12**	**13**	**14**	**15**	**16**	**17**
18	**19**	**20**	**21**	22	**23**	**24**
25	**26**	**27**	**28**	....	....	....
....	....	....	....	....	....	....

March.

S	M	T	W	T	F	S
....	....	....	....	**1**	**2**	**3**
4	**5**	**6**	**7**	**8**	**9**	**10**
11	**12**	**13**	**14**	**15**	**16**	**17**
18	**19**	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**	**31**
....	....	....	....	....	....	....

April.

S	M	T	W	T	F	S
....	....	....	....	....	....	....
1	**2**	**3**	**4**	**5**	**6**	**7**
8	**9**	**10**	11	12	13	14
15	16	17	**18**	**19**	**20**	**21**
22	**23**	**24**	**25**	**26**	**27**	**28**
29	**30**	....	....	....	....	....
....	....	....	....	....	....	....

May.

S	M	T	W	T	F	S
....	....	**1**	**2**	**3**	**4**	**5**
6	7	**8**	**9**	**10**	**11**	**12**
13	**14**	**15**	**16**	**17**	**18**	**19**
20	**21**	**22**	**23**	**24**	**25**	**26**
27	**28**	**29**	30	**31**	....	....
....	....	....	....	....	....	....

June.

S	M	T	W	T	F	S
....	....	....	....	....	**1**	**2**
3	**4**	**5**	**6**	**7**	**8**	*9*
10	*11*	*12*	*13*	*14*	*15*	*16*
17	*18*	*19*	*20*	21	22	23
24	25	26	27	28	29	30
....	....	....	....	....	....	....

July.

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	....	....	....	....
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August.

S	M	T	W	T	F	S
....	....	....	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	....
....	....	....	....	....	....	....

September.

S	M	T	W	T	F	S
....	....	....	....	....	....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	*24*	*25*	*26*	**27**	**28**	**29**
30	....	....	....	....	....	....

October.

S	M	T	W	T	F	S
....	**1**	**2**	**3**	**4**	**5**	**6**
7	**8**	**9**	**10**	**11**	**12**	**13**
14	**15**	**16**	**17**	**18**	**19**	**20**
21	**22**	**23**	**24**	**25**	**26**	**27**
28	**29**	**30**	**31**	....	....	....
....	....	....	....	....	....	....

November.

S	M	T	W	T	F	S
....	....	....	....	**1**	**2**	**3**
4	**5**	**6**	**7**	**8**	**9**	**10**
11	**12**	**13**	**14**	**15**	**16**	**17**
18	**19**	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**	....
....	....	....	....	....	....	....

December.

S	M	T	W	T	F	S
....	....	....	....	....	....	**1**
2	**3**	**4**	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**	**19**	20	21	22
23	24	25	26	27	28	29
30	**31**	....	....	....	....	....

1918

January.

S	M	T	W	T	F	S
....	....	1	2	3	4	5
6	7	**8**	**9**	**10**	**11**	**12**
13	**14**	**15**	**16**	**17**	**18**	**19**
20	**21**	**22**	**23**	**24**	**25**	**26**
27	**28**	**29**	**30**	**31**	....	....
....	....	....	....	....	....	....

February.

S	M	T	W	T	F	S
....	....	....	....	....	**1**	**2**
3	*4*	*5*	*6*	*7*	*8*	*9*
10	*11*	*12*	*13*	*14*	*15*	*16*
17	**18**	**19**	**20**	**21**	22	**23**
24	**25**	**26**	**27**	**28**	....	....
....	....	....	....	....	....	....

March.

S	M	T	W	T	F	S
....	....	....	....	....	**1**	**2**
3	**4**	**5**	**6**	**7**	**8**	**9**
10	**11**	**12**	**13**	**14**	**15**	**16**
17	**18**	**19**	**20**	**21**	**22**	**23**
24	**25**	**26**	**27**	**28**	**29**	**30**
31	....	....	....	....	....	....

April.

S	M	T	W	T	F	S
....	**1**	**2**	**3**	**4**	**5**	**6**
7	**8**	**9**	**10**	**11**	**12**	**13**
14	**15**	**16**	17	18	19	20
21	22	23	**24**	**25**	**26**	**27**
28	**29**	**30**	....	....	....	....
....	....	....	....	....	....	....

May.

S	M	T	W	T	F	S
....	....	....	**1**	**2**	**3**	**4**
5	**6**	**7**	**8**	**9**	**10**	**11**
12	13	14	**15**	**16**	**17**	**18**
19	**20**	**21**	**22**	**23**	**24**	**25**
26	**27**	**28**	**29**	30	**31**	....
....	....	....	....	....	....	....

June.

S	M	T	W	T	F	S
....	....	....	....	....	....	**1**
2	**3**	**4**	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	*15*
16	*17*	*18*	*19*	*20*	*21*	*22*
23	*24*	*25*	*26*	27	28	29
30	....	....	....	....	....	....

July.

S	M	T	W	T	F	S
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28	29	30	31	....	....	....
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August.

S	M	T	W	T	F	S
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
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September.

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	....	....	....	....	....
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October.

S	M	T	W	T	F	S
....	....	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	....	....
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November.

S	M	T	W	T	F	S
....	....	....	....	....	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
....	....	....	....	....	....	....

December.

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	....	....	....	....
....	....	....	....	....	....	....

CALENDAR

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.

Commencement Week

June 17	Sunday	Baccalaureate address.
June 18	Monday	Class Day exercises.
June 19	Tuesday	Alumni Day.
June 20	Wednesday	Commencement Day.

Summer Session

June 25	Monday	Summer session opens.
*August 3	Friday	Summer session closes.

*The summer session in the Law School closes August 31.

THE ACADEMIC YEAR 1917–1918

1917		
Sept. 24–25–26	Mon.–Tu.–Wed.	Registration days.
Sept. 24–25	Mon.–Tu.	Examinations for admission.
Sept. 27	Thursday	Lectures and recitations begin.
* Sept. 29	Saturday	Special examinations for removal of conditions.
Nov. 29	Thursday	Thanksgiving Day: legal holiday.
Dec. 20	Thurs. (Noon)	Christmas recess begins.
1918		
Jan. 8	Tues. (8 a. m.)	Exercises resumed.
Jan. 19	Saturday	Examinations for removal of conditions.
Feb. 4–13	Mon.–Wed.	Final examinations, first semester.
Feb. 14–15	Thur.–Fri.	Registration days.
Feb. 18	Monday	Lectures and recitations begin.
Feb. 22	Friday	Washington's birthday: legal holiday.
April 17–23	Wed.–Tues. (inclusive)	Spring recess.
April 27	Saturday	Examinations for the removal of conditions.
May 30	Thursday	Memorial Day: legal holiday.
June 15–21	Sat.–Fri.	Final examinations, second semester.
June 20–21	Thur.–Fri.	Examinations for admission.
June 23–26	Sun.–Wed.	Commencement week.

* See requirements outlined in *Regulations for the Guidance of Undergraduate Students.*

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.
S. H. Goodnight, Dean of Men—22 South Hall.
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.

T. E. Jones, Director—1A Gymnasium.

THE COURSE FOR THE TRAINING OF TEACHERS.

V. A. C. Henmon, 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.
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**Appointment for the second semester, 1916–17.
†Appointment for the first semester, 1916–17.
°Appointed January 30, 1917.

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**Appointed December 6, 1916.

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**Appointed February 24, 1917.

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*Appointed February 24, 1917.
**Resigned January 17, 1917.

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**Resigned January 30, 1917.
†Appointment for the second semester, 1916–17.
°Appointed January 30, 1917.

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**In residence second semester, 1916–17.

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*Appointment for the second semester, 1916–17.
**Appointed January 17, 1917.
†Appointment for the first semester, 1916–17.

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*Resigned December 6, 1916.
**Appointed January 17, 1917.
†Appointment for the second semester, 1916–17.

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**Appointment for the first semester, 1916–17.

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*Resigned January 17, 1917.

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*Appointed January 30, 1917.
**Resigned January 30, 1917.

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*On leave of absence, academic year, 1916-17.

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 approved July 26 of the same year; and the first Board of Regents met at 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 University 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 determined 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 Chamberlain (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 become resident students, 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 purposes, 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 University Hall 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, such 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 earthen 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 prehistoric periods, and are unique, being found only in Wisconsin and along the boundaries of the state to the west and south.

The classroom 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, classrooms, 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. Lapman 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 only 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 alumni and friends, 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.

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 547,000 and the number of pamphlets exceeds 290,000.

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 general reading, 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 248,000 volumes and 51,000 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. Every matriculated student of the University for the regular year is required to make a library deposit of $1.00, as per statement on page 66. This deposit, less charges for fines and damages, is returnable to the student by the bursar upon graduation or earlier withdrawal from the University.

The Law School has a special library of 26,000 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 16,000 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 197,000 volumes and 203,000 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, comprising about 5,000 volumes, is a valuable collection of reports and transactions of learned societies. 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 60,000 volumes.

The Legislative Reference Library in the Capitol numbers about 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 37,000 volumes.

GENERAL INFORMATION

EXPENSES

Tuition, Fees, and Deposits*

No resident tuition is charged except in the Library School and the Wisconsin High School.

	Nonresident Tuition**	Incidental Fee
COLLEGES OF LETTERS AND SCIENCE, AGRICULTURE (LONG and MIDDLE COURSES), ENGINEERING; LAW, MEDICAL, and GRADUATE SCHOOLS; and SCHOOL OF MUSIC*,** *per semester*	$62.00	$12.00
Library deposit required of all students upon entrance, $1.00. See p. 65.		
COLLEGE OF AGRICULTURE		
Short Course, *per course*	48.21	6.50
Dairy Course (Winter), *per course*	41.33	6.50
(Summer) 5 wks. minimum, *per week*	3.45	6.00
SUMMER SESSION		
Graduate School; Colleges of Letters and Science, Engineering, Agriculture (6 weeks)		15.00
Law School; College of Agriculture (10 weeks)		25.00
Field Courses; farm management (6 weeks		15.00
geology (4 weeks)		20.00
mining and metallurgy (4 weeks)		10.00
topographical engineering and surveying (4 weeks)		7.00
Extra weeks beyond the regular session, *per week*		2.50
LIBRARY SCHOOL, resident tuition, $25 *per semester*****	50.00	
WISCONSIN HIGH SCHOOL, † *per quarter*		
6th and 5th classes, resident tuition, $6.00	15.00	
4th, 3rd, 2nd, and 1st classes, tuition, $8.00	15.00	

* A *fee* is a charge none of which is returnable; a *deposit* is a charge part or all of which may be returnable.

** Provisions for remission of nonresident tuition in certain cases are given under "Wisconsin Legislative Scholarships," p. 74. Loans may also be made to needy students. See pp. 76–78.

*** Members of other colleges of the University may take general courses in music without charge. Persons taking special courses pay special fees, see pp. 424–425.

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

† Four quarters of twelve weeks each constitute the complete year. At present (1917) the high school is in regular session but three quarters.

Laboratory Charges

Charges are made in the various laboratories to cover the expense of material consumed. Unless otherwise noted, charges are for one semester only. A laboratory credit equals two hours per week of laboratory work.

		Fee	Deposit
COLLEGE OF LETTERS AND SCIENCE			
Botany—	Per laboratory credit	$1.00	
	Key and breakage deposit, per course		$.50–1.00
	Except: 110; 111, each	2.00	1.00
	146	4.00	2.00
	Research students	2.50	
Chemistry—	1, (2nd semester $10.00)		15.00
	2, per year		15.00
	11		17.50
	120		20.00
	130; 146, each		15.00
	Other courses—materials used.		
Geology—	1, 3, 4, each	1.00	
	6, 7, each	4.00	
	8, 114b, 140, each	2.00	
	121	1.50	
Manual Arts—	Shop laboratory courses, per credit	2.00	
	51	1.50	
	70, 71, add breakage deposit		2.00
Physics—	Per laboratory credit	2.00	
Political Economy—	Accounting—materials used.		
Psychology—	103, 104, each	2.00	
	105, $5.00 per year, per semester	3.00	
Zoology—	1a	4.50	.50
	1b, 102a, each	5.50	.50
	3, 104b, 105, 108, each	3.50	.50
	4, 9, 19, 110, each	2.00	.50
	11, 116, each	4.00	.50
	20	1.00	.50
	21	1.50	.....
	104a	6.50	.50
COLLEGE OF AGRICULTURE			
Per laboratory credit		1.00	
Breakage deposit, per course			3.00
Short Course, per course		7.00	2.00
Dairy Course, winter, per course		10.00	2.00
summer, per course		5.00	2.00
COLLEGE OF ENGINEERING			
Assaying (Mining 121)		15.00	
Other courses, per laboratory credit		2.00	
Laboratory Theses, per course		5.00	

	Fee	Deposit
MEDICAL SCHOOL		
Anatomy—105; 115; 122; each	$5.00	
110	10.00	
121, Dissection, per part $10; Osteology..	2.00	
Breakage deposit		$2.50
126	8.00	
Clinical Medicine—101–2–3–4–5, each	15.00	
Pathology and Med. Bacteriology—per lab. credit	2.50	
Breakage deposit		2.50
Pharmacology and Toxicology—102	4.00	1.00
105	8.00	2.00
Physiology—2: 3 each	2.00	1.00
104	10.00	5.00
105; 115, each	12.00	3.00
114	5.00	5.00
116	5.00	1.00

Other Charges

Extra fee for payment after registration days	$1.00
Men's gymnasium locker fee, including laundry, semester	1.25
Women's gymnasium costume	5.00
Women's gymnasium locker fee, including laundry, semester	1.25
Military uniform (cost depends upon annual contract) estimated	20.00
Deposit with abstract of doctor's thesis	50.00
Binding baccalaureate or second degree thesis	.75

For Extension Division charges, see special bulletins.

General Requirements

All charges must be paid at the beginning of each semester. Class cards will not be issued until this has been done.

Graduate students pay the same fees as undergraduate students in the College of Letters and Science, but honorary fellows and honorary scholars are exempt from the incidental fee.

Members of the teaching and research staff of the University, graduate fellows, graduate scholars, and members of the State Geological and Natural History Survey who are candidates for higher degrees, shall pay such fees as are prescribed for graduate students resident in Wisconsin. After any such candidate shall have paid to the University of Wisconsin in such fees a total sum equal to or greater than that usually paid in seven semesters of candidacy by graduate students resident in Wisconsin, he shall be exempt from payments of such fees in subsequent sessions of the University.

Graduate students who are not members of the university staff of instruction or research and who in any semester pursue studies

in amount less than half the normal amount may have their fees prorated in proportion to the amount of such study upon the following conditions:

(a) The recommendation of the Dean of the Graduate School to the Registrar that the case comes under the above rule and that he regards it as one of more than common merit;
(b) The prorated fee shall not be less in amount than the regular incidental fee for the semester.

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 first class day	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.

Students entering after regular registration days and withdrawing within eight weeks from the first class day, upon recommendation made, will be allowed refunds according to the above table based on the time actually in residence.

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.

Fellows, scholars, and student assistants are required to pay laboratory fees; instructors and assistants are exempt from such fees.

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. 390). 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.

Gymnasium Practice and Military Drill

Men in the Colleges of Letters and Science, Engineering, and Agriculture and the Four-year Course in Pharmacy, are required to take gymnastic exercises and military drill during the first two years of their course. Students required to drill must purchase uniforms through the Military Department. The cost in 1916 was $20.35. A locker fee, including laundry, of $1.25 per semester is charged.

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 for $5. A locker fee, including laundry, of $1.25 per semester is charged.

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, accommodating 266 students (for details see below) and in three cooperative houses accommodating 32 women students. Residents of the cooperative houses are chosen from applicants who have attended the University at least one semester. Applicants should correspond with the Dean of Women. 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 prices of single rooms outside the university buildings range from $2.50 to $5.50 a week. A few double rooms can be secured for $1.50 a week, per student, but the more desirable ones rent at $2.00 to $3.50 per student.

Dining rooms are maintained in Chadbourne and Barnard Halls and 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 Dean of Men issues a Rooming and Boarding House Directory for men, copies of which may be had on application. The Dean of Women issues a similar list for women students. See p. 81.

Chadbourne and Barnard Halls

The two university women's dormitories, Chadbourne and Barnard Halls, are equipped with electric light and electric elevators. Heat is furnished from the central university heating plant.

Each room is provided with rug, dresser, rocker, three-quarter cot, study table, study chair, bookshelves and window shades. Occupants other than summer session students are expected to provide towels, sheets, 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; of 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 Wisconsin. 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 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; of a room accommodating two, $75 per person; of two rooms in suite accommodating two, $100 per person. There are a few rooms in Barnard Hall that may be had for $75 and one suite in Chadbourne Hall accommodating three at $100 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 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. The halls are open during the spring recess but dining rooms are closed and no board is charged.

Applications for rooms should be made to the Bursar of the University after April 1, 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 10 days after the issuance of bills at 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.

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.

*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.

Average School Year Expenses

In 1914 answers to a questionnaire of the Board of Visitors indicated average student expenses to be about $450 for the school year. This excluded tuition and university charges, but included travel, clothes, books, stationery, room rent, board, society charges and miscellaneous expenses. The average expense would now be somewhat higher—between $450 and $500.

The school year budget of an average student might include a combination of the following items:

Incidental Fee, year	$24.00	to	$24.00
Locker Fee, freshmen and sophomores	2.50	"	2.50
Military Uniform, freshmen and sophomores	20.00	"	25.00
Books and Stationery	25.00	"	50.00
Room Rent	75.00	"	160.00
Board	160.00	"	200.00
Laundry	20.00	"	35.00
Incidental Expenses	50.00	"	150.00
*Nonresident Tuition	124.00	"	124.00

Laboratory charges depending on courses.

These figures are an estimate of the cost to the *average* student; many students spend more or less. The Student Employment Bureau advises students earning their own way to come with at least $200 capital. (See also Self-Support, below.

Summer Session budget items (6 weeks basis):

†Incidental Fee	$15.00	to	$15.00
Room Rent	10.00	"	25.00
Board	27.00	"	35.00
Books and Stationery	5.00	"	10.00
Incidental Expenses	10.00	"	30.00
Laboratory Charges (depending on courses)	.....	"	15.00

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

* Provisions for remission of nonresident tuition in certain cases are given under "Wisconsin Legislative Scholarships," p. 74.

† Summer session fees are not remitted, either to residents or nonresidents.

Bureau is principally called upon to furnish stenographers, typists, clerks, waiters, dishwashers, janitors, and choremen. Owing to the keen competition for places, the Bureau cannot 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 housework, 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 AND LOAN FUNDS

Wisconsin Legislative Scholarships

Section 388 of the Wisconsin Statutes provides that:

"Any student who shall have been a resident of the state for one year next preceding his first admission to the University, shall be entitled to exemption from the fees for tuition in the University. Any student who shall not have been a resident of the state for one year next preceding his first admission to the University shall not be exempt from the payment of the tuition fees. . . . . .

"The Regents of the University may remit either in whole or in part tuition, but not incidental fees, to not to exceed five per cent of nonresident students upon the basis of merit to be shown by suitable tests, examinations or scholastic records and continued high standard of scholastic attainment."*

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 scholarship 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. *

* For information address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

Fannie P. Lewis Scholarship Fund

By the will of the late Fannie P. Lewis, of Watertown, Wisconsin, $10,000 was left to be held in trust by the University Regents. The annual income from this money is to be divided equally 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.*

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.*

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.*

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.*

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

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

* For information address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

A. J. Horlick Scholarship

Since 1915 Regent A. J. Horlick has given a scholarship of $225 which is continued for the current year. This is awarded in the College of Agriculture for special research on some phase of inheritance of disease resistance in plants.**

Woodbury Scholarship

The Newport Mining Company since 1914–15 has given an annual scholarship of $250 available in the Mining Engineering Course of the College of Engineering.

For graduate fellowships and scholarships, see pp. 380–384.

Loan Funds and Student Aids

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 $14,000. The sum obtained by one student in one year shall not exceed $50, and the total amount shall not exceed $200.*

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.*

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.*

** For information address College of Agriculture, The University of Wisconsin, Madison, Wisconsin.

*For information address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

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 $600.*

Chicago Association of Wisconsin Alumnae Loan Fund

In 1913 the Chicago Association of Wisconsin Alumnae 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

In 1911 Albert B. Kuppenheimer, of Chicago, gave $750 to establish a loan fund in the College of Agriculture. In 1916 the outstanding balance of the Geneva Loan Fund was consolidated with the Kuppenheimer fund, making a total of $1500. This is loaned to needy students in small amounts with interest at 6%, after maturity.**

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* For information address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

** For information address Professor D. H. Otis, Assistant Dean, College of Agriculture, Madison, Wisconsin.

† For information address Dean, College of Engineering, The University of Wisconsin, Madison, Wisconsin.

*** For information address Secretary, Board of Regents, The University of Wisconsin, Madison, Wisconsin.

Class of 1914 Loan Fund

The Class of 1914 established a loan fund, each senior paying $2 a year for five years. The fund now amounts to $740.**

Class of 1885 Loan Fund

In March, 1916, the class of 1885 established a loan fund, the initial remittance amounting to $58; the money to be loaned to needy students.**

University League Loan Fund

In March, 1916, the League of University Women established a loan fund, the initial remittance amounting to $50; the money to be loaned to needy students.**

Class of 1916 Memorial Loan Fund

The class of 1916 established a loan fund now amounting to $670. Principal and interest are to be loaned to students for periods of not to exceed one year; not more than $50 to one person. 3% interest is to be charged, with 6% after maturity. No distinction is made between colleges or classes.**

Kuppenheimer Loan Fund

Mr. Albert B. Kuppenheimer, of Chicago, donated $1,000 in December, 1916, to establish a loan fund open to all students under the following conditions:

1. Loans not to exceed one year;
2. Joint signatures of responsible parties required;
3. Interest, only after maturity, 6%;
4. Administration to be in the hands of the general university loan committee.**

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 equal to two hours a week for one year in addition

** For information address, Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

to all other requirements for graduation. 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 medals awarded for exceptional theses, see page 86. 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 124.

PRIZES

Lewis Prize

James T. Lewis, of Columbus, formerly governor of the state, gave $100 in 1865 and another $100 in 1866 to constitute a fund the income of which was to purchase an annual scholarship medal. In 1873 it was decided, with the consent of the donor, that the income should be used as a prize for the best undergraduate essay. In 1905, the fund having grown to over $300, the Regents in recognition of this having been the first permanent endowment given to the University established the "Lewis Prize" consisting of $25 annually, any deficiency in the income of the fund to 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. The fund now amounts to about $600.

Bryan Prize Fund

In 1899 William Jennings Bryan presented $250 to the University, the income to be used as a prize for the best essay on *The Science of Government*. The fund now amounts to $400 and is accumulating until such time as the income shall reach $25.

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 make this annual gift permanent, 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. The Department of Public Speaking has charge of the administration of these prizes.

Second: Two cash prizes for essays—one of $50 and one of $25, to be known as the William F. Vilas Prizes for Essays. The English Department posts annually the conditions of competition on various bulletin boards.

In 1915–16 the medals were awarded to Guy Black, Forrest R. Black, Herman A. Zischke, Milo K. Swanton, Harold E. Kinne, Wm. S. MacFadden, Robert L. Peters and Isadore W. Mendelsohn.

The prizes for essays were awarded: 1st prize to Charles A. Gill, *The Poetry of Robert W. Service;* 2nd prize to Hymen Rosenblatt, *The Plays of Israel Zangwill.*

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 undergraduate essay on a topic relating to the literature, history, or achievements of the Jewish people.

The award of this prize is in the hands of a faculty committee, who judge not merely on substance but also on literary form. If no competing essay 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.

In 1915–16 the prize was awarded to Max Roseman for an essay on *The Hebraic Renaissance in Palestine.*

Halle Steensland Prizes

The Halle Steensland prizes were offered for the year 1915–16 only and were won: first prize, by Roy J. Herrick with an essay on *The Habit of Exactness as Mental Discipline;* second prize, by Marshall W. Sergeant, *The Permanent Values of College Life.*

GRADE POINT SYSTEM

The grade point system went into effect September, 1915, with the class of 1919 on the following basis: as many points are required for graduation as credits. For grade *excellent*, three points are awarded for each hour of credit; for grade *good*, two points; for grade *fair*, one point; for grades of *poor*, no points.

The maximum number of points that can be secured by a student graduating in a course which requires, for example, 120 hours is 360; the minimum, 120. It is evident that an average grade of fair is necessary for graduation. Students who, by reason of grades of *poor*, fall behind in the required number of points, are ineligible for graduation. By use of points students may readily determine the quality of progress they are making in their course.

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 men 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, the Dean of Men, is available for correspondence and consultation regarding student affairs at all times. He will also gladly confer with parents or guardians regarding individual students (men).

The academic and social welfare of women students is under direct supervision of the Dean of Women. For the benefit of those women who are not accommodated in Chadbourne and Barnard Halls (see pp. 71–2), she has prepared a directory of rooming and boarding houses. All houses listed have been inspected by her, and though responsibility for them cannot be assumed by the Uni-

versity, they are believed to be suitable homes for women students. A copy 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. 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 to register their addresses, and to 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, and her staff of assistants invite correspondence with parents and guardians, and gladly cooperate with them regarding the welfare of students.

The legislative organs of student self-government are the men's Student Senate, and the women's Self-Government Association; the judicial bodies are the Student Court, and the Women's Judiciary Committee.

By charter, the Student Senate, which consists of 15 elected members, is the general representative and legislative body of the male students. It has general supervision over all men's activities. By joint committee the Senate and the women's Self Government Association have charge of all matters in which the interests of both men and women are involved, except insofar as these matters affect scholastic interests or intercollegiate relations; these latter interests are under the control of the Committee on Student Life and Interests.

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 association each year provides entertainment of various sorts for university women, adds a small sum to the loan fund for girls, and undertakes, 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. A bulletin of information for women is published by the association.

The Student Court, the outgrowth of a pledge to abolish hazing given in October, 1909, by the former Student Conference and the student body, 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

Upon entering the College of Letters and Science, the College of Engineering, and the College of Agriculture, each student is 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 courses; to see that all rules relating to required or elective studies, promotion, and graduation are strictly complied with; and, in general, to aid students in obtaining the greatest individual profit from their university courses.

The systems of the different colleges vary in some respects. There are no student advisers 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. This appointment must 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, those entering the freshman and sophomore classes are given physical efficiency tests 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 professional service is desired or not. At the same time 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 advisable, the family physician is notified for future advice and consultation.

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.

*762 Langdon Street, Telephone, University 306.

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

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 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. The four above-mentioned are men's societies in the College of Letters and Science. The debating society of the College of Agriculture is the Agricultural Literary Society.

The young women maintain two literary societies, Castalia, established in the early years of the University, and Pythia, organized in 1902. The University is a member of the Midwest Debating League composed of the universities of Michigan, Illinois, and Wisconsin. Each university meets the others in debate annually. A series of preliminary oratorical contests, held the middle of each year, is made up of a sophomore contest, a junior contest, a junior-ex contest, (between representatives of the junior class of each literary society), and a senior contest. The winner in this series represents Wisconsin in the Northern Oratorical Contest, where he meets representatives from the universities of Chicago, Iowa, Michigan, Minnesota, Northwestern, and Oberlin.

Research, Professional and Honorary Societies

The Science Club, the Historical and Political Science Association, and the Language and Literature Club, including both faculty members and advance students, have been organized to promote scientific study and research in their respective fields. Each organi-

zation awards a bronze medal annually for the best baccalaureate thesis in its field.

Journal clubs or societies for the furthering of the special work of the departments exist in various departments of the University. Among these are the *Germanistische Gesellschaft; Das Deutsches Haus; Nora Samlag*, a Scandinavian society; 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, like 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 U. W. Mining Club, the U. W. Engineers' Club, the U. W. Chemical Engineering Society, the Commercial Club, the Country Life Club, the Euthenics Club, and the Live Stock Club. The graduate students of the University maintain a Graduate Club.

The honorary fraternities are: Phi Beta Kappa, established in 1898; Tau Beta Pi, honorary engineering fraternity, established in 1899; Alpha Zeta, agriculture, 1906; Phi Lambda Upsilon, chemistry, 1906; Sigma Xi, science, 1907; Eta Kappa Nu, electrical engineering, 1910; Sigma Delta Chi, men's journalism, 1911; Theta Sigma Phi, women's journalism, 1910; Beta Gamma Sigma, commerce; Delta Sigma Rho, intercollegiate oratory and debate; Sigma Sigma, medicine; Artus, economics; Pi Tau Sigma, mechanical engineering; Omricon Nu, home economics; Beta Sigma Alpha, agricultural; and Scabbard and Blade, military science.

Musical and Dramatic Organizations

The university musical organizations are: the Choral Union, the University Regimental Band, the University Orchestra, the men's Glee Club and Mandolin Club, and the Girls' Glee Club.

The Haresfoot Club, maintained by university dramatic talent, presents a musical comedy annually; the Red Domino Club and the Twelfth Night Club are similar organizations maintained by women students. The Edwin Booth Club aims to promote dramatic interest and train dramatic talent.

Social and Religious Organizations

The social life of the undergraduate finds expression in more than 100 fraternities, societies, clubs and class organizations. The Wis-

consin Union, one of the most important of the men's organizations, consists of every male student in the University. No dues or fees are charged. The Union is active in promoting the social welfare of the student body, and has charge of the annual Union Vodvil, the quadrennial University Exposition, and numerous smaller social gatherings.

The most important religious organizations of the University are the Young Men's Christian Association, and the Young Women's Christian Association. The Y. W. C. A. maintains one secretary, and the Y. M. C. A., four, who devote their entire time to religious, social, and philanthropic work among the students. Seven student pastors supported by as many religious denominations, each with its own student organization, cooperate with the secretaries and promote Christian work in the student body in a very systematic way.

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 may be obtained on application to the 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 is issued early in each academic year, and a general catalogue of officers and graduates is published once in five years, the last having been issued in 1912. Apply to the Registrar for copies of these publications.

The High School series comprises a number of manuals designed to assist secondary school teachers in the subjects of the high school curriculum. Refer to the Secretary, Committee on Accredited Schools and Appointments.

From the 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

Student publications include: The Daily Cardinal; The Wisocnsin Literary Magazine, published monthly; The Wisconsin Engineer, published monthly; The Wisconsin Country Magazine, published monthly; The Awk, a humorous monthly; and The Badger, the junior class annual. The Wisconsin Alumni Magazine, a monthly journal, is the official organ of the alumni.

ADMISSION

Undergraduate students are admitted:

1. Upon examination at the University. (See p. 102.)
2. Upon certificate. (See pp. 102–104.)
3. Upon evidence of their standing in other institutions of higher learning. (See pp. 104–108.)
4. As adult special students. (See p. 109.)

Time of Entrance

Students may matriculate at the opening of either semester. It is also possible for them to enter at the beginning of the summer session; and there are advantages in beginning work at that time. The student becomes acquainted with university methods of instruction in advance, and his experience and the advice of his instructors will help him in planning his work for the regular session. For courses offered, see pp. 451–467.

Entrants are advised to present themselves several days in advance, in order to make all necessary arrangements. An additional fee is required for late registration. (See p. 69.)

ENTRANCE REQUIREMENTS

Entrance requirements are stated in terms of units. A *unit* equals five recitations a week for one year of at least 36 weeks in one branch of study. Two laboratory periods in any science or vocational study are considered as equivalent to one class exercise. 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. Three recitations a week for a year and a half may be counted as one unit.

Fourteen units, four prescribed and ten elective, are required for admission. Not more than four will be accepted in any one subject. Entrants offering only one foreign language must have at least two units. They must have at least three units of one foreign language before a single unit of another language may be credited.

I. The following four units are required of all:

English.....2 units

Mathematics:
Algebra.....1 unit
Geometry.....1 unit

II. Two units must be presented from *one* of the following:

One Foreign Language.....2 units
(French, German, Greek, Hebrew, Latin, Norse or Spanish.)
or **Science**.....2 units
or **History**.....2 units

III. In addition to the six units required under I and II, 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
French.....1, 2, 3 or 4 units
German.....1, 2, 3 or 4 units
Norse.....1 or 2 units
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
Physical Geography and Geology.....1 or 2 units
Physics.....1 or 2 units
Physiology.....½ unit
Zoology.....½, 1 or 2 units

Vocational Subjects:
Not more than four units in all. These may be included in any one group, or made up from a combination acceptable to the University. All vocational work must have been inspected and approved by the University before being accepted for admission. (See p. 101.)
Agriculture.....1, 2, 3 or 4 units
Commercial Work.....½, 1, 2, 3 or 4 units
(Including Commercial Law ½ unit; Commercial Geography ½ unit.)
Domestic Science.....1, 2, 3 or 4 units
Manual Arts.....1, 2, 3 or 4 units

Optional Subject.....1 unit
An optional subject is a high school subject not specified in the list of electives. One optional subject of one unit, or two of one-half unit each, may be offered; but none may be offered with four units of vocational subjects.
For the scope of work expected in each subject see pp. 94–102.

Advised Grouping of Preparatory Subjects

Students are advised to adapt their preparatory work to the course they expect to pursue in the University. Attention is called to the admission requirements of the several colleges and courses, and to the statements of the several departments covering the preparation best adapted to the work of each. Students expecting to go to the University, who are uncertain as to the college in which they will take their work, are advised to distribute 12 of the 16 units of the high school course as follows:

English, at least.....2 units
Mathematics, at least.....2 units
Science, at least.....2 units
Foreign Language.....2, 3 or 4 units
History, at least.....2 units

If less than four units are offered in Foreign Language, it is advised that the replacement be by units of English, History, Science, or Mathematics.

Entrance Requirements of the Several Colleges, Schools and Courses

COLLEGE OF LETTERS AND SCIENCE.

Four units under I, two units under II, and eight units under III, will admit to the following:*

1. *Bachelor of Arts courses* (General Course, Course in Commerce, and Course in Journalism). Foreign language requirements for the degree are stated on p. 115.
2. *Bachelor of Science courses* (Course in Chemistry, Medical Science Course, and Four-year Course in Pharmacy). Foreign language graduation requirements are stated on pp. 228, 365 and 244–245, respectively.

   Medical Science Course—Students are advised to present Latin and a second foreign language (Greek, French or German) to the amount of at least six units.

   Four-year Course in Pharmacy—Two units of foreign language should be offered for entrance or be made up in college without credit.

3. *Course leading to the degree of Ph. B. (General Course).* No foreign language required. For substitutions for language, see p. 118.
4. *Course leading to the degree of Ph. B. (Course for Normal School Graduates).* Requires graduation from a state normal school. (See further p. 120ff.)

* Since foreign language requirements for the several degrees may be satisfied in part by preparatory foreign language, references are made to the complete statements of those requirements. See also p. 93.

5. *Course leading to the degree of Bachelor of Music.* Same as B. A. courses, above, A, 1. (See p. 416–417.)
6. *Two-year Course for Supervisor of Music Certificate.* No foreign language required. (See p. 419.)

See also Library School and Two-year Course in Pharmacy below.

COLLEGE OF AGRICULTURE.

Four units under I, two units under II, and eight units under III, will admit to the following:

1. *Bachelor of Science courses* (Long Course and Course in Home Economics.) Foreign language requirements are stated on pp. 317–318 and 347 respectively.
2. *Graduate in Agriculture* (Middle Course). No foreign language required.

COLLEGE OF ENGINEERING

English.....2 units
Algebra.....1½ units
Geometry, Plane 1 year, Solid ½ year.....1½ units
German or French.....2 units

and additional units to total 14 from III, excluding Domestic Science. Foreign language graduation requirements are stated on p. 276.

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

LAW SCHOOL. (1) Candidates for a degree: Credits equivalent to the first two years of the College of Letters and Science. (2) Not candidates for a degree: Four units under I, two units under II, and eight units under III, provided entrants are at least 21 years of age. (See also pp. 355.)

LIBRARY SCHOOL. See pp. 246–247.

MEDICAL SCHOOL. (1) Satisfaction of Letters and Science entrance requirements. (2) Equivalent of two years' work in that college, which should include successful completion of: (a) laboratory courses of college grade in physics, chemistry and biology; and (b) courses in German, French or Latin. Elementary Latin and a reading knowledge of French or German are required. (See also pp. 364.)

Two-year Course in Pharmacy. (1) High school graduates are admitted without examination and without practical experience in a drug store. (2) Non-graduates are admitted: (a) if they are eighteen years of age; and (b) if they present satisfactory certificates of at least two years' attendance from some standard high school, or its equivalent from a similar institution.

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

Preparatory Foreign Language Outline

A. A preparatory course including *no foreign language* is sufficient for entrance and for graduation without foreign language requirements in the following courses of the several colleges:

1. College of Letters and Science:
   a. Course leading to the degree of Ph. B. (General Course);
   b. Two-year Course in Pharmacy.
2. College of Agriculture, Two-year, Middle Course.

It is sufficient for entrance in:

3. College of Letters and Science:
   a. All courses leading to the degree of B. A., subject to a graduation requirement of 32 credits in two or more foreign languages. (See further, p. 115.)
   b. All courses leading to the degree of B. S., subject to a graduation requirement of 24 credits in foreign languages. (For particular requirements, see: Course in Chemistry, p. 228; Medical Science Course, p. 365; and Course in Pharmacy, p. 244–245.)
4. College of Agriculture, Long Course, and College of Engineering, subject to a graduation requirement of 16 credits in French or German. (See further, pp. 317–318 and 276 respectively.)

Note: College of Engineering—8 of the 16 credits do not count toward graduation.

B. A course including *two units in one foreign language* admits as above (A), and is sufficient for entrance in:

1. College of Letters and Science:
   a. All B. A. courses, subject to a graduation requirement of 24 credits in foreign languages as specified on p. 115.
   b. All B. S. courses, subject to a graduation requirement of additional credits in foreign languages depending upon the entrance language. (See reference cited above, A, 3, b.)
2. College of Agriculture, Long Course, and College of Engineering, subject to a graduation requirement of 8 credits in French or German (provided the entrance language be either French or German for the College of Engineering). (See pp. 317–318 and 276 respectively.)

C. A course including *three units in one foreign language* admits as above (B), and is sufficient for entrance and for graduation without further foreign language requirements in:

1. College of Agriculture;
2. College of Engineering.

It is sufficient for entrance in:

3. College of Letters and Science;
   a. All B. A. courses, subject to a graduation requirement of 20 credits in foreign languages as specified on p. 115.
   b. All B. S. courses, subject to additional foreign language graduation credits. (See references under A, 3, b.)

D. A course including *four or more units of foreign language* admits as above (C), and is sufficient for entrance in:

1. College of Letters and Science:
   a. All B. A. courses, subject to a graduation requirement of additional foreign language as specified on p. 115.
   b. All B. S. courses, as above, C, 3, b.

Note: College of Agriculture—Four credits must be in not more than *two* foreign languages. (See p. 317–318.)
College of Engineering—Four credits may be in *two or more* foreign languages. (See p. 276.)

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.

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 several essays on familiar subjects, 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 Freshman 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. 142.

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 aim of the study of these selections should primarily be the interpretation of the works as independent units; other considerations, such as form, biography, literary history, or critical comparisons, though they should not be neglected, should be kept subsidiary to this main object.

History of English and American Literature. 1 unit. In addition to the 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 selec-

tions 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 practice 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. This should consist of an intensive study of typical examples of the novel, the drama, the lyric, and the oration or the essay. At least one work from each of the following four groups should be included: I. (a) Thackeray's *Henry Esmond;* (b) Hawthorne's *The House of the Seven Gables;* (c) Dickens's *A Tale of Two Cities;* (d) George Eliot's *Silas Marner;* II. Shakspere's (a) *Macbeth,* (b) *Hamlet,* (c) *King Lear;* III. Palgrave's *Golden Treasury* (First Series), (a) Books ii and iii, or (b) Book iv; (c) Milton's *Lycidas, L'Allegro* and *Il Penseroso;* IV. (a) Burke's *Speech on Conciliation;* (b) Webster's *First Bunker Hill Oration,* and Washington's *Farewell Address;* (c) Macaulay's *Life of Johnson, Essay on Milton;* (d) 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. One unit is required of all students and should include: 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: 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; arithmetical and geometrical progressions.

GEOMETRY. One unit is required of all students. 1 unit, *combination course of a single year in plane and solid geometry:* 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 College of Engineering requires for admission 1½ units of plane and solid geometry.

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

Additional Credit. ½ to 1 unit for work in algebra, trigonometry, surveying, or other mathematics: total credit not to exceed 4 units.

History, Civics, and Economics

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

Ancient History, 1 unit.

Ancient and Medieval History, 1 unit.

European History to approximately the end of the 17th Century, 1 unit.

Medieval and Modern History, 1 unit.

Medieval and English History, 1 unit.

Modern European 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. This may comprise the study of government in its relation to either the local community or the nations, or both. It 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.

Science

BOTANY. 1 unit. A study of the life histories of types from the main groups of plants, with 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.

If impossible to give a full year's work to the subject, botany may be combined with physical geography, physiology and zoology to construct units.

CHEMISTRY. 1 unit. 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 throughout the year. Two laboratory periods are considered as equivalent to one class exercise. A laboratory notebook must be kept.

PHYSICS. 1 unit. Not less than three classroom periods a week, and not less than four actual hours of work a week in the laboratory. A record of all work done should be kept in a notebook. Any standard textbook may be used.

PHYSICAL GEOGRAPHY. 1 unit. To 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 adapted to the locality; every candidate must submit a statement of the field trips taken by him. (3) The interpretation and habitual use, in the laboratory, of topographic maps, weather maps, charts, and pictures.

If impossible to give a full year's work to the subject, physical geography, botany, physiology and zoology may be combined to construct units.

PHYSIOLOGY. ½ unit. Human anatomy, histology, and physiology, and the essentials of hygiene. The textbook work, equivalent to that given in Martin's *The Human Body, Briefer Course*, must be illustrated by charts and models, and supplemented by anatomical demonstrations and chemical experiments.

ZOOLOGY. 1 unit. Laboratory work (at least two-thirds of the course) including eight to ten types of animals, with careful descriptions and drawings; a study of life histories, habits and relation to environment. Class exercises based on any standard textbook.

Languages

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. (1) Grammar and elementary book; (2) *Caesar*, books I–IV; (3) *Cicero*, six orations (selections from the letters may be substituted for two orations); (4) *Virgil*, six books; composition, preferably in connection with *Caesar* and *Cicero.*

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

3 units. (1), (2) and either (3) or (4) above.

2 units. (1) and (2) above.

Real equivalents will be accepted for any part of these requirements.

Latin 1 and 3 in the University cover substantially the work done in the high school. They may be credited towards the bachelor's degree and used to satisfy language requirements. No such credit will be given for high school Latin.

GERMAN. 2 units—Elementary. Applicants should be able to pronounce at sight simple German prose similar to the more difficult portions of *Glück Auf*, and to prove their understanding of the texts read, either by answering simple German questions based upon the texts, or by translating into good idiomatic English, help being given upon unusual words and constructions. They should also be able to put easy English sentences into German. The required amount of grammar is contained in the current beginners' books, such as Spanhoofd's *Elementarbuch* or Manfred's *Ein praktischer Anfang.* About 75 of the more usual strong verbs are required. Applicants should have read not less than 200 pages of easy German, chiefly modern narrative prose, but including some simple poems and possibly one or two short plays.*

3 units—Intermediate. In addition to the work outlined for 2 units, applicants should have read from 300 to 400 pages of moderately difficult prose and poetry, with constant practice in speaking and writing, based upon portions of the texts read. Part of this amount should be done as outside reading and reported on for content only. The study of grammar should be continued.*

* Approximately corresponding to the "elementary," "intermediate" and "advanced" courses as outlined in the *Report of the Committee of Twelve* (D. C. Heath & Co., Boston; price 16c.) See also the *High School Course in German*, No. 2 of the High School Series of the Bulletin of the University of Wisconsin. (Secretary, Committee on Accredited Schools, University of Wisconsin, Madison, Wisconsin.)

4 units—Advanced. Besides the work outlined for 2 and 3 units, applicants should have read from 400 to 500 pages of standard literature in prose and poetry, with increasing attention to literary appreciation and the necessary biographical and historical background. The use of outside reading should be continued. Applicants should be able to understand 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 one year of high school German enter course 1b. Those who have had two years enter course 2a. Those who have had three years enter course 2b. Those who have had four years should enter course 14 if they matriculate in the first semester, and course 3 if they matriculate in the second semester, provided they are able to devote four hours per week to German. Otherwise they may make two or three hour programs by electing from courses: 15, 17, 18, 20, 40, and 41. Students whose general course of study requires a special class in German elect such courses as 3Sc, 3C or 16.

FRENCH—2 units—Elementary. 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.

Not less than 300 pages of simple French should have been read with careful attention paid to pronunciation during the entire period.

3 units—Intermediate. In addition to the work outlined for two units, the applicant should have read at least 400 pages of French chosen from nineteenth century classics, and done considerable work in oral and written composition.

4 units—Advanced. One year of high school work in addition to the work outlined for 2 and 3 units. In addition to the work outlined for 3 units, the applicant should have read at least 500 pages of classic and modern French literature. He should be able also to write a short French composition and show his understanding of a simple lecture in French by answering questions upon it in the same language.

For detailed information as to grammars, texts, etc., see *A Four Year High School Course in French* which may be obtained on application to the Department of Romance Languages.

* Approximately corresponding to the "elementary," "intermediate" and "advanced" courses outlined in the *Report of the Committee of Twelve.* (D. C. Heath & Co., Boston; price 16c.) See also the *High School Course in German*, No. 2 of the High School Series of the Bulletin of the University of Wisconsin. (Secretary, Committee on Accredited Schools, University of Wisconsin, Madison, Wisconsin.)

SPANISH. 2 units. Work corresponding to that done in the elementary courses of the University. The student should have acquired a correct pronunciation of the language, should be able to translate freely simple Spanish texts, and should possess an accurate knowledge of the grammatical principles of the language and of its regular and irregular verbs. The work in grammar should be approximately that found in any standard Spanish grammar. About 300 standard pages of text should have been translated. The student should be taught the Castilian pronunciation.

3 units—Intermediate. In addition to the work outlined for two units, the applicant should have read at least 400 pages of Spanish chosen from nineteenth century authors, and done considerable work in oral and written composition.

4 units—Advanced. One year of high school work in addition to the work outlined for 2 and 3 units. In addition to the work outlined for 3 units, the applicant should have read at least 400 pages of modern Spanish literature. He should be able also to write a short Spanish composition and show his understanding of a simple lecture in Spanish by answering questions upon it in the same language.

For detailed information see pamphlet issued by the Department of Romance Languages entitled *A Four Years' Course in Spanish.*

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, requirements in agriculture, domestic science, commercial work, and manual arts are not defined. The acceptance of work for admission will be based upon a special inspection; and the approval of courses will depend primarily upon adequate equipment and efficiency of instruction.

A tentative statement of acceptable units in these subjects is:

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

Commerical 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.

ADMISSION UPON EXAMINATION

The regular examinations of the University are two in number, one in June and one in September. For the current year the earlier examinations will be held on Thursday and Friday, June 14 and 15, beginning at 9 o'clock A. M. The later examinations will be held on Monday and Tuesday, September 24 and 25, beginning at 9 o'clock A. M. Students who are in doubt as to their qualifications should present themselves in June. All candidates must be present at 9 o'clock on the first day of the examination. No special examinations are given.

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. For the character of the entrance examinations, see pp. 94–101.

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. Upon application made by an officer of any high school or academy in the state to the Secretary of the Committee on Accredited Schools, the University will examine the school with reference to placing it upon its accredited list of preparatory schools. The examination, which will be conducted by a committee of the Faculty, will cover the course of study and methods of instruction in the school. 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 its course of instruction covers fourteen units in the subjects accepted for admission to the University.

Principals of accredited schools are requested to note the statement regarding the examination of freshmen in English (see p. 95), and also the statement regarding the additional requirement and examination in algebra for admission to the College of Engineering (see p. 269).

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. Copies 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, where the graduate has fully and satisfactorily covered in his high school course the full requirements for admission to the University.

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

1. Graduates of secondary schools outside 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 the minimum admission requirements of the University be fulfilled in all cases.

2. Graduates of other secondary schools outside 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 within the state, included in the membership of the Association of American Universities. The state university must 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 must 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) the subjects in which advanced credit is sought are the general subjects accepted for admission to the University; (2) the work is as advanced as work given in the freshman year; (3) the student's course of study in which credit is desired be approved by the chairman of the department; and (4) the students pass a satisfactory examination 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.

ADMISSION WITH ADVANCED STANDING

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 and Bachelor of Philosophy (General Course) —Sixty credits in required work and work regularly offered by the University to freshmen and sophomores.

Bachelor of Philosophy (*Course for Normal School Graduates*)—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 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*, (*Course for Normal School Graduates*)—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.

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.

B. *Bachelor of Arts, and Bachelor of Philosophy (General Course)*—Graduates of the two-year departmental courses and of the specialized teachers courses who desire to become candidates for the degrees of *Bachelor of Arts* or *Bachelor of Philosophy (General Course)* 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 satisfy university requirements for the degrees (see pp. 112–119).

2. Application for laboratory credit in science must be accompanied by laboratory or field books.

3. 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.

4. 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 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 120 for the requirements for the degree of *Bachelor of Philosophy* (*Course for Normal School Graduates*).

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 nor of the University to transfer to this college 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.

Beginning with the academic year, 1917–18, a minimum of 45 credits *in residence* will be required for the College of Letters and Science. This will ordinarily mean attendance for one and one-half years or one year and two summer sessions at this University. (See further p. 123.)

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 or 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 College of Agriculture or Engineering, the Law School, School of Music, or the Course in Commerce, will receive credit for their professional 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 Committee 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.

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 without required foreign language, the course for normal school graduates, and from the courses in Chemistry, Pharmacy, and Medical Science.

BACHELOR OF PHILOSOPHY (General Course), upon the graduates from the course without required foreign language.

BACHELOR OF PHILOSOPHY, (COURSE FOR NORMAL SCHOOL GRADUATES), upon the graduates from the course for normal school graduates.

Professional and Technical

BACHELOR OF LAWS.

BACHELOR OF MUSIC, upon graduates from the four-year course in Music.

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 AGRICULTURE, upon graduates from the Two-year Course in Agriculture.

GRADUATE IN PHARMACY, upon graduates from the Two-year Course in Pharmacy.

MASTER OF PHARMACY, as a second degree upon GRADUATES IN PHARMACY.

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

COLLEGE OF LETTERS AND SCIENCE

EDWARD A. BIRGE, Dean.

There are two general courses in the College of Letters and Science: one leading to the degree of Bachelor of Arts, in which foreign language is a required study; the other leading to the degree of Bachelor of Philosophy (General Course), in which other required studies may take the place of foreign language.

There are also special courses in commerce, journalism, and medicine, leading to the degree of Bachelor of Arts; in chemistry, pharmacy, and medicine, leading to the degree of Bachelor of Science; in music, leading to the degree of Bachelor of Music; and for normal graduates, leading to the degree of Bachelor of Philosophy (Course for Normal School Graduates). The requirements for degrees in these special courses will be found under the appropriate heads. (See Index.)

I. General Conditions for the degrees in the General Courses leading to Bachelor of Arts and Bachelor of Philosophy

1. Credits, Military Drill, Physical Education

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. 120 grade points are also required for graduation. (See p. 81. for details.) 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 classroom 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 classroom work except by permission of the Faculty, obtained in advance.

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. 114

2. Major Study and Thesis

Major Study.—At the beginning of the sophomore or the junior year every candidate for these degrees 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 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.

3. Electives

All work not included in the required studies of each course (See pp. 115 and 118.) is elective, but there shall not be taken in any one department more than 40 credits, including required 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.

4. Election of Studies in Other Colleges

Candidates for these degrees 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 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 for credit 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.

II. Required Studies for the General Course leading to the degree of Bachelor of Arts

a. English: Six credits (three credits per semester for two semesters); to be taken in the first year of residence.*

b. Foreign Language: Thirty-two credits in two, or more, foreign languages are required for graduation. These credits may be secured partly in high school and partly in the University, or wholly in the University. High school work is accepted at the rate of one unit for four university credits up to the amount of six units or twenty-four university credits. In general, students are required to take a minimum of eight credits in one foreign language in the college. Any student, however, who presents more than six units for entrance will be allowed to count the additional unit or units toward the total requirement of thirty-two credits, provided he passes a special examination, given by the college, upon four units of his high school work in one language. This examination will normally be given before the Christmas holidays in the first semester of the student's freshman year.

* 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.

Students must have at least four units of high school work, or sixteen credits in the college, in one language, or the equivalent in combined high school and college work in one language.

Similarly, students must have at least two high school units, or eight university credits, in a second language.

One high school unit in language will be accepted only in case the student successfully continues this language in the college for at least one semester.

A student, therefore, who has two years of high school language needs twenty-four additional credits for graduation; if he has three years he needs twenty credits; etc.

French, German, Greek, Hebrew, Latin, Norse, and Spanish may be offered either for entrance or graduation.

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.

d. Major study, thesis, and electives. See statement p. 113.

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.
Hebrew: 4 credits; two semesters.
German: 4 credits; two semesters.
French: 4 credits; two semesters.
Spanish: 4 credits; two semesters.
Norse: 4 credits; two semesters.

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 cannot 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, Chem-

istry 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.

III. Required Studies for the degree of Bachelor of Philosophy (General Course).

All of the studies prescribed below are to be taken in college.

a. English, to be taken in freshman year, 10 credits (5 credits per semester for two semesters) *for students who do not elect foreign language in freshman year.*

6 credits (3 credits per semester for two semesters) *for students who elect foreign language in freshman year.*

b. Science and mathematics. A total of 20 credits to be taken in year courses.

c. Two of the following groups:

1. Philosophy or mathematics, 10 credits. Mathematics may not be offered both here and under b above.
2. History, 10 credits.
3. Foreign language, 14 credits. Not more than 8 of these may be in a beginner's course.

The total number of prescribed credits is therefore 40 to 44, in addition to English.

The departments and courses open for credit are the same as in the B. A. course. See statement on preceding pages.

Studies of the Freshman Year

The studies of the freshman year are in general required, as they are in the B. A. course. The same studies are open to freshmen in this course as to those in the B. A. course and on the same terms. See statement on preceding pages, under B. A. course. Students may readily make the following combinations, in which the numbers represent the number of credits per semester.

a. Without foreign language.

1. English 5 credits, history 5, science 5.

2. English 5 credits, science 5, mathematics 3, history 3.
3. English 5 credits, science 5, mathematics 5.
4. English 5 credits, history 5, mathematics 5.

b. With foreign language.

1. English 3 credits, language 4 or 5, history 3, science 5.
2. English 3 credits, language 4 or 5, history 5, mathematics 3.
3. English 3 credits, language 4 or 5, science 5, mathematics 3.
4. English 3 credits, language 4 or 5, mathematics 5, history 3.

Students who may elect as indicated in group (b), will be in line, if they choose to do so, to go on toward the B. A. degree instead of the Ph. B. They may continue foreign language in the sophomore year, and offer it as part of the prescribed credits for the Ph. B. degree, or the study may be discontinued at the end of freshman year. In the latter case the student will need to offer 10 credits in philosophy or mathematics, and 10 in history. Students may elect two foreign languages, but such students will naturally enter the B. A. course.

The following sciences are open to election by freshmen as part of the prescribed studies: botany, zoology, chemistry, physics, geology.

The following courses in history are similarly open to election by freshmen: ancient history, English history, medieval history. These are three credit courses. The student may secure five credits by taking the full work of one course and the lectures, etc., of another, omitting much of the collateral reading, etc., as prescribed by the department.

The following foreign languages are similarly open to election by freshmen: Greek (3–5 credits), Latin (4–5), German (4), French (4), Spanish (4), Norse (4), Hebrew (4).

IV. 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.)

V. 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.)

VI. Requirements 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.)

VII. 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 (course for Normal School Graduates) 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. 138 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 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. 112.) 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

* 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. 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.

so as to 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 266.

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; 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

Beginning with the academic year 1917–18, 45 credits will be the minimum number of credits to be obtained *in residence* by candidates for degrees in this college. This will ordinarily mean attendance for one and one-half years or one year and two summer sessions at this University, but the credits may be secured by any combination of residence during semesters and summer sessions.

Students must not expect to take the work of the major study and the thesis in another institution or by correspondence. These studies should normally come at the end of the course, and candidates for degrees must, 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 evi-

dence 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 251.

Honors in the College of Letters and Science

Honors and High Honors are awarded at the end of the sophomore year and at graduation.

Sophomore Honors and *Sophomore High Honors* are awarded on the basis of a minimum of two full years' of work (not less than 60 credits) acquired in residence. A student securing 135 grade points* during these two years is awarded *Sophomore Honors;* a student securing 165 grade points is awarded *Sophomore High Honors.*

Senior Honors and *Senior High Honors* are awarded at the completion of at least two full years' work (not less than 60 credits) acquired in residence after the completion of sophomore work. A student securing 135 grade points during these two years is awarded *Senior Honors;* a student securing 165 grade points is awarded *Senior High Honors.*

Thesis Honors will be given for an exceptionally fine or original thesis, without consideration of the student's record in other work.

Senior Honors and *Senior High Honors* are published in the Commencement Day program. *Sophomore Honors* and *Sophomore High Honors* are published in such a manner as the dean of the college shall consider proper.

*See "Grade Point System", p. 81.

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; INSTRUCTOR SKAVLEM; ASSISTANTS BURNS, RYAN, STRASSER.

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 or II; 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 and Physiological Chemistry, Experimental Breeding, Pathology and Medical Bacteriology, Pharmacology and Toxicology, Plant Pathology, and Agricultural Bacteriology.

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 BAIRD, BENNETT, BRYAN, SMITH, STEIL; ASSISTANTS ARMSTRONG, BARKER, BARTHOLOMEW, BROWN, DICKSON, FREY, GUGLER, HARVEY, MILLER, RICHARDS, SMITH, TOOLE.

FELLOW, MR. BROWNING.

Major in Botany

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 or II; 5 cr. Preliminary to all advanced work. Accepted with Zoology 1b to make up an elementary course in general biology. 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. Ac-

cepted as part of a teacher's minor or, with course 1, in satisfaction of the requirement of a year of natural science. Prerequisite: course 1 or its equivalent. Mr. Bryan, Mr. Baird, and staff.

32. Pharmacognosy. Yr.; 2 cr. Required of all students in Pharmacy. Mr. Denniston.

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

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, Mrs. Bartholomew.

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.

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. Bartholomew, Mr. Baird, Mr. Armstrong.

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. Baird.

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.

133. Microscopy of Drugs. I; 3 cr. Prerequisite: course 110. 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 1916–17, the history of botany since 1840. Mr. Allen.

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

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. 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 BARNEBEY, ELLINGSON, JONES, KOENIG, LANGENHAN, NEBEL, SCHUETTE, WAKEMAN; ASSISTANTS BENGER, BISHOP, BOHNSON, BOSWORTH, BRANN, CLEMENS, JOHNSON, MORRIS, NOER, RITTER, ROESELER, SCHIERZ, SEVRINGHAUS, SHAW, TRAUTMANN, WATERHOUSE, WILLIAMSON.

FELLOW, MR. HAGEMAN; SCHOLAR, MR. MERRILL.

For an undergraduate major in Chemistry are required in addition to a thesis, at least 20 credits consisting of course 1, one semester of course 11, and one semester of course 120.

For Undergraduates

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

2. General Chemistry. Yr.; 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. Yr.; 3 to 5 cr. Prerequisite: Chemistry 1. Mr. Lenher, Mr. Barnebey, Mr. Carleton, and staff.

11Ag. Quantitative Analysis. I; 2½ cr. For agricultural students. Mr. Carleton and staff.

20. Organic Chemistry. I; 2 cr. class; ½ to 2 cr. lab. Prerequisite: Chemistry 1. Mr. Fischer and staff.

26. Inorganic Pharmaceutical Chemistry. I; 4 cr. Required of students in Pharmacy. Prerequisite: courses 1, 11 and 117. Mr. Kremers, Miss Wakeman.

27. Organic Pharmaceutical Chemistry. II; 5 cr. Prerequisite: course 120. Required of students in Pharmacy. Mr. Kremers, Miss Wakeman.

45. Alkaloid Assay. II; 1 or more cr. One hour required of students in Pharmacy. 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. Yr.; 1 cr. A general survey of the early periods during the first semester, and of the quantitative period during the second semester. 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. Schuette.

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

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

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. Prerequisites: Chemistry 11 and Chemistry 120. Mr. Schuette.

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

121. Advanced Organic Preparations. Cr. to be arranged. Mr. Fischer and staff.

125. Chemistry of Sugars and Starches. I; 2 to 5 cr. (Given 1917–18.) Mr. Fischer.

126. Chemistry of Coal-Tar Dyes. II; 2 to 5 cr. Mr. Fischer.

127. Chemotherapy. Cr. to be arranged. A study of the pharmaceutical aspects of the preparation of new synthetic organic remedies. Lectures and laboratory work. Miss Wakeman.

128. Chemistry of Organic Nitrogen Compounds. I; 2 cr. (Given 1916–17.) Mr. Fischer.

130. Physical Chemistry. I; 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. (Given 1916–17.) Mr. Mathews.

135. Chemistry of Solutions. II; 2 to 5 cr. (Given 1916–17.) Mr. Kahlenberg.

136. Relation of Physical Chemistry to other Sciences. II; 2 cr. (Given 1917–18). Mr. Kahlenberg.

137. Colloids. II; 2 to 5 cr. (Given 1917–18.) 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 cr. 1917–18: The phase rule; 1918–19: Chemical dynamics. Mr. Walton.

235. Advanced Physical Chemistry. Hours to be arranged. 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 cr. 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 cr. Modern theories. Lectures alternate with Chemistry 255. (Given in 1917–18.) 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 cr. Lectures; alternates with Chemistry 251. (Given 1916–17.) Mr. Lenher.

COMPARATIVE LITERATURE

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

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. If graduate students wish to elect courses that are conducted largely in translation, they should understand that, in these, graduate credit is given only when the work in at least one of the foreign languages involved is done in that language.

There is no undergraduate major in Comparative Literature, but various courses on the list count toward 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 second minor in Co nparative Literature. The degree of Master of Arts may also be taken in this field. All candidates for either degree who wish credit in Comparative Literature should consult the chairman, since each case requires a special arrangement of studies. Courses not on this list are frequently accepted or required.

For Undergraduates

1. Ancient Classical Epic. I; 2 cr. Homer's *Iliad* and *Odyssey* and Virgil's *Aeneid*, in translation. Alternates with Greek 113. (Omitted 1917–18.) 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. (Given 1917–18.) 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. (Omitted 1917–18.) Mr. Dodge.

107. Contemporary Drama. Yr.; 2 cr. Foreign plays in translation. (Given 1917–18.) Mr. Pyre.

108. The Contemporary Novel. Yr.; 2 cr. Foreign novels in translation. (Omitted 1917–18.) Mr. Campbell.

110. German Influences in England during the Nineteenth Century. Yr.; 2 cr. (Omitted 1917–18.) Mr. Leonard.

115. Elizabethan Prose Fiction in its Relations with that of the Continent. I; 2 cr. (Omitted 1917–18.) 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 1917–18.) 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. (Omitted 1917–18.) Mr. Roedder.

For Graduates

233. The German Classical Novel and its Forerunners in Germany, France, and England. Yr.; 2 cr. (Given 1917–18.) Mr. Feise.

250. The Renaissance in Romance Countries. Yr.; 2 cr. First semester, Italian; second semester, French. (Given 1917–18.) Mr. Cerf.

242. The Literary Relations of England and Germany in the Eighteenth Century. Yr.; 2 cr. Alternates with course 138. (Given 1917–18.) Mr. Kind.

244. The Medieval Drama. Yr.; 2 cr. First semester, liturgical drama; second semester, English. (Omitted 1917–18.) Mr. Young.

248. Medieval Literature. Its beginnings in Europe with special reference to the influence of the French and Provençal literatures. (Omitted 1917–18.) Mr. Reed.

252. Medieval French Drama. Yr.; 2 cr. Origins; relation to the early religious plays of other countries. (Omitted 1917–18.) Mr. Smith.

254. French Romanticism in its International Relations. Yr.; 2 cr. (Given 1916–17.) Mr. Cerf.

EDUCATION

Professors Henmon (chairman), O'Shea; Acting Professor Hill (1916–17); Assistant Professors Miller, T. Lloyd Jones, Starch, Seybolt; Instructor Hoyt; Assistants Childs, Finner, Smithey.

Fellow, Mr. Van Landegend.

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 education and mental development in the child and in the race; (3) Educational psychology; (4) Organization, administration, and supervision of education; (5) 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.

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.

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* work, 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. The duration and special conditions of their candidacy will be determined on the basis of fitness and qualifications exhibited in the courses taken during this first summer session; (2) Candidates who have not already satisfactorily completed courses in pyschology and education, equivalent to the existing requirements for the University Teachers Certificate, will be required to devote at least four summer sessions, together with *in absentia* work 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 *in absentia* work 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; (4) Before taking the oral examination required for all second degrees at the close of the period of summer session and *in absentia* study each candidate must undergo a preliminary written examination in each of the principal divisions 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. Students may take the examination in two parts. Arrangements will be made whereby the examination may be taken at the student's home town.

University Teachers Certificate

The requirements for the University Teachers Certificate will be found on pp. 250–265.

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. Hill.

11. Mental Development. I or II; 2 or 3 cr. General principles; intellectual, emotional, motor development; mental economy and hygiene. Mr. O'Shea.

41. Educational Psychology. I or II; 2 or 3 cr. Prerequisite: psychology (Philosophy 1). Mr. Henmon, Mr. Starch.

For Undergraduates and Graduates

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

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

104. State School Systems. I; 2 or 3 cr. Prerequisites: Education 1 or 6, and one other elementary course in education. Mr. Hill.

105. Municipal School Systems. II; 2 or 3 cr. Prerequisites: Education 1 or 6, and one other elementary course in education. Mr. Hill.

112. Social Development and Education. I or II; 2 or 3 cr. Prerequisites: Any two elementary courses in education. Mr. O'Shea.

113. Principles of Education. II; 2 or 3 cr. Prerequisites: Any two elementary courses in education. Mr. O'Shea.

116. Educational Classics. I; 2 cr. Critical examination of sources from early Greek writers to the present time. Prerequisite: Education 1 or equivalent. Mr. Seybolt.

117. Educational Values. I; 3 cr. Prerequisites: Any two elementary courses in education. Not open to students who have completed course 113. Mr. O'Shea.

142. Experiments in Educational Psychology. I or II; 1 or 2 cr. Prerequisites: Education 41 and one other elementary course in education. 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. Prerequisites: Education 41 and one other elementary course in education. Mr. Henmon.

Vocational Education and Guidance. (See Manual Arts 113.) II; 2 cr. Mr. Crawshaw.

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 cr. Germany, France, and England. Prerequisites: Education 6 and 104, or equivalents. Mr. Hill.

214. Genetic Psychology. Yr.; 2 cr. The psychology of development in respect to some of the principal types of educational work. Prerequisite: Education 11, 41 and 142, or equivalents. Mr. O'Shea.

216. Contemporary Educational Movements. I; 2 cr. Prerequisite: Education 103, or equivalent. Mr. Seybolt.

218. History of Modern European Education. II; 2 cr. Prerequisites: Education 103, or equivalent. Mr. Seybolt.

220. Seminary in Education. Yr.; 1 or 2 cr. Prerequisites: Education 11, 41 and 142, or equivalents. Mr. O'Shea.

231. Seminary in Administration and Supervision of Education. Yr.; 1 or 2 cr. Prerequisite: Education 104 or 105, or equivalent. Mr. Hill.

233. Supervision of Instruction. I; 2 or 3 cr. Open only to those with practical teaching experience. Mr. Hill.

234. Educational Hygiene. II; 2 cr. Modern practice with regard to the main divisions of educational hygiene. There will be intensive studies of selected topics with emphasis on administrative problems. Prerequisites: Education 104, or 105, or equivalent. Mr. Hill.

244. Mental Tests. Yr.; 2 cr. Prerequisites: Education 41 and 142, or equivalents. Mr. Starch.

246. Experimental Education. I; 2 cr. Prerequisites: Education 41 and 142, or equivalents. Mr. Henmon.

248. Seminary in Educational Psychology. Yr.; 1 or 2 cr. Prerequisites: Education 41 and 142, or equivalents. Mr. Henmon, Mr. Starch.

ENGLISH

PROFESSORS HUBBARD, YOUNG (chairman); ASSOCIATE PROFESSORS LATHROP, PYRE; ASSISTANT PROFESSORS BEATTY, CAIRNS, CAMPBELL, O. J., DODGE, GARDNER, LEONARD, MANCHESTER, PENDLETON, ROE, TAYLOR; INSTRUCTORS ALDERMAN, BONNELL, BURD, CAMPBELL, L. B., CARR, CHASE, DEMOSS, DOOLEY, EMSLEY, FILES, HARKNESS, HAWKINS, JOHNSON, MITCHELL, SCALLON, TRUEBLOOD, VERRILL, WANN; ASSISTANTS CALKINS, HIBBARD, KITCHEL, SCHWEPPE, SPEICHER.

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. 257.

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 the 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 95. 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 Agriculture and Engineering and of freshmen in the College of Letters and Science who do not take English 12a (see below). Mr. Manchester and staff.

1b. Freshman English. I or II; 3 cr. Continuation of 1a. Required of freshmen in the Colleges of Agriculture and Engineering and of freshmen in the College of Letters and Science who do not take English 12b (see below). 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.

12a. Freshman Rhetoric. I; 5 cr. Required of those freshmen looking forward to the degree Ph. B., General Course, who do not take foreign language in their freshman year. Mr. Lathrop.

12b. Freshman Rhetoric. II; 5 cr. Continuation of 12a; required of the same category of students. English 12a and 12b offer a discipline in composition equivalent to that given in English 1a and 1b, in addition to a study of selected prose works. On the completion of course 12b 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. Lathrop.

2. Sophomore Composition. Yr.; 2 cr. Open to students who have passed English 1b or 12b. Mr. Taylor and staff.

3a. Argumentation. I; 3 cr. Lectures, textbook, practice exercises. Prerequisite: English 1b or 12b. 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 1b or 12b, 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 1b or 12b. 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 1917–18.)

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

For Graduates

217. The Teaching of Freshman English. II; 2 cr. (Omitted 1917–18.) 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. II; 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. Gardner.

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, Mr. Harkness.

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

50a. The Teaching of English. I; 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. II; 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.

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. Mr. Pyre.

108CL. The Contemporary Novel. Yr.; 2 cr. Recent developments in the European novel. Foreign novels in translation. (Omitted 1917–18.) Mr. Campbell.

110CL. German Influences in England during the Nineteenth Century. Yr.; 2 cr. (Omitted 1917–18.) 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 1917–18.) 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 1917–18.)

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; 2 cr. From Bacon to the present day. Mr. Dodge.

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

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

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. (Omitted 1917–18.) Mr. Cairns.

149b. Studies in the Chief American Essayists. II; 2 cr. (Omitted 1917–18.) Mr. Cairns.

153. Philosophy in the English Poets. Yr.; 2 cr. From Wordsworth to Meredith. Mr. Leonard.

156. Literary Criticism. I; 2 cr. From Samuel Johnson to Matthew Arnold. Mr. Lathrop.

157. Milton. I; 2 cr. Mr. Dodge.

158. The Age of Dryden. I; 3 cr. (Omitted 1917–18.) Mr. Lathrop.

159. The Age of Pope. II; 3 cr. (Omitted 1917–18.) Mr. Lathrop.

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

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

For Graduates

224. English Philology Seminary. Yr.; 2 cr. Subject for 1916–17, Anglo-Saxon Poetry; subject for 1917–18, Piers Plowman. Mr. Hubbard.

231. Introductory Seminary in English Literature. Yr.; 2 cr. Subject for 1916–17, Shakspere. Mr. Young. Subject for 1917–18, Browning. Mr. Hubbard.

232. Introductory Seminary in English Literature. Yr.; 2 cr. Subject for 1916–17, Milton. (Omitted 1917–18.) Mr. Dodge.

244. Seminary in English Literature. Yr.; 2 cr. Subject for 1917–18, Chaucer. Mr. Young.

247. Seminary in American Literature. Yr.; 2 cr. Subject for 1917–18, Emerson (first semester), Whitman (second semester). 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*

LECTURER TIEMANN.

For Undergraduates

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

For further information see separate circular No. 761. Also pages 297, 445.

GEOLOGY

PROFESSORS LEITH (chairman), WHITBECK, WINCHELL; ASSOCIATE PROFESSORS MARTIN, TWENHOFEL; ASSISTANT PROFESSORS BEAN, FINCH, MEAD, STEIDTMANN, WILLIAMS; ASSISTANTS DAVIS, LOFT; CURATOR THWAITES.

FELLOW, MR. MERRITT.

Course 1, General Geology, is the introductory course for all students not taking physiography and geography as a major. Students whose preparation does not include both physics and chemistry 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 Physiography and Geography (a) 23 or 24 credits in the Department of Geology, (b) either 2 credits in meteorology or 3 credits in astronomy, and (c) a thesis in geography (4 credits), are required, making 30 credits in all. In addition, part or all of 10 credits more are desirable, preferably made up from the geographical courses listed under Geology and such courses as Meteorology 1, 2, 106; Astronomy 1; Political Science 19; Agricultural Economics

*No professional forestry training is offered.

1; Soils 125; 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 263.

For Undergraduates

1. General Geology. Yr.; 5 or 3 cr. First semester, principles of geology; second semester, historical and applied geology, including field study of the geology of an area near Madison. Prerequisites: see above. Students desiring a short course in geology may take the first semester of this course (3 or 5 cr.) or course 2, without prerequisites, second semester. Mr. Twenhofel.

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. No prerequisites. Mr. Martin and staff.

5C. Physical and Economic Geography. Yr.; 3 cr. First semester, physical geography; second semester, economic geography. For students in the Course in Commerce 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 1917–18 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. Mr. Bean.

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

107. Influence of Geography on American History. I; 3 cr. (Given 1917–18 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 1, 4, or 5C. (Given 1916–17 and in alternate 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. Origin of land forms, with particular emphasis on the work of rivers. Prerequisite: Geology 1, 4, or 5C. Mr. Martin.

110. The Teaching of High School Geography. Yr.; 2 cr. First semester, teaching of physical geography; second semester, teaching of commercial geography. 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. Stratigraphy. II; 5 cr. The larger facts of the earth's history and the principles involved in its interpretation. Fossils are studied as indices of time and geography. (Given 1917–18.) Prerequisites: Geology 1 and 121. Mr. Twenhofel.

113. Oceanography. II; 2 cr. Prerequisite: Geology 1, 4, or 5C. (Given 1917–18 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 1917–18 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 1917–18 and in alternate years.) Mr. Leith.

118. Lake Superior Geology. II; 2 cr. The Lake Superior region is treated as illustrative of principles of pre-Cambrian, structural, metamorphic, and economic geology. At the close of the course in the spring, an excursion is made to points of geologic 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; 5 cr. The structure, classification and evolution of extinct organisms. Mr. Twenhofel.

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

123. Oil Geology. II; 2 cr. Prerequisite: Geology 1. (Given 1917–18 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.

126. Maps for Geographic Teaching. I; 2 cr. Mr. Finch.

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

128. Lake Superior Iron Ore Exploration. II; 2 cr. Applied geology. Prerequisites: Descriptive Geometry and course 114, 117, or 118. (Given 1917–18 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 1917–18 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, Mr. Whitbeck, or Mr. Williams.

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

133. Sedimentation. I; 3 cr. Mr. Twenhofel.

134. Regional Geology. II; 3 cr. (Omitted 1917–18.) Mr. Twenhofel.

135. History of the Development of Geology. I; 2 cr. Prerequisite: course 1 or 4. (Given 1917–18 and alternate years.) Mr. Twenhofel.

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, KIND (secretary), ROEDDER; ASSISTANT PROFESSORS BRUNS, DEIHL, ERNST, HAERTEL, KELLER, MORGAN, STERLING; INSTRUCTORS ARON, CAST, ESSINGER, GREUBEL, HAUSSMANN, HOLLANDER, LUSSKY; ASSISTANTS DEXTER, GIESSING, HENNING, MARTIN, SAXER, SCHAUERMANN.

FELLOW, MR. ROBERTS.

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, those who have had two years of high school German enter course 2a, and 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, provided they are able to devote *four hours* per week to German. Otherwise they may make two or three hour programs by electing from courses: 15, 17, 18, 20, 40 and 41. Students whose general course of study requires a special class in German should elect classes like 3Sc, 3C or 16. 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, definitely 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 medieval 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 major 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 100. This amount represents a minimum which will rarely prove sufficient in the case of those preparing to teach German as their major 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.

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 semimonthly 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.

*Students who are preparing to teach German as their major or minor subject and 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.

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. Kind 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; 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; selected lyrics. Prerequisite: course 2a, or three years of high school German. Students completing course 2b in the first semester should elect course 3 in the second semester. (See introductory remarks, paragraph I.)

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

Mr. Morgan is in general charge of courses 6 and 10, 40, 41 and 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. Miss Sterling, Mr. Hollander.

3C. Commercial German. Yr.; 2 cr. For sophomores in the Course in Commerce. Prerequisite: course 2b. 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 1916–17.) 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. Cast, Miss Essinger, Mr. Hollander.

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.

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.

Courses 6, 40, and 41 may be taken only in connection with some other course in the department, except by special permission. 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 1916–17.) Mr. Feise.

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

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 grammar from the standpoint of the high school teacher. Mr. Lussky.

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. Deihl.

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. Aron.

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.

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. Feise, Miss Essinger, Mr. Schauermann.

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. Aron, Miss Essinger, Mr. Lussky.

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

18. Modern German Novel. Yr.; 3 cr. A rapid reading course. (Omitted 1916–17.) Mr. Haussmann.

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

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

Course 20 is given in English, 3, 14, and 15 in German, 17 and 18 partly in German.

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. (Omitted 1916–17.) Miss Sterling.

22. Heine. I; 3 cr. **Hebbel.** II; 3 cr. Mr. Bruns.

23. Goethe's Earlier Dramas. Yr.; 2 cr. Alternates with course 24. (Given 1917–18.) 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. (Omitted 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 1917–18.) Mr. Feise.

28. Kleist. I; 2 cr. **Grillparzer.** II; 2 cr. 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. Knowledge of German not required. (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 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 1916–17:

i. Goethe's Prose Works. Mr. Feise.

ii. Goethe's Dramas. Mr. Keller.

For Undergraduates and Graduates

Mr. Hohlfeld is in general charge of Courses 130–141CL, 233–249.

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 1917–18.) Mr. Hohlfeld, Mr. Keller.

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

134. Lyric Poetry of the Nineteenth Century. Yr.; 2 cr. Alternates with course 241. (Omitted 1916–17.) Mr. Bruns.

135. The Novel of the Nineteenth Century. Yr.; 2 cr. (Omitted 1916–17.) 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 1917–18.) Mr. Roedder.

138CL. Shakspere in Germany. Yr.; 2 cr. Alternates with course 242CL. (Omitted 1916–17.) Mr. Kind.

139. German Versification. I; 2 cr. (Omitted 1916–17.) Mr. Feise.

140. Modern German Drama since 1870. Yr.; 2 cr. Contemporary movements in France, Scandinavia, and Russia. (Given 1916–17.) Mr. Feise.

141CL. Principles and Practice of Translating. II; 1 or 2 cr. For students with advanced training in German, French, or Italian. (Omitted 1916–17.) 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 cr. (Omitted 1916–17.) Mr. Feise.

241. The Romantic School in Germany. Yr.; 2 cr. 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 cr. Alternates with course 138CL. (Omitted 1916–17.) Mr. Kind.

244. Middle High German Literature. Yr.; 2 cr. Literary movements; German life and culture. Prerequisite: course 152, or its equivalent. (Omitted 1916–17.) Mr. Morgan.

245. Hebbel. II; 2 cr. His life and works, his position in the modern drama, and his Weltanschauung. (Given 1916–17.) Mr. Bruns.

247. Pro-seminary in German Literature. Yr.; 2 cr. 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 1917–18.) Mr. Hohlfeld.

249. Bibliography and Methods. Yr.; 1 cr. 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 cr. 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. 156. Mr. Aron.

154. Gothic. II; 2 cr. Alternates with course 155. (Given 1916–17.) Mr. Roedder.

155. Old High German. I; 2 cr. Alternates with course 154. (Given 1916–17.) Mr. Roedder.

158. Old Saxon. II; 2 cr. Alternates with course 159CL. (Given 1917–18.) Mr. Roedder.

159CL. Germanic Mythology and Heroic Legends. II; 2 cr. Alternates with course 158. (Omitted 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 cr. Alternates with course 261. (Omitted 1916–17.) Mr. Voss.

261. Historical German Grammar. Yr.; 1 cr. Alternates with course 260. (Given 1917–18.) Mr. Voss.

263. Pre-Germanic Grammar. Yr.; 2 cr. First semester, Germanic phonology; second semester, Germanic morphology and syntax. (Given 1917–18.) Mr. Aron.

264. Modern and Middle Low German. Yr.; 1 cr. *Reinke de Vos* and Fritz Reuter's prose writings. (Given 1916–17.) Mr. Voss.

265. Language and Literature of the Sixteenth Century. Yr.; 2 cr. 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 cr. Alternates with course 265. (Given 1917–18.) Mr. Voss.

269. Pro-seminary in German Philology. Yr.; 1 cr. In alternate years in the following subjects:

A. First semester, Old High German poetry; second semester, Old High German prose. (Given 1917–18.)

B. First semester, Gothic; second semester, Old High German. (Given second semester, 1916–17.) Mr. Roedder.

270. Philological Seminary. Yr.; 2 cr. 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; FELLOWS SANDERS, CRAFTS.

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.

LANGUAGE AND LITERATURE

For Undergraduates

5a, 5b. Elementary Greek. Yr.; 4 cr. White's *First Greek Book*, Xenophon's *Anabasis*. Mr. Laird.

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.

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 in interpretation, metrical reading, etc. Mr. Smith.

222. Lyric Poetry. Yr. Especial attention is given to Pindar; the extant odes, read privately; seminary exercises in interpretation, metrical reading, etc. 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. Lectures and assigned readings in lyric poetry, drama, and history. Mr. Smith.

225. Greek Orators. Yr.; 2. Mr. Laird.

227. Greek Religion. I; 2. Mr. Fiske.

230. Greek Grammar. I; 3. Sounds and forms. Mr. Laird.

231. Greek Syntax. II; 3. 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 BYRNE, COFFIN,* SMITH; INSTRUCTOR CURTIS; ASSISTANTS CRAWFORD, KNAPLUND, MACDONALD, MURPHEY, RANEY, RICKER, WILDE.

FELLOWS, MR. BAUM, MR. COULTER; SCHOLARS, MR. BRIGGS, MISS WAKEMAN.

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 courses 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 continue, in the direction of greater specialization, the work begun in the introductory courses. They may be elected by students 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 second semester, 1916–17.

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 FRESHMAN

Freshmen are permitted to choose two of the introductory courses 1, 5 or 6, and 10, for five credits, and 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.; 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 FRESHMAN

2. Modern European History. Yr.; 3 cr. From the close of the fifteenth century to the present day. May be elected by semesters. 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. May be elected by semesters. Seniors may elect for two credits. Mr. Fish.

For Undergraduates and Graduates

ANCIENT AND MEDIEVAL HISTORY

125. Greek Civilization and its Expansion. I; 2 cr. Mr. Westermann.

126. The Roman Empire. II; 2 cr. The Empire from the death of Julius Caesar to the era of Diocletian. (Omitted 1916–17.) 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. Mr. Westermann.

129. Greek and Roman Institutions. I; 2 cr. To the end of the Roman Republic. (Omitted 1916–17.) Mr. Westermann.

131. Medieval Civilization. I; 3 cr. The intellectual life of the feudal period and the organization of society. Mr. Sellery.

133. Medieval Commerce. I; 2 cr. To the formation of the great trading companies. Mr. Byrne.

134. The Renaissance. II; 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 1916–17.) Mr. Coffin.

140. The Reformation. II; 3 cr. The Protestant Revolt and the Catholic Reformation. (Omitted 1916–17.) Mr. Sellery.

148. Expansion of Europe Since the Fifteenth Century. Yr.; cr. to be arranged. Mr. Dennis.

142. England Under the Tudors and Stuarts. Yr.; 2 cr. (Omitted 1916–17.) Mr. Dennis.

136. The British Empire, 1688–1815. I; 2 cr. (Omitted 1916–17.) Mr. Dennis.

143. The British Empire since 1815. Yr.; 2 cr. Mr. Dennis.

144. The Development of Modern Russia. I; 2 cr. (Omitted 1916–17.) Mr. Coffin.

145. The Development of Prussian Leadership in Germany, 1640–1900. I; 2 cr. Mr. Coffin.

146. History of Central Europe. Yr.; 2 cr. The development of Central Europe, treated as a single area, from the migrations to the present time. Mr. Curtis.

138. The French Revolution and the Napoleonic Empire, 1789–1815. I; 3 cr. Mr. Coffin.

139. The Nineteenth Century. I; 3 cr. Mr. Coffin.

AMERICAN HISTORY

116. English Colonies in America, 1583–1783. Yr.; 3 cr. may be elected by semesters. 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 1916–17.) Mr. Fish.

114. History of the South. Yr.; 3 cr. may be elected by semesters. (Not open to sophomores.) Mrs. Mathews.

111. History of the West, 1763–1890. Yr.; 3 cr. may be elected by semesters. Mr. Paxson.

112. Representative Men. I; 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. Mr. Fish.

115. Diplomatic History of the United States. Yr.; 2 cr. (Omitted 1916–17.) Mr. Fish.

120. History of American Neutrality, 1783–1916. II; 3 cr. Mr. Fish.

117. Constitutional History of the United States, 1750–1850. Yr.; 2 cr. Mr. Root.

118. Civil War and Reconstruction. I; 3 cr. (Omitted 1916–17.) Mr. Fish.

124. Recent History of the United States, 1873–1917. Yr.; 2 cr. may be elected by semesters. Mr. Paxson.

121. Studies in Colonial History. Yr.; 2 cr. (Omitted 1916–17.) 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.

For Graduates

252. Historical Method. Yr.; 2 cr. Graduate students in their first year are expected to take this course. Mr. Sellery, Mr. Fish, Mr. Westermann, Mr. Paxson, Mr. C. L. Jones.

254. Seminary in Ancient History. Yr.; 2 cr. First semester, organization and administration of Egypt under the Ptolemies; second semester, economic conditions under the Roman Empire. (Omitted 1916–17.) Mr. Westermann.

255. Seminary in Latin and Ancient History. Yr.; 2 cr. See Latin 233. The sources upon the principate of Augustus Caesar, especially the Monument of Ancyra. (Omitted 1916–17.) Mr. Slaughter, Mr. Westermann.

256. Seminary in Medieval History. Yr.; 2 cr. Pierre Dubois. A knowledge of Latin, French, and German is required. Mr. Sellery.

257. Seminary in Modern European History. I; 2 cr. Material selected in the field of Napoleonic institutions. (Omitted 1916–17.) Mr. Coffin.

259. Seminary in History of the British Empire. Yr.; 2 cr. Modern economic and political history. Mr. Dennis.

261. Seminary in American History. Yr.; 2 cr. A study of the factors underlying some limited period of American history. Mr. Fish.

262. Seminary in American History. Yr.; 2 cr. The Hayes-Garfield-Arthur Administrations. 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

207. Old Irish. I; 2 cr. Mr. Aron.

209. Pre-Germanic Grammar. Yr.; 2 cr. Mr. Aron.

210. Old Bulgarian. II; 2 cr. Mr. Aron.

JOURNALISM

Professor Bleyer (chairman), Assistant Professor Hyde, Instructor Bing.

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 Department of Philosophy, 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 classes 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, exclusive of 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 125), newspaper advertising (Political Economy 15), 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. General Survey of Journalism. Yr.; no cr. Required of freshmen in the Course in Journalism. Mr. Bleyer.

2. Newspaper Reporting and Correspondence. Yr.; 3 cr. Primarily for sophomores. Mr. Hyde.

3. Newspaper Editing. Yr.; 2 cr. Prerequisite: Journalism 2 or equivalent practical experience. Mr. Hyde.

7. The Country Newspaper. I; 2 cr. Open only to juniors and seniors. Mr. Bing.

8. Technique of Printing. II; 2 cr. Open only to juniors and seniors. Mr. Bing.

15. Newspaper Advertising (Political Economy 15). I; 2 cr. For juniors and seniors. Mr. Gardner.

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.

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.

125. The Law of the Press (Political Science 25). II; 2 cr. Mr. Carpenter.

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 BARNES.

FELLOW, MR. BRUNELLE.

The courses in Latin are divided into three groups:

I. Introductory courses (1–23) are for undergraduates and may not be counted for advanced degrees in Latin. 1 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. 107–119 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 119, but no specific requirement of courses is made. Greek 20, 105a and 105b, and 106 to the extent of six credits, may be counted toward a Latin major. See page 260 for requirements for teachers certificate.

LANGUAGE AND LITERATURE

For Undergraduates

1. Elementary Latin. Yr.; 5 cr. The elements of Latin and Caesar's *Bellum Gallicum*, Bks. I-III. Mr. Barnes, Mr. Brunelle.

3. 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. I; 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. I; 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. Lectu res with lantern slides. Latin not essential. Mr. Showerman.

For Graduates

225. Latin Grammar. I; 3. The sounds and forms of the Latin language. Mr. Laird.

226. Latin Syntax. II; 3. Illustrative of the historical method. Mr. Laird.

227. Religion of the Greeks and Romans. Yr.; 2. Mr. Fiske.

228. Roman Archaeology. II; 3. 123 with an additional hour for reports. Latin essential. Mr. Showerman.

229. Palaeography and Epigraphy. Yr.; 2. Mr. Slaughter.

231. Latin Literature. Yr.; 3. Lectures and assigned readings. Miss Allen.

232. Literary Criticism. Yr.; 2. Based on the writings of Cicero, Horace, and Quintilian. Miss Allen.

233. Latin Seminary. Yr.; 2. In 1917–18 the subject will be the *Monumentum Ancyranum.* Mr. Slaughter, Mr. Westermann.

MANUAL ARTS

PROFESSORS CRAWSHAW (chairman), PHILLIPS; ASSISTANT PROFESSORS GODDARD, VARNUM; INSTRUCTORS ANDERSON, DIAMOND, 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 woodworking 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 manu a 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, Mr. Markwardt.

2. Elements of Mechanical Drawing. I or II; 3 cr. Prerequisite: course 1. Mr. Phillips, Mr. Orth, Mr. Thomas, Mr. Grenoble, Mr. Markwardt.

***4. Elementary Bench Woodwork.** I; 3 cr. Bench work appropriate for the upper grammar grades and the first year of high school. Laboratory problems suited to individual needs. Mr. Diamond, Mr. Crawshaw.

15. Applied Design; Wood. I or II; 3 cr. Woodworking from the Arts and Crafts standpoint. Mr. Diamond.

****5. Furniture and Cabinet Design and Construction.** II; 3 cr. An advanced course. Prerequisite: course 4 or equivalent. Mr. Diamond, Mr. Crawshaw.

****10. Wood Finishing.** II; 2 cr. Theory and practice of finishing interior woodwork and furniture. Mr. Diamond.

11. The Installation and Care of Woodworking Machines. I; 2 cr. Laboratory practice with lectures upon equipment, its manufacture, installation, etc. Mr. Diamond.

6. Wood Turning. I or II; 2 or 3 cr. The geometrical principles involved. Mr. Diamond, Mr. Chisholm.

16. Elementary Pattern Making. I or II; 2 or 3 cr. Patterns for machine parts. Core making and moulding practice. Prerequisite: courses 1 and 4. Mr. Diamond.

17. Advanced Pattern Making. I or II; 2 or 3 cr. Commercial pattern shop work. Prerequisite: course 16, and credit or registration in course 7. Mr. Diamond.

7. Foundry Work. I or II; 2 or 3 cr. Bench and machine work; cupola practice. Mr. Payton, Mr. Chisholm.

8. Forge Work. II; 2 or 3 cr. Forging, welding, tempering and annealing. Mr. Goddard, Mr. Schumann.

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

9. Machine Shop Work. I or II; 2 or 3 cr. (a) Bench work and operation of machine tools. (b) Advanced course: Tool-making and machine construction. Mr. Goddard, Mr. Dabney, Mr. Schmidt.

12. Elementary Handwork. II; 2 or 3 cr. Expressional and technical construction work in the elementary school for those interested as teachers. Prerequisite: credit in course 112 desirable. Miss Wilson.

13. Applied Design. II; 2 or 3 cr. Projects in clay, textiles, paper, and cardboard for those interested as craftsmen. Miss Wilson.

14. Lower Grade Woodwork. II; 2 or 3 cr. Projects in wood for the intermediate grade period for those interested as teachers. Prerequisite: credit in course 112 desirable. Miss Wilson, Mr. Diamond.

DRAWING AND DESIGN

50. Freehand Drawing and Perspective. I; 3 cr. Open to freshmen. Principles of freehand drawing, perspective, light and shade in pencil, pen and ink, and blackboard crayon. Mr. Varnum, Miss Anderson, Miss Wilson.

51. Freehand Drawing and Illustration. II; 3 cr. Cast drawing. Drawing from the living model. Charcoal, pen, and color rendering for illustrative purposes. Principles of composition. Model fee $1.50. Prerequisite: course 50 or equivalent. Mr. Varnum, Miss Wilson.

52. Methods. Public School Drawing and Design. I or II; 3 cr. Laboratory practice, courses of study, duties of supervision. Prerequisite: course 50. Miss Anderson.

53. Practice. Public School Drawing and Design. Yr.; 1 cr. Teaching under actual schoolroom conditions. Prerequisites: course 50 and credit or registration in course 52. Miss Anderson.

60. History and Appreciation of Design. I; 3 cr. Analysis and critical appreciation of modern architecture and industrial art. History, analysis and application of historic motives. An illustrated lecture course. Mr. Varnum.

61. Civic Art and Design. II; 2 cr. A summary of what the individual may do to improve aesthetic conditions in a community. Planning exterior environment of homes with development of scale models. Mr. Varnum.

62. Industrial Arts Design. I; 3 cr. Principles of design applied to the different materials of the industrial crafts. Prerequi-

site: credit or registration in courses 1 and 50 or their equivalents. Mr. Varnum.

63. Industrial Arts Design Seminary. Yr.; 1 or 2 cr. Preparation of working drawings developed in laboratory courses. Mr. Varnum.

APPLIED DESIGN

70. Applied Design in Metal (copper, brass, silver, gold, iron). Yr.; 3 cr. Decorative metal work and industrial problems significant to the individual, home and industry. Desirable prerequisites: registration in course 63 or credit in course 62 or equivalent training. Mr. Varnum.

***71. Applied Design in Clay, (pottery).** Yr.; 3 cr. Design and construction; glazing and firing. Desirable prerequisites: registration in course 63 or credit in course 62 or equivalent training. Miss Wilson.

The lectures in 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 per credit is required for all shop laboratory courses.

For Undergraduates and Graduates

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. Analysis of the problems of vocational education with particular emphasis upon industrial education. Mr. Crawshaw.

112. The Teaching and Supervision of Manual Arts. Yr.; 2 or 3 cr. Open to seniors and adult specials. What and how to teach the manual and industrial arts in regular and special schools. Mr. Crawshaw.

115. Manual Arts Seminary. Yr.; 1 cr. Open to seniors and adult specials. A study of the larger problems of manual training and vocational education. Mr. Crawshaw.

*For related course see Mining and Metallurgy 126.

114. Special Methods. II; 2 cr. The scientific method applied to individual and community performances in drawing, design and industrial work; applications of scientific management; the educational and industrial survey. Mr. Crawshaw and staff.

100. Senior Thesis Course. Yr.; 2 cr. Mr. Crawshaw, Mr. Varnum.

MATHEMATICS

PROFESSORS SLICHTER (chairman), VAN VLECK; ASSOCIATE PROFESSORS DOWLING, SKINNER; ASSISTANT PROFESSORS BURGESS, DRESDEN, HART, MARCH, WOLFF; INSTRUCTORS ALLEN, BABCOCK, CLEMENTS, PAINE, SIMPSON, TAYLOR, WOOD; ASSISTANT PETERSON.

FELLOW, MR. MOORE.

The courses in Mathematics are divided into three groups, as follows:

A. Courses 1 to 71 are planned to give a working knowledge of elementary mathematics. Courses 1 and 7 are required of students in the Course in Commerce, courses 51 to 55 are required of students in Engineering, and course 71 is required of students in Agriculture.

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 courses 1 to 8, 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 algebera 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.

Students entering the junior class with advanced standing from other institutions and desiring to complete an undergraduate major in mathematics in four semesters should previously have completed the equivalent of course 5. The requirements for mathematics as a major or minor subject in the Course for the Training of Teachers are given on page 261.

For Undergraduates, College of Letters and Science

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, Mr. Dowling, Miss Allen, Mr. Clements, Mr. Dresden, Mr. Moore, Mr. Paine, Mr. Peterson, 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. 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. Miss Allen, Mr. Clements, Mr. Simpson.

4. Analytic Geometry. Yr.; 2 cr. Prerequisite: course 2. Mr. Clements, Mr. Simpson.

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. Dowling, Mr. Moore, Mr. Peterson, 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. 1916–17. Mr. Skinner, Mr. Van Vleck.

For Undergraduates, College of Engineering

50. Subfreshman Algebra. I; no cr. For students who fail to pass the examination for admission to course 51. Mr. Babcock, Mr. Wood.

51. Elementary Mathematical Analysis. I or II; 5 cr. Required of freshmen in Engineering. Mr. Slichter, Mr. March, Mr. Wolff, Mr. Babcock, Mr. Paine, Mr. Taylor, Mr. Wood.

52. Elementary Mathematical Analysis. I or II; 5 cr. A continuation of 51. Required of freshmen in Engineering. Mr. Slichter, Mr. March, Mr. Babcock, Mr. Paine, Mr. Wolff, Mr. Taylor, Mr. Wood.

***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, Mr. Simpson.

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. Paine, Mr. Simpson, Mr. Taylor.

110. Higher Mathematics. Yr.; 3 cr. Differential Equations. Definite Integrals, Fourier Series, and other subjects. Elective for juniors, seniors, and graduate students. Mr. Wolff.

For Undergraduates, College of Agriculture

71. Mathematics for Agricultural Students. I or II; 5 cr. Mr. Babcock, Mr. Wood.

*On account of the large amount of special work in courses 51 and 52, this course is organized for students who have had trigonometry, and analytic geometry in colleges of pure science.

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. Skinner.

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.

114. Modern Analytic Geometry. II; 3 cr. In alternate years. (Omitted 1917–18.) Mr. Dresden.

116. Introduction to Higher Mathematics. Yr.; 3 cr. A course for students majoring in Physics. Prerequisite: course 112. (Omitted 1917–18.) Mr. March.

117. Vector Analysis. II; 3 cr. Applications to physics and geometry. (Omitted 1917–18.) Mr. Skinner.

118. Theory of Probabilities and Method of Least Squares. II; 2 cr. For students of science and economics. Mr. Slichter.

119. Differential Geometry. II; 3 cr. In alternate years. The application of the differential calculus to the geometry of twisted curves and surfaces. (Omitted 1916–17.) Mr. Skinner.

120. Theory of Analytic Functions. Yr.; 3 cr. In alternate years. (Omitted 1917–18.) Mr. Dresden.

121. Theory of Functions of a Real Variable. Yr.; 3 cr. In alternate years. Critical study of infinitesimal analysis. (Omitted 1916–17.) Mr. Van Vleck.

124. Theory of Life Insurance. Yr.; 2 cr. Prerequisite: course 7 or its equivalent. Mr. Dowling.

125. Theory of Equations and Introduction to Higher Algebra. II; 3 cr. Mr. Dresden.

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. (Omitted 1916–17.) Mr. Dowling.

244. Higher Geometry. Yr.; 2 cr. In alternate years. (Omitted 1917–18.) Mr. Dowling.

246. Finite Groups. Yr.; 3 cr. Mr. Skinner.

250. Theoretical Hydrodynamics. Yr.; 2 cr. Mr. Slichter.

251. Theory of Potential. Yr.; 2 cr. (Omitted 1917–18.) Mr. Slichter.

263. Higher Algebra. I; 3 cr. (Omitted 1916–17.) Mr. Skinner.

265. Harmonic Analysis. Yr.; 3 cr. Mr. March.

266. Theory of Numbers. Yr.; 3 cr. (Omitted 1916–17.) Mr. Skinner.

268. Partial Differential Equations. Yr.; 3 cr. Introductory course with applications to physical problems. Mr. March.

261. Seminary in the Theory of Functions with Infinitely Many Variables. 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, Mills (chairman); Assistant Professor Regan; Instructors Bergman, Chamberlain, Eastman, von Geltch, Saugstad, Townsend, Crane, Carter, Currie.

The courses in Music, except course A, 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 A 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.

THEORY AND PRACTICE

For Undergraduates

A. Elementary Harmony. Yr.; no cr. Miss Eastman.

1. Harmony. Yr.; 3 cr. Prerequisite: course A. Miss Eastman.

11. Harmony. Yr.; 2 cr. Prerequisite: course 1. Miss Carter, 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 Crane.

42. Practice. Public School Music. Yr.; 1 cr. Miss Crane.

44. Education. Yr.; 1 cr. For supervisors. Miss Crane.

*By the term applied music is meant individual instruction in voice culture or some instrument.

45. Public School Music. Yr.; 2 cr. For grade and high school teachers.

51. Methods. Public School Music. Yr.; 2 cr. Mr. Dykema.

52. Practice. Public School Music. Yr.; 2 cr. Mr. Dykema.

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. Miss Crane.

75. Sight Singing and Ear Training. Yr.; 1 cr. Mr. Chamberlain, Miss Crane.

78. Community Music. I; 2 cr. Mr. Dykema.

79. Selection and Interpretation of Music Material. II; 2 cr. Mr. Dykema.

80. Applied Music. No college credit. Course for beginners in Applied Music.

81. Piano. Yr.; cr. to be arranged. Miss Carter, Mr. Townsend.

82. Voice. Yr.; cr. to be arranged. Miss Bergman, Mr. Chamberlain, Miss Currie.

83. String and Orchestral Instruments. Yr.; cr. to be arranged. Mr. von Geltch, Mr. Saugstad.

84. Organ. Yr.; cr. to be arranged. Mr. Mills, Miss Eastman.

85. Ensemble. Yr.; 2 cr. Miss Carter, Miss Bergman.

86. Ensemble. Yr.; 2 cr. Miss Carter, 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. Saugstad.

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 HARALSON, NEUMANN; ASSISTANTS BOGART, CAMPBELL.

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; 4 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 MARTIN; ASSISTANT MALONE.

For full description of courses in Pharmacology and Toxicology, see announcement under Medical School.

101. General Toxicology. II; 1 cr. Lectures. Mr. Loevenhart, Mr. Martin.

102. General Toxicology. II; 1 cr. Laboratory. Mr. Loevenhart, Mr. Martin, Mr. Malone.

104. General Pharmacology. I; 2 cr. Lectures. Mr. Loevenhart, Mr. Martin.

105. General Pharmacology. I; 2 cr. Laboratory. Mr. Loevenhart, Mr. Martin, Mr. Malone.

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. II; 4 cr. An elementary course in the preparation of first materials. Mr. Langenhan.

40. Drug Store Practice. Yr.; 1 cr. Mr. Kremers and special lecturers. (Given 1916–17.)

50. History of Pharmacy. Yr.; 1 cr. (Given 1917–18.) Mr. Kremers, Miss Wakeman.

Thesis. Mr. Kremers.

For Undergraduates snd Graduates

121. Advanced Prescription Practice. I; 2 cr. Mr. Langenhan.

132. Advanced Pharmaceutical Technology. Cr. to be arranged. Mr. Langenhan.

For Graduates

221. Advanced Pharmaceutical Technology. (Given 1916–17.) Mr. Kremers.

Conference of Research Workers. 1 or 2 hours. Discussion of problems arising in research work. Mr. Kremers.

Graduate Thesis. To be arranged. Mr. Kremers.

PHILOSOPHY AND PSYCHOLOGY

Professors Jastrow, McGilvary (chairman), Sharp; Associate Professor Otto; Assistant Professor Starch; Instructors Hull, Kallen; Assistant Thayer.

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-four credits including the thesis. Of these, at least twelve 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, Mr. Hull.
Section 2. I. Mr. Sharp, Mr. Otto, Mr. Hull.
Section 3. II. Mr. Starch, Mr. Hull.

These sections are equivalent for credit and record, but the content and scope differ considerably.

11. Elementary Logic. I or II; 3 cr. Mr. Otto, Mr. Thayer.

19. Psychological Principles of Advertising. II; 2 cr. Mr Starch.

21. Introduction to Philosophy. I or II; 3 cr. Mr. McGilvary.

23. Six English Philosophical Poets—Langland, Spenser, Milton, Shelley, Swinburne, Walt Whitman. I and II; 3 cr. Mr. Kallen.

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.

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. (Omitted 1917–18.) 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 for courses 103, 104, 106, 107, 108, 109.

105. Research in Psychology. Cr. to be arranged. Mr. Jastrow, Mr. Starch.

106. Comparative Psychology. I; 2 cr. Mr. Jastrow.

107. Abnormal Psychology. I; 2 cr. (Omitted 1917–18.) Mr. Jastrow.

108. Psychology of the Emotions. II; 2 cr. Mr. Jastrow.

109. Racial Psychology. II; 2 cr. The psychology of groups in natural and artificial circumstances. (Omitted 1917–18.) Mr. Jastrow.

110. Experimental Psychology for Premedical Students. II; 2 cr. Mr. Jastrow, Mr. Hull.

111. Psychology of Language. II; 2 cr. Mr. Jastrow.

134. Contemporary Philosophy. Yr.; 3 cr. Prerequisite: courses 21, 25, 31, or 32. Mr. McGilvary.

135. Descartes, Spinoza and Leibniz. I; 3 cr. Prerequisite: courses 21, 25, 31, or 32. (Omitted 1917–18.) Mr. Kallen.

136. Locke, Berkeley, Hume. I; 3 cr. Prerequisite: courses 21, 25, 31, or 32. Mr. Kallen.

137. Kant. II; 3 cr. *The Critique of Pure Reason.* Prerequisite: courses 21, 25, 31, or 32. Mr. Kallen.

138. Typical Theories of Life. Yr.; 3 cr. Historic definitions of the ideals of Happiness, Duty, Salvation, and Progress. The Life of Reason. Mr. Kallen. Prerequisite: 3 cr. in philosophy.

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. Prerequisite: 3 cr. in philosophy.

155. Metaphysics. II; 3 cr. Historical solutions of the metaphysical problems. Contemporary metaphysics—Buddhism, neo-Aristotelianism, Idealism, Pragmatism, neo-Realism. (Omitted 1917–18.) Mr. Kallen. Prerequisite: 3 cr. in philosophy.

For Graduates

210. Psychological Seminary. Mr. Jastrow.

213. Logical Seminary. Mr. Otto.

240. Metaphysical Seminary. Mr. McGilvary.

247. Ethical Seminary. Mr. Sharp.

PHYSICAL EDUCATION

PROFESSOR HETHERINGTON; ASSOCIATE PROFESSOR MEANWELL, Director Men's Gymnasium; ASSISTANT PROFESSORS TRILLING, Director Women's Gymnasium, ELSOM, JONES (chairman), WITHINGTON; INSTRUCTORS BROWN, BROWNELL, DRIVER, FORBES, HINDMAN, LIPPITT, MCKEE, MCCHESNEY, QUICK, STEVENSON, VAIL; ASSISTANTS AYER, BUCK, KING, STEINAUER, SOUCY; STUDENT ASSISTANTS WYATT, KNOTT, WHITE, DOHERTY, SANDS.

For further information see departmental Circular. Also Department of Physical Education, page 427.

Courses are planned to meet the needs of four classes of students: first, students desiring to major in Physical Education and to 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 the several phases of physical education with a preliminary training in biology, chemistry, anatomy, physiology and psychology. Students desiring to major in Physical Education should declare their intentions at the time of entrance to the University and consult with the instructor as to their fitness to undertake the work.

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, 59, 63, 67, 107, 108, 114; courses 21–50 (at least four credits) and thesis (4 credits), a total of 30 credits;

Physical Education 19 or Education A; Anatomy 121, Physiology 114, and 105 or 115, and satisfy prerequisites in biology, chemistry, and psychology, or their equivalents. Additional credit in physical education may be secured in courses 107, 16, 55, 62, 66, 68, 70, 80, and 21–50.

Minor

The requirements for a minor are designed especially for students preparing to teach some other subject in the schools and assist in physical education.

Students electing Physical Education as a minor subject must take courses 20 for at least two years, 59 or 107, 67 (2 credits) 66, and 21–50 for four credits, a minimum of 10 credits. Physical Education 19 or Education A may also be required depending on the major subject of the student. Additional credits may be secured in courses 16, 55, and 21–50. Prerequisites are zoology or chemistry, Physiology 1 and Philosophy 1, and elementary education, at least 3 credits.

Teachers Certificate

Graduates with a major in Physical Education who have been registered in the Course for the Training of Teachers will be entitled to receive the University Teachers Certificate upon fulfilling the major requirements and completing the following courses: Psychology (Philosophy 1) 3 credits; Education, 5 credits, and the Departmental Teachers Course. A total of one hundred and twenty-eight credits is required. Graduates will also be entitled to a special state certificate given by the State Board of Education.

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. Mr. Hetherington, Miss Trilling.

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 and two years for minor students.

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.

16. First Aid to the Injured. I; 1 cr. Mr. Elsom.

55. History of Physical Education. II; 2 cr. Mr. Elsom.

56. Kinesiology. II; 2 cr. Prerequisites: course 20 and Anatomy 121. 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. 427). 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: Philosophy 1. Mr. Hetherington.

62. Growth and Development. I; 2 cr. Growth and development of tissues and organs in relation to organic and neuro-muscular education. Prerequisite: Zoology 1a and 1b or Physiology 1 and 2 and Philosophy 1. Mr. Hetherington.

114. Medical Examination. II; 3 cr. (Clinical Medicine 101.) Prerequisite: Physiology 105 or 115. Mr. Evans.

63. Physical Examinations and Gymnastic Therapeutics. Yr.; 2 cr. Prerequisites: Anatomy 121 and Physical Education 56. Either preceded by or taken in conjunction with Physical Education 107 and 114. Mr. Elsom, Miss Lippitt.

66. The Management or Practical Conduct of the Playground. I; 1 cr. Prerequisite: course 59. Must be accompanied by course 22 or 42. Mr. Meanwell.

67. Principles of Teaching and Adaptation. Yr.; 2 cr. 1st semester: The psychology of leadership, coaching, etc. 2d semester: The principles of selection, and adaptation of motor activities to individuals and groups, differentiated by sex and age. Students taking Physical Education as a minor may take the first semester alone. Prerequisites: courses 20, and 59 or 107, and for the second semester 56 and 107. Mr. Hetherington.

68. Organization and Administration of Physical Education. I; 3 cr. Prerequisites: courses 20, 108, 59, and 67. Mr. Hetherington.

70. Educational Athletics. I; 1 cr. Values, analysis of evils and origins; problems in the successful organization for the masses. Prerequisite: course 59 or 108. Mr. Hetherington.

80. Public Recreation. II; 2 cr. Custom in recreation, social changes and the new attitude; the needs of different classes of people; the effects of activities and the agencies in the organization of recreation. Prerequisites: Physical Education 59, or three credits in Education or Sociology. Mr. Hetherington.

PHYSICS

PROFESSORS MASON, MENDENHALL, SNOW (chairman); ASSOCIATE PROFESSOR INGERSOLL; ASSISTANT PROFESSORS FULCHER, GAGE, ROEBUCK, STEVE, TERRY; INSTRUCTOR GRAY; ASSISTANTS ANGEL, BARR, BUTLER, COOK, GREENSLADE, HOOVER, JOHNSON, NICHOLS, ORVIS, PETERSEN, PRINE, RAMENSTEIN, SZLUPAS, TAYLOR, WATSON, WILLIAMSON, SHARP.

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. Dahm.

1Sc. General Physics. Yr.; 5 cr. Lectures, recitations, and laboratory are fully coordinated. 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.

100. Thesis. Yr.; 2 cr. Mr. Mendenhall, Mr. Ingersoll, Mr. Terry.

ENGINEERING COURSES

51. Mechanics, Sound, and Light. I; 5 cr. Mr. Terry, Mr. Gage.

51. Mechanics, Sound, and Light. II; 5 cr. Mr. Fulcher, 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.

54a. Electrical Measurements. I; 2 cr. Required of juniors in Electrical Engineering, and elective for students in other Engineering courses. Mr. Terry, Mr. Greenslade.

53. Mechanics, Electricity and Magnetism. I; 3 cr. Required of sophomores in Electrical Engineering. Mr. Roebuck, Mr. Gage and staff.

54. Wave Motion, Sound, and Heat. II; 3 cr. Continuation of course 53. Mr. Mendenhall, Mr. Gage and staff.

55. Advanced Electricity and Magnetism. I; 3 cr. Required of juniors in Electrical Engineering. Mr. Terry and Mr. Fulcher.

56. Electricity and Light. II; 3 cr. Continuation of course 55. Mr. Terry and Mr. Fulcher.

AGRICULTURAL COURSES

61. Mechanics and Heat, Electricity and Magnetism. Yr.; 3 cr. Prerequisite: Mathematics 71. Mr. Gage and staff, Mr. Hoover, Mr. Petersen.

65. General Physics. Yr.; 3 cr. Required of sophomores in the Course in Home Economics. Mr. Snow, Mr. Gage and staff, Mr. Steve.

For Undergraduates and Graduates

110. Laboratory Arts. I; 1 cr. A course in technique. Mr. Roebuck, 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 cr. The potential function, the conduction of heat, and the kinetic theory of gases. Mr. Ingersoll.

119. Advanced Laboratory Practice. For those beginning graduate study. Yr.; 3 cr. Mr. Mendenhall, Mr. Terry.

120. Colloquium. Yr.; 2 cr. Mr. Mendenhall.

For Graduates

211. Advanced Dynamics. Yr.; 3 cr. The mechanics of rigid, fluid, and elastic bodies; wave motion; sound. Prerequisite: a course in analytical mechanics. Mr. Mason.

213. Statistical Mechanics. II; 2 cr. (Omitted 1917–18.) Mr. Mason.

214. Thermodynamics. Yr.; 3 cr. An advanced course with special application to problems of radiation. Mr. Mendenhall.

215. Theory of Electricity. Yr.; 3 cr. A mathematical treatment of the Maxwell theory and its later developments, based on the electron hypothesis. (Omitted 1917–18.) Mr. Mason.

216. The Electromagnetic Theory of Light. Yr.; 3 cr. (Omitted 1917–18.) Mr. Mendenhall.

217. Electron Theory. II; 2 cr. Mr. Mason.

220. Graduate Research. Yr.; hours to be arranged. Mr. Mason, Mr. Mendenhall, Mr. Ingersoll, Mr. Terry, Mr. Roebuck, Mr. Fulcher.

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

PROFESSOR EYSTER (chairman); ASSOCIATE PROFESSORS BRADLEY, MEEK; ASSISTANT PROFESSOR DAWSON; ASSISTANTS HODGES, TAYLOR, GIBSON, KILEY.

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 the Course 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 the Course in Home Economics, open to others as an elective. Mr. Meek, Mr. Dawson, Mr. Hodges.

3. Animal Physiology. II; 4 cr. Lectures, demonstrations and laboratory. Primarily adapted to students in agriculture, but open to others as an elective. Prerequisites: chemistry and zoology. Mr. Meek, Mr. Kiley.

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. Mr. Gibson.

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, Mr. Gibson.

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. Hodges, Mr. Kiley.

115. Physiology. II; 7 cr. Lectures, recitations, demonstrations, and laboratory. Required of juniors in Physical Education and open to others as an elective. Prerequisites: Anatomy 105, Physiological Chemistry 104 or 114. Mr. Eyster, Mr. Meek, Mr. Dawson, Mr. Hodges, Mr. Kiley.

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 (chairman), Gillin, Gilman, Hibbard, Ross, Scott, Taylor, Urdahl; Associate Professors Elwell, Hess; Assistant Professors Kiekhofer (secretary), King, Melville, Trumbower; Lecturers Anderson, Burhop; Instructors Eberle, Jerome, Kuechenmeister; Assistants Boulware, Haake, Kinney, Krueger, Lammel, McKay, Miller (Nina), Miller (S. L.), Robinson, Vaughan, Witte; Fellows Black, Gustafson, Hodgson; Scholars Garnett, Lundy.

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 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, 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 mentioned 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

For courses in Agricultural Economics, see the announcement of the Department of Agricultural Economics of the College of Agriculture.

1a. Elements of Economics. I or II; 4 cr. Economic principles. Repeated each semester. Mr. Kiekhofer, Mr. Black, Mr. Eberle, Mr. Haake, Mr. Jerome, Mr. Krueger, Mr. McKay, Mr. Miller, Mr. Vaughan, Mr. Witte.

1b. Elements of Economics. II; 4 cr. Economic problems. Prerequisite: Political Economy 1a. Mr. Kiekhofer, Mr. Jerome, Mr. McKay, Mr. Miller.

2. Social Evolution. I; 1 or 2 cr. May be taken by seniors for 2 cr. Illustrated. Mr. Ross.

3. Elements of Public Finance. I; 3 cr. Prerequisite: Political Economy 1a. (Omitted 1916–17.) Mr. Urdahl.

4. Social Problems. II; 3 cr. Contemporary questions relating to the family, the race, and the social order. Mr. Ross.

5. The Elements of Money and Banking. I or II; 3 cr. Prerequisite: Political Economy 1a. Mr. Scott, Mr. Haake, Mr. Jerome.

***8a, 8b. The Elements of Accounting.** Yr.; 2 cr. Mr. Elwell and staff.

***11. Factory and Office Management.** I; 2 cr. Plant location and structure, and the organization and management of industrial forces. Prerequisite: junior standing. Given in alternate years with Political Economy 13. (Given 1916–17.) Mr. Trumbower.

***12. Buying and Credits.** II; 2 cr. Prerequisite: Political Economy 11. Given in alternate years with Political Economy 14. (Given 1916–17.) Mr. Gilman.

12. Agricultural Rural Life. II; 2 cr. Mr. Galpin.

***13. Marketing Methods.** I; 2 cr. Distribution of manufactured goods, with especial attention to problems involved in the relations of manufacturers, middlemen, and consumers. Prerequisite: junior standing. Given in alternate years with Political Economy 11. Mr. Trumbower.

***14. Sales Administration.** II; 2 cr. Organization of sales departments and technique of selling. Prerequisite: Political Economy 13. Given in alternate years with Political Economy 12. Mr. Gilman.

****15. Retail Advertising.** I; 2 cr. A study of principles, and practice in writing advertisements. Prerequisite: Philosophy 119 and English 4. Mr. Gardner.

***16. Advertising Campaigns.** II; 2 cr. Analysis and construction of typical manufacturers' advertising campaigns. Prerequisite: Political Economy 13 and 15. Mr. Gardner.

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: Political Economy 1a. Mr. King, Mr. Leven.

46. Social Origins. Yr.; 2 cr. The origin of man and his institutions. Mr. Gillin.

For Undergraduates and Graduates

101. Advanced Economics. Yr.; 2 cr. Prerequisite: Political Economy 1a. Mr. King.

109a. Commercial Law (Elements). I; 4 cr. Prerequisite: 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.

**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.

109b. Commercial Law (Corporations). II; 4 cr. Prerequisite: Political Economy 109a. Mr. Gilman.

110. Investments. II; 2 cr. Prerequisites: Political Economy 1a, Political Economy 8a, 8b, and 181 or equivalents, senior standing, and consent of instructor. Mr. Gilman.

122. Labor Problems. I; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalents. Given in alternate years with Political Economy 123. (Given 1917–18.) Mr. Commons.

123. Labor Legislation and Administration. I; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalents. Given in alternate years with Political Economy 122. (Given 1916–17.) Mr. Commons, Mr. Witte.

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: Political Economy 1a. Mr. Urdahl.

125. International Commercial Policies. II; 2 cr. Theory of protection and free trade; tariff history of the United States; ship subsidies; commercial treaties. Prerequisite: Political Economy 1a. (Omitted 1916–17.) Mr. Trumbower.

128. Cooperation and Marketing. II; 3 cr. Prerequisite: Political Economy 1a. Mr. Hibbard.

130a. Statistical Method. I; 4 cr., by permission, 3 cr. Laboratory course, adapted to needs of statisticians and investigators in all fields. Prerequisite: Political Economy 1a. Mr. King, Mr. Leven.

130b. Economic Statistics. II; 4 cr., by permission, 2 cr. Lectures on application of statistical method to economic questions with laboratory research problem. Prerequisite: Political Economy 130a. Mr. King.

131. Prices and Cost of Living. II; 2 cr. Price movements and contributing causes. The effects of price changes upon social and economic conditions. Prerequisite: Political Economy 1a. (Omitted 1916–17.) Mr. Hess.

133. Financial History of the United States. II; 3 cr. Prerequisite: Political Economy 5. Given in alternate years with Political Economy 134. (Given 1916–17.) Mr. Scott.

134. The Money Market. II; 3 cr. Operation of the financial machinery of the United States, England, France, and Germany, including currency movements and fluctuations in discount and exchange rates. Prerequisite: Political Economy 5. Given in alter-

nate years with Political Economy 133. (Given in 1917–18.) Mr. Scott.

135. Railway Transportation. I or II; 3 cr. Prerequisite: Political Economy 1a. Mr. Hess, Mr. Eberle, Mr. Vaughan.

136. Railway Rate and Traffic Problems. I or II; 3 cr. Prerequisite: Political Economy 135 or Political Economy 142a. Mr. Hess, Mr. Eberle, Mr. Vaughan.

137. Corporation Finance. I; 3 cr. A study of corporations, corporate securities, and methods of the stock market. Prerequisite: Political Economy 1a. Mr. Urdahl.

138. Insurance Economics. II; 3 cr. This course should precede Mathematics 124. Prerequisite: Political Economy 1a. 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. Kiekhofer.

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: Political Economy 1a or senior standing. Mr. Ross, Mr. Kiekhofer.

141. Poverty and Relief. I; 3 cr. Extent, causes, and social treatment of poverty and allied problems. Prerequisite: Political Economy 1a or junior standing. Mr. Gillin.

142a. Public Utilities. I; 2 cr. Economic and legal aspects of public service enterprise. Emphasis upon municipal utilities. Prerequisite: Political Economy 1a. Mr. Hess, Mr. Eberle.

142b. Public Utilities. II; 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 students and senior thesis students. Prerequisites: Political Economy 135 and 136; or 142a and 142b or equivalents. Mr. Hess, Mr. Eberle.

145. Labor History and Socialism Prior to 1860. II; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalent. Given in alternate years with Political Economy 146. (Given 1916–17.) Mr. Commons.

146. Labor History and Socialism Since 1860. II; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalent. Given in alternate years with Political Economy 145. (Given 1917–18.) Mr. Commons.

147. Methods of Social Service. II; 2 cr. For those looking forward to social work. Prerequisites: senior standing, Political Economy 1a, Political Economy 141 or equivalent. Mr. Gillin.

150. Senior Seminary. Yr.; 2 cr. Prerequisites: Political Economy 133 and 134 and senior standing. Mr. Scott.

154. Trust Movements. I; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalents. Given in alternate years with Political Economy 155. (Omitted 1916–17.) Mr. Urdahl.

155. Trust Control. I; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalents. Given in alternate years with Political Economy 154. (Omitted 1916–17.) Mr. Urdahl.

161. Criminology and Penology. I; 3 cr. Extent and causes of crime; theory of punishment; treatment and prevention. Prerequisite: Political Economy 1a or junior standing. Mr. Gillin.

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. Kuechenmeister.

184. Auditing. II; 2 cr. Prerequisite: Political Economy 181. Mr. Kuechenmeister.

185. Analysis of Corporation Reports. Yr.; 1 cr. Prerequisites: Political Economy 1a, Political Economy 8a, 8b, 181, senior standing, and consent of instructor. Mr. Gilman.

186. Accounting Systems. I; 2 cr. Prerequisites: Political Economy 181 and 182. Mr. Elwell.

187. Governmental Accounting. II; 1 cr. Prerequisites: Political Economy 181 and 182. Mr. Elwell.

190. Teachers Course. II; 2 cr.

***195. The Development of Commercial Organizations.** I; 2 cr. Prerequisite: junior standing. Mr. Melville.

***196. Chamber of Commerce Problems.** II; 2 cr. Prerequisite: junior standing. Mr. Melville.

*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.

For Graduates

[1]**200. The Classical Economists.** I; 3 cr. Economic environment and doctrines of the mercantilists, physiocrats, Adam Smith, David Ricardo, and John Stuart Mill. Prerequisites: Political Economy 1a and 1b or equivalent. (Given 1916–17.) Mr. Scott.

[1]**201. Critics of the Classical Economists.** I; 3 cr. Economic environment and doctrines of the nationalists, the elder historical school, the optimists, and the scientific socialists. Prerequisites: Political Economy 1a and 1b or equivalent. (Given 1917–18.) Mr. Scott.

[1]**202. The Austrian School and Recent Developments.** I; 3 cr. Prerequisites: Political Economy 1a and 1b or equivalent. (Given 1918–19.) Mr. Scott.

[2]**210. Value and Valuation—Legal Theories.** Yr.; 2 cr. (Given 1916–17.) Mr. Commons.

[2]**211. Value and Valuation—Economic Theories.** Yr.; 2 cr. (Given 1917–18.) Mr. Commons.

[2]**212. Value and Valuation—Administration.** Yr.; 2 cr. (Given 1918–19.) Mr. Commons.

[3]**220. Property and Contract; Vested Rights and Personal Conditions—Distribution of Wealth.** II; 3 cr. (Given 1917–18.) Mr. Ely.

[3]**221. Landed Property and the Rent of Land—Distribution of Wealth.** II; 3 cr. (Given 1916–17.) Mr. Ely.

[3]**222. Custom and Competition—Distribution of Wealth.** II; 3 cr. (Given 1916–17.) Mr. Ely.

[3]**223. Monopolies and Trusts—Distribution of Wealth.** II; 3 cr. A course intended to lay a foundation for the complete study of "big business." (Given 1918–19.) Mr. Ely.

226. Land Problems—Distribution of Wealth. Yr.; 2 cr. Research course. Mr. Ely, Mr. Taylor, Mr. Hibbard.

238. Seminary in Insurance. Yr.; 2 cr. Prerequisite: Political Economy 1a. Open to graduates and seniors who are writing theses on insurance. Mr. Anderson.

240. Industrial Insurance. Yr.; 2 cr. Mr. Burhop.

255. American Public Finance, Part I. II; 2 cr. The finances of the Federal government. (Omitted 1916–17.)

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[1] Courses 200, 201, 202 constitute a three-year cycle, one being given each year.

[2] Courses 210, 211, 212 constitute a three-year cycle, one being given each year.

[3] Courses 220, 221, 222, 223 constitute a four-year cycle, one being given each year.

256. American Public Finance, Part II. II; 2 cr. The finances of the American commonwealths and local political units. (Omitted 1916–17).

257. Principles of Taxation. Yr.; 2 cr. Prerequisite: training in public finance. Mr. Urdahl.

258. Degeneracy and Society. II; 2 cr. Extent and cost of degeneracy and its bearings on social problems; causes and social treatment. Mr. Gillin.

260. Seminary on the Demography and Sociology of Cities. I; 2 cr. (Given 1918–19.) Mr. Ross.

261. Research Seminary. II; 2 cr. The field of investigation selected for 1918 is Social Progress and Regress. Mr. Ross.

262. Seminary on the American Family. I; 2 cr. (Given 1917–18.) Mr. Ross.

263. Seminary on the Dynamics of Population. I; 2 cr. Factors affecting the quantity and quality of population. Natural, social, and artificial selection. Outlines of eugenics. (Given 1916–17.) Mr. Ross.

265. Seminary in Labor and Industry. Yr.; 2 cr. Mr. Commons.

266. General Economics Seminary. Yr.; 2 cr. Prerequisite: one year of graduate work. Mr. Hess et al.

267. Round Table in Economic Theory. Yr.; 2 cr. Prerequisite: one year of graduate work. Mr. Ely.

270. Economic Conference. No credit.

POLITICAL SCIENCE

Emeritus Professor Parkinson; Professor Lloyd Jones (chairman); Associate Professors Hall, Ogg; Assistant Professor Hornbeck; Lecturers Dudgeon, McCarthy, MacGregor; Instructor Carpenter; Assistants Noble, Spahr, Yount.

Fellow, Mr. Swenson.

Scholar, Mr. Armstrong.

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. Certain courses aim to give equipment for the various branches of public service. A special series 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 should have an intensive knowledge of at least two of the following general divisions of the subject: public administration, public law, world 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.

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. Graduate majors are expected to be familiar with the subject matter of courses 1, 2 and 7. Course 7 is repeated each semester and should be taken either precedent to, or along with, any of the following more specialized courses in American government, politics, and law: 13, 29, 108, 111, 112, 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. A general survey of the field and principles of political science, with special reference to the history, the functions and the characteristic machinery of the state. May be taken either precedent to or with other courses. 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. 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.

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 1916–17.)

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 1916–17.)

109. Roman Law. I; 3 cr. A knowledge of Latin is not required. Mr. Carpenter.

111. Jurisprudence. II; 3 cr. Open to students who have had an elementary course in law. Mr. Carpenter.

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. Intensive study of selected topics. Open only to students who have had, or are having, a general course in municipal government. Mr. Ogg.

116. State Administration. II; 3 cr. Includes a brief survey of local government in the United States. Mr. Ogg.

117. Federal Administration in the United States. Historical and Descriptive. 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.

119. Contemporary International Politics. I or II; 1 cr. May be elected in successive semesters and years. (Lectures. Graduate students are ordinarily expected to attend). Mr. Lloyd Jones, Mr. Hornbeck.

120. Far Eastern Politics. II; 3 cr. A study of social organization, government and politics in China and in Japan, of the relations of the European powers and the United States to these countries

and to each other in the Pacific, and of problems of world politics which arise out of these relations. 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 1916–17.) Mr. Hall.

131. Latin-American 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; the history and present status of world organization through international law, international arbitration, and international administration; international economic and social solidarity; nationalism and cosmopolitanism; projects for peace and organization. (Omitted 1916–17.) Mr. Hornbeck.

138. Contemporary International Relations. I; 2 cr. Mr. Lloyd Jones, Mr. Hornbeck.

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.

145. History of Political Thought. I; 3 cr. Mr. Hornbeck.

For Graduates

201. Administrative Law I. I; 2 cr. Officers and elections. A study of the legal nature of public office. Prerequisite: courses 7, 112. Mr. Hall.

202. Administrative Law II. The special law governing administrative authority affecting private rights. Prerequisites: courses 7, 112. Mr. Hall.

203. Administrative Law III. I; 2 cr. The law of taxation. Goodnow's *Cases*. Prerequisite: courses 7, 112. (Omitted 1917–18.) Mr. Hall.

204. Administrative Law IV. II; 2 cr. Municipal corporations. Beale's *Cases*. Prerequisite: courses 7, 112. (Omitted 1917–18.) Mr. Hall.

208. Interstate Commerce Law. II; 2 cr. Prerequisite: course 7. Mr. Hall.

218. International Law as Administered by the Courts. II; 2 cr. A study of international law cases. Mr. Hornbeck.

252. Seminary in Comparative Legislation. Yr.; 2 cr. May be elected by semesters. Prerequisites: courses 7, 112. Mr. Lloyd Jones.

256. Philosophy of the State. II; 2 cr. A critical study of contemporary political thought and terminology. (Omitted 1916–17.) Mr. Hornbeck.

258. Seminary in Administration. II; 2 cr. Prerequisite: courses 116, 117. Mr. Ogg.

259. Seminary in Municipal Problems. I; 2 cr. Prerequisite: course 13. (Omitted 1916–17.) Mr. Ogg.

260. Seminary in International Law and Politics. Yr.; 2 cr. (Omitted 1916–17.) Mr. Hornbeck.

261. Seminary in American Constitutional Law. II; 2 cr. Prerequisites: courses 7, 112. Mr. Hall.

For information concerning groups of studies arranged as special training courses students are invited to communicate with the chairman or the individual professors of the Department of Political Science.

PUBLIC SPEAKING

PROFESSOR O'NEILL (chairman); ACTING ASSOCIATE PROFESSOR GAYLORD; ASSISTANT PROFESSORS BLANTON, HOUGHTON, JOHNSON; ASSISTANTS BALLARD, BOYER, MCCARTHY.

These courses 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 only as permitted by the provisions of the teaching major. A minor is sixteen credits in selected courses approved by the chairman of the department.

A teaching major 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, excluding thesis and departmental teachers courses.

For Undergraduates

COMPOSITION COURSES

3a. Argumentation. I and II; 3 cr. Lectures, textbook, 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. Textbooks, models, writing of original speeches of various types. Prerequisites: courses 3b, 11 or 8, 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 and II; 2 cr. Textbook, daily practice in speaking. Attention to voice, pronunciation, gesture, general effectiveness. Open to all students except freshmen. Mr. Houghton, Mr. Gaylord.

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, Miss McCarthy.

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 litera-

ture. 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.

19. Dramatic Production. Lecture, text, laboratory. II; 3 cr. (Alternates with course 17.) Open only to majors and minors in Public Speaking. 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.

141. Psychology of Reading and Speaking. I; 3 cr. Mr. Gaylord.

For Graduates

201. Seminary in Voice and Speech. Yr.; 2 hrs. Mr. Blanton.

205. Seminary in Rhetoric and Oratory. Yr.; 2 hrs. Mr. O'Neill.

ROMANCE LANGUAGES

Emeritus Professor Owen; Professors Smith (chairman), Giese; Associate Professor Cerf; Assistant Professors Cool, Ernst, Gay, Michell, Miller, Reed, Schlatter, Zdanowicz; Instructors Cousins, Galland, Greenleaf, C. H., Greenleaf, J. H., Hamilton, Lebert, Lyon, Silvercruys; Assistants Bradley, Cantu, Conrad, Kinne, Ortega, Plunkett.

Fellow, Mr. Jenkins.

Scholar, Miss Comstock.

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 1b.

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. 264.

FRENCH

I. LANGUAGE

For Undergraduates

1a. Beginning French. I or II; 4 cr. Mr. Cerf and staff.

1b. Second Semester French. I or II; 4 cr. Prerequisite: one semester of college French or its equivalent. Mr. Zdanowicz and staff.

2. Elementary French. Yr.; 4 cr. For students who have had four years of Latin and 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; 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 the 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. Theory and Practice of Teaching of French and Spanish. I; 2 cr. Miss Gay, Mr. Smith.

90b. Teachers Course. II; 2 cr. Methods. French pronunciation. Elementary phonetics with special attention to needs of teachers. Mr. Cerf.

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.; 2 cr. Open to students who have had two or more years of French, upon consultation with instructor. Mr. Ernst.

II. LITERATURE

For Undergraduates

21. Elementary Survey. Yr.; 3 cr. Seventeenth, eighteenth, and nineteenth centuries. Class reading and lectures. Three sections. Mr. Giese, Mr. Michell.

23. Modern French Drama. Yr.; 3 cr. Beginning with the Romantic movement. Class reading and lectures. Mr. Smith.

37. Moliere. I; 3 cr. (Omitted 1917–18.) Mr. Zdanowicz.

39. French Drama of the Seventeenth Century. I; 3 cr. 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. Mr. Ernst.

126. French Poetry. II; 3 cr. From the sixteenth century to the present day. Follows French 133. Conducted in French. (Omitted 1917–18.) Mr. Silvercruys.

128. French Prose Writers of the Seventeenth Century. I; 3 cr. (Omitted 1917–18.) 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. (Omitted 1917–18.) Mr. Ernst.

136. The French Novel. Yr.; 2 cr. (Omitted 1917–18.) Mr. Hamilton.

100. Thesis Course. Yr.; 2 cr. Open only to seniors and graduates. Mr. Giese.

For Graduates

I. LANGUAGE

240. Old French. Yr.; 2. An introductory course. Mr. Schlatter.

244. Old Provencal. Yr.; 2. Language and literature of the troubadours. Mr. Reed.

249. Chretien de Troyes. Yr.; 2. Prerequisite: French 240 or its equivalent. (Omitted 1917–18.) Miss Gay.

II. LITERATURE

242. Old French Epic Poetry. Yr.; 2. (Omitted 1917–18.) Mr. Smith.

243. Seminary in Old French Literature. Yr.; 2. A general survey of the Brittany Cycle; *Tristan*, Marie de France, and the

Arthurian Romances, including only cursory treatment of Chrétien de Troyes. (Omitted 1917–18.) Mr. Smith.

246. Seminary in Old French. Yr.; 2 cr. French paleography, with practice from manuscripts, on the critical text of *Godefroi de Bouillon*. Mr. Smith.

247. French Literature from Froissart to Rabelais. Yr.; 2. Miss Gay.

248CL. Medieval Literature. Yr.; 2. Beginning of the influence of the French and Provençal literatures. (Omitted 1917–18.) Mr. Reed.

250CL. The Renaissance in Romance Countries. Yr.; 2. Mr. Cerf. See Comparative Literature 250.

252CL. Seminary in Ancient French Drama. Yr.; 2. Religious and secular drama from the origins to the middle of the sixteenth century. (Omitted 1917–18.) Mr. Smith.

253. Seminary in French Literature. Yr.; 2. Classicism. Mr. Giese.

254. Seminary in French Literature. Yr.; 2. Romanticism. (Omitted 1917–18.) 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. (Omitted 1917–18.) Mr. Schlatter.

160. Dante. Yr.; 3 cr. The *Divine Comedy*. Mr. Schlatter.

PORTUGUESE

271. Portuguese Language and Literature. II; 2. Mr. Reed.

SPANISH

First and second semester courses in Spanish are numbered below 10. The prerequisite for courses 10–20 is one year of college Spanish or its equivalent. For courses above 20 the prerequisite is two years unless otherwise stated.

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 90a) 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. Reed 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.

12. Second Year Spanish. Yr.; 3 cr. Prerequisite: Spanish 1b or its equivalent. Three sections. Mr. Cool and staff.

15. Elementary Conversation. Yr.; 1 cr. Supplementary to Spanish 12 or 6C. To be taken only in connection with some other Spanish course, except by consent of the instructor. Two sections. Mr. Cantu.

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. Spanish Life and Literature. Yr.; 2 cr. A lecture and reading course conducted in Spanish. Prerequisite: Spanish 12 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. Eighteenth and Nineteenth Century Spanish. Yr.; 3 cr. Prerequisite: Spanish 12 or 6C or equivalent. Mr. Cool.

For Graduates

270. General Survey. Yr.; 2. From the origins to the death of Calderón. Mr. Reed.

VULGAR LATIN

272. Origins of the Lingua Vulgaris. Yr.; 2. (Omitted 1917–18.) Mr. Reed.

273. Romance Philology. Yr.; 2. The differentiation of the *Lingua Vulgaris* into Spanish, Provençal, and Italian. (Omitted 1917–18.) 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.)

LANGUAGE AND LITERATURE

For Undergraduates

1. Beginners' Norse. Yr.; 4 cr. Michelet's *First Year Norse*, selections from *Boken om Norge*, Hagene's *Sange*, and Björnson's *En glad Gut*. Primarily for freshmen.

2. Modern Norse. Yr.; 3 cr. Olson's *Grammar and Reader*, Björnson's *Synnöve Solbakken* (Flom's ed.), Holvik's *Second Book in Norse*, Gundersen's *Digte.*

3. Novels and Dramas. Yr.; 2 or 3 cr. Selections from Lie's and Kielland's stories and novels, and Ibsen's modern prose dramas. For 3 cr. an additional hour is given to historical prose (Haereid's *Norges Historie*).

4. Ibsen's Brand and Peer Gynt. Yr.; 2 or 3 cr. For 3 cr. an additional hour is given to the prose dramas.

21. Composition and Conversation. Yr.; 2 cr. Selections from *Boken om Norge*; Aars and Hofgaard's *Retskrivnings-regler.*

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 from the sagas in translation.

Courses 70 and 71 are given in alternate years; the latter will be given in 1918.

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 (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 Requirements and Freshmen

Courses of this department regularly open to freshmen are Hebrew 1, 2, 3, 4, and 7. These are counted in satisfaction of foreign language requirements.

Freshmen may begin Hellenistic Greek, but the elementary course counts only as an elective and not for foreign language requirements (see Requirements for the degree of Bachelor of Arts: II. *Required Studies, b. Language*). Courses in advance of the first-year may be substituted to the extent of eight credits. Freshmen who are not prepared to take advanced work may take the elementary (first-year) course in Hellenistic Greek (courses 16 and 17), on condition that they continue with the advanced work thus begun.

Major in Semitic Languages 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 increases and variation, depending upon the progress and needs of the individual student.

COURSES GIVEN IN ENGLISH

For Undergraduates

(A knowledge of foreign 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 or 2 cr. Mr. Kelly.

31. Elementary Yiddish. I; 3 cr. A knowledge of German or some acquaintance with spoken Yiddish is prerequisite. Mr. Wolfenson.

32. Advanced Yiddish. II; 3 cr. Course 31 or a reading knowledge of Yiddish is prerequisite. Mr. Wolfenson.

For Undergraduates and Graduates

Only a selection of the courses enumerated below is offered in any one year.

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.

113. Advanced Arabic. Yr.; 2 cr. The Qur'ân and history of Islam. Mr. Wolfenson.

114. Elementary Assyrian. Yr.; 2 cr. Mr. Kelly.

115. Talmud. Yr.; 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.

129. Biblical Aramaic; Syriac. Yr.; 2 cr. Mr. Kelly.

For Graduates

209. Advanced Hebrew Syntax. I; 2 cr. Mr. Wolfenson.

210. Advanced Hebrew Etymology. II; 2 cr. Mr. Wolfenson.

211. Hebrew Seminary. Yr. 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.

230. Semitic Epigraphy. Yr.; 2 cr. 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. 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 cr.

ZOOLOGY

PROFESSOR GUYER (chairman); ASSOCIATE PROFESSORS MARSHALL, PEARSE; ASSISTANT PROFESSOR WAGNER; LECTURER JUDAY; INSTRUCTORS LOWE, SMITH; ASSISTANTS NELSON, BISHOP, CAHN, WHITE, COLE, FORSTER.

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 are desirable.

Medical students will find courses 6, 11, 19, 104a, and 105 of special interest.

Agricultural students will find courses 6, 9, 19, 21, and 110 to 113, 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 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 outdoor work. With its special laboratories, research rooms, vivaria, and outdoor breeding pools, and its unusually complete equipment and library, the Department of Zoology affords unsurpassed opportunity for laboratory work 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 or 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. II; 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.

104a. Comparative Anatomy of Vertebrates. I; 5 cr. Mr. Wagner.

104b. Vertebrate Zoology. II; 3 cr. Mr. Wagner.

105. Elements of Vertebrate Embryology. I; 2 or 4 cr. Miss Smith.

107. Evolution Problems. II; 2 cr. Mr. Guyer.

108. Physiological Zoology. II; 4 cr. Prerequisites: course 1 or course 3. Chemistry 1. 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: Nondevelopmental 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. (Omitted 1916–17.) 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.

COURSE IN CHEMISTRY

LOUIS KAHLENBERG, DIRECTOR, Professor of Chemistry.

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, food stuffs, 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 courses 1a and 1b in French is required for graduation. Preparatory work in these languages may satisfy the graduation requirement entirely or in part. 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 and an equal number of grade points are required for graduation. (See p. 81 for details concerning grade points.) 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

Freshman year. *Both semesters:* Chemistry 1, 5 cr.; Mathematics, 1, 3 cr.; German or French, 4 cr.; English, 3 cr. *Second semester:* Mathematics 2, 3 cr. takes the place of Mathematics 1.

General Course

Sophomore year. *First semester:* Chemistry 11, 5 cr.; German or French 4 cr.; Physics 1Sc., 5 cr.; Mathematics 5, or Geology 7, 3 cr. *Second semester:* Mathematics 3 or 5, or Bacteriology 1, 3 cr. Drawing 1 or 2, 3 cr. may be substituted for Mathematics 3 or 5, 3 cr.

Junior year. *Both semesters:* Chemistry 120, 5 cr.; Chemistry 130, (I), 5 cr.; German or French, 4 cr.; Electives, 3 to 9 cr.

Students who took Mathematics 5 in sophomore year must take Geology 7, 3 cr. in the first semester and Bacteriology 1, 3 cr. in the second semester, which leaves them but one hour as elective for each semester.

Senior year. *First semester:* Thesis, 2 cr.; Chemistry 113, 1 cr.; Chemistry 114, 1 cr.; Chemistry 119, 3 cr.; Chemistry 107, 1 cr.; Electives, 9 cr. *Second semester:* Thesis 2 cr.; Chemistry 107, 1 cr.; Chemistry (elective), 5 cr.; Assaying 121, 2 cr.; Electives, 9 cr.

Course for Industrial Chemist

Sophomore year. *First semester:* Chemistry 11, 5 cr.; German or French 4 cr.; Physics 1Sc., 5 cr.; Mathematics 5 or Geology 7, 3 cr. *Second semester:* Mathematics 5 or Bacteriology 1, 3 cr.; Drawing 1 or 2, 3 cr., may be substituted for Mathematics 3 or 5, 3 cr.

Junior year. *Both semesters:* Chemistry 120, 5 cr.; Chemistry 130, (I) 5 cr.; German or French, 4 cr.; Chemical Engineering 12a (I) or (II), 2 cr.; Chemical Engineering, 111, (II), 2 cr.; Electives, 3 to 8 cr.

Senior year. *First semester:* Thesis, 2 cr.; Chemistry 113, 1 cr.; Chemistry 119, 3 cr.; Chemical Engineering 15, 2 cr.; Chemistry 107, 1 cr.; Chemical Engineering 114a, 4 cr.; Electives, 4 cr. *Second semester:* Thesis, 2 cr.; Assaying 121, 2 cr.; Chemical Engineering 111, 2 cr.; Bacteriology 1, 3 cr.; Chemistry 107, 1 cr.; Electives, 7 cr.

Course for Agricultural Chemist

Sophomore year. *Both semesters:* Chemistry 11, 4 cr.; German or French, 4 cr.; Biology 1, 5 cr.; Physics 1Sc., 5 cr.

Junior year. *First semester:* Chemistry 120, 5 cr.; German or French, 4 cr.; Electives, 8 cr. *Second semester:* Chemistry 120, 5 cr.; German or French, 4 cr.; Agricultural Chemistry 1, 5 cr.; Agricultural Bacteriology 1, 3 cr.

Senior year. *First semester:* Thesis, 2 cr.; Chemistry 130, 5 cr.; Agricultural Chemistry (electives), 5 cr.; Electives, 5 cr. *Second semester:* Soils 1, 5 cr.; Thesis, 2 cr.; Agricultural Chemistry (electives), 3 cr.; Electives, 7 cr.

Course for Soil Chemist

Sophomore year. *First semester:* Chemistry 11, 5 cr.; German or French, 4 cr.; Physics 1Sc., 5 cr.; Geology 7, 3 cr. *Second semester:* Chemistry 11, 5 cr.; Soils 1, 5 cr.; Physics 1Sc., 5 cr.; Electives, 2 or 3 cr.

Junior year. *First semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Soil Analysis 121, 5 cr.; Electives, 3 cr. *Second semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Bacteriology 1, 3 cr.; Electives, 5 cr.

Senior year. *First semester:* Thesis, 2 cr.; Chemistry 130, 5 cr.; Chemistry 107, 1 cr.; Geology 1, 5 cr.; Electives, 4 cr. *Second semester:* Thesis, 2 cr.; Soils (electives), 2 to 5 cr.; Agricultural

Chemistry (electives), 5 cr.; Chemistry 107, 1 cr.; Electives, 4 to 7 cr.

Course for Physiological Chemist

Sophomore year. Same as for agricultural chemist.

Junior year. *First semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Physiology 1, 3 cr.; Chemistry 130, 5 cr. *Second semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Physiological Chemistry 104, 4 cr.; Electives, 4 cr.

Senior year. *First semester:* Thesis, 2 cr.; Physiological Chemistry 117, 4 cr.; Toxicology, 101, 102, 2 cr.; Physiological Chemistry 100, 2 cr.; Electives, 4 cr. *Second semester* Bacteriology 1, 5 cr.; Physiological Chemistry 120, 1 cr.; Botany 111, 3 cr.; Chemistry 156, 5 cr.; Thesis, 2 cr.; Electives, 3 cr.

Course for Sanitary Chemist or Food Chemist

Sophomore year. Same as for agricultural chemist except that in the second semester Biology 1 is replaced by Bacteriology 1, 5 cr.

Junior year. *First semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Botany 110, 3 cr.; Chemistry 130, 5 cr. *Second semester:* German or French, 4 cr.; Chemistry 120, 5 cr.; Botany 133, 3 cr.; Chemistry 146, 5 cr.

Senior year. *First semester:* Thesis, 2 cr.; Chemistry 113, 1 cr.; Chemistry 114, 1 cr.; Chemistry 119, 3 cr.; Chemistry 107, 1 cr.; Electives, 7 cr. *Second semester:* Thesis, 2 cr.; Toxicology 101, 1 cr.; Toxicology 102, 1 cr.; Chemistry 107, 1 cr.; Physiological Chemistry 104, 4 cr.; Electives, 8 cr.

Departments of Instruction

For detailed information regarding the preceding courses, see the announcements of the several departments of the College of Letters and Science; 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 Index. 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.

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 and 132 grade points (see p. 81), exclusive of credits required in Physical Education and Drill, is required for graduation in this course. The prescribed distribution of these by semesters is indicated under Arrangement of Studies, p. 234. 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 classroom 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 course in natural science. The course in English is the general training course required of all freshmen in the University. Two modern foreign languages are also required. 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 commercial correspondence, business forms and documents, accounting, auditing, salesmanship, advertising, credits and collections, and marketing methods. 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 reënforcement 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 a member of the staff, 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 and finance, accounting, transportation and public utilities, commercial secretarial work, advertising and salesmanship, insurance, commercial teaching and real estate.

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, I, 3 cr.; Economic Geography, II, 3 cr.; Foreign Language, 8; English, 6; Mathematics, 6; History, 6; Gymnastics and Drill.

Sophomore Year

Commercial Correspondence, I, 2 cr.; Foreign Language (if not completed in freshman year) 4 or 8; Natural Science, 10; Elementary Economics, I, 4 cr.; Money and Banking, II, 3 cr.; Elements of Accounting, 4; Free Electives, 0 to 8; Gymnastics and Drill.

Junior Year

Transportation, I, 3 cr.; Theory and Practice of Accounting, I, 2 cr.; Business Administration, 4; Elective Group, 6–10; Free Electives, 15 to 19.

Senior Year

Commercial Law, 8; Elective Groups, 10–14; Free Electives, 12–16.

ELECTIVE GROUPS*

Banking and Finance

Financial History of the U. S., 3; Money Market, 3; Corporation Finance, 3; Investments, 2; Public Finance, 3; Thesis, 4.

Accounting

Advanced Accounting Problems, 2; Auditing, 2; Analysis of Corporation Reports, 2; Cost Accounting, 2; Accounting Systems, 2; Governmental Accounting, 1; Corporation Finance, 3; Investments, 2; Statistics, 3; Thesis, 4.

Transportation and Public Utilities

Railway Rate and Traffic Problems, 3; Public Utilities, 2; Corporation Finance, 3; Statistics, 3; Government and Politics of the U. S., 3; Thesis, 4.

Commercial Secretary

Municipal Functions, 3; Municipal Government in the U. S., 3; Government and Politics of the U. S., 3; Statistics, 3; Commercial Organizations, 2; Problems and Methods of Commercial Organizations, 2; City Planning, 2; Thesis, 4.

Insurance

Mathematics (124), 3; Insurance Economics, 3; Seminary in Insurance, 2; Industrial Insurance, 2; Statistics, 3 or 4; Corporation Finance, 3; Investments, 2; Thesis, 4.

Commercial Teachers

Education, 17 (requirements for a teachers certificate); Advanced Accounting Problems, 2; Auditing, 2; Business Administration, 2; Thesis, 4.

*The number, titles and arrangement of courses given below are suggestive only. They may be modified to suit the needs of individual students and other groups may be arranged.

Real Estate

Marketing Methods, 2; Sales Administration, 2; General Advertising, 2; Commercial Statistics, 2; Taxation, 3; Investments, 2; City Planning, 4; Thesis, 4.

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 for teaching are advised to take the commercial teachers group described on p. 235 which includes the courses prescribed for the teachers license in this state and given by the Department of Education, and courses in accounting and business administration in addition to those required of all students in the Course in Commerce. Facilities for pedagogical practice will be given such students in the accounting laboratories.

Special Lectures

Special lectures are provided from time to time for the purpose of acquainting students with present business conditions and opportunities. As far as possible men representing the chief business enterprises of the United States are secured for this purpose.

COURSE IN JOURNALISM

Willard G. Bleyer, Chairman, 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 and journalism.

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 publication, 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, 1917–18," 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 country, as well as of important American and English journalistic periodicals.

Practical Experience

Students in the Course in Journalism are given practical training on the two Madison daily newspapers, the editors of which cooperate with the instructors in journalism for this purpose. 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 Literary Magazine*, a monthly devoted to feature articles, 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 bimonthly edited and managed by the agricultural students; and the *Wisconsin Commercial Magazine*, a monthly issued by the university Commerce Club, 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 properly 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 parentheses are the number of the course in the department; Arabic figures following the parentheses indicate the credits; Roman numerals show the semester in which the course is given.

Freshman Year

General Survey of Journalism (Journalism 1), 0; 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; 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 51), 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; The Country Newspaper (Journalism 8), 2, II; Thesis, 2; 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 (107), 2; Modern Novel (108) 2; Victorian Prose Writers (54), 2; The Victorian Era (35), 3; Current Political Topics (32), 2.

COURSE IN PHARMACY

EDWARD KREMERS, Director, Professor of Pharmaceutical Chemistry.

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 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, 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.

By the will of the late Mrs. Hollister, the sum of $12,000 has been turned over to the State Historical Society for the endowment of a Pharmaceutical Library. The Historical Society will make no attempt to duplicate the pharmaceutical section of the University Library, but will devote its energies to the development of pharmaceutical Americana.

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.

The Hollister Fellowship

In accordance with the wills of the late Mr. and Mrs. Albert Hollister, there has been deposited with the Board of Regents the sum of $10,328, the income of which is to be used to maintain a fellowship in Pharmacy.

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. Nongraduates 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* two years' 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 degress 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 35, 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 20, 4 cr., 26, 4 cr., and 40, 3 cr.; Botany 110, 3 cr., and 32, 2 cr.; Pharmacy 30, 1 cr., and 50, 1 cr. *Second semester:* Chemistry 27, 5 cr.; 28, 1 cr.; and 40, 3 cr.; Botany 111, 3 cr., and 32, 2 cr.; Pharmacy 121, 4 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, 20, 30, 40, 50, and 121, in Pharmacy, and course 32 in Botany.

Basal sciences: Chemistry 1, 11, 20, 117 or their equivalents; Botany 1, 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. 120 grade points are also required for graduation (see p. 81).

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 satisfactorily 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. The completion of a high school course or its equivalent is prerequisite for admission to the examinations. 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.

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 textbooks 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 tuition 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 cr.; Classification, 3 cr.; Reference, 3 cr.; Evaluation and Selection of books, 1 cr.; Trade Bibliography and Publishing Houses, 1 cr.; Library Economy, 1 cr.; Administration, 1 cr.

Second Semester. Reference, 3 cr.; Library Economy, 3 cr.; Subject Bibliography, 2 cr.; Evaluation and Selection of Books, 1 cr.; Children's Literature, 1 cr.; Administration, 1 cr., Documents, 1 cr.; Field Practice, 3 cr. 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 is upon actual problems arising in the various departments of state and municipal government.

Course for Teacher-Librarians

This course, authorized by the Regents in June, 1916, is offered in direct response to a formally expressed demand coming from city superintendents and high school principals of the state. It is likely that in the near future the State Department of Education will require all state aided schools to employ one teacher-librarian who has had the training represented by such a course, or its equivalent.

The object of the course is to qualify those taking it to assume, in connection with instructional duties, the supervision of high school libraries, and to qualify them also to give instruction to high school students in the use of books and libraries, and in the means and methods of developing good habits and right tastes in reading.

The course is conducted by the faculty of the Library School, in the library of the Wisconsin High School which serves as a laboratory. It is a year course carrying four credits for the year, and is open to juniors and seniors who are prospective teachers.

The subjects include cataloguing, classification, and library economy, each lesson followed by practice work; book selection and evaluation, use of reference books, indexes, and library helps, mending, binding, and care of books, lending of books, how to teach pupils to use books, equipment and administration of school libraries.

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.

COURSE FOR THE TRAINING OF TEACHERS

V. A. C. HENMON, 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 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. (See p. 265)

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 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, (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. 255–265, 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. 255–265, 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, 104, 105, 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 1), *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. 255; Home Economics, p. 259).

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 who 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.

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.

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.

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 Educa-

tion, and upon completing the following courses: psychology (Philosophy 1) three cr., education, four cr., agricultural education, four cr. 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 Education 1, 6, 11, or 41, Agricultural Education 1, and who meet their elective requirements from the following group of subjects: Agronomy 120 or 140, Agricultural Engineering 2, Animal Husbandry 128, Dairy Husbandry 2 or 110, Economic Entomology 101, 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, 2, 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. II; 2 cr. Prerequisite, major requirements above indicated. Course 11 may be taken simultaneously. 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 accounting laboratories, 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. 251–254.

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 include 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 courses 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. Pendleton.

English 50b. The Teaching of English. II; 2 cr. Mr. Pendleton.

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. 153. 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 are preparing to teach German as their major or minor subject and 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 generally 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. Deihl.

German 114a. Teachers Course for Majors. 1; 2 cr. Methods. For seniors and graduates. Mr. Deihl.

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

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, 9, 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 of 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 the following courses: psychology (Philosophy 1), three cr., education, five cr., Departmental Teachers Course, two cr. A minimum of ten credits of professional work is required. Courses numbered in the nineties may be counted as additional professional credits.

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. I or II; 2 cr. Miss Binzel, Miss Dodge.

Latin

Major. A minimum of twenty-four credits, including courses 107, 116, and one advanced reading course for one year.

Minor. A minimum of twenty credits, including course 116 and 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.

Library Science

The Library School offers for those who are qualifying themselves for positions as high school librarians the following course:

Library Science for Teachers. Yr.; 4 cr. The object of the course is to qualify those taking it to assume, in connection with instructional duties, the supervision of high school libraries, and to qualify them also to give instruction to high school students in the use of books and libraries, and in the means and methods of developing good habits and right tastes in reading. Open only to juniors and seniors. Miss Hazeltine, Miss Carpenter, Miss Turvill, Miss Bascom, and other members of the instructional staff of the Library School.

See detailed statement, page 246, and also statement on page 141.

Manual Arts

Major. A minimum of thirty credits in selected courses. A major may be taken in courses in drawing, design, crafts and industrial 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 selected substitutes.

Minor. Teachers of Freehand Drawing and Design. A minimum of seventeen credits, including courses 1, 50, 51, 62, one semester of 112, and either 15, 70 or 71, or selected substitutes.

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

While the completion of the four-year course leading to the degree of Bachelor of Music, with a major in Public School Music, gives the broadest training for the constantly enlarging field of this branch of teaching, 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 credits as follows: psychology (Philosophy 1), 3 cr.; Education 1, 6, 11, or 41, 3 cr.; (c) that the student presents a statement from the Director of the School of 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

(See also p. 190).

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, 63, 67, 107, 108, 114; courses 21–50 (at least four credits) and thesis (four credits), a total of thirty credits; Physical Education 19 or Education A; Anatomy 121, Physiology 114, and 105 or 115, and satisfy prerequisites in biology, chemistry, and psychology, or their equivalents. Additional credit in Physical Education may be secured in courses 107, 16, 55, 62, 66, 68, 70, 80, and 21–50.

Graduates with a major in Physical Education who have been registered in the Course for the Training of Teachers will be entitled to receive the University Teachers Certificate upon fulfilling the major requirements and completing the following courses: Psychology (Philosophy 1), 3 cr.; Education, 5 cr.; and the Departmental Teachers Courses. A total of one hundred and twenty-eight credits is required.

Minor. Students electing Physical Education as a minor subject must take courses 20 (for two years), 59 or 107, 67 (two credits) 66, and 21–50 (for four credits) a minimum of ten credits. Physical Education 19 or Education A may also be required depending on the major subject of the student. Additional credits may be secured in courses 16, 55, and 21–50. Prerequisites are Zoology or Chemistry, Physiology 1 and Philosophy 1, and elementary education at least three credits.

Departmental Teachers Course. Physical Education 67. Principles of Teaching and Adaptation. Yr; 2 or 4 cr. Mr. Hetherington.

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 110a.

Minor. A minimum of twelve credits in approved courses in the Department of Geology including course 110a.

Departmental Teachers Course. Geology 110a. The Teaching of Physical Geography. I; 2 cr. Mr. Whitbeck.

Geology 110b. The Teaching of Commercial Geography, II; 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 1Sc., 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-four selected credits exclusive of thesis.

Minor. A minimum of ten selected credits.

Departmental Teachers Course. Political Economy 190. The Teaching of Economics. II; 2 cr.

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 90a 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 90b 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 90a (The Teaching of French and Spanish) and at least one course in composition or conversation must be taken. Com-

merce courses may be counted toward a major in Spanish 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 90a. 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 the chairman of the 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

By action of the Faculty of the College of Letters and Science, December 18, 1916, upon the recommendation of the Committee on the Training of Teachers, the Advanced Course for the Training of Teachers was discontinued, with the provision that those who are already registered and who complete the requirements shall be entitled to receive the Certificate.

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 from the senior class 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 $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 $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 $400. Two of these scholarships were provided for 1916–1917. 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 $60, 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 by fulfilling in their university course the specified requirements. Such normal school graduates, when can-

didates 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.

COLLEGE OF ENGINEERING

FREDERICK E. TURNEAURE, DEAN, PROFESSOR OF ENGINEERING.

Organization of the College

The College of Engineering is organized in the belief that a thoroughgoing fundamental training is the first essential to a successful engineer, but that this fundamental training may be best secured not alone by theoretical study, but by giving attention as well to the practical application of the principles involved. It is further a leading thought that after the fundamental principles have been mastered, a certain measure of specialization in the main lines of engineering is advisable. In carrying out this plan the mathematical and theoretical courses are made strong in the earlier years, and a limited number of professional courses are given in the later years, while the drawing and shop courses continue progressively from the beginning to the end. Sufficient foreign language is given to enable graduates to read the professional German and French literature, and special attention is given to the subject of English composition.

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 107 to 109.

The College of Engineering Circular, giving detailed information concerning the College, may be obtained upon application to the Registrar of the University.

The requirements for the admission of regular freshmen are stated fully on pages 91–92; of advanced students on page 104; of adult special students on page 109.

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

For fees and expenses see General Information p. 66 and following.

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.

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 hydraulic 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 engineering 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 details, 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 horsepower.

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 on 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. A 220,000 gallon concrete reservoir 60 feet above the laboratory on the bluffs supplies water under very steady heads. 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 testing apparatus, cyanide plant, pyrometers, and other accessories; and the clay manufactures laboratory is equipped with crushing and moulding machines, dryers and kilns. 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 classroom. One of the most important of these is a fifty horsepower cross compound steam engine specially arranged for testing with either superheated or saturated steam. Another important item is 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 horsepower two-stage air compressor directly con-

nected to a compound condensing engine equipped with the Meyer valve gear; also various other types of steam, gas, gasoline, and hot air engines, automobile engines, and gas producers, and a small vertical boiler and engine. A 150 H. P. electro-dynamometer of the latest type and equipment is worthy of particular mention. This is suitable for testing gasoline and similar engines at any speed up to 3500 revolutions per minute. 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, a diamond drill, a diamond saw, a standard

machine for testing the 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 and Chemical Engineering 121.

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 Dorry 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. 445.

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 are 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 are 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 114. 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, Pittsburg, 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 made 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.

Freshman Lectures

The College has provided for a course of lectures for freshmen. Attendance is required. In the lectures of this course the aim is to give the student a more adequate conception of the work of the engineer, to make clearer the kind of training which furnishes the best preparation for the practice of the engineering profession, and to call attention to the methods of study which have been found to produce satisfactory results. The course also includes several lectures on subjects of more general interest.

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 during the academic years 1914–15 and 1915–16:

Life of John Ericsson—Professor J. G. D. Mack, 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, University of Wisconsin.

Evolution of Steam Tables—Professor G. A. Goodenough, University of Illinois.

Archimedes as an Engineer—Professor C. S. Slichter, 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.

Some Phases of Ancient Achievement—Professor Grant Showerman, University of Wisconsin.

Water Power versus Scenic Grandeur at Niagara Falls—Dean Francis C. Shenehon, University of Minnesota.

Some Mechanical Analogies in Electricity and Magnetism—Professor W. S. Franklin, formerly at Lehigh University.

Present Problems in Electro-Chemistry and Electro-Metallurgy—Professor Joseph W. Richards, Lehigh University.

Water Power and Industrial Development in Norway—A. B. Wilse, Lecturer.

The Great Telescopes of the World and the Discoveries Made by Their Use—Dr. John A. Brashear, past president of the American Society of Mechanical Engineers, and manufacturer of astronomical and physical instruments.

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 and 154 grade points (see p. 81) 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. 2	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		
Mechanics 52	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		
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 280.

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		Credits
*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		Credits
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 and 154 grade points (see p. 81) 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. 103a	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. 103b	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 282.

† 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		Credits
Mathematics 54	Differential and Integral Calculus	4
Physics 53	General Lectures and Introductory Lab. Practice	3
Drawing 3	Descriptive Geometry	3
Elect. Engr. 140a	Introductory Course	3
*English 1 E		3
Physical Education		1
Military Science		1
	Total	18

Second Semester		
Mathematics 55	Differential and Integral Calculus	4
Physics 54a	General Lectures and Introductory Lab. Practice	3
Machine Design 1	Mechanism	4
Elect. Engr. 140b	Introductory Course	4
*English 1 E		3
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 sophomore year, and (c) take two credits additional elective.

A total of 154 credits and 154 grade points (see p. 81) exclusive of summer work is required for graduation.

JUNIOR YEAR

First Semester		Credits
*Physics 55	Adv. Electricity and Magnetism	3
Mechanics 1 and 2	Statics and Dynamics	5
Steam and Gas 3a	Special Course in Thermodynamics	3
Elect. Engr. 141	Direct Current Machinery	3
Elect. Engr. 142	Alternating Current Circuits	2
Elect. Engr. 102	Direct Current Laboratory	2
Shopwork		2
	Total	20

Second Semester		
*Physics 56	Advanced Electricity and Light	3
Mechanics 3	Mechanics of Materials	5
Steam and Gas 3b	Special Course in Thermodynamics	3
Steam and Gas 28	Laboratory	2
Elect. Engr. 143a	Alternating Current Machinery	2
Elect. Engr. 112a	Alternating Current Machinery Laboratory	2
Hydraulic Engr. 1	Elementary Hydraulics	3
	Total	20

SENIOR YEAR

First Semester		Credits
Mechanics 53	Materials of Construction	2
Elect. Engr. 143b	Alt. Current Machinery	3
Elect. Engr. 112b	Alternating Current Mach. Laboratory	2
‡Elect. Engr. 125	Conference	2
Machine Design 5	Machine Elements	3
Elect. Engr.	From Electrical Group	2
Thesis and Electives		5
	Total	19

Second Semester		
Elect. Engr.	Electrical Group	5
†Contracts	Contracts and Specifications	2
Topographic Engr. 108	Short Course for Mech. & Elect. Engrs.	3
Thesis and Electives		9
	Total	19

ELECTIVE ELECTRICAL GROUP

First Semester		Credits
Elect. Engr. 127	Central Stations and Industrial Applications	3
Elect. Engr. 133	Photometry and Illumination	2
Chem. Engr.	Electrochemistry	3
Elect. Engr. 116	Electric Circuits	3

Second Semester		
Elect. Engr. 104	Dynamo Design	2
Elect. Engr. 129	Elect. Railways	2
Elect. Engr. 135	Telephony	2
Elect. Engr. 137	Power Transmission and Insulation	3
Elect. Engr. 122	Electric Testing	2

* Physics 55 and 56 to be given beginning year 1918.
‡ Elect. Engr. 125 may be taken either semester.
† Commercial Law or Commercial Mechanical Engr. may be substituted.

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
Chemical Engr. 12	Gas and Fuel Analysis	2
Chemical Engr. 18	Engineering Materials	2
Mechanics 1, 2	Statics, Dynamics	5
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 and 154 grade points (see p. 81) 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	3
*English 1 E		3
Chemical Engr. 117	Technical Pyrometry	2
Chemical Engr. 119	Metallography	3
	Total	19

Second Semester		
Steam and Gas 3b	Elementary Thermodynamics	3
Steam and Gas 25	Engr. Testing	2
Elect. Engr. 131a	Elements of Elect. Engr	2
Chemistry 120	Organic Chemistry	3
Drawing 3	Descriptive Geometry	3
*English 1 E		3
Chemical Engr. 111	Chemical Machinery	2
Mechanics 53	Materials of Construction	2
	Total	20

Summer work, Chemical Engineering 114 (Chemical manufacture), the equivalent of 4 credits.

SENIOR YEAR

First Semester		Credits
Steam and Gas 26	Testing Heat Engines	1
Elect. Engr. 131b	Elements of Electrical Engr	2
Elect. Engr. 130	Testing Direct Current Mach	2
Chemistry 130	Physical Chemistry	3
Chem. Engr. 101	Electrochemistry	5
Chem. Engr. 15	Industrial Chemistry	3
Chem. Engr. 116	Applied Thermal Chem	2
Electives		2
	Total	20

Second Semester		
Contracts	Contracts and Specifications	2
Mach. Design 5	Machine Elements	3
Chemical Engr. 116	Applied Thermal Chemistry	2
Chemical Engr. 120	Industrial Organic Chemistry	2
Thesis and Electives		8
	Total	17

* See footnote bottom of page 286.

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 and 154 grade points (see p. 81) 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		
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		
Mining 105, 107	Ore Dressing and Mine Engineering	6
Mining 123	Metallurgy of Copper and Lead	3
{Hyd. Engr. 1 or	Hydraulics	3
{†Geology 111	Economic Geology	
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 288.

† Given 1916–17 and alternating yearly with Steam and 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 classroom work per week. Two hours of drawing, laboratory, field, or shop work (which require no outside preparation) count as one hour of classroom 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, Bacteriology, Chemistry, Chemistry of Forest Products, English, Forestry and Wood Technology, French, Geology, German, Mathematics, Meteorology, Physics, Political Economy, and Spanish.

COURSES GIVEN IN THE COLLEGE OF ENGINEERING

AERONAUTICS

PROFESSORS MAURER, CALLAN.

1. Aeronautics. I; 2 cr. Historical sketch of the development of air craft; the researches on lift and drag of airplane wings, and on head resistance; mechanics of uniform flight; power required; motors; air screws; air conditions. Mr. Maurer, Mr. Callan.

2. Aeronautics. II; 2 cr. Stresses in main members of airplanes and in air screws; inherent stability and automatic stabilizers; design of aviation engines. Mr. Maurer, Mr. Callan.

CHEMICAL ENGINEERING

ASSOCIATE PROFESSOR KOWALKE; ASSISTANT PROFESSORS HECKER, WATTS; INSTRUCTORS BAIN, VALENTINE.

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. Valentine.

12b. Advanced Analysis. I or II; cr. to be arranged. Continuation of 12a. Mr. Valentine.

15. Industrial Chemistry. I; 3 cr. Technology of important chemical industries. Prerequisites: Chemistry 2, 11, Chemistry 120 or enrollment in same. Mr. Kowalke.

18. Engineering Materials. II; 2 cr. Technology of limes, cements, refractories, fuel, and iron and steel. Prerequisite: Chemistry 2. Mr. Hecker.

For Undergraduates and Graduates

101a. Applied Electrochemistry. I; 5 cr. Principles and applications to electroplating and manufacture. Mr. Watts, Mr. Hecker.

101b. Advanced Electrochemistry. II; 1 or more cr. Mr. Watts.

102. Electric Furnace. II; 3 cr. Construction, operation, applications. Mr. Watts, Mr. Hecker.

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. Kowalke.

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. Hecker.

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. Bain.

117b. Advanced Pyrometry. II; 1 or more cr. Continuation of 117a. Mr. Kowalke, Mr. Bain.

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. Bain, Mr. Hecker.

119b. Advanced Metallography. I or II; cr. to be arranged. Special problems. Mr. Bain, Mr. Hecker.

120. Industrial Organic Chemistry. II; 2 cr. Technology of organic chemical industries. Prerequisites: Chemistry 120. Mr. Hecker.

121. Analysis of Highway Bitumens. II; 2 cr. Oils, asphalts, asphaltic petroleums, tars. Mr. Hecker.

For Graduates

230. Chemical Engineering Research. Hours and credit by arrangement. Individual problems, conferences, and reports. Mr. Kowalke, Mr. Watts.

231. Seminary. 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; planning garden and industrial towns; planning and replanning of American cities. No prerequisites. Mr. Smith.

102. City Planning. II; 2 cr. Continuation of 101 with applications to housing operations and practical planning of land, traffic problems, terminals. 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. Callan, Mr. Goddard, Mr. Mack and special lecturers.

104. Mechanical Engineering Seminary. II; 1 cr. Preparation and discussion of papers on engineering and industrial problems. Open to seniors. Mr. Callan.

DRAWING

PROFESSOR PHILLIPS; ASSISTANT PROFESSORS MILLAR, ORTH; INSTRUCTORS GRENOBLE, MARKWARDT, 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, Mr. Markwardt.

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.

*On leave of absence 1916–17.

ELECTRICAL ENGINEERING

PROFESSORS BEEBE, BENNETT; ASSISTANT PROFESSORS DISQUE, PRICE, SHUSTER, WATSON; INSTRUCTORS CROTHERS, GRAY, KARTAK, KELSO, LANGE.

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.

103. Alternating Current Machinery. I; 3 cr. Prerequisite 144. Mr. Beebe.

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 103b, 111, or 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; applications 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. 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. 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.

140a. Elements of Electrical Engineering. I; 3 cr. Introductory course for sophomore electrical engineers. Open to students of other courses. Mr. Beebe.

140b. Elements of Electrical Engineering. II; 4 cr. (2 cr. class work and 2 cr. laboratory work). A continuation of 140a. Mr. Beebe.

141. Direct Current Machinery, Construction and Operation. I; 3 cr.

142. Alternating Current Theory. Fundamental laws. I; 2 cr.

143a. Alternating Current Machinery. Generator, synchronous motor. II; 2 cr.

143b. Alternating Current Machinery. Transformer, induction motor, commutator motor. I; 3 cr.

144. Direct Current Machinery. II; 3 cr. Similar in scope to 101a. Primarily for mechanical engineers. Prerequisite: Physics 52. Mr. Disque.

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, INSTRUCTOR CONRAD.

1. Contracts and Specifications. II; 2 cr. Engineering relations, legal, contractual, and personal; preparation of contracts, specifications, and other engineering papers.

FORESTRY AND WOOD TECHNOLOGY

H. D. TIEMANN (chairman); LECTURERS GERRY, KOEHLER, NEWLIN, TEESDALE.

101. Forestry and Utilization of Wood. I; 2 cr. Relation of forestry and utilization to conservation. Open to all Engineering students. Mr. Tiemann.

102. Wood Technology. II; 2 cr. Structure and identification of wood; physical and mechanical properties; kiln drying, preservation, utilization. For juniors, seniors and graduates. Mr. Tiemann, Mr. Koehler, Mr. Newlin, Mr. Teesdale.

110. Structural Timbers. II; 1 cr. Identification, preservation, mechanical properties, grading rules, and building codes. Prerequisites: Mechanics 3 and 4. Mr. Newlin, Mr. Koehler, Mr. Teesdale.

HYDRAULIC AND SANITARY ENGINEERING

Professor Mead; Associate Professor Corp; Instructors Conrad, Ward.

For Undergraduates

1. Elementary Hydraulics. I or II; 3 cr. Mechanics of fluids; theory, calibration and use of instruments. Prerequisites: Mechanics 1, 2. Mr. Corp, Mr. Ward.

2. Elementary Hydraulics. I or II; 4 cr. Similar to course 1 with additional recitation and laboratory work. Prerequisites: Mechanics 1, 2. Mr. Corp, Mr. Ward.

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.

104. Water Power Engineering. I; 3 cr. Investigation and development of water powers. Prerequisite: course 1. Mr. Mead, Mr. Conrad.

105. Hydraulic Machinery. II; 2 cr. Theory; selection and installation. Prerequisite: course 1. Mr. Mead, Mr. Conrad.

106. Sewage and Garbage Disposal. I; 1 cr. Development, disposal works, and methods of treatment. Mr. Corp.

110. Hydrology. II; 2 cr. Physical, geological, and meteorological relations of water to power, supply, irrigation, and sanitation. Mr. Mead, Mr. Conrad.

111. Water Supply. I; 3 cr. Domestic supply, commercial and fire service. Prerequisite: course 1. Mr. Mead, Mr. Conrad.

112. Sewerage, Drainage, and Irrigation. II; 3 cr. Prerequisite: course 1. Mr. Mead, Mr. Corp, Mr. Conrad.

113a. Hydraulic Design. I; 2 cr. Investigation of supply for power, irrigation, or municipal purposes. Prerequisite: courses 1, 110. Mr. Mead, Mr. Conrad.

113b. Hydraulic Design. II. Continuation of 113a. Individual design of some part of an hydraulic work. Prerequisites: courses 1, 110, 113a. Mr. Mead, Mr. Conrad.

114. Rivers and Canals. II; 1 cr. Improvement of internal waterways and harbors. Prerequisite: course 1. Mr. Mead, Mr. Conrad.

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. Prerequisites: 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.

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, 3. 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.

*On leave of absence 1916–17.

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.

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. Prerequisites: 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; 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

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; 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, submarine; 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 1917 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.

* On leave of absence 1916–17.

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. 173.

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, Instructor Boon.

1. Railway Curves. I or II; 2 cr. Computation and field location of simple, compound, and spiral curves and railway turnouts. Prerequisites: trigonometry, elementary surveying. Mr. Van Hagan.

2. Theory of Railway Location and Construction. I; 2 cr. Prerequisite: course 1. Mr. Van Hagan.

22. Practice in Railway Location and Construction. I; 3 cr. To be taken only in connection with 2. Mr. Van Hagan, Mr. Boon.

For Undergraduates and Graduates

103. Maintenance of Way and Structures. II; 2 cr. Prerequisites: courses 2, 22. Mr. Van Hagan.

104. Railway Engineering. I; 2 cr. For electrical and mining engineers. Prerequisite: trigonometry, elementary surveying. Mr. Van Hagan.

105. Economics of Railway Engineering. I; 2 cr. Prerequisites: courses 2, 22. Mr. Van Hagan.

107. Advanced Railway Design. I or II; 2 cr. Special problems in construction and maintenance. Open to seniors and graduates. Mr. Van Hagan.

108. Railway Signaling. II; 1 cr. Theory and design. Mr. Van Hagan.

110. Masonry Construction. II; 2 cr. Theory and design. Prerequisites: Mechanics 3, 51. Mr. Boon.

111. Substructures. II; 1 cr. Ordinary and deep foundations. Prerequisite: course 110. Mr. Van Hagan.

112. Estimates and Valuations. II; 2 or more cr. Theory and methods of valuing railways and public utilities. Mr. Boon.

ROADS AND PAVEMENTS

ASSOCIATE PROFESSOR SMITH, ASSISTANT PROFESSOR HECKER.

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. This course includes the instruction given in the course on Analysis of Bitumens for Highways. (Chemical Engineering 121) Mr. Smith, Mr. Hecker. For course in highway bridges see Structural Engineering 112.

SHOP WORK

ASSISTANT PROFESSOR GODDARD; INSTRUCTORS BRUNSELL, CHISHOLM, DABNEY, SCHUMANN, SCHMIDT; ASSISTANT PETERS.

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. Schmidt.

3. Elementary Forge Work. I or II; ½ cr. Mr. Schumann, Mr. Peters.

4. Lathe Work in Metals. I or II; 1 cr. Turning, boring, thread cutting. Mr. Dabney, Mr. Schmidt.

5. Planing and Milling. I or II; 1 cr. Surfacing, slotting, and gear cutting. Mr. Dabney, Mr. Schmidt.

6. Tool Making. I or II; 2 cr. Taps, reamers, counterbores, milling cutters. Prerequisites: courses 4, 5. Mr. Dabney, Mr. Schmidt.

7. General Shop Work. I or II; 2 cr. Manufacturing complete machines. Prerequisites: courses 4, 5. Mr. Dabney, Mr. Schmidt.

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. Shop management; seminary and laboratory; administration of course 7. 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, BERGGREN, 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. Aagaard, Mr. Berggren, Mr. Romig.

3b. Elementary Thermodynamics. II; 3 cr. Continuation of 3a. Mr. Aagaard, Mr. Berggren, Mr. Romig.

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; INSTRUCTOR GLAETTLI.

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.

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.

10. Structural Design. II; 2 cr. General course in roofs and buildings. For mechanical, electrical, and mining engineers. Prerequisites: Mechanics 1, 2. Mr. Kinne.

For Undergraduates and Graduates

105. Principles of Reinforced Concrete. I; 2 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Turneaure, Mr. Glaettli.

106. Concrete Arches. I; 2 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Glaettli.

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.

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 OWEN, CARGILL, SCHUSTEDT, SHUFFLEBARGER, WEAVER.

For Undergraduates

1. Elementary Surveying. I; 2 cr. Use of chain, tape, and level; platting of field notes. Mr. Owen, Mr. Schustedt.

2. Elementary Surveying. II; 2 cr. Continuation of 1, use of level, compass, and transit. Mr. Owen, Mr. Schustedt.

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. Schustedt.

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. Schustedt.

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. Shufflebarger, Mr. Weaver, Mr. Cargill.

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. Owen, Mr. Schustedt.

109. Rapid Topography. II; 2 cr. Use of plane table and aneroid barometer. Adapted for training topographers for the Geological Survey. Mr. Owen.

110. Mining Surveying. I or II; 2 cr. Underground survey of university tunnels; mining problems. Mr. Owen.

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 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 judging 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 classrooms. 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 has been

constructed of concrete and steel and provides 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 15,800 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 College 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 research are continually in progress, affording properly qualified students excellent opportunities to secure training of special character.

By statute, the licensing of feeding stuffs is placed under the Department of Chemistry, the inspection of seeds under the Agronomy Department, the enrollment of stallions under the Department of Horse Breeding, and the manufacture of hog cholera serum under the Veterinary Science Department.

Farm Experience

Before graduating from the four year course a student must have had at least six months of actual farm experience satisfactory to the executive office of the College of Agriculture.

Before a Middle Course student can begin the second year of his work he must have had at least one year of practical farm experience satisfactory to the executive office of the College of Agriculture.

The College of Agriculture maintains an employment bureau to aid students in securing positions on farms where they may gain the required farm experience.

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 and following.

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 $125 to $150 for the term 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.

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.

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 to pursue in four years all the courses offered in addition to acquiring the necessary fundamental studies, and hence much liberty of selection is allowed.

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.

Course 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. 255 and 325 of this catalogue; also the Long and Middle Course Circular.)

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.

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.

Winter Dairy Course. This course is open to persons who have had at least 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 butter makers and factory cheese makers 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.

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

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 5, 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.

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.

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.

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.

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.

Farmers' 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 Farmers' Course.

Fellowships and Scholarships

Two fellowships of $400 per year each and four scholarships of $225 per year each are offered graduate students in Agriculture and one fellowship in Home Economics. Applications for these honors

must be made to the Registrar of the University on proper forms by March 1.

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 $1,500 which is available to students in the College of Agriculture. This is to be lent to needy students in small amounts without interest. If note is not paid at time of maturity, interest at the rate of 6 per cent will be charged until it is paid.

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 meet the requirements of **A** must take either French or German as follows:

Entrance Language	University Requirement
1. Two units	8 cr. French or German
2. None	16 cr. French or German

The 8 credits of beginning language will be counted as electives outside the College of Agriculture when 14 credits are presented for entrance.

In calculating the hours per week for the various studies, two hours of laboratory, field, or barn practice count as one hour of classroom 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 NOT REQUIRED TO TAKE FOREIGN LANGUAGE

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 11Ag. (L. & S.)	$2\frac{1}{2}$
Chemistry 120 (L. & S.)	$2\frac{1}{2}$
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.) or Physiology 3 (Animal Physiology)	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, and 13, 14 or 15	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 and 13, 14 or 15 (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

*Students who enter with fourteen credits for entrance but no foreign language must first take beginning German or French, 8. This will be counted as electives outside the College of Agriculture.

Sophomore Year

FIRST SEMESTER

Chemistry 11Ag. (L. & S.)	2½
Organic Chemistry 120 (L. & S.)	2½
Agricultural Bacteriology 1	5
Botany 1 (L. & S.)	5
Horticulture 1	3
Total	18
Military Drill	1
Physical Education	1

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.) or Physiology 3, (Animal Physiology)	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. Beginning with the freshmen who entered in 1915–16, 135 grade points must be earned before graduation from the Long Course. (See p. 81.)

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. 312.

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 total requirements for graduation in the Middle Course are 68 credits. Beginning with the class entering September, 1915, 68 grade points will be required in addition to the 68 credits. All Middle Course students are required to take two full years of military drill and gymnasium work. (See p. 323.)

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. 312.) 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 FOR THE PREPARATION OF TEACHERS OF AGRICULTURE

MIDDLE COURSE

Graduates of the Middle Course who complete Education 1, 6, 11, or 41, for two credits; the course in Agricultural Education 1, 4 credits; and two of the following subjects: Agronomy 140, Animal Husbandry 128, and Dairy Husbandry 110, 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. It is suggested that the student select his electives from the following group:

First Semester Group

	Credits
Agronomy 120	3
Agricultural Engineering 2	2
Economic Entomology 101	3
Veterinary Science 3	2

Second Semester Group

	Credits
Horticulture 3	3
*Poultry 2	2
Soils 2	3
Veterinary Science 2	2
Agricultural Economics 10	3

Long Course

Graduates of the Long Course properly registered in the Course for the Training of Teachers, presenting credit in the following special work, will be entitled to receive the University Teachers Certificate, upon recommendation of fitness by the professor of Agricultural Education: Philosophy (1), three credits; Education (1, 6, 11, or 41) two credits; Educational Practice A, two credits; Agricultural Education 1, four credits; Teachers Courses in the College of Agriculture but not in the major department, (Agronomy 140, Animal Husbandry 128, and Dairy Husbandry 110), four credits.

*Given in second semester of first year.

DEPARTMENTS OF INSTRUCTION

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

PROFESSORS FROST, HASTINGS (chairman); ASSOCIATE PROFESSOR FRED; ASSISTANT PROFESSOR WRIGHT; INSTRUCTORS BACHMANN, FULMER; ASSISTANTS ROEHM, SIMMONS.

FELLOW, 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. Wright, Mr. Fulmer, and staff.

2. General Survey. II; 3 cr. The relation of micro-organisms to decomposition processes. For students in the chemical course. Mr. Hastings, Mr. Wright.

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, Mr. Roehm.

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, Mr. Simmons.

125. Food Bacteriology. II.; 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. Seminary. Yr.; 1 cr.

AGRICULTURAL CHEMISTRY

Emeritus PROFESSOR BABCOCK; PROFESSORS HART (chairman), MCCOLLUM; ASSISTANT PROFESSORS TOTTINGHAM, PETERSON, STEENBOCK; INSTRUCTORS DRESCHER, NELSON, STROWD; ASSISTANTS PITZ, SCHAAL, SIMMONDS, SURE, WHITMORE, 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, Mr. Steenbock.

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, Mr. Steenbock.

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; cr. to arranged. A survey of important analytical processes used in the study of biochemical problems. 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. Seminary. Yr.; 1 hour. Mr. Hart, Mr. McCollum.

AGRICULTURAL ECONOMICS

PROFESSORS HIBBARD, OTIS, TAYLOR (chairman); ASSISTANT PROFESSOR GALPIN; INSTRUCTORS GUNN, JUVE, WATRUD; ASSISTANTS BECKER, ERDMAN, FOSTER, SAWTELLE.

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, Mr. Gunn.

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

102S. Traveling Field Course in Farm Management. 6 cr. Six weeks in the field. Arrangement must be made in advance. Mr. Otis.

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 cr. Mr. Taylor.

225. Rural Social Organization. I; 2 cr. The theory and practice of rural social development; units of rural populations; rural relations of minor cities; rural social surveys. Mr. Galpin.

226. Land Tenure. Yr.; 2 cr. An historical and comparative study of the economic status of the agricultural classes. Mr. Ely, Mr. Taylor.

227. Economic History of Agriculture. II; 2 cr. 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 marketing. 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. II; 4 cr. Origin and development with special reference to the teaching of agriculture in elementary and secondary schools. Methods of teaching secondary agricultural subjects. Mr. James, Mr. Hatch.

For Undergraduates and Graduates

103. Research. Yr.; cr. to be arranged. Mr. Hatch.

AGRICULTURAL ENGINEERING

ASSISTANT PROFESSOR WHITE (acting chairman), LIVINGSTON; INSTRUCTORS GRIFFITH, SAUVÉ, SCHINDLER; ASSISTANTS JONES, SMELKER.

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. Griffith.

5. Farm Machinery. I; 3 cr. Prerequisite: 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, 1½, or 2 cr. Special attention to farm tools. Mr. Dabney, Mr. Sladky, Mr. Zurian.

For Undergraduates and Graduates

101. Advanced Gas Engines and Farm Tractors. I or II; 2 cr. Laboratory and field tests of gas engines and farm tractors. Prerequisite: courses 3, 5 and 14. Mr. White.

120. Research. Credits to be arranged. Prerequisites: courses 2, 3, 4, 5, 6. Mr. White.

AGRICULTURAL JOURNALISM

Professor Hopkins (chairman); 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 Professors Graber, Leith, Stone; Instructors Garland, Lunz, Mortimer, Wright.

The courses in Agronomy are designed to give a thorough understanding of the general and scientific principles which underlie the production of farm crops; 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. Wright.

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 Crop Judging. II; 2 cr. Prerequisites: courses 1 and 120. Mr. Stone, Mr. Mortimer.

122. Official Seed Control. I; 2 cr. Includes marketing, warehouse handling, distribution, legislative control, and official testing of agricultural seeds. Prerequisites: Agronomy 1 and 120. Mr. Lunz.

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. Seminary. 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 KLEINHEINZ, MORRISON, OOSTERHUIS, TORMEY; INSTRUCTORS HARRIS, KUHLMAN; ASSISTANTS SCOTT, 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.

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.

128. The Teaching of Animal Husbandry. I; 2 cr. For students electing work toward a University Teachers Certificate. Mr. Tormey.

130. Swine and Sheep. I; 3 cr. Prerequisites: courses 1 and 2. Mr. Fuller, Mr. Kleinheinz.

131. Horses. I; 2 cr. Prerequisites: courses 1 and 2. Mr. Fuller.

132. Beef and Dairy Cattle. II; 3 cr. Prerequisites: courses 1 and 2. Mr. Tormey, Mr. Oosterhuis.

For Graduates

230. Live Stock Practice and Problems. Yr.; 1 to 3 cr. For graduates and students majoring in Animal Husbandry. Prerequisites: courses 1, 120, 124, 126. Mr. Humphrey and staff.

DAIRY HUSBANDRY

PROFESSOR FARRINGTON (chairman); ASSOCIATE PROFESSOR SAMMIS; ASSISTANT PROFESSOR BENKENDORF; ASSISTANTS MATTSON, DAHLBERG.

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. Mattson.

2. Advanced Milk Inspection. I; 3 cr. Sanitary and commercial tests of dairy products. Prerequisite: course 1. Lecture, Mr. Farrington; laboratory, Mr. Mattson.

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. II; 3 cr. Milk ordinances and Board of Health regulations. Prerequisite: course 2. Mr. Mattson.

Thesis. Yr.; 2 cr. Prerequisites: courses 2 and 3, 4, or 5. Mr. Farrington and staff.

For Undergraduates and Graduates

102S. Dairy Practice. 1 cr. for each forty-eight hours of work, with a maximum of 4 credits. Prerequisite: course 1. Mr. Benkendorf.

110. Dairying for Teachers of Agriculture. I; 2 cr. Prerequisite: course 1. Mr. Benkendorf.

120. Advanced Market Milk Problems. Yr.; 3 or 5 cr. Prerequisites: courses 2 and 5. Mr. Mattson.

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); INSTRUCTOR GENTNER; ASSISTANTS AEPPLER, FLUKE.

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. Gentner.

101S. Economic Entomology. 2 cr. First three weeks of summer session. Mr. Wilson.

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.

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, Mr. Aeppler.

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. Mr. Wilson.

EXPERIMENTAL BREEDING

PROFESSOR COLE (chairman); ASSISTANTS BACHHUBER, IBSEN, ROUSE, STEIGLEDER, WOODWORTH.

The following courses are designed for those 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

101. Principles of Breeding. I; 2 cr. Lectures and other work of course 1 with laboratory additional. Mr. Cole, Mr. Woodworth.

103S. Practice Work in Experimental Breeding. 2 or 3 cr. Prerequisite: course 101. Mr. Cole.

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.; 2, 3 or 4 cr. Mr. Cole.

For Graduates

225. Research. Yr.; cr. to be arranged. Mr. Cole.

FORESTRY

F. B. Moody, Lecturer in 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. Mr. Moody.

HORTICULTURE

Associate Professor J. G. Moore (chairman); Assistant Professors Aust, Johnson, Milward; Instructors Brann, Hepler, 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 or 3 cr. Prequisite: course 1. Mr. Potter.

2S. Horticultural Practice. 2 cr. (Omitted in 1917.) Mr. Moore.

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.

Thesis. Yr.; 2 cr. Mr. Moore, Mr. Johnson, Mr. Hepler, Mr. Potter.

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, VAUGHAN; LECTURER HUMPHREY; INSTRUCTOR BRANN; ASSISTANTS COERPER, GARDNER, 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.

1S. Plant Pathology. Last three weeks of summer session. 2 cr. Mr. Vaughan.

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.

*See also College of Engineering for lectures on City Planning.

Prerequisites: Botany 1 and Bacteriology 1. Mr. Jones, Mr. Johnson, Mr. Gardner, 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. (Omitted 1916–17.)

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.*

120. Diseases of Garden Crops. II; 2 cr. Arranged to meet the needs of students specializing in Plant Pathology and Horticulture. Mr. Jones, Mr. Walker.

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 Mussehl, 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. Poultry Raising. I; 2 cr. Mr. Halpin.

2. Poultry Raising. II; 2 cr. Continuation of course 1. Mr. Halpin.

*For further details see the Forest Products Laboratory, page 445.

3. Poultry Practice. Yr.; 1 to 3 cr. Mr. Hayes.

5. Artificial Incubation and Brooding. II; 1 to 3 cr. Prerequisites: courses 2 and 3. Mr. Hayes.

6. Poultry Judging. I; 3 cr. Mr. Hayes.

7. Advanced Poultry Management. II; 3 cr. Prerequisites: courses 1, 2, and 3. Mr. Mussehl.

8. Market Poultry. I; 1 or 2 cr. Practice in fattening, killing, and dressing. Prerequisites: courses 1 and 3. Mr. Mussehl.

Thesis. 2 cr. Mr. Halpin, Mr. Hayes.

SOILS

PROFESSOR WHITSON (chairman); ASSOCIATE PROFESSOR JONES; ASSISTANT PROFESSORS STEWART, TRUOG, WALSTER, WEIR; INSTRUCTORS GRAUL, 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. 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.

1S. Elementary Soils. 2 cr. Prerequisite: a course in general chemistry. Mr. Walster, Mr. Stewart.

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.

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. Seminary. 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. Hadley, Mr. Alexander.

For Undergraduates and Graduates

123. Conformation and Soundness. II; 2 cr. The relation of these characteristics to utility. Mr. Alexander.

124. Topical Work. Yr.; cr. to be arranged. Mr. Hadley, Mr. Beach, Mr. Coffman.

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, as 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 annual reports, 274 popular bulletins, 41 re-

search bulletins, 64 circulars, 9 poster bulletins, 16 special bulletins and 41 bankers' bulletins have been issued. Any person desiring to receive the popular bulletins should apply to H. L. Russell, Director, Madison, Wis.

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.

FARMERS' INSTITUTE

E. L. Luther, Superintendent. Alice Hibbard, Clerk.

The Department of Farmers' Institutes of the College of Agriculture is maintained by a legislative provision which appropriates $20,000 annually for the purpose of conducting Farmers' Institutes at various places throughout the state. The superintendent, in cooperation with the Wisconsin Live Stock Breeders' Association and the Wisconsin Horticultural Society, assisted by special conductors and workers, plans to conduct 125 Two-day, 22 Fruit, 20

Drainage and Light Soils, 20 Baby Beef, 16 One-day, 30 Potato, 10 Poultry, 6 Junior, and 14 Canning Institutes, during the year 1916–17. 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 30,000 copies and is distributed free of charge. A Women's Bulletin is also issued annually in an edition of 13,000 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, classrooms, 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 classrooms 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. Beginning with the freshmen who entered September, 1915, 120 grade points will be required for graduation. (See p. 81.)

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 for Course in Home Economics

Students entering with two units of German or French must take 8 credits of German or French in the University.

Students entering with any language other than German or French will be required to take 16 credits in German or French in the University. The 8 credits of beginning language will be counted as electives.

Students entering with no language, but having fourteen units for entrance, must take 16 credits of German or French, 8 of which will count as electives.

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 5, introduction to textile study	2
Home Economics 9, introduction to home economics	1
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 65 (L. & S.), lectures and laboratory practice in general physics	3
Agricultural Chemistry 3, (Household)	5
Physiology 1 (L. & S.), a general course of lectures and laboratory work in the elements of human anatomy and physiology	3
Home Economics 2, Art and Design	3
Electives	1 or 2
Total	15 or 16

Second Semester	
Physics 65 (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 50, textiles	3
Electives	3 or 4
Total	14 or 15

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, economic problems of food supply	3
Electives	4
Total	15

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

*Not required in the Food major.

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 Electives	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 chemistry; Botany 1—general botany; Chemistry 11—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 (347) 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 in strictly home economics subjects 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 nor 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. A minimum of ten credits of professional work is required. Courses numbered in the nineties may be counted as additional professional credits but are not to be counted as part of the 120 credits for graduation.

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 PROFESSORS DANIELS, SCHMIT; ASSISTANT PROFESSORS BINZEL, KELLEY; INSTRUCTORS AMERY, BOEING, BRECKON, DODGE, EARL, ECKHARDT, GRADY, HUNT, MANNING, PARSONS, ROBINSON, J. A. TURNER; ASSISTANTS COWLES, CULLINAN, KEPHART, MILLER, WILLSON.

For Undergraduates

1. General Survey. Yr.; 3 or 6 cr. I: Food; II: The house plan, first aids, cost of living, etc. Miss Parsons, 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; 3 cr. Continuation of course 3. Prerequisites: Agricultural Chemistry 3, Home Economics 3. Miss Hunt.

5. Introduction to Textile Study. I; 2 cr. Drafting, sewing, and textile study. Miss Manning 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.

9. Introduction to Home Economics. I; 1 cr. Lecture course required of freshmen in Home Economics. Home Economics Faculty.

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.

50. Textiles. II; 3 cr. Historical, economic, chemical, hygienic treatment. Prerequisites: Chemistry 1, Agricultural Chemistry 3, Home Economics 5. Miss Eckhardt and staff.

91s. Millinery. 2 cr. Summer school only. Miss Schmit.

92S. Hand and Machine Sewing for Teachers. 2 cr. Summer school only. Miss Manning.

95. Household Crafts. I; 2 cr. Miss J. A. Turner.

96. Household Crafts. II; 1 cr. Miss Schmit.

97. Costume Design. I; 3 cr. Prerequisites: Home Economics 11. Required in major in Textiles. Miss Schmit.

98. Experimental Cookery. I; 1 cr. Open to upper class students in Home Economics. Miss Marlatt, Miss Daniels.

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 sweatshop work. Miss Eckhardt.

104. History of Costume in its Sociological Aspect. I; 2 cr. Miss Schmit.

105. Experimental Food Study. I; 2 cr. Limited to seniors and graduate students. Miss Daniels.

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.

121. Teachers Course. I or II; 2 cr. Prerequisites: Home Economics major or minor. Miss Binzel.

122. Institutional Management. II; 4 cr. For seniors and graduates in Home Economics. Miss Breckon.

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.

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 20–21, and September 24–25, 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: English (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 seminary 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. Wickhem.

Common Law Pleading. I; 2 cr. Whittier's *Cases on Common Law Pleading*. Mr. Rundell.

Contracts. Yr.; 7 cr. (total for the year) Keener's *Cases on Contracts*, 2nd ed. Ballantine's *Problems in Contracts*. Mr. Richards.

Criminal Law. II; 4 cr. Beale's *Cases on Criminal Law*. Mr. Gilmore.

Property I. (Personal) I; 2 cr. Gray's *Cases on Property*, 2nd ed. Vol. I. Mr. Wilkie.

Property I. (Real) II; 3 cr. Gray's *Cases on Property*, 2nd ed. Vol. I. Mr. Rundell.

Torts. I; 4 cr. Ames and Smith's *Cases on Torts*. Mr. Gilmore.

Second and Third Years

Administrative Law I. 2 cr. Officers and elections. Selected Cases and Goodnow's *Cases on the Law of Public Officers*. Mr. Hall. (Omitted 1916–17.)

Administrative Law II. 2 cr. The law governing administrative action. Freund's *Cases on Administrative Law*. Mr. Hall. (Omitted 1916–17).

Administrative Law III. I; 2 cr. The law of taxation. Goodnow's *Cases on Taxation*. Mr. Hall.

Administrative Law IV. II; 2 cr. Municipal corporations. Selected cases and Beale's *Cases on Municipal Corporations*. Mr. Hall.

Bankruptcy. 2 cr. Holbrook & Aigler's *Cases on Bankruptcy*. Mr. Wilkie. (Omitted 1916–17).

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 the year). Hinton's *Cases on Code Pleading*. Mr. Boesel.

Code Practice. Yr.; 4 cr. (total for the year). Hinton's *Cases on Code Practice*. Mr. Sanborn.

Conflict of Laws. II; 3 cr. Beale's *Cases on Conflict of Laws*, shorter ed. Mr. Page.

Constitutional Law. Yr.; 6 cr. (total for the year). Hall's *Cases on Constitutional Law*. Mr. Gilmore.

Conveyancing. I; 3 cr. Gray's *Cases on Property*, Vol. III. Mr. Rundell.

Corporations. Yr.; 4 cr. (total for the year). Richards' *Cases on Corporations*. Mr. Richards.

Criminal Procedure. 1 cr. Mikell's *Cases on Criminal Procedure*. Mr. Gilmore. (Omitted 1916–17).

Damages. 2 cr. Beale's *Cases on Damages*. Mr. Wilkie. (Omitted 1916–17.)

Equity I. I; 3 cr. Ames' *Cases on Equity Jurisdiction*, Vol. I and II. General principles, specific performance and injunctions. Mr. Smith.

Equity II. II; 3 cr. Ames' *Cases on Equity Jurisdiction*, Vol. II and Keener's *Cases on Equity Jurisprudence*, Vol. III. Nuisance, account, interpleader, cloud upon title, reformation and rescission. Mr. Smith.

Equity Pleading. 1 cr. Selected cases. (Omitted 1916–17.)

Evidence. II; 4 cr. Thayer's *Cases on Evidence*. Mr. Smith.

Future Interests. II; 4 cr. Gray's *Cases on Property*, Vol. V, and selected cases. Future interests in land, powers, the rule against perpetuities, restraints on alienation at common law and in Wisconsin. Mr. Rundell.

Insurance. I; 2 cr. Wambaugh's *Cases on Insurance*. Mr. Wilkie.

International Law. II; 2 cr. Scott's *Cases on International Law*. Mr. Hornbeck.

Mortgages. 2 cr. Kirchwey's *Cases on Mortgages*. Mr. Wilkie. (Omitted 1916–17.)

Office Practice. II; 1 cr. Mr. Wilkie.

Partnership. 3 cr. Gilmore's *Cases on Partnership*. Mr. Rundell. (Omitted 1916–17.)

Persons. II; 2 cr. Kales' *Cases on Persons*. Mr. Wilkie.

Practice Court. II; 1 cr.

Professional Ethics. II; no credit. Chief Justice Winslow.

Property II. II; 2 cr. (Rights in the land of another, natural rights, easements, covenants as to use of land.) Gray's *Cases on Property*, Vol. II. Mr. Wilkie.

Property III. See Conveyancing.

Property IV. II; 3 cr. Wills and Administration. Gray's *Cases on Property*, Vol. IV. Mr. Page.

Public Service Companies. II; 2 cr. Green's *Cases on Carriers*. Mr. Gilmore.

Quasi-Contracts. I; 3 cr. Thurston's *Cases on Quasi-Contracts*. Mr. Smith.

Sales. I; 3 cr. Williston's *Cases on Sales*. Mr. Smith.

Suretyship. 2 cr. Ames' *Cases on Suretyship*. Mr. Wilkie. (Omitted in 1916–17.)

Theory of Legislation. II; 2 cr. Mr. Lloyd-Jones.

Thesis Course. Legal History. II; 2 cr. Mr. Page.

Trusts. I; 4 cr. Ames' *Cases on Trusts*. 2nd ed. Mr. Rundell.

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 25,500 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 nor 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 1917 begins June 25 and continues until August 31.

For summer session courses, see p. 465.

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 premedical 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 credits (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. The same number of grade points are also required (For details see p. 81). 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 classroom 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

*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.

Second Year Medical Course	*Lectures and Recitations.*	*Laboratory Hours.*	*Credits.*
Pathology	80	192	8
Bacteriology and Hygiene	64	112	5
Pharmacology and Toxicology	64	144	6
Clinical Medicine	64	128	6
	272	576	25

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.....5 credits per semester
Biology 1.....5 credits per semester
Organic Chemistry 120.....4 credits one semester
Embryology 115.....2 credits second 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

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	10 credits
Thesis	2 credits	Thesis	2 credits

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 1917–18. 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	Second Semester	Credits
Hygiene 102	5	Hygiene 106	3
Hygiene 110	2	Hygiene 120–121	5
Hygiene 115	2	Hygiene 125	2
Hygiene 125	3	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

Professors Bardeen, W. S. Miller; Instructor Skavlem; Assistants Burns, Roantree, Ryan, Strasser, Tupper.

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. Mr Skavlem.

110. Histology and Organology. I; 4 cr. Dr. Miller.

115. Mammalian Embryology. I; 2 cr. Dr. Bardeen.

120. Anatomy for Students of Physical Education. II; 6 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; Lecturers Dean, Drake, Jackson, Tormey; Instructor Drane; Assistant Richdorf.

101. Clinical Diagnosis. II; 5 cr. Normal and pathological clinical diagnosis; bedside instruction and medical clinics.

102. Clinical Laboratory Diagnosis. II; 3 cr. Examination of urine, blood, gastric contents, feces, sputum, and exudates in pathological conditions.

103. Surgery. II; 1 cr. Lectures and practice, minor surgery and bandaging, surgical clinics.

104. Advanced Clinical Laboratory Work.

105. Medical Specialties. II; 1 cr.

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. I, 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 the 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. I; 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.

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 workshops; 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 HARALSON, NEUMANN; ASSISTANTS BOGART, CAMPBELL.

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. Haralson, Mr. Neumann.

102. Medical Bacteriology. I; 5 cr. Considers the bacteria and protozoa which are especially concerned in the production of disease processes. Dr. Clark, Dr. Haralson, Mr. Neumann, Mr. Bogart.

103. Experimental Pathology. II; 4 cr. Dr. Bunting, Dr. Haralson, Mr. Neumann.

106. Oncology. II; 2 cr. A study of tumors. Prerequisite: course 101. Dr. Bunting, Dr. Haralson.

104. Immunity. II; 3 cr. Prerequisite: course 102. Dr. Clark, Mr. Neumann.

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 MARTIN; ASSISTANT MALONE.

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 GIBSON, HODGES, KILEY, 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 chemistry. 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.

3. Animal Physiology. II; 4 cr. Especially designed for students in Agriculture, but open to other students. Dr. Meek.

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.

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 incidental fee.

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 "cooperating 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, the 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 Department of Political Economy, For further information application may be made to the Civil Service Commission or to the University Registrar.

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.

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.

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 approximately $550.

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.

Hollister Fellowship in Pharmacy

Mr. and Mrs. Albert H. Hollister, late of Madison, by separate wills conveyed to the Regents of the University legacies, now amounting to $10,328, for the establishment and maintenance of a fellowship in Pharmacy. The annual income of this sum is allotted to a graduate student appointed upon recommendation of the Department of Pharmacy.

The Milwaukee Graduate Fellowships and Scholarships in German

Through the generosity of a number of citizens of Milwaukee interested in the promotion of advanced studies in German in the University, there have been established seven graduate fellowships in German of the annual value of $400 each and four graduate scholarships of the annual value of $200 each. These fellowships and scholarships will be available for a period of five years beginning with the academic year 1917-1918, except in the case of the Joseph Schneider Fellowship which has been established for a period of three years.

The following are the fellowships and scholarships thus established:

The Albert F. Gallun Graduate Fellowship in German.
The Gustav Pabst Graduate Fellowship in German.
The Charles F. Pfister Graduate Fellowship in German.
The Joseph Schneider Graduate Fellowship in German.

The Charlotte Trostel Graduate Fellowship in German, established by Mr. Albert O. Trostel in memory of his mother.

The Alfred Uhlein Graduate Fellowship in German.

The Fred Vogel, Jr. Graduate Fellowship in German.

The Albert C. Elser Graduate Scholarship in German.

The Henry Schoellkopf Graduate Scholarship in German, established by Mrs. Emilie Nunnemacher and Mrs. Wm. H. Schuchardt.

The two Albert Trostel Graduate Scholarships in German, established by Mr. Albert O. Trostel in memory of his father.

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, Madison, Wis., 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 bac-

calaureate 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.

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. The degree presupposes training in foreign language substantially equivalent to that required in the University of Wisconsin for the Bachelor of Arts degree. The University reserves the right to test by its own methods the adequacy of such training.

The degree, Master of Science, connotes a considerable attainment in mathematical, physical or biological science and will be conferred only upon candidates adequately trained in this field. The undergraduate preparation should be equivalent to that leading in the University of Wisconsin to the B. S. degree or to the B. A.

or Ph. B. degree with major 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 Degree in Medicine

The degree, Master of Public Health, will be conferred upon graduates of approved medical colleges who satisfactorily complete one year of graduate work in sciences related to public health. For a detailed statement regarding this degree application may be made to the Registrar.

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 cannot 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.

Doctor of Philosophy

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 Section 3.

3. Admission to Candidacy.—Preferably nine months and at least seven months prior to the oral examination provided in Section 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 Section 4.

4. Oral Examinations.—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 Section 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 Sections 3, 4, 5, and 8, or (b) upon absolving the requirements of Sections 3, 4, 5, 6, and making the deposit named under Section 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

(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 cannot 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, nonresident 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.

VI. Guided study outlines for program material to aid various organizations in their club work.

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 employe'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

INSTRUCTOR EATON.

1. Popular Astronomy.

Botany

PROFESSOR ALLEN; ASSOCIATE PROFESSOR OVERTON; ASSISTANT PROFESSORS DENNISTON, 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

PROFESSORS GILMAN, SCOTT; ASSOCIATE PROFESSOR ELWELL; INSTRUCTORS CLARK, IRWIN, KUECHENMEISTER, LANGMAS, LEE, MARSH, NICHOLS, READ.

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; 191A. Retail Advertising.

Other Subjects

102. Commercial Correspondence; 114. Commercial and Industrial Geography.*

Chemistry

PROFESSOR KAHLENBERG; ASSISTANT PROFESSOR KRAUSKOPF.

1. Elementary Chemistry*; 2. Qualitative Analysis.*

Education

PROFESSORS HENMON, O'SHEA; ASSISTANT PROFESSORS HENDERSON, SEYBOLT, STARCH; INSTRUCTOR HOYT.

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*; 20. Course for Industrial Teachers.

Electrical Engineering

ASSOCIATE PROFESSOR JANSKY; ASSISTANT PROFESSOR WINNING; INSTRUCTORS HOBBS, JACKLIN, KRANZ, MITCHELL, NESBITT, WINN.

301. Elementary Electrical Mathematics; 310. Elementary Magnetism and Electricity; 311. Direct Currents and Direct Current Machinery; 312. Theory of Alternating Currents; 313. Alternat-

ing Current Machinery; 314. Electric Lamps and Illumination; 316. Central Electric Stations; 317. Electric Power Transmission; 318. Telephones and Telephone Apparatus; 319. Commercial Electrical Measuring Instruments; 319A. Watt-hour Meters; 320. Testing of Electrical Machinery; 322. Electric Batteries; 322S. Storage batteries; 323. Electrical Central Station Distribution Systems; 324. Electric Wiring; 330. Electrical Engineering Mathematics.

English

ASSISTANT PROFESSORS BEATTY, GARDNER, PITMAN; INSTRUCTORS BASCOM, BURD, NICHOLS, SHAFER.

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*; 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; ASSISTANT PROFESSOR REED; INSTRUCTOR GALLAND; ASSISTANT 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; ASSISTANT HENNING.

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*; 113B. Ancient Classical Drama in English.*

Health

DR. DEARHOLT, DR. D. R. 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; ASSOCIATE PROFESSOR CONLEY; INSTRUCTORS JENSEN, D. R. MENDENHALL, A. 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; 19. The House and Its Management*; 20. Food and Nutrition*; 21. Applied Design*; 22. Selection and Preparation of Foods*; 25. Cooking for Rural School Teachers; 26. Sewing for Rural School Teachers; 27A and 27B. Cooking and Sewing (combined course for Rural School Teachers).

Italian

PROFESSOR SMITH; ASSISTANT PROFESSOR REED; INSTRUCTOR 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: Andria and Phormio*; 14. Horace: Odes*; 15. Horace: Satires and Epistles*; 16. Catullus*; 17. Roman Mythology*; 20. Cicero: Letters*; 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; ASSOCIATE PROFESSOR DOWLING; ASSISTANT PROFESSOR BURGESS; INSTRUCTOR HOLT.

1. Elementary Algebra; 3. Plane Geometry; 4. Solid Geometry; 5. Plane Trigonometry*; 6. University Algebra*; 7. Analytic Geom-

etry*; 8. Elementary Calculus*; 11. Practical Arithmetic; 12. Mensuration and Practical Geometry; 13. Practical Algebra; 14. Practical Trigonometry and Logarithms; 15. Practical Calculus; 62. Elementary Algebra Review; 201A and 201B. Shop Mathematics; 40. Algebra for Engineers; 41, 42, and 43. Elementary Analysis*; 44. Differential Calculus*; 45. Integral Calculus*; 46. Integral Calculus*; 51. Agricultural Mathematics*; 55. Commercial Arithmetic; 56. Commercial Algebra*; 57. Mathematics of Life Insurance*; 65. Advanced Calculus*; 66. Differential Equations*; 67. Theoretical Mechanics*; 68. Higher Algebra*; 69. Differential Geometry.*

Mechanical Drawing

PROFESSOR PHILLIPS; ASSISTANT PROFESSORS HOGAN, MILLAR; INSTRUCTORS HILLS, 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; INSTRUCTORS HILLS, HOBBS, JACKLIN, LEHMANN, MITCHELL, NESBITT, WINN.

201A. Shop Arithmetic; 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; 213. Practical Hand Firing; 214. Principles of Steam Engineering; 215. Heat; 216. Boilers; 217. Steam Engines; 219A. Gas and Oil Engines; 219B. Gas Producers; 219C. Gas Engine Design; 219D. Gasoline Automobiles; 219E. Gas Engine Ignition; 220. Test Methods; 222. Refrigeration; 223. Heating and Ventilation; 224. Power Plant Economics; 225. Compressed Air; 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.*

Municipal and Sanitary Engineering

ASSISTANT PROFESSOR BASCOM.

501. Roads and Pavements; 512. Disposal of Sewage.

Music

PROFESSOR DYKEMA, INSTRUCTOR TOWNSEND.

1C. Theory of Music; 5C. Elementary Harmony*; 31C. 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; INSTRUCTORS LANGENHAN, 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, INSTRUCTOR KRANZ.

1. High School Physics; 51E and 52E. Physics for Engineers; 5 and 6. University Physics; 87. Elementary Physics Review.

Political Economy

PROFESSORS ELY, ROSS, SCOTT, GILLIN; ASSOCIATE PROFESSOR HESS; ASSISTANT PROFESSOR MELVILLE; INSTRUCTORS JAMESON, MCKAY.

1. Elements of Political Economy*; 2. The Labor Movement*; 3. Transportation*; 4. Socialism*; 5. Economics of Saving and Investment; 7. Commercial Geography*; 10. Elements of Money and Banking*; 10A. Brief Course in Money and Banking; 186A. Banks and Banking; 186B. Commercial Law and Negotiable Instruments; 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; ASSISTANT PROFESSOR REED; INSTRUCTOR GALLAND.

1 and 2. Elementary Spanish*; 3 and 4. Intermediate Spanish*; 7 and 8. Don Quijote.*

Structural Engineering

ASSOCIATE PROFESSOR HOOL, INSTRUCTORS FULLER, THIESSEN.

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; 431. Structural Steel Drafting and Elementary Design.

Surveying

ASSOCIATE PROFESSOR HOOL, ASSISTANT PROFESSOR BASCOM.

441. Plane and Topographic Surveying with Field Problems.

Teachers' Reviews

PROFESSOR WHITBECK; ASSOCIATE PROFESSORS CHASE, JANSKY; ASSISTANT PROFESSORS BEATTY, BURGESS; INSTRUCTORS BASCOM, GANGSTAD, HOYT, KRANZ, VAN DEUSEN.

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 CHAUTAUQUAS. 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 and advertising in the local papers, 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 parcel 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 Textbooks; 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. A list of the bulletins available will be mailed upon request.

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 worthwhile subjects. This service is restricted to residents of Wisconsin. In order that material may be selected judiciously, it is essential that the request for a package library state definitely the purpose for which the information is desired, and the latest date upon which it would prove of value. The same material cannot be used to the best advantage by a rural school pupil and a member of a woman's club.

The department aims to cooperate in every possible way with local librarians. Requests from communities which have public libraries should state what is available there, thus avoiding unnecessary duplication and expense. The requests from librarians and from citizens in communities having no library facilities are given preference.

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 nontechnical 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 Bureau of Civic, Commercial and Community Development; the Health Instruction Bureau; and the Community Music Bureau have been organized, each with an expert on the particular field in charge.

Bulletins on the service of any one of these branches of work may be secured on request.

Exhibits

In addition to specific lines of activity named below under the various bureaus, the Department of General Information and Welfare provides, for the general good, 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 two score community and social service institutes held in various parts of the state, and in twenty Wisconsin Week programs during the past three years. 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.

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 bankers of the

state. The Extension Division will arrange for and conduct vocational institutes of one or more days' duration as desired.

Community Music Bureau

To enable the people of local communities to develop their musical interest, 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.

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 established for the service of the cities of the state. It collects and furnishes technical information on all subjects of municipal organization and administration, public works, public utilities and public service rates, commission and city manager government, home rule, civic organizations, and gives also information on municipal employment, paving, parks and playgrounds, housing, dust prevention, smoke abatement, city planning, civic centers, art commissions, care of city trees, schools, accounting methods, comparative statistics, 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.

Municipal and Sanitary Engineering Service

There is offered technical assistance to communities in the solution of problems in municipal and sanitary engineering. The subjects covered by this branch of service are: water supply, sewerage

and sewage disposal, roads and pavements, refuse and garbage disposal, general sanitation, street cleaning and sprinkling, city planning, plumbing regulations, and other engineering subjects touching the welfare of the communities of the state.

This service is rendered by a municipal and sanitary engineer, and is free except that the expense of travel must be paid by the community served if it is found necessary to make a trip.

Civic, Commercial and Community Development Bureau

Community organizations are a necessary and vital factor in the development of community life. Individuals can do something in this direction. But collective action, team play, where each submerges his identity for the time being in behalf of the community as a whole, accomplishes more. The slogan of the day is, "Individuals prosper as the communities in which they live thrive."

Community Centers

Advice is given on the organization and conduct of community gatherings. The use of public buildings, especially school buildings for these community assemblies, is encouraged. These gatherings are non-partisan, non-sectarian meetings, designed to promote the civic, social and educational welfare of the community. Suggestions on preparation of programs and construction of school buildings to provide for community center activities may be had through personal correspondence with the bureau.

Service to Commercial Clubs

The modern commercial club is a community organization. It has two functions. It seeks to develop both the civic and the commercial life of the community. It is hoped that this bureau will constitute a clearing-house for information relating to the activities of these bodies. It is desired to cooperate in every way with Chambers of Commerce and Advancement Associations, to furnish speakers from time to time for regular monthly and special meetings, to aid in the organization and reorganization of commercial clubs, and to suggest ways and means of increasing their efficiency, and thereby their usefulness.

Community Institutes

A number of community institutes are held each year for towns and cities having special problems of a civic, a social, an educational,

or a commercial nature to solve. The institute is carried on for two or three days in each place. The program is built for the peculiar needs of the town after a careful survey of local situations has been made. There is something for the farmer, the business man, the housewife, the boys and girls, and the community at large. Motion pictures, illustrated lectures, charts and exhibits, are used to make clear and vivid the best available knowledge on the problems under consideration.

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. News health items are widely disseminated throughout the state, and exhibits, lectures, and correspondence-study courses are doing their work of educating the public in measures of prevention, care, and cure. The bureau undertakes to translate and make available the knowledge of the scientific departments through the main channels indicated. For this purpose it maintains a close relationship with a number of extra-mural and federal departments and organizations from, and in cooperation with which, information is secured and disseminated.

Visual Instruction Bureau

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 materials within easy and constant reach of all schools and other civic 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 1915–16 nearly 20,000 lantern slides on more than 200 subjects and 150,000 feet of motion picture film on 125 subjects were available for use through this bureau. Six circuits were established on which the material was routed weekly to 175 schools which applied for regular service for 25 weeks in succession. In addition occasional service is being given frequently to schools and civic organizations not in circuits.

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 Bachelor of 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.

COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF 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, intonation, 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.

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 cr.; Theoretical subjects: Harmony A; Solfeggi 71; Harmony 1, 3 cr.; English 1a, 3 cr.; *French, German or Italian, 4 cr.; History, 3 cr.; Physical Education. Total 15 cr.

Second semester: Same as first. Total 15 cr.

*French 1, 4, 10. German 1a to 2b, 3, 14. Italian 101.

Sophomore Year

First semester: Applied Music: 2 half-hours of instruction and not less than 6 hours of practice per week, 2 cr.; Theoretical subjects: Solfeggi 75, 1 cr.; Harmony 11, 3 cr.; Aesthetics 61, 2 cr.; English 30, or other electives in English, 2 or 3 cr.; French, German, or Italian, 4 cr.; Music Electives, 2 cr.; Physical Education. Total 15 or 16 cr.

Second semester: Same as first semester. Total 15 or 16 cr.

Junior Year

Music 21, Counterpoint, 2 cr.; Music 31, History, 2 cr.; Music, Prescribed electives, 5 cr.; Letters and Science, *Electives 3 cr.; Electives, 3 cr. Total 15 cr.

Senior Year

Music 35, Thesis, or Music 35, Recital, 2 cr.; Music, prescribed electives, 4 cr.; Music, free electives, 3 cr.; Letters and Science, **Electives, 6 cr. Total 15 cr.

Prescribed Electives

Advanced Harmony, Music 102
Advanced Counterpoint, Music 112
Canon and Fugue, Music 122
Ensemble Music 85 and 86
Selection and Interpretation of Materials 78
Applied Music 81–2–3–4
Pedagogical subjects
Practical Instrumentation 89

The maximum credits for students in individual instruction in Applied Music will be 16.

Music total	66
Letters and Science	54 or 56
Total	120†

All candidates for the degree of Bachelor of Music are required to pursue their studies in accordance with the above schedule.

*Psychology and education, three credits required for students registered in the Course for the Training of Teachers.

**Physics 1 including Acoustics by arrangement with Department of Physics.

†The same number of grade points are also required.

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 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 advisor appointed by him. Two credits are allowed for either recital or thesis. The latter is subject to the usual regulations.

Department of Public School Music

PROFESSOR DYKEMA, CHAIRMAN.

Course for Supervisors of Music in Schools

This is a two or three year course designed for those who wish to fit themselves for the supervision of music in the public schools.

For entrance requirements see Admission page 92.

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 credit for work in pianoforte, violin and 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 1, 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

Music 41, Methods, 3 cr.; Music 42, Practice, 1 cr.; Music 1, Harmony, 3 cr.; Music 71, Solfeggi, 0 cr.; Music 61, Aesthetics, 2 cr.; Music 89, Practical Instrumentation, 1 cr.; Music 77, Choral Union, Letters and Science, Education 44, 2 cr.; English 1, 3 cr.; Physical Education 6. Total 15 cr.

Second Year

Music 51, Methods, 2 cr.; Music 52, Practice, 2 cr.; Music 11, Harmony, 2 or 3 cr.; Music 75, Solfeggi, 1 cr.; Music 31, History, 2 cr.; Music 76, Thesis, Music 77, Choral Union. Letters and Science, *Electives, 6 cr.; Physical Education. Total 15 or 16 cr.

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 (Prof. V. A. C. Henmon, University Hall, 217), providing:

(a) That the student registers in the Course for the Training of Teachers not later than December 1st of the first year of residence:

*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).

(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. This 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, Freehand Drawing and Illustration (second semester); Course 52, Methods, Public School Drawing and Design (first or second semester); Course 53, Practice Public School Drawing and Design (throughout the year); Course 1, Elements of Mechanical Drawing (throughout the year).

Instruction in Applied Music

Pianoforte: Mr. Mills, Miss Regan, Mr. Townsend, Miss Carter.
Voice Culture: Mr. Chamberlain, Miss Bergman, Miss Currie.
Organ: Mr. Mills, Miss Eastman.
Violin and Viola: Mr. von Geltch.

Orchestral Instruments

Violoncello and Double-Bass:
Wood-Wind Instruments: Mr. Saugstad.
Brass Instruments: Mr. Saugstad.

Orchestra

MR. SAUGSTAD.

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 military credit. 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. CHAMBERLAIN.

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

MR. MILLS.

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 in a program when they are, in the instructor'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
Nonresident tuition, per semester	$62 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 Supervisor of Music Certificate must pay the incidental fee of $12 a semester, but neither the incidental fee nor nonresident 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

Note.—No deductions are made for absences except in cases of protracted illness, when a rebate of one-half the fee for the time lost will be granted. All university holidays will be observed without make-up of lessons.

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 after the second lesson without receiving notice that the student's fees are paid.

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. 25, 27, and 28, 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

T. E. JONES, CHAIRMAN.

PROFESSORS HETHERINGTON, WITHINGTON; ASSOCIATE PROFESSOR MEANWELL, Director Men's Gymnasium; ASSISTANT PROFESSORS TRILLING, Director Women's Gymnasium, ELSOM, JONES; INSTRUCTORS BROWN, BROWNELL, DRIVER, FORBES, HINDMAN, LIPPITT, MCKEE, MCCHESNEY, QUICK, STEVENSON, VAIL; ASSISTANTS AYER, BUCK, KING, STEINAUER, SOUCY; STUDENT ASSISTANTS WYATT, WHITE, DOHERTY, 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, bathrooms 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 by 60 feet, visitors' gallery, stage, and running track. The concert room, 72 by 42 feet, is used for smaller classes. An auxiliary class and game room, 42 by 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 by 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 boathouses next to the men's Gymnasium on the shore of Lake Mendota contain ten 8-oared shells, two 8-oared barges, two 4-oared shells, two 4-oared barges, two 4-oared gigs and 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 indoor or 3 outdoor 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 exercises 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.

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 $1.25 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 20, 1917, 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 22, 1917.

All required activities of the Department of Physical Education begin Thursday, September 27, 1917. 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 subcommittee 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

(See also pp. 189—192 and p. 250 or p. 262.)

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 center 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 in stincts 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, physiology and psychology. 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.

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 (Physiology 116), 108, 114, courses 21–50 (at least four credits) and thesis (4 credits) a total of 32 credits; Physical Education 16 or Education A; Education 1 or 6 or 11 or 41, Anatomy 121, Physiology 114, and 105 or 115 and satisfy prerequisites in biology, chemistry, and psychology, or their equivalents. Additional credit in Physical Education may be secured in courses 16, 55, 107, 66, 68, and 21–50.

Minor

The requirements for a minor are designed especially for students preparing to teach some other subject in the schools and assist in physical education.

Students electing Physical Education as a minor subject must take courses 20 for at least two years, 59 or 107, 67 (2 credits) and 16 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 Zoology 1a or 1b or Physiology 1 and 2, Philosophy 1, and Elementary Education at least 3 credits.

State Teachers Certificate

Graduates majoring in Physical Education will be entitled to receive the state teachers certificate offered in the Course for the Training of Teachers, page 262, by fulfilling the requirements in Physical Education and 6 hours in Education.

They will also be entitled to a special state certificate given by the State Board of Examiners.

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.

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.

For Professional Students

19. Practice Teaching. Cr. to be arranged. Mr. Hetherington and Miss Trilling.

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 and two years for minor students.

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.

16. First Aid to the Injured. I; 1 cr. Mr. Elsom.

55. History of Physical Education. II; 2 cr. Mr. Elsom.

56. Kinesiology. II; 2 cr. Prerequisites: course 20 and Anatomy 121. 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. Prerequisite: Philosophy 1. Mr. Hetherington.

62. Growth and Development. I; 2 cr. Growth and development of tissues and organs in relation to organic and neuro-muscular education. Prerequisites: Zoology 1a and 1b or Physiology 1 and 2 and Philosophy 1. Mr. Hetherington.

114. Medical Examinations. II; 3 cr. (Clinical Medicine 101). Prerequisites: Anatomy 121 and Physiology 105 or 115. Mr. Evans.

63. Physical Examinations and Gymnastic Therapeutics. Yr.; 2 cr. Prerequisites: Anatomy 121 and Physical Education 56. Either preceded by or taken in conjunction with Physical Education 107 and 114. Mr. Elsom, Miss Lippitt.

66. The Management or Practical Conduct of the Playground. I; 1 cr. Prerequisite: course 59. Must be accompanied by course 22 or 42. Mr. Meanwell.

67. Principles of Teaching and Adaptation. Yr; 2 cr. 1st semester: The psychology of leadership, coaching, etc. 2nd se-

mester: Principles of selection, evolution and adaptation of motor activities to individuals and groups, differentiated by sex and age. Minors may take the first semester alone. Prerequisites: courses 20 and 59, or 107 and for the second semester 56 and 107. Mr. Hetherington.

68. Organization and Administration of Physical Education. I; 3 cr. Prerequisites: courses 20, 59, 67, and 108. Mr. Hetherington.

70. Educational Athletics. I; 1 cr. Values; analysis of evils and origins; problems in the successful organization for the masses. Prerequisite: course 59 or 108. Mr. Hetherington.

71. Scouting and Other Adolescent Organizations. Theory and Practice. II; 2 cr. Adolescent tendencies; the theory of scouting and adolescent organizations; the programs of activities and their educational values. Prerequisites: Philosophy 1, and Physical Education 59, or 3 cr. in education or sociology. Mr. Elsom.

130. Public Recreation. II; 2 cr. Custom in recreation, social changes and the new attitude; the needs of different classes of people; the effects of activities and the agencies in the organization of recreation. Prerequisite: Physical Education 59, or 3 cr. in eduucation or sociology. Mr. Hetherington.

MILITARY SCIENCE AND TACTICS

MAJOR CHARLES F. CRAIN, 37TH INFANTRY, U. S. A., PROFESSOR OF MILITARY SCIENCE AND TACTICS, COMMANDANT; 1ST LIEUT. WILLIAM J. FITZMAURICE, INFANTRY, U. S. A., ASSISTANT PROFESSOR OF MILITARY SCIENCE AND TACTICS, ASSISTANT COMMANDANT.

The object of the military instruction is to qualify students for the performance of the duties of commissioned officers, should their services be needed by the country. The instruction is necessary in order to prepare them to perform these duties intelligently and enables them to be thus trained with the least practicable interference with their civil careers. It is hoped that by this system there may be in time of national emergency a sufficient number of educated men, trained in military science and tactics, to officer and lead intelligently the units of the large armies upon which the safety of the country will depend.

The courses are required for freshmen and sophomores, and elective for juniors, seniors, graduate students, and those who have received courses of training at other schools substantially equivalent to that prescribed for freshmen and sophomores here. As the object of the training is to bring the largest possible number of students up to the proper standard of proficiency, and as the work is required by the rules of the University, exemptions, or permissions to be absent, except for physical disability, cannot be accorded to freshmen and sophomores, and any student who is absent from any part of the instruction will be required, subsequently, to make up the omitted training before being credited with the number of units necessary for graduation.

The courses provide the ground work upon which to build military character and proficiency, and are designed to develop the greatest possible initiative on the part of the student. They also provide that the cadet officers and noncommissioned officers shall participate in the administration and training and share the responsibility therefor.

University fees amounting to ten dollars each semester will be refunded to all cadets who elect to take drill as commissioned officers 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.

Institutions whose students have exhibited the greatest application and proficiency in military training and knowledge during the academic year are designated annually by the War Department as "distinguished colleges and honor schools." The University of Wisconsin having been thus designated for the years 1915 and 1916, is authorized to recommend ten Honor Graduates of the Department for appointment assecond lieutenants in the United States Army.

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 Courses, College of Pharmacy, Agriculture, etc.
4. Normal School graduates and those who enter the University with college work sufficient to give them junior rank in the College of Letters and Science, and other colleges with similar entrance requirements.
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 military schools or the National Guard. Proper credentials must be presented to show actual performance of duty and that the course covered elsewhere equals that given here.
2. 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 recitation courses begin at the opening of the semester. Drills will be held three hours a week. This regulation applies to both freshmen and sophomores.

All students must provide themselves with the cadet uniform as prescribed 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 $20 must be paid to the Bursar by all male students eligible for drill 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.

At the date on which this catalog goes to press, it is very probable that the Reserve Officers' Training Corps will be adopted by the University. If this new system is in effect, the U. S. government will furnish necessary uniforms and the deposit of $20 mentioned above will be refunded to the student upon his severing his connection with the military department, provided he returns his uniform uninjured except by reasonable wear. There will also be certain financial and other advantages to those taking the elective course. Definite information on these points will be posted on the department bulletin boards.

Required Courses

For Freshmen

1. Military Art. Yr.; 1 cr. Three hours a week.

(a) Practical, on campus and in armory.

Physical drill; infantry drill to include schools of soldier, squad, company, and battalion in close and extended order; fire direction and control; ceremonies; tent pitching; bayonet combat; intrenchments; sighting, position and aiming drills; gallery practice; nomenclature and care of rifle and equipment; first aid. Cadet Officers.

(b) Theoretical. Lectures and classroom work.

Theory of target practice, individual and collective; use of landscape targets; military organization; map reading; service of security and information; personal hygiene; camp sanitation for small commands; principles of combat; general military policy of the United States, Infantry Drill Regulations to include the school of the company. Regular Army Instructors and Cadet Officers.

For Sophomores

2. Military Art. Yr.; 1 cr. Three hours a week.

Prerequisite: Military Art 1.

(a) Practical, on campus and in armory.

Review and perfection of practical work begun in freshman year; collective combat firing on indoor ranges; signaling; work with sand table by constructing intrenchments, fieldworks, obstacles, bridges, etc.; comparison of ground forms with terrain as represented on map. Regular Army Instructors and Cadet Officers.

(b) Theoretical. Lectures and classroom work. Map reading; camp sanitation and camping expedients; marches and camps; military history, Infantry drill regulations to include school of battalion and combat; small-arms firing regulations; small tactical problems covering patrolling, advance, rear, and flank guards; trench and mine warfare; orders and messages. Regular Army Instructors and Cadet Officers.

Elective Courses

For those who have completed Military Art 1 and 2 and who are appointed officers or noncommissioned officers.

3. Military Art. Yr.; 1 cr. Three hours a week.

(a) Practical. Duties consistent with rank as cadet officers and noncommissioned officers in connection with practical work for sophomores and freshmen; military sketching.

(b) Theoretical. Duties as instructors in theoretical courses for sophomores and freshmen; minor tactics; map maneuvers; company administration; property accountability; method of obtaining supplies and equipment; military history; elements of international law; court-martial proceedings; psychology of war; rifle in war. Regular Army Instructors.

4. Military Art. Yr.; 1 cr. Three hours a week.

Practical and Theoretical. A continuation of Military Art 3 with additional responsibilities and opportunities to develop initiative and leadership. Regular Army Instructors and Cadet Officers.

WASHBURN OBSERVATORY

GEORGE C. COMSTOCK, DIRECTOR AND PROFESSOR OF ASTRONOMY;
ALBERT S. FLINT, ASTRONOMER.

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 meantime 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, 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.

UNITED STATES WEATHER BUREAU OFFICE

ERIC R. MILLER, OFFICIAL IN CHARGE.

The local office of the United States Weather Bureau is located at the University as a result of the policy of the University to cooperate with the scientific branches of the Federal Government, a policy that is also expressed in its association with the Agricultural Experiment Station, the Forest Products Laboratory, the Geological Survey, etc. The official in charge gives instruction in meteorology in the College of Letters and Science, information regarding which will be found in another part of this catalogue.

The office, where the recording apparatus is in operation, is in room 84, North Hall. The exposed apparatus is mounted on the roof of the same building. The equipment includes eye-reading apparatus for measuring the pressure, temperature, and humidity of the air, the rainfall, the direction and velocity of the wind, the duration and intensity of sunshine, and the polarization of sky light, and automatic registers for continuously recording the majority of these elements.

Meteorological observations were made at Madison between 1853 and 1864 by Professors S. H. Carpenter and J. W. Sterling at the University, and Dr. A. Schue at his office on Main Street. From January 1869 to October 1878 they were carried on by Prof. W. W. Daniels at the University. The Signal Corps, United States Army, maintained an observing station in Madison from October, 1878 to April, 1883, and from May, 1883 to September, 1904, the observations were made at the Washburn Observatory. The present office was established in September, 1904, and has continued the series of observations since that time. All of these records are now on file in the Weather Bureau office, where they may be consulted. The office also has reports and publications relating to the weather and climate of the United States and other countries and is prepared to furnish information regarding them.

The office receives telegraphic reports from similar offices distributed over the United States and Canada, at 7 A. M. and 7 P. M. and prepares and distributes to the press and the public in central and southwestern Wisconsin the daily weather map, the weather forecast, and other weather information. The office is open to the public from 9 A. M. to 4 P. M. daily, except Sundays and holidays.

FOREST PRODUCTS LABORATORY

MR. WEISS (chairman); MR. ACREE, MR. HUMPHREY, MR; KRESS, MR. NEWLIN, MR. TEESDALE, MR. TIEMANN, MR. BATEMAN, MISS GERRY, MR. HAWLEY, MR. SCHORGER.

General Statement

The Forest Products Laboratory is an institution of practical research conducted by the Forest Service, United States Department of Agriculture, in cooperation with the University of Wisconsin, for the purpose of studying problems bearing on the most efficient use of the products of the forest and for disseminating such knowledge. The staff of the laboratory cooperates with that of the University of Wisconsin in the courses of lectures and researches outlined below. The laboratory offers unusual facilities for research in the field of forest products and possesses very complete scientific and technical equipment for this purpose. In its investigations it approximates closely commercial conditions and cooperates extensively with the various manufacturing establishments in testing out its researches on a commercial basis. The technical sections of the laboratory are as follows: (1) Timber Physics. The physical, histological, and morphological properties of wood, including the theory and practice of kiln drying. All work of the United States Government on the identification of woods is also done in this section. (2) Timber Tests. Investigations on strength, stiffness, hardness, and other mechanical properties of commercial woods; the strength of various products made from wood, such as spokes, shafts, 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 in decreasing the inflammability of wood. (4) Derived Products. Researches on the methods of production and utilization of by-products, such as ethyl and methyl alcohol, turpentines, rosins, acetates, etc., ob-

tained from various forms of wood and wood waste. (5) Pulp and Paper. Researches with various woods to determine their fiber qualities and value for pulp and paper. (6) Pathology. Researches on fungi which attack structural timbers, with investigations aimed at practical means of prevention. The section of pathology is maintained by the Bureau of Plant Industry.

The lectures and research are offered by the staff of the laboratory to both undergraduates and graduates, who may choose one of the problems as major work for a thesis for the degree of Bachelor of Arts or of Science, Master of Arts, or of Science, or Doctor of Philosophy. A short laboratory course involving work on sugars, celluloses, terpenes, preservatives, waste products, and industrial problems is given as a minor. A number of investigations involve cooperation with the Departments of Chemistry, Agricultural Chemistry, Engineering, Chemical Engineering, Botany, and others in the University of Wisconsin. 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 particular needs of the student, provided this conforms with the regulations of the University. The object of this work is to enable men to acquire thorough scientific and practical training in organic chemistry and wood technology and to apply this knowledge in scientific and commercial operations and investigations in the wood-using industries, and in teaching.

A meeting of the entire technical staff is held in the laboratory on each Saturday morning for the discussion of scientific and technical literature, recent discoveries, and other points of interest. Special seminaries are also held by the various technical sections.

Student Research Assistantship

Students who show unusual ability in research may be appointed as student research assistants in this laboratory by the Forest Service or by the Bureau of Plant Industry, in accordance with the regulations of the United States Civil Service Commission. The salary will not exceed $300 per year; tuition and laboratory fees will be remitted. Application for these assistantships must be made to the director of the Forest Products Laboratory. The number of students thus appointed will largely depend upon the funds available and the number of problems taken up by the laboratory for solution.

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, HAWLEY, 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. Prerequisites: Chemistry 120 and 121. Mr. Bateman, Mr. Kress, Mr. Hawley, Mr. Schorger.

104. Celluloses and Their Constituents. I; 3 cr. Their reactions and configurations; technical processes involved in their manufacture. Prerequisites: Chemistry 120 and 124. (Given 1916–17.) Mr. Acree.

111. Pulp and Paper Technology. II; 1 cr. The basic principles underlying the manufacture of mechanical, soda, sulphite, and sulphate pulp and the technology of paper making. Illustrated by samples and lantern slides. Open to Engineering seniors and graduates. Mr. Kress.

For Graduates

208. Research in Forest Products Chemistry. 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. Hawley.

C. Wood distillation and wood extraction. Mr. Hawley.

D. Carbohydrates and terpenes. Mr. Schorger.

E. The chemical action of bacteria and fungi on carbohydrates. Mr. Humphrey.

F. Sugars, dyes, and physical-organic chemistry. Mr. Schorger.

G. Pulp and paper. Mr. Kress.

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. General forestry, including outdoor studies in the identification of trees, physiography, relation of forests to conservation of natural resources, the work of the United States Forest Service, properties and uses of wood. 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, Mr. Koehler.

110. Structural Timbers. II; 1 cr. Identification, preservation, mechanical properties, grading rules, and building codes. Course will not be given unless attended by at least five students. Prerequisite: Mechanics 3 and 4. Mr. Newlin, Mr. Koehler, 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. Mr. Koehler.

SUMMER SESSION

SCOTT H. GOODNIGHT, DIRECTOR.

Duration of the Session

The nineteenth Summer Session of the University of Wisconsin opens June 25, 1917. The session lasts six weeks and closes August 3, except in the Law School, where the session continues ten weeks and ends August 31.

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 89 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 387 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 23, and Monday, June 25, 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.

GRADUATE SCHOOL, COLLEGE OF LETTERS AND SCIENCE

ART

PROFESSOR W. T. PHILLIPS (Winnipeg, Man.)

1. Renaissance Art, 2 cr.; 2. Landscape Painting, 2 cr.

ASTRONOMY

PROFESSOR COMSTOCK.

1S. General Astronomy, 2 cr.

BOTANY

PROFESSOR ALLEN; ASSISTANT PROFESSOR BARTHOLOMEW; INSTRUCTORS BAIRD, BENNETT, SMITH; ASSISTANTS FREY, RICHARDS.

1. General Botany, 3 cr.; 90. Teaching of Botany, 1 cr.; 104. Morphology of Fungi, 3 cr.; 106. Morphology of Seed Plants, 3 cr.; 130. Classification of Seed Plants, 2 cr.; 138S. Native Trees and Shrubs, 1 cr.; 146. Plant Physiology, 4 cr.; 156. Problems of Heredity, 1 cr.

CHEMISTRY

PROFESSOR LENHER; ASSOCIATE PROFESSOR WALTON; ASSISTANT PROFESSORS KRAUSKOPF, MATHEWS; INSTRUCTORS ELLINGSON, JOHNSON; ASSISTANTS BISHOP, CLEVELAND, SCHIERZ.

1. General Chemistry, 2 or 4 cr.; 1S. Qualitative Analysis, 2 or more cr.; 5S. Teaching of Chemistry, 1 cr.; 11S. Quantitative Analysis, 3 or more cr.; 108S. Advanced Qualitative Analysis, 2 or more cr.; 112S. Advanced Quantitative Analysis, 2 or more cr.; 120S. Organic Chemistry, 2 or more cr.; 130S. Physical Chemistry, 2 or more cr.; 133S. Photography and Its Scientific Applications, 2 cr.; 251S. Advanced Inorganic Chemistry, 1 cr.; 260S. Chemical Research, cr. according to work done.

EDUCATION

PROFESSORS HENMON, HILL, O'SHEA, SHARP; SUPERINTENDENT OF SCHOOLS MEEK (Austin, Texas); DEAN MATHEWS; ASSISTANT PROFESSORS MILLER, SEYBOLT, STARCH.

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.; 106. The Administration of Public Education, 2 cr.; 108S. High-School Organization, 2 cr.; 109. School Supervision, 2 cr.; 144. Advanced Educational Psychology, 2 cr.; 145. Educational Measurements, 2 cr.; 149S. Moral Education, 2 cr.; 190S. College Administration for Women, 1 cr.; 209. Concrete Problems in School Control, 2 cr.; 235S. Research in Educational Administration, 2 cr.; Vocational Education and Guidance (See Manual Arts 113).

ENGLISH

PROFESSOR HUBBARD; ASSOCIATE PROFESSORS LATHROP, PYRE; ASSISTANT PROFESSORS CAIRNS, GARDNER, PENDLETON; INSTRUCTORS ALDERMAN, BONNELL, BURD, CHASE, EMSLEY, HARKNESS, WANN.

A. Sub-Freshman English, no cr.; 1a. Freshman English (1st sem.) 3 cr.; 1b. Freshman English (2nd sem.), 3 cr.; 6S. Advanced Composition, 2 cr.; 8S. Contemporary Poetry, 2 cr.; 30. General Survey, 3 cr.; 35. Victorian Era, 2 cr.; 37S. Shakspere, 2 cr.; 50a. The Teaching of Composition, 2 cr.; 50b. The Teaching of Literature, 2 cr.; 123. Modern English Grammar, 2 cr.; 144S. Shelley, 2 cr.; 149S. American Literature (Short Story), 2 cr.; 156S. Literary Criticism, 2 cr.; 214S. Hamlet, 2 cr.; 215S. Wordsworth, 2 cr.; 216S. Emerson, 2 cr.; 217S. Browning, 2 cr.

FESTIVALS AND PAGEANTRY

PROFESSOR GORDON (Winfield, Kan.)

1. Dramatics and the School Festival (Introductory), 2 cr.; 2. The Festival and Pageant Movement, 2 cr.

GEOLOGY AND GEOGRAPHY

PROFESSOR WHITBECK; ASSOCIATE PROFESSOR MARTIN; ASSISTANT PROFESSOR STEIDTMANN.

1S. Elementary Geology, 2 cr.; 2S. Rocks and Minerals, 2 cr.; 5S. Commercial and Industrial Geography, 2 cr.; 10S. Physical and Applied Geography, 2 cr.; 102S. Geography of South America, 2 cr.; 104S. Geography of Wisconsin, 1 cr.; 109S. Glaciers and Glaciation, 1 cr.; 131. Summer Field Course, 4 to 6 cr.

GERMAN

PROFESSOR HOHLFELD; ASSOCIATE PROFESSORS FEISE, GOODNIGHT, ROEDDER; ASSISTANT PROFESSORS DEIHL, KELLER; INSTRUCTORS ARON, CAST, HOLLANDER.

1a. First Semester German, 4 cr.; 1b. Second Semester German, 4 cr.; 2a. Third Semester German, 4 cr.; 2b. Fourth Semester German, 4 cr.; 40. Conversation, 1 cr.; 16. Modern Prose, 2 cr.; 17. Modern Drama (Soph. Read.), 2 cr.; 10. Composition and Grammar Review, 2 cr.; 50S. The Modern "Novelle" (Junior elect.), 2 cr.; 29. German Art, 1 cr.; 112. Advanced Practice, 2 cr.; 114a. The Teaching of German, 2 cr.; 114b. Phonetics (Teachers' Course), 1 cr.; 131. Survey of Literature (800–1600), 2 cr.; 151. Middle High German, 2 cr.; 137. Schiller, 2 cr.; 154. Gothic, 1 cr.; 233. The Classical Novel, 1 cr.; 269. Philological Proseminary (Meier Helmbrecht), 1 cr.; 248. Literary Seminary (Modern German Drama), cr. according to work done.

GREEK

PROFESSOR SMITH.

5a. Elementary Greek, 2 cr.; 7. Xenophon, Homer, Plato, or Euripides, 1 cr.; 106. Advanced Reading Course, 1 cr.; 113b. Greek Drama in English Translation, 1 cr.

HISTORY

Professors Boak (University of Michigan), Fish, Sellery, Way (Beloit College); Associate Professors Chase, Root; Assistant Professor Coffin.

10S. History of Greece to the Roman Conquest, 2 cr.; 1a. Medieval History (395–1095), 2 cr.; 4. United States, 1830 to Present, 2 cr.; 123S. History of the Roman Empire from Augustus to Justinian, 2 cr.; 131. Medieval Civilization, 2 cr.; 117. American Constitutional History, 2 cr.; 112. Representative Men, 2 cr.; 138. Revolutionary and Napoleonic Epochs, 1789–1815, 2 cr.; 139. History of Europe, 1815–1915, 2 cr.; 150. Teaching of History, 2 cr.; 151. Supplementary Reading for Teachers of History, 2 cr.; 251. Seminary in Colonial History, 2 cr.; 261. Seminary in American History, 2 cr.

JOURNALISM

Lecturer Evans (University of Kansas); Instructor Bing.

102S. Newspaper Reporting, 2 cr.; 105. Special Feature and Magazine Writing, 2 cr.; 106S. Short Story Writing, 2 cr.; 120S. The Teaching of Journalism, 1 cr.

LATIN

Professor Showerman; Assistant Professors Allen, Sabin; Assistant Doe.

1. Elementary Latin, 4 cr.; 2. Prose composition, 1 cr.; 3. Virgil, 2 cr.; 6. Cicero, 2 cr.; 10. Classical Mythology, 1 cr.; A11. Oral Latin, 1 cr.; 109. Latin Comedy, 1 cr.; 116. Teaching of Latin, 2 cr.; 233. Seminary, 2 cr.

LIBRARY SCHOOL

Miss Hazeltine and Staff.

1. Course for Teacher Librarians, 6 cr.

MANUAL ARTS

PROFESSOR CRAWSHAW; ASSOCIATE PROFESSOR CORP; ASSISTANT PROFESSORS BLACK, KEOWN, MILLAR, ORTH, VARNUM; LECTURER JONES (Somerville, Mass.); SUPERINTENDENT GODDARD; INSTRUCTORS BRUNSELL, CHISHOLM, DIAMOND, DABNEY, GRENOBLE, PAYTON, SCHMIDT, SCHUMANN, WILSON; ASSISTANT HOLMES.

1. Elements of Mechanical Drawing, 3 cr.; 2. Elements of Mechanical Drawing, 3 cr.; 3. Descriptive Geometry, 3 cr.; 4. Elementary Woodwork, 3 cr.; 5. Furniture and Cabinet Design and Construction, 3 cr.; 6. Wood Turning, 3 cr.; 6a. Pattern Making, 3 cr.; 6b. Advanced Pattern Making, 3 cr.; 7. Foundry Work, 3 cr.; 8. Forge Work, 3 cr.; 9. Machine Shop Work, 3 cr.; 10. Wood Finishing, 3 cr.; 12. Elementary Handwork, 3 cr.; 52. Methods. Public School Drawing and Design, 3 cr.; 60. Industrial Arts Design, 3 cr.; 70. Applied Design in Metal, 3 cr.; 24S. Industrial Handtool Metal Work, 3 cr.; 112. Teaching and Supervision of Secondary School Industrial Work, 2 cr.; 113. Vocational Education and Guidance, 1 cr.; 115. Seminary on Special Methods and Problems, 1 cr.; 15S. Architectural Drafting, 3 cr.; 16S. Advanced Architectural Drafting, 3 cr.; 17S. Machine Design for Teachers of Manual Arts, 2 cr.; 19S. Heating and Ventilating, 1 cr.; 20S. Gas Engine Operation and Testing, 3 cr.; 21S. Municipal Sanitation for Teachers of Manual Arts, 1 cr.; 22S. Cement and Elements of Masonry Construction, 3 cr.; 23S. Carpentry and Elements of Building Construction, 3 cr.; 25S. Problems of Administration for Continuation School Directors, 1 cr.

MATHEMATICS

PROFESSOR SLICHTER; ASSOCIATE PROFESSOR DOWLING; ASSISTANT PROFESSORS DRESDEN, HART; INSTRUCTORS PAINE, SIMPSON, TAYLOR; ASSISTANT MOORE.

1. Algebra, 2 cr.; 2. Trigonometry, 2 cr.; 4. Analytical Geometry, 2 cr.; 5. Calculus, 2 cr.; 6. Determinants, 1 cr.; 7. Commerce Algebra, 2 cr.; 8. Solid Geometry, 2 cr.; 10. Teachers' Course, 2 cr.; 52. Elementary Analysis, 5 cr.; 55. Calculus, 4 cr.; 110. Definite Integrals, 2 cr.; 112. Differential Equations, 2 cr.; 113. Mechanics, 2 cr.; 117. Theory of Functions, 1 cr.; 215. Calculus of Variations, 1 cr.; 241. Higher Geometry, 2 cr.; 252. Hydrostatics, 1 cr.

METEOROLOGY

Mr. E. R. Miller, of the U. S. Weather Bureau.

1. Weather and Climate, 2 cr.

MUSIC

Professor Mills; Lecturer Morphy (University of Illinois); Assistant Professor Townsend; Miss Crane (Crane Normal and Training School, Potsdam, N. Y.); Mr. Zanzig (Ethical Culture School, New York); Instructor Crane.

1S. Harmony, Elementary, 2 cr.; 11S. Harmony, Advanced, 2 cr.; 21S. Counterpoint, 2 cr.; 33S. History and Appreciation of the Opera, 2 cr.; 41S. Public School Music Methods, Elementary, 2 cr.; 42S. Public School Music Practice, Elementary, 2 cr.; 51S. Public School Music Methods, Advanced, 2 cr.; 71S. Ear Training and Sight Reading, 1 cr.; 75S. Ear Training and Sight Reading, Advanced, 1 cr.; 81–2S. Pianoforte, 1 cr.; 82–2S. Voice Culture, 1 cr.; 78S. Community Music, 2 cr.; 89S. Practical Instrumentation, 1 cr.; 51 S. Seminary in Public School Music, 1 cr.; 45S. High School Music, 2 cr.; 150. Seminary, 1 cr.; Orchestra.

NORWEGIAN

Instructor Hollander.

1. Norwegian, 2 cr.

PHARMACY

Instructor Langenhan.

20. Prescription Practice, 3 cr.; 121. Advanced Prescription Practice, 4 cr.; 30. Pharmaceutical Technology, 2 cr.; 45. Alkaloidal Assaying (Chemistry), cr. according to work done.

PHILOSOPHY

PROFESSORS HENMON, MCGILVARY, SHARP; ASSOCIATE PROFESSOR OTTO.

1S. Introductory Psychology, 2 cr.; 21S. Introduction to Philosophy, 2 cr.; 25. The Relation of Man to Nature, 2 cr.; 49. Moral Education, 2 cr.; 134S. The Philosophy of Josiah Royce, 2 cr.; 136S. British Philosophers of the Eighteenth Century, 2 cr.; 145S. Greek Ethics and Its Influence on Modern Ethical Theory, 2 cr.

PHYSICAL EDUCATION

ASSOCIATE PROFESSORS MEANWELL, TRILLING; ASSISTANT PROFESSORS ELSOM, JONES; INSTRUCTORS FORBES, GATH, H'DOUBLER, HINDMAN, MCCHESNEY.

Courses marked * may not be taken for credit except by students majoring or minoring in Physical Education.

51S*. School Gymnastics and Games, 1 cr.; 52S. Social Games and Plays, 1 cr.; 54S. History and Introduction to Physical Education, 2 cr.; 57S. The Boy Scout Movement in Theory and Practice, 2 cr.; 60–61S. Physical Education in Elementary and Secondary Schools, 2 cr.; 66S. Playground Conduct and Management, 1 cr.; 71S. Principles of Coaching and Training, 1 cr.; 16*. First Aid to the Injured, 1 cr.; 20S. Play Hour, no cr.; 20bS. Recreation Hour, no cr.; 20ae and 20beS. Swimming (Men and Women), no cr.; 20agS. Baseball, no cr.; 20a1 and 20b1S. Tennis, no cr.; 21S*. Gymnastics for Men, 1 cr.; 22S*. Technique of Games, 1 cr.; 23*. Technique of Basketball, 1 cr.; 24*. Technique of Track and Field Events, 1 cr.; 25.* Technique of Swimming, 1 cr.; 26*. Gymnastic Dancing, 1 cr.; 27.* Technique of Baseball, 1 cr.; 29*. Technique of Football, 1 cr.; 41.* Gymnastics for Girls and Women, 1 cr.; 42*. Technique of Athletics and Games, 1 cr.; 43aS*. Singing Games and Elementary Folk Dancing, 1 cr.; 43bS*. Folk Dancing, Advanced, 1 cr.; 44*. Field Hockey, Basketball, Baseball for Girls, 1 cr.; 46aS*. Aesthetic Dancing, Elementary, 1 cr.; 46bS*. Aesthetic Dancing, Advanced, 1 cr.

PHYSICS

ASSISTANT PROFESSORS FULCHER, STEVE, TERRY; ASSISTANT PETERSEN.

1. General Lectures, 2 cr.; 1S. General Laboratory Practice, 1 cr. for each thirty hours of work performed; 2. Advanced Lectures on Light, 2 cr.; 3. Advanced Laboratory Practice in Light, 1 cr. for each thirty hours of work performed; 4. Advanced Lectures on Electricity and Magnetism, 2 cr.; 5. Advanced Laboratory Practice in Electricity and Magnetism, 1 cr. for each thirty hours of work performed; 8. Experimental Lectures for High School Teachers, 2 cr.; 115. Radioactivity and the Discharge through Gases, 2 cr.

POLITICAL ECONOMY, COMMERCE, SOCIOLOGY.

PROFESSORS GILLIN, GILMAN, ROSS, SCOTT; ASSOCIATE PROFESSOR ELWELL; INSTRUCTOR JEROME.

1S. Elements of Economics, 4 cr.; 5S. Money, 2 cr.; 8a. Elements of Accounting, 2 cr.; 11. Factory and Office Management, 2 cr.; 110. Investments, 2 cr.; 139. Social Psychology, 2 cr.; 147. Methods of Social Service, 2 cr.; 181. Theory and Practice of Accounting, 2 cr.; 201. Critics of the Classical Economists, 2 cr.; 258. Degeneracy and Society, 2 cr.; 260. Seminary on Cities, 2 cr.

POLITICAL SCIENCE

PROFESSOR LLOYD JONES; ASSOCIATE PROFESSOR HALL; ASSISTANT PROFESSOR CARPENTER.

2. Elementary Law, 2 cr.; 7. American Government and Politics, 2 cr.; 112. American Constitutional Law, 2 cr.; 122. Party Government, 2 cr.; 131. Latin American Institutions, 2 cr.; 136. American Diplomacy, 2 cr.

PUBLIC SPEAKING

ASSOCIATE PROFESSOR GAYLORD; ASSISTANT PROFESSORS BLANTON, HOUGHTON, JOHNSON; LECTURER WEAVER (Northwestern University).

15. Practical Public Speaking, 1 cr.; 8. Extempore Speaking, 1 cr.; 12S. Fundamentals of Vocal Expression, 2 cr.; 16S. Advanced Interpretative Reading, 1 cr.; 33S. High School Dramatics, 1 cr.; 21S. Voice Training, 1 cr.; 25S. Correction of Speech Defects, 2 cr.; 125S. Advanced Correction of Speech Defects, 2 cr.; 41S. Psychology of Reading and Speaking, 2 cr.; 43S. Teaching of Reading and Speaking, 2 cr.; 35S. Argumentation, 2 cr.; 36S. Speech Composition, 1 cr.; 37S. Debating, 1 cr.

ROMANCE LANGUAGES

PROFESSOR SMITH; ASSOCIATE PROFESSOR CERF; ASSISTANT PROFESSORS COOL, GAY, REED, ZDANOWICZ; INSTRUCTORS COUSINS, HAMILTON, LYON, SILVERCRUYS; ASSISTANTS BRADLEY, JENKINS.

1a. Beginners' French, 4 cr.; 1b. Second Semester French, 4 cr.; 13S. Intermediate Second Year French, 2 cr.; 14S. Advanced Second Year French, 2 cr.; 15. Elementary Conversation, 1 or 2 cr.; 16S. Intermediate French Conversation, 1 or 2 cr.; 17S. Grammar and Composition, 1 cr.; 18S. French Pronunciation, 2 cr.; 90S. The Teaching of French, 2 cr.; 120S. Advanced Conversation and Composition, 1 or 2 cr.; 138S. Modern French Verse Drama, 2 cr.; 139S. Molière, 2 cr.; 140S. Great Prose Writers (Nineteenth Century), 2 cr.; 243S. Old French, 1 or 2 cr.; 244S. Old French Literature, 1 or 2 cr.; 245S. Research in French.

Italian

1. Elementary Italian, 2 cr.; 236S. Research in Italian Literature.

Spanish

1a. Elementary Spanish, 4 cr.; 1b. Second Semester Spanish, 4 cr.; 10S. Second Year Spanish, 2 cr.; 90S. The Teaching of Spanish, 2 cr.; 128S. Advanced Conversation and Composition, 2 cr.; 129S. Don Quijote, 2 cr.; 239S. Research in Spanish Language and Literature.

ZOOLOGY

LECTURER JUDAY; ASSISTANT PROFESSOR WAGNER; INSTRUCTOR LOWE; ASSISTANT BISHOP.

6. Evolution, Heredity, and Eugenics, 2 cr.; 7. Animal Biology, 3 cr.; 103. Field Zoology, 2 cr.; 105. Special Problems, cr. to be arranged; 110. Entomology, 1 cr.; 120. Teaching of Zoology, 1 cr.; 124. Limnology, cr. to be arranged; 224. Research.

MEDICAL SCHOOL

ANATOMY

PROFESSORS BARDEEN, 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.

BACTERIOLOGY

ASSOCIATE PROFESSOR CLARK.

2S. Immunity, 1 cr.; 3S. Bacteriology and Immunity, 3 cr.; 102. Medical Bacteriolgy, 5 cr.

CLINICAL MEDICINE

PROFESSOR EVANS; DR. DUNHAM (Cincinnati, Ohio); ASSISTANT PROFESSOR MIDDLETON; ASSISTANTS BUERKI, RICHDORF.

101. Clinical Diagnosis, 1 cr.; 102. Clinical Laboratory Diagnosis, 1 cr.; 103. Minor Surgery and Bandaging, 1 cr.

PHARMACOLOGY

PROFESSOR LOEVENHART.

104. Pharmacology, 2 cr.; 105. Pharmacology, 2 cr.

COLLEGE OF ENGINEERING

CHEMICAL ENGINEERING

ASSOCIATE PROFESSOR KOWALKE.

114. Chemical Manufacture (1st 5 wks.), 4 cr.

ELECTRICAL ENGINEERING

ASSISTANT PROFESSOR SHUSTER; INSTRUCTOR CROTHERS.

103a. Continuous Currents, 3 cr.; 131b. Alternating Currents, 2 cr.; 130. Testing Direct Current Dynamos, 1 or 2 cr.; 112a. Testing Alternating Current Machinery and Appliances, 1 or 2 cr.; 4S. Thesis and Special Work.

HYDRAULIC ENGINEERING

ASSOCIATE PROFESSOR CORP.

A. Municipal Sanitation, 1 cr.; 1. Hydraulics, 3 or 4 cr.; 102. Testing of Hydraulic Machinery, 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 Machines, cr. to be arranged.

MECHANICAL DRAWING

ASSISTANT PROFESSORS MILLAR, ORTH; INSTRUCTORS GRENOBLE, THOMAS.

1. Elements of Mechanical Drawing I, 3 cr.; 2. Elements of Drawing II, 3 cr.; 3. Descriptive Geometry, 3 cr.

MECHANICS

ASSOCIATE PROFESSOR WITHEY.

1. Statics, 3 cr.; 2. Dynamics, 2 cr.; 3. Mechanics of Materials, 5 cr.

SHOP WORK

SUPERINTENDENT GODDARD; INSTRUCTORS CHISHOLM, DABNEY, PAYTON, PETERS, SCHMIDT, SCHUMANN.

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.; 13. Foundry, 1 cr.

STEAM AND GAS

ASSISTANT PROFESSOR BLACK.

A. Elementary Thermodynamics, 2 cr.; B. Gas Engines and Gas Producers, 1 cr.; C. Compressed Air, 1 cr.; D. Heating and Ventilating, 1 cr.; E. Calibration of Laboratory Instruments and Engine Testing, 2 cr.; F. Advanced Steam and Gas Engine Testing, 1 or 2 cr.; G. Refrigeration and Refrigerating Machinery, 1 cr.; H. Gas Engine Testing, 2 cr.

TOPOGRAPHICAL ENGINEERING

PROFESSOR BEEBE, ASSOCIATE PROFESSOR SMITH, INSTRUCTOR OWEN.

1. Elementary Surveying, (1st 2 wks.) 2 cr.; 2. Elementary Surveying (2nd 2 wks.), 2 cr.; 3. Elementary Surveying (1st 3 wks.), 3 cr.; 4. Advanced Surveying (last 3 wks.), 3 cr.; 6. Topographic Survey of Devils Lake Region, cr. according to work done; 8. Special Course for Electrical and Mechanical Engineers, 3 cr.; 10. Mining Survey, cr. to be arranged.

LAW SCHOOL

Dean Richards; Professors Gilmore, Page; Associate Professor Rundell, Assistant Professor Wilkie.

FIRST YEAR

Contracts, 6 cr.; Personal Property, 2 cr.

SECOND AND THIRD YEARS

Bankruptcy, 2 cr.; Equity I, 3 cr.; Future Interests, 4 cr.; Mortgages, 2 cr.; Partnership, 2 cr.; Sales, 3 cr.

COLLEGE OF AGRICULTURE

AGRICULTURAL BACTERIOLOGY

Assistant Professor Wright.

1. General Survey, 4 or 5 cr.

AGRICULTURAL CHEMISTRY

Assistant Professors Peterson, Tottingham.

1 and 2. General Agricultural Chemistry, 1 cr.; 3. Household Chemistry, 2 or 3 cr.; 200S. Research, cr. according to work done.

AGRICULTURAL ECONOMICS

Professors Hibbard, Otis; Assistant Professor Galpin.

225. Rural Sociology, 2 cr.; 130. Rural Credits, 2 cr.; 102S. Farm Management, Field Course, cr. according to work done.

AGRICULTURAL EDUCATION

104S. Agricultural Extension, 2 cr.

AGRONOMY

ASSISTANT PROFESSORS LEITH, STONE.

120. Weed Identification, 2 cr.; 19. Thesis and Field Course, 2 to 4 cr.; 130. Grain Breeding, 2 or 3 cr.

ANIMAL HUSBANDRY

ASSISTANT PROFESSOR TORMEY.

126. Live Stock Feeding, 2 cr.; 128. Teachers' Course, 2 cr.

DAIRY HUSBANDRY

PROFESSOR FARRINGTON; ASSISTANT PROFESSOR BENKENDORF.

1. Elementary Course in Dairying, 2 cr.; 102S. Dairy Practice, 1 to 4 cr.

EXPERIMENTAL BREEDING

PROFESSOR COLE.

101. Principles of Breeding, 2 cr.; 121. Topical Work, 2 or 4 cr.; 225. Research, cr. to be arranged.

HOME ECONOMICS

ASSOCIATE PROFESSOR CELESTINE SCHMIT; INSTRUCTORS CULLINAN, DODGE, KRUEGER, MADISON, ROBERTS, TURNER.

2S. Applied Design, 2 cr.; 3S. Foods, 2 cr.; 4S. Economic Problems of the Food Supply, 2 cr.; 5S. Introduction to Textiles, 2 cr.; 11aS. Dressmaking and Drafting, 2 cr.; 11bS. Advanced Dressmaking, 2 cr.; 50S. Advanced Textiles, 2 cr.; 91S. Millinery, 2 cr.; 92S. Hand and Machine Sewing for Teachers, 2 cr.; 95S. Weaving, 2 cr.; 97S. Costume Design, 2 cr.

HORTICULTURE

ASSISTANT PROFESSOR AUST.

3f. School and Home Ground Decoration, 2 cr.

POULTRY HUSBANDRY

ASSOCIATE PROFESSOR HALPIN; INSTRUCTOR HAYES.

1. Elementary Poultry Raising, 2 cr.; 2. Poultry Judging, 2 cr.

SOILS

ASSISTANT PROFESSOR STEWART.

1S. Principles of Soil Fertility, 2 cr.; 122S. Soil Physics, 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 1916

Jan. 13. President Marion LeRoy Burton, of Smith College. Subject: *The Educated Person.*

Feb. 22. Admiral Robert E. Peary, Washington. Subject: *Arctic Exploration.*

March 17. President Wm. Goodell Frost, of Berea College, Ky. Subject: *Educational Pioneering in Southern Mountains.*

May 1. Concert by the Russian Cathedral Choir, Ivan T. Gorokhoff, of Moscow, Leader.

Oct. 13. Mr. A. C. Harte. Subject: *Prison Camps of the European War.*

Nov. 1. Dr. John Finley, Commissioner of Education in New York. Subject: *Phases of Education.*

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.

Feb. 21, 23, 1916.
Mr. C. R. Ashbee, F. R. I. B. A. of London, England.
Feb. 21—"National and Civic Art Teaching."
Feb. 23—"The Home, the Street, and the City."

Mar. 30, 31.
Professor Paul Van den Ven of the University of Louvain, Belgium.
Mar. 30—"The Churches of Constantinople."
Mar. 31—"Byzantine Monuments in Italy."

Apr. 3.
Professor G. Lowes Dickinson, Fellow and Lecturer, King's College, Cambridge, under the auspices of the World Peace Foundation.
Apr. 3—"International Reconstruction After the War."

Apr. 4, 6.
Professor Ludwig Lewisohn of the State University of Ohio.
Apr. 4—"The Search for Reality."
Apr. 6—"The Search for Interpretation."

Apr. 20.
Professor Henry Browne of University College, Dublin, President of the Classical Association of Ireland.
Apr. 20—"Greek Music."

Apr. 27.
Professor Charles Mills Gayley of the University of California.
Apr. 27—"William Shakespeare: A Memorial Address."

Apr. 28.
Professor William Allen Neilson of Harvard University.
Apr. 28—"Shakespeare and Religion."

Oct. 5, 9 and 12.
Mr. Francis Grierson.
Oct. 5—"Music and Literature: A personal experience."
Oct. 9—"Phases of My Career: with original compositions."
Oct. 12—"An Outlook in the Future."

Oct. 12
Mr. E. R. Kennedy of New York.
"How California was Saved from Secession in 1861."

Oct. 19.
Mr. Henry Turner Bailey, Editor of "School Arts Magazine."
"Beauty in Common Things."

Oct. 24.
Mr. James J. Walsh, M. D., LL. D. formerly Dean of the Fordham Medical School of New York.
"Social Service, Old and New."

Nov. 3.
Mr. William A. Wirt, Superintendent of Schools, Gary, Indiana, and Special Adviser, Board of Education, New York City.
"The Gary School Plan."

Nov. 6.
Dr. Maria Montessori of Italy.
"The Principles Underlying the Montessori Method."

Nov. 20.
Dr. Charles William Wallace, Ph. D., Professor of English Dramatic Literature in the University of Nebraska.
"New Shakespeare Discoveries."

Dec. 1.
Professor Albert G. Van Hecke, of the College of Engineering of the University of Louvain, Belgium.
"Life in the Camps of the Belgian Refugees in Holland."

Jan. 15–16, 1917.
Professor Emannuel De Martonne, of the University of Paris.
Jan. 15—"The Geography of the Western Front."
Jan. 16.—"Roumania."

Feb. 1.
Professor A. H. Sanders of the University of Michigan.
"Miniatures and Bible Texts of an Early Commentary on Revelations."

DEGREES

CONFERRED ON COMMENCEMENT DAY, 1916

COLLEGE OF LETTERS AND SCIENCE

Bachelor of Arts

Mamie Elizabeth Anderson
Abraham Assovsky
Fannie Elizabeth Atwood
Margaret Forrest Axon
*Lee Reuben Axtell
*Sarah Elizabeth Baily
Beatrice Turck Baker
Dorothy Agnes Bannen
Henry Barnbrock, Jr.
Edwin Hobart Bayley
Ethel Elizabeth Bechtel
Victor Van Beck
Paul Ellsworth Behrens
*Dorothy Belleville
Adelbert John Beyer
John Marcher Bickel
Forrest Revere Black
Louis Bloch
Genevieve Florence Blum
Isabelle Bodden
Charlotte Maconda Bodman
Jessie Margaret Bosshard
*Margaret Boyle
Earl William Brandenburg
Ellida Julie Breidablik
Elizabeth Brice
Marion Clarkson Brown
Randolph Fletcher Brown
*Edwin James Brunner
Lois Arlina Burlingame
Le Roy Stanton Burroughs
Laura Hanes Cadwallader
Flora May Carncross
Elbert Hand Carpenter
Vincent George Cartier
Harold Fountain Chapin
Tsung-Hai Cheng
Dorothy Bess Christensen
Irma Marie Clarke
Grace Colby
Dora Leeanna Coleman
Mary Cecelia Everett Comstock
Charles Sydney Conover
Robert John Cunningham
Clara Marie Dahlman
Justine Genevieve Dahm
Ruth Eaton Davies
Albert Chester De Bolt
Louis Cornelius De Bruin
Myrtle Margaret Decker
Genevieve Elizabeth Deming
Dorothy Dabb Dexter
Ruth Esther Dillman
Ada Alice Dittmar
Mabel Emily Dittmar
Edith Dodd
Ruth Clarissa Donnelly
*Elsie Estelle Dorward
Charles Bryan Dunn
*Wendell Earl Dunn
Leon Kimmel Eagles
*Ruth Elizabeth Ebinger
Ann Elizabeth Edwards
Norma Augusta Eitelgoerge

* Degree conferred since commencement, 1916.

Mary Frances Elwell
*Myrtle Ann Eubank
Arthur Euler
Harold Boice Evans
Edward Ludwig Falevsky
*Helen Esther Farr
Seymour Fiske
Florence Fleming
Evelyn Louese Foote
Mary Lucile Fowler
James Robert Frawley
Clara Bertram Fuller
Clara Marie Gapen
Ada Ruth Garber
Mabel Theressa Gay
Ruth Bertha Glassow
Inez Evangeline Gleason
Alice Goodwin
Gerald Gregory Grant
Robert Lexow Grant
Otta Luella Greene
Henry Frederick Grove, Jr.
*Magnhild Alvira Gullander
Bernice Icylene Hagerty
Bernadette Irene Hahn
Fred Menzo Hall
Helen Sara Haner
*Marguerite Catherine John Hanley
Alma Carrie Hanson
*Bertha Gladys Hanson
*Bess Frances Hanson
Elmer Glenn Hanson
Joel Hjalmar Hanson
Charlotte Beverly Harpel
Malvin Herman Hass
Agnes Mary Hayes
Mae Edna Heineman
Elizabeth Helm
Mary Hemenway
Roy Jefferson Herrick
*Cecelia Herried
Harry Joseph Herzog
Irene Higgins
Carol Rogers Hill
Frances Lillian Hitchcock
Arthur Adolph Hitt
Helen Minnie Hohlfeld
*Alfreda Anna Holman
Margaret Ann Howe
*Flossie Esther Jackman
Arnold Stevens Jackson
Raymond Deloy Jameson
Alice Davina Jardine
Marion Jennings
Donald Peter Johnson
Edna Leora Johnson
*George A. Johnson
Russell Lowell Johnson
Selma Johnethe Johnson
*Harry Erwin Jones
Kathlyn Janette Jones
May Eleanor Jones
Raymond Wood Jordan
Clifford Ivar Josephson
Verna Eleanor Judson
Earl Christian Kading
Edna Cornelia Karow
Rosaline Kay
Katherine Louise Kearney
Ruth Alice Keith
Elizabeth Cecelia Kelley
Celestia May Kellington
Elizabeth Mary Kelly
Kenneth Caldwell King
Susanna Kingsley
Temperance Winifred Knight
Imogene Clarissa Kriskey
*Gustav Adolph Lake
Helen Kathryn Lambert
Nellie May Larsen
Gwendoline Latham
Lillian Edith Lawson
Francis Knut Lee
*Heebe Leeden
*Kathleen Leslie
Dorothy Lewis
Vine David Lord
Marion Day Luce
Raphaella Catherine McCabe
Thomas Frank McDonald
*Verne Russell McDougle
Doris Lucile McFadden
*Norvin McQuown
Gertrude Manegold
Esther Caroline Mansfield
Marion Genevieve Marshall
†Patrick Henry Martin
Madeline Mattox
Clarabel Maw
Elsie Dorothy Mayer

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Fergus Mead
*Norman Meland
Henry Playman Melnikow
Arthur John Mertzke
Albertine Emilie Metzner
Alma Helen Meuer
Laura Ann Meyer
Nelle Meyers
Dora May Miller
Kathryn Densmoor Miller
Laura Roe Mills
Vera Mitchell
Amy Fredricka Mueller
Bernard Christian Mueller
Ambrose Edward Murphy
Ruth Henrietta Myrland
Edna Marie Nagle
Edward Richard Narr
Catherine Elizabeth Nebel
Lelah Vanera Nichols
Philip Mitchell Niederaur
Ralph Edgar Nuzum
Sigurd Bernhardt Olson
Marion Eugenia O'Neil
Olive Carolyn Opgenorth
Harriet Eastabrooks O'Shea
*Joseph Orlando Otterson
Frances Angeline Palmer
*Vera Janet Parke
Irene Rosalind Paul
Cecil Philip Pearson
Ralph Haney Perry
Marguerite Helen Pesark
Lillian Estelle Petersen
Evan Hugo Peterson
Rebecca Orpha Peterson
Ralph Sproule Piggins
Anita Valentine Pleuss
Hanna Dorothea Poppe
Louis Atwater Pradt
Ethel Marguerite Prescott
Lucile Pritchard
Etta Ida Radke
Harry Walker Rawson
Grace Reed
William Richards
Earl Gotthart Richmeier
*Melba Clarice Roach
Royal Arlington Roberts
George Clarence Robinson
Mararget Josephine Rohan
Louis Rosenberg
Amanda Ida Ross
Cyrus Joseph Rounds
Lousene Gwendolynne Rousseau
Omar T. Sadler
Helen Viola Salsbury
*Katherine Isabelle Sarazin
Fred Byron Schaffer
Agnes Beatrice Schaller
Gladys Wilcox Schappa
*Frank Adolph Scheuber
Elsie Elizabeth Schneider
*Magnus Petersen Schultz
Alfred John Schweppe
Eloise Susan Seavert
Elmer Louis Sevringhaus
Leland S. Seymour
Edith Lucille Sharkey
Louise Shepherd
Horace Davis Simmons
Charlotte Estelle Smith
Edith M. Smith
Helen Gertrude Smith
Paul Richard Spencer
Lillie Luise Spiering
Daniel M. Spohn
Fred Walter Stadelbaur
Edwin Richard Stavrum
Stephen De Witt Stephens
*Verne Lindsay Stephenson
*John Boardman Steven
Frederica Leighton Stevens
Katherine Bernice Stewart
Cyrena Belle Stirwalt
Frank Moore Stone
Hosmer Ward Stone
William Kimball Strickland
Imogen Sturtevant
Bessie Irene Sutherland
Leah Elizabeth Sutherland
*Milo Kendell Swanton
Julia Cecil Sword
Jennie Talbot
Thomas Peter Tammen
*Else Teschner
*Vivian Trow Thayer
Ruth Marie Thomas
Adele Victoria Thuringer
Jay Miller Tiffany
*Ruth Muriel Tomlinson
Miriam Downing Tompkins

* Degree conferred since commencement, 1916.

*Isabel Glenn Treat
*Samuel Crane Vail
Madge Patterson Van Dyke
Edward Jerald Van Liere
*Madge Vaughn
Margaret Lydia Wahl
*George Henry Wahle
Henry Door Wakefield
†Marvin Weil Wallach
Joseph Leon Ward
Lyman Case Ward
†Florence Giddings Watson
Caroline Mary Wells
Penelope Shield Westcott
Crawford Wheeler
Webb Bogart White
Marjorie Epaminondas Wilder
Lawrence Henry Williams
*Ray Evan Williams
Ann Elizabeth Wilson
Margaret Mabel Wilson
Coie Bertha Winter
Elgia Lelia Wittwer
Henrietta Holmes Wood
Iris Leota Wood
Hugh Otis Worthing
Susan Amelia Yeager
*William Kerns Yocum
Isabel Helen Young
Helen Jane Zillmer

Course in Commerce

Forrest Lamont Ayer
Maurice L. Barton
Harry Ellis Benedict
Lehm Lincoln Brown
Grant Illion Butterbaugh
Alfred Dorance Chickering
Lyle Coryell Clarke
William Foster Clifford
*Edwin Joseph Connor
John Nelson Duncan
Abraham John Eder
Donald Ross Hotchkiss Fellows
Armand Lamfrom Froehlich
Richard Henry Garling
William Leroy Gittings
William Bradshaw Goldie
Charles Keith Harris
Walter Edmund Heineman
Charles Lloyd Henry
Thomas Hunt Imhoff
Ben Melvin Jensen
Archie William Kimball
Theodore Michael Knapstein
Marco Ray Kucheman
Robert Wilson Leslie
Othmar Charles Link
Lawrence Joseph Lynch
Samuel Alpheus Marsh
Elmer Ephraim Meyer
Malcolm Butler Morehart
Frank Sloan Morris
Glenn Lewis Ramsdell
Fred Henry Reimers
Harry William Rieger
George Louis Ruder
Frederick William Rumpf
Roy Hugo Schmidt
William John Charles Schmidt
Arthur Karl Schulz
Nathan Shapiro
Howard Leaman Smith
*Lynwood Herbert Smith
Truman Rhoades Spooner
*Edward John Thomas
Samuel Wilfred Timson
Howard Myron Van Auken
Edward Fritz Voss
Dana Wykoff Walsh

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916

Course in Journalism

Ruth Murrin Boyle
Callendar Armstrong Crosser
Fred Martin Distelhorst
Martin Henry Higgins
*Glenn Viering Kraus
Norman Columbus Lucas
Alfred Wallace Meyer
Harry Saunders Murphy
Edward Mills Pittinger
Howard Irving Potter
Arthur William Prussing
William Athniel Rech
William Burke Reedy
Irving Haight Wanzer
Alex Frank Zache

Bachelor of Philosophy

†Hubert Claire Almy
Emily Alice Budd
*Laudimire Joseph Coubal
Clifford Elzer Granger
Henry Magnus Halverson
Mary Marella Hayden
*Frederick William Hein
*Erskine La Verne Jay
*Irving Willard Jones
Earl Kempthorne Lightcap
Robert Timothy McGrath
Stephen Sumner McNelly
Marguerite Mock
Ernest Joseph Philipp
Mary Grace Powers
*George J. Ritter
Ruby Schafer
*Ema Schlegel
Walter Alexander Scott
Mildred Brown Starr
Myrtle Holmes Stocking
*Victor Emanuel Thompson
Harvey August Uber
Hazel Elizabeth Wilber
Elaine Emugene Wyman

Bachelor of Letters, English Course

‡John Jacob Enge

Bachelor of Science, Chemistry Course

*Nathaniel Arthur Bailey
John Eric Bock
Lloyd Athel Bosworth
*Werner Duecker
Gerhard Wilhelm Duemling
*Herbert Melvin Gaarder
George W. Haverstick
Walter Charles Hawes
Alfred Julius Johnson
Henry Baldwin Merrill
Merle Starr Nichols
Harry Richard Palmbach
†Philip Angus Ritter
Ernest Rudolph Schierz
Fred Carl Schilling
John Frank Stephl
Yu-Mei Zhentzu Tseng
Garvin Daniel Williams

Bachelor of Science, Pharmacy Course

Henry Farrand Miller
Leonard John Schwartz

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.
‡ Degree conferred as of the class of 1899.

Graduate in Pharmacy

William Guy Bartlett
*Guy Henry Butcher
Roy Alvin Clifgard
Hans Andrew Hansen
George Elmer Loftus
Ronald Henry Mahre
Leonard Justus Ostlund
Lawrence Avery Solberg

Bachelor of Science, Medical Science Course

Franklin Blevins Bogart
Barnet Edward Bonar
Meredith Fairfax Campbell
Fremont Augustus Chandler
George Ernest Collentine
*Frank Emmett Downs
Theodore Adolph Estrem
*Arthur Thomas Farisy
Clark Wylie Finnerud
William Anthony Heinrich
Jacob Frank Henken
Maud Eva Hillberry
Jacob J. Horwitz
Griffith S. Jones
Harold Dabney Kerr
Thomas Benjamin Noble
Thomas Stanley O'Malley
Joseph Arnold Opstedal
Bernard Schlossmann
Chester Clayton Schneider
John Harvey Skavlem
*Hartwick Martinus Stang
*Joseph Vincent Taylor
William Edward Wegge
Marcia Katherine Wright

COLLEGE OF ENGINEERING

Bachelor of Science

Civil Engineering Course

Albert Owen Ayres
George Gilbert Bothum
John Broyles
William Wallace Cargill
*Robert Michael Connelly
†Guy Elmore Diehl
*Seren Harold Edwards
Paul Spier Egbert
George Eldred
Erwin William Fisher
*Raleigh Welch Gamble
*Irving Goldfein
William Carl Green
Solomon Cady Hollister
*Paul Donald Mitchell
Louis Fred Nelson
Robert Hughes Parker
Robert Peter Petersen
Raymond Adelbert Phelps
Herman Theodore Pott
Edwin Albert Pynchon
Eugene Miner ReQua
‡Le Roy Salisch
Keith Crawford Spayde
Maynard Joseph Steere
Milton Carl Steuber
Kan Su
Walter Michael Swietlik
Henry Whitney Tabor
John William Tanghe
Rush Elmer Thomas
Howard Thwaits

* Degree conferred since commencement, 1916.
† Degree conferred as of the class of 1902.
‡ Degree conferred as of the class of 1901.

Mechanical Engineering Course

Nelson Dater Barnet
Edward Erp-Brockhausen
Ben Stalker Buckmaster
Fred Lyman Connit
Thomas Nelson Gilder
John William Grosskopf
William Dow Harvey
Roland Jens
Charles McLeod Lewis
John V. McKinney
Claude Norman Maurer
Robert Joseph Mensel
Rudolph Michel
Harry Victor Plate
Sumner Rodriquez
*Charles Whitman Stuart
Joseph Rodney Swetting
Joseph Aloys Weber
John Butler Wilkinson

Electrical Engineering Course

George Henry Joseph Andrae
Edwin Lee Andrew
George Lysle Ballard
Thomas Edmund Bennett
George Edward Booth
Robert Jerry Coughlin
Karl Ehrgott
Robert Newton Falge
William Revel Feiler
John Ulrich Heuser
Philip Alexander Jameson
John Franklin Johnson, Jr.
Edwin Andrew Kaumheimer
Carl Henry Krueger
Lewis Paton McGilvary
Frederick Gerhardt Mueller
Armin Karl Neubert
William Arthur Olson
Roswell Park Orr
Harry Charles Pollak
Philip Roberg
Wilfred Alexis Royce
Wallis Samuel Salmon
Nicholas Joseph Schmitz
Lloyd Mabie Strand
William Kearney Walthers von Alten
*Grant Robert Wells
John Edwin Wise
John Ward Young

Chemical Engineering Course

*Francis Edwin Bash
Kenneth Richard Burke
Alford George Canar
Earl Chambers Dexheimer
Herbert Arthur Gollmar
Victor Carl Hameister
*Freeman Doolittle Lohr
Robert Sylvester Magatagen
Hubert Everet Nelson
Charles Henry Nicholson
Ralph Forbush Norris
Paul Reeve Stimson
Stanton Umbreit
Gustave Hugo Watzke
Charles Blake Willmore

Mining Engineering Course

*Thomas Harold Kernan
Harold Lippert Rau

General Engineering Course

†Arthur Bates Grindell

* Degree conferred since commencement, 1916.
† Degree conferred as of the class of 1902.

GRADUATES OF ADVANCED ENGINEERING COURSES

Civil Engineer

Harry August Doeringsfeld
Harold Frederick Janda
James Albert Schad
Frederick Slocum Howard Smith
James Pettigrew Woodson

Mechanical Engineer

Arthur Davis Fulton
John Frederick Gross
Raymond Coleman Parlett

Electrical Engineer

Owen Hayward Loynes

Chemical Engineer

David Napoleon Carlson
Herbert Jacob Moon

COLLEGE OF AGRICULTURE

Bachelor of Science (Agriculture)

Samuel Basherov
Ralph Monroe Beckwith
Frank Westby Benedict
Murray Reed Benedict
Louis Adolf Bensend
Cyril Robert Bodenbach
Ralph Maxwell Bohn
Jacob Kreider Bowman
Laurel Andrew Brady
Irving Verne Bullis
Arthur De Vries Burke
*Gage Bird Byse
*Edmund Peter Cappell
Joseph Carson
Earl John Cooper
Albert Julius Cramer
Leo Bradford Cummings
Edward Timothy Cusick
Walter Rockwood Dunwiddie
Dan Wilson Flickinger
Axel Carl Forsberg
George Anton J. Foshinbaur
Victor Grover Foshinbaur
Morton Leo Geraldson
†John Hamilton Gill
Joseph Kingsbury Greene
Guy Smithers Hales
Karl Burchard Hanson
Edwin Joseph Hauser
*Randolph Olaf Helland
*Eugene Davenport Holden
Byron Ricks Houser
Harold Herbert Huston
*Earl Wedderburn Hutchison
*Charles Arthur Jackson
Lester Jay Jensen
Ira David Jones
Julius Leo Jordan

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Alois Michael Kessenich
Martin M. Kloser
Oscar Martin Knudson
Walter B. Krueck
Raymond Alfred Lamberson
Wallace Joseph Landry
Walter Antony Leukel
Albert Reed Trenholm Lillie
Robert McCutcheon
Johy Alexander McCutchin
*Joseph Emmett McGilvray
*Ralph Alexander McGilvra
Paul Herbert McMaster
Leslie McNaughton
Loren MacQueen
Alexander Magnus
Arnold Ivan Maxwell
Homer Clark Melvin
Leslie Joseph Merriam
Clifford Merriman
Merton Moore
D. Benjamin Morris
Arthur Cyriak Murphy
Reid Fred Murray
Arthur Henry Neumann
Johannes Kleofas Nord
*Ralph Lester Ostrander
Gail Wesley Palmer
Alfred Clyde Parfrey
John Thomas Raine
†Charles Steven Reddy
Richard Douglas Robertson
Melvin Passon Roske
Jacob Rovner
Frederick Sanborn
Louis Milton Sasman
James J. Sazama
Gustav Adolph Sell
Oscar John Sieker
Joseph Ellsworth Simmons
Frank Joseph Slaby, Jr.
Winfield Scott Smith
George Edward Spengler
Ralph William Stone
Albert Miller Storrs
Peter Carl Strehlow
Edmund Julius Suhr
Barnett Sure
James Sykora
Malvin Helmer Teige
Edmund Harry Thompson
*James Andrew Towler
Horace Warner Truesdell
Eldon John Weber
Charles Emerson Webster
Albert Carl Weimar
John Taylor Wheeler
Henry Ellis White
Lester McClellan Whitmore
Joseph Lloyd Williams
Graham Eugene Wilson
*George Henry Woelfel

Bachelor of Science, Home Economics Course

Florence Mathilda Ackermann
Gladys Andrews
Dora Russell Barnes
Inez Mae Boyce
Florence Evelyn Brookins
Helen Winifred Brooks
Hope Elizabeth Cobb
Dorothy Beatrice Cooper
Edith May Damon
Emma Adele Dreger
Lillian Eastland
Florence Marie Ely
Elizabeth Honora English
Irene Esther Esch
Irene Helen Fredrick
Mary Grace Godfrey
Viletta Irene Hawley
Carrie Adelle Hibbard
Beatrice Marguerite Howard
Ingeborg Marie Iversen
Ruth Klemme
*Dorothy Laing
Mabel Josephine Larson
Gertrude Church Leland
Gladys Louise Meloche
*Lulu Morris
Alice Louise Peck
Rena Kate Piper
Sarah Harriet Porter
Avis Marie Richards
Eleanor Adelaide Sime
Vera Belle Spinney

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Martha Ellen Stanly
Alice Victoria Stewart
Leola May Strickler
*Margaret Lincoln Taylor
Florence Nightingale Turner
Sarah Elizabeth Warwick
Katherine Elizabeth Wattawa
Margaret Whitehead
Alice Whitney
Inez Searles Willson

Graduate in Agriculture

*Edward Andrew Biery
Raymond Francis Bloecher
Scott Doup
Carl Victor Fisher
Harold Douglas Fowler
*Julius Ole Hembre
†Earl Hughes
Howard Francis Joyce
Gordon Frank Kritz
Dorothy Loomis
Alvin Fred Preston
Nathaniel Gifford Preston
Everett Samuel Prouty
*Robert John Roberts
*Frederick Warren Shoemaker
Charles Merwyn Slagg
Robert Henry Travis
†Chester Albert Williams
Guy P. Williams
Joseph Lucas Williams

LAW SCHOOL

Bachelor of Laws

Cornelius Michael Conway
Harold Forster Dickens
Richard Sterling Ely, B. A.
Clarence Erikson, B. A.
Guyon Tompkins Fisher
John Martin Fordyce
†Harvey Clarence Hartwig
†Raymond Julius Heilman
Roland Stevens Homet
Floyd Jenkins
Walter Alfred John
†James Kerr Lowry
Roscoe Rudolph Luce
Archibald Ernest MacQuarrie
William Amberg Martin
Harold Leland Merkel, B. A.
Elton Joseph Morrison, Jr., B. A.
Harry George Newman
John Searle Osborn
Christian John Otjen, B. A.
Milton Norman Quale, B. A.
Louis Jacob Shanhouse, B. A.
Aloysius David Shannon
†Perry Arthur Sletteland
Glenn William Stephens
John James Stewart
Robert Reinholdt Strehlow, B. A.
Edmond Galbraith Toomey
Glenn Patterson Turner
†Arthur Joseph Whitcomb
Charles Earl Wilson

SCHOOL OF MUSIC

Graduate in Music

Floy Matilda Humiston
Marie Anna Elizabeth Paltz

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Graduates from Course for Supervisors of Music

Lilly Maude Andrews
Emilie Crecencia Benesh
Elizabeth Helen Bradford
Mildred Josephine Cozzens
Irene Clara Edwards
Marie Finney
*Gladys Elvira Gnagi
Myra Susan Harker
Thelma Caroline Kuhns
Irene Mary Lappley
Elfrieda Adelaide Nachtigall
Kathryn Parkinson
Mabelle Idelia Paulson
*Charlotte Elizabeth Preston
Agnes Cecelia Skelton
Carlisle Edward Stevenson
Kathleen Rosamond Van Hecke
Elgia Lelia Wittwer

GRADUATE SCHOOL

Master of Arts

Helen Humphrey Abrams, B. A. (University of Wisconsin) in History
John Einar Anderson, B. A. (Brigham Young University) in Physics
Harry Neal Baum, B. A. (University of Wisconsin) in European History
John William Beath, B. A. (University of Wisconsin) in Education
Reese C. Bowton, B. A. (Indiana University) in Education
Albert Brann, B. A. (University of Wisconsin) in Inorganic Chemistry
Elizabeth Brown, B. A. (University of Wisconsin) in Romance Languages
Mabel Mary Brown, B. A. (University of Wisconsin) in Botany
Ruth Moore Butcher, Ph. B. (Mt. Union College) in English
Ruby Caulfield, B. A. (Mississippi Industrial Institute and College) in French.
*Grace Berenice Cooper, B. A. (Beloit College) in English
Finla Goff Crawford, B. A. (Alfred University) in American History
William Harold Davis, B. A. (Cornell University) in Plant Pathology
*Winifred Lemon Davis, B. S. (Ohio Wesleyan University) in Sociology
*Carrie Louise De Nise, Ph. B. (Grinnell College) in Sociology
Paul Logan De Verter, B. A. (Wabash College) in Chemical Engineering
Elise Forsythe Dexter, B. A. (University of Wisconsin) in German
*Zoe Malinda Dobbs, B. A. (Tuscaloosa Female College) in Romance Languages
Mabel Dooley, B. A. (Randolph Macon Woman's College) in English
Conrad Joseph Eppels, B. A. (Royal Teachers College, Germany) in German
James Roy Everett, B. A. (Indiana State Normal College) in Mathematics
Riah Belle Fagan, B. A. (University of Wisconsin) in Latin and Greek
Andrew John Fedt, B. A. (Red Wing Seminary) in English
*Holmes Dunbar Ferris, B. A. (Beloit College) in Political Science
Raymond O. Filter, B. A. (Baldwin-Wallace College) in Psychology
Leighton George Foster, B. A. (Lawrence College) in Agricultural Economics
*Mabel Goddard, B. A. (University of Wisconsin) in English

* Degree conferred since commencement, 1916.

Elta Anne Goodchild, B. A. (Morningside College) in German
*Mary Elizabeth Greene, Ph. B. (Greenville College) in English
Charles Hunt Greenleaf, B. A. (Stanford University) in Romance Languages
Alfred Paul Haake, B. A. (University of Wisconsin) in Political Economy
Anne Shoemaker Haines, B. A. (Swarthmore College) in German
Aileen Spaulding Hammond, B. A. (University of Chicago) in Spanish
Rose Edna Hargrave, B. A. (Lawrence College) in English
Raymond Foulston Haulenbeek, B. A. (Princeton University) in Greek
Irene Cole Hickok, B. A. (Barnard College) in Political Economy
*James Leonard Highsaw, B. A. (University of Oklahoma) in Sociology
*Frederick Franklin Householder, B. A. (University of Wisconsin) in Physics
*Alice Ethel Hughes, B. A. (St. Mary's College, Portland, Ore.) in Latin
Harry Christopher Humphreys, B. A. (West Virginia University) in Education
Gladys S. Jerome, B. A. (University of Omaha) in English
Richard Uriah Jones, B. A. (Macalester College) in Chemistry
Elizabeth Verran Joslin, B. A. (University of Wisconsin) in Latin
Adolph Henry Kazda, B. A. (University of Wisconsin) in History
*Anne Bassett Kelley, B. A. (Beloit College) in English
Mary Agnes Kidder, Ph. B. (University of Chicago) in Sociology
Burdette Ingersoll Kinne, B. A. (University of Wisconsin) in French
Anna T. Kitchel, B. A. (Smith College) in English
Mary Helen Kraft, B. A. (University of Minnesota) in German
*May Rogers Lane, B. A. (Mount Holyoke College) in Sociology
Frederick Collins Lee, B. S. (Johns Hopkins University) in Chemistry of Forest Products
Ruth Hutchinson Lindsay, B. A. (Wellesley College) in Botany
Genivera Edmunds Loft, B. A. (University of Wisconsin) in Geography
George Leroy Luke, B. A. (Brigham Young University) in Physics
*Susan McCoy, B. S. (University of Missouri) in English
Charles McKinley, B. A. (University of Washington) in Political Science
*Loren Carey McKinney, B. A. (Lawrence College) in European History
Alma Louise McMahon, Ph. B. (University of Wisconsin) in History
*James Oscar Marberry, B. A. (Ewing College) in Education
*Irene Marshall, B. A. (Simpson College) in English
Harry Edwin Martin, M. A. (Center College) in English
William Frederick Meggers, B. A. (Ripon College) in Physics
Gertrude Mengelberg, B. A. (Wellesley College) in German
Gladys Miller, B. A. (University of Wisconsin) in History
Sidney Lincoln Miller, B. A. (Kansas State Normal College) in Political Economy
Samuel Morehead Millner, Jr., B. S. (Virginia Military Institute) in Romance Languages
*De Witt Schuyler Morgan, B. A., (Henry Kendall College) in Political Economy
Hannah Morris, B. A. (University of Wisconsin) in History
Harold Hulett Morris, B. A. (University of Wisconsin) in Chemistry
Albert Marinus Nelson, B. A. (Red Wing Seminary) in Education
*Milton Benjamin Nugent, B. A. (Indiana State Normal College) in Botany
Sigurd Louis Odegard, B. A. (University of Wisconsin) in Political Economy

* Degree conferred since commencement, 1916.

*Rebecca Tyler Osler, B. A. (Swarthmore College) in Sociology
Francis Edwin Peterson, B. A. (Luther College) in German
Marguerite Ruth Pohle, B. A. (University of Wisconsin) in Latin
Goldie Jackson Reeves, B. A. (Indiana State Normal School) in Latin
Mary Creegan Roark, B. A. (National University) in Education
Marinda Ingalls Roberts, B. A. (Milwaukee Downer College) in History
Wyatt Rushton, B. A. (University of Alabama) in Journalism
Gertrude Eva Ryan, B. A. (Vassar College) in English
*Charles N. Saltus, B. A. (Colorado State Teacher's College) in English
*Albert Amiel Schaal, B. S. (University of Wisconsin) in Agricultural Chemistry
George Melvin Schwartz, B. A. (University of Wisconsin) in Geology
Percy B. Shostac, B. A. (University of Wisconsin) in English
*Sister Mary Fidelis, O. S. D., B. A. (University of Wisconsin) in Physics
†Sister Mary Clementine Tallon, Ph. B. (University of Chicago) in English
Gilbert Brown Lorenzo Smith, B. A. (Colgate University) in Chemistry
Pearl Mabry Smith, B. A. (University of Wisconsin) in Botany
*Fred Clifton Spalding, B. S. (Hanover College) in Sociology
†Wyandotte James Stevens, M. A. (Lebanon University) in Education
Frank Barnes Thayer, B. A. (Oberlin College) in Journalism
Eben Henry Toole, B. A. (University of Wisconsin) in Botany
*William Ray Teeters, B. A. (Indiana University) in Chemistry
*William Russell Tylor, B. A. (Swarthmore College) in Political Economy
Hermann H. Wiebe, B. A. (University of Nebraska) in German
*Frederick Wood, B. A. (University of Wisconsin) in Mathematics
Lydia Dudley Woodbridge, B. L. (Mt. Holyoke College) in German
Kathleen Wright, B. A. (Saint Clara College) in English
Rowe Wright, B. A. (University of Wisconsin) in English
Elizabeth Tabita Zimmerman, B. A. (University of Michigan) in German

Master of Science

Fred Hunter All, B. S. (Clemson College) in Animal Husbandry
*William Henry Atwood, B. A. (Hope College) in Zoology
†Leo John Bachhuber, B. S. (University of Wisconsin) in Experimental Breeding
Herbert Bassett, B. S. (University of Illinois) in Geology
Joseph Aloysius Becker, B. S. (University of Wisconsin) in Agricultural Economics
Wayne Harrison Bently, B. S. (University of Wisconsin) in Agricultural Chemistry
Van Lorens Bohnson, B. S. (University of Wisconsin) in Chemistry
Robert Kline Bonnett, B. S. (Kansas State Agricultural College) in Agronomy
Harold William Browning, B. S. (Rhode Island State College) in Botany
*Arthur Merton Chickering, Ph. B., (Yale University) in Zoology
Charles William Clifford, B. A. (University of Denver) in Agricultural Chemistry
Florence Maude Coerper, B. A. (University of Wisconsin) in Plant Pathology

* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Herbert Press Cooper, B. S. (Clemson College) in Agronomy
Millard Crane, B. S. (Purdue University) in Agricultural Economics
*Donald DuShane, B. S. (Hanover College) in Education
Martin Joseph Fardy, B. S. (Marquette University) in Medicine
Katherine Ellen Faville, B. S. (University of Wisconsin) in Chemistry
*Guy Kenneth Foster, B. A. (University of Missouri) in Soils
Charles Vern Fowler, B. S. (University of Wisconsin) in Electrical Engineering
Emma Francis, B. S. (Columbia University) in Home Economics
William Merriott Gibbs, B. S. (University of Missouri) in Agricultural Bacteriology
Robert Shiell Goodhue, B. S. (University of Wisconsin) in Soils
Mark Hindley Green, B. S. (Utah Agricultural College) in Agricultural Economics
*Frank Carl Gutsche, B. S. (University of Minnesota) in Chemistry
Russell Edwin Hartman, B. S. (Pennsylvania State College) in Plant Pathology
*Charles Axtell Hunter, B. S. (Kansas State Agricultural College) in Agricultural Bacteriology
Edna Emma Jolivette, B. A. (University of Wisconsin) in Physical Education
De Witt Owen Jones, B. S. (Carroll College) in Chemistry
Maldwyn Lloyd Jones, B. S. (University of Wisconsin) in Chemistry
Sarah Van Hoosen Jones, Ph. B. (University of Chicago) in Animal Husbandry
†Cornelia Kennedy, B. A. (University of Minnesota) in Agricultural Chemistry
Martin Halvor Knutsen, B. S. (University of Wisconsin) in Agricultural Bacteriology
Arthur Henry Kuhlman, B. S., (University of Wisconsin) in Animal Husbandry
John Wentworth Leedy, B. S. (University of Minnesota) in Botany
William Otto Lockhart, B. S. (University of Missouri) in Agricultural Education
Hilmar George Martin, B. A. (University of Wisconsin) in Medicine
Ernest Bertram Matthews, B. A. (Kansas State Normal School) in Agricultural Education
Lee Percy Mehlig, B. S. (University of Wisconsin) in Anatomy
Roger Emmett Moore, B. A. (University of Wisconsin) in Mathematics
Norbert Robert Mueller, B. S. (University of Wisconsin) in Pharmacy
*Ray V. Murphy, B. S. (Illinois Wesleyan University) in Chemistry
Samuel Maximilian Nelson, B. S. (Rutgers College) in Sociology
Barenda Kumar Palit, B. S. (University of Wisconsin) in Medicine
Helen Tracy Parsons, B. S. (Kansas State Agricultural College) in Agricultural Chemistry
George Frederick Potter, B. S. (University of Wisconsin) in Horticulture
Olga Charlotte Pressentin, B. A. (University of Wisconsin) in Physical Education
*Charles Steven Reddy, B. S. (University of Wisconsin) in Plant Pathology

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* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

J. Edward Richardson, Jr., B. A. (Johns Hopkins University) in Horticulture
*Oscar Edwin Siegfried Roeseler, B. S. (University of Wisconsin) in Chemistry
*Ralph Merrill Rutledge, B. S. (Oregon Agricultural College) in Agricultural Economics
Lee Jay Schenckenberg, B. S. (University of Wisconsin) in Agricultural Chemistry
Lloyd Marcus Schindler, B. A. (University of Wisconsin) in Agricultural Engineering
Curtis Everett Smith, B. A. (Mississippi Medical College) in Medicine
Mary Bosworth Stocking, B. S. (Simmons College) in Home Economics
Anna Holden Strang, B. A. (Colorado College) in Plant Pathology
Clinton Kenney Textor, B. S. (University of Wisconsin) in Chemical Engineering
Edith Sommer Tomhagen, B. A. (University of Wisconsin) in Medicine
†De Wayne Townsend, B. A. (University of Wisconsin) in Anatomy
Wanda Weniger, B. S. (Oregon Agricultural College) in Botany
John Barlow Youmans, B. A. (University of Wisconsin) in Medicine
Kwank Pi Young, B. A. (University of Wisconsin) in Chemistry
Marvin Hooper Young, B. S. (University of Texas) in Agronomy

Master of Philosophy

Gustav William Gehrand, Ph. B. (University of Wisconsin) in Agricultural Education
*Nelle Grace Hudson, Ph. B. (University of Wisconsin) in Geology

Master of Public Health

Hugo Mueller, M. D. (University of Michigan) in Medical Bacteriology
Ira Fay Thompson, M. D. (Bennett College, Chicago)
*Mary Rhoda Wetmore, M. D. (University of Michigan) in Medicine

Civil Engineer

Harold Leigh Algeo, B. S. (University of Wisconsin)
Thesis: Tests on the effect of curing Portland cement concrete in steam at atmospheric pressure
Hans Nelson Brue, B. S. (University of Wisconsin)
Thesis: The development of highway bridges in Wisconsin
Cuthbert Powell Conrad, B. S. (University of Wisconsin)
Thesis: An investigation of the flow of water over some types of submerged weirs and dams
William Henry Fowler, B. A. (University of Texas)
Thesis: An investigation of the flow of water over some types of submerged weirs and dams

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* Degree conferred since commencement, 1916.
† Degree conferred March 1, 1916.

Carl J. Johnson, B. S. (South Dakota State College)
Thesis: An investigation of the effect of the variation in velocity on the coefficient of a pitot tube
Ira Burton Lanphier, B. S. (South Dakota State College)
Thesis: An investigation of the effect of the variation in velocity on the coefficient of a pitot tube
John Murray Ray, B. S. (University of Wisconsin)
Thesis: Methods of valuing buildings
Martin Wilhelm Torkelson, B. S. (University of Wisconsin)
Thesis: Highway drainage structures

Mechanical Engineer

Arthur Charles King, B. S. (University of Wisconsin)
James Donald MacLean, B. S. (University of Wisconsin)

Electrical Engineer

George Harrison Gray, B. S. (Massachusetts Institute of Technology)
Thesis: Design, construction, and tests of an artificial power transmission line for the Telluride Power Co., of Provo, Utah
Bert Hila Peck, B. S. (University of Wisconsin)
Thesis: The collection, preparation, and presentation of engineering data necessary for a determination of equitable rate schedules for electric utility service

Chemical Engineer

Raymond Clarence Downing, B. S. (University of Wisconsin)
Thesis: Some fundamentals affecting the utilization of gas oil in carburetted water gas manufacture
I. Philip Silverstein, E. M. (Columbia University)
Thesis: The effect of varying humidities on the physical properties of paper

Doctor of Philosophy

Ben Albert Arneson, M. A. (University of Wisconsin) in Political Science and Political Economy
Thesis: Civil service reform in state administration
Sarah Morehouse Beach, M. A. (University of Wisconsin) in German Literature, German Philology, and English
Thesis: The struggle of the two generations in the German drama since Lessing
†John Carl Blankenagel, B. A. (University of Wisconsin) in German and Philosophy
Thesis: The theory of life of Heinrich von Kleist

† Degree conferred March 1, 1916.

John Kester Bonnell, M. A. (Harvard University) in English, French and Italian

Thesis: Religious drama and Christian art: studies in their relationship

Paul Winslow Boutwell, M. A. (University of Wisconsin) in Agricultural and Inorganic Chemistry

Thesis: The phytic acid of the wheat kernel and some of its salts

Martha Letitia Edwards, M. A. (University of Wisconsin) in American History, European History and Philosophy

Thesis: Government patronage of Indian missions

William Henri Eller, M. A. (University of Wisconsin) in German, Norse, and Comparative Literature

Thesis: Ibsen in Germany, 1870-1900

Vernor Clifford Finch, B. S. (University of Chicago) in Geography, Meteorology and Geology

Thesis: An atlas of world agriculture

Frank Gray, M. S. (University of Wisconsin) in Physics, Mathematical Physics, and Mathematics

Thesis: The optical activity of liquids and gases

William Arthur Gruse, M. A. (University of Wisconsin) in Chemistry of Forest Products, Physical Chemistry, and Pharmaceutical Chemistry

Thesis: On the reactions of both the ions and the molecules of acids, bases, and salts, the inversion of menthone by sodium, potassium and lithium ethylates

Milton Rietow Gutsch, M. A. (University of Wisconsin) in Medieval History, European History, and Political Economy

Thesis: The papal preparations for the fourth Crusade

Lester Davisson Hammond, M. A. (University of Wisconsin) in Chemical Technology, Physical Chemistry, and Organic Chemistry

Thesis: The electro-deposition of nickel

*John Donald Hicks, M. A. (Northwestern University) in American History, European History and Political Science

Thesis: Western state making, 1888-1890

†Roy Jay Holden, B. S. (University of Wisconsin) in Geology, Chemistry and Topographical Engineering

Thesis: History of the iron ore industry in the United States

William Otis Hotchkiss, C. E. (University of Wisconsin) in Geology

Thesis: Mineral land classification

Heman Lauritz Ibsen, M. S. (University of Wisconsin) in Experimental Breeding, Zoology, and Botany

Thesis: Tricolor inheritance. I. The tricolor series in guinea pigs. II. The Basset hound. III. Tortoise-Shell cats.

*Kate Wetzel Jameson, M. A. (University of Wisconsin) in German and Philosophy

Thesis: Goethe's stellung zur frau nach selbstzeugnissen aus der zeit vor 1800

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* Degree conferred since commencement, 1916.

† Degree conferred March 1, 1916.

Richard Anthony Muttkowski, B. A. (University of Wisconsin) in Zoology and Botany

Thesis: The fauna of Lake Mendota: a qualitative and quantitative survey with special reference to the insects

Warren Milton Persons, B. S. (University of Wisconsin) in Political Economy and Mathematics

Thesis: The variability in the distribution of wealth and income

Ernest John Pieper, M. A. (University of Wisconsin) in Chemistry of Forest Products, Physical Chemistry, and Plant Physiology

Thesis: On the products obtained from wood by the action of fungi and by destructive distillation

*William Brasser Pietenpol, M. A., (University of Wisconsin) in Physics, Mathematical Physics and Mathematics.

Thesis: Spectral emission of molybdenum as a function of temperature

*Harold Scott Quigley, B. A. (Oxford University) in Political Science, History and Political Economy

Thesis: The immunity of private property from capture at sea

Lucy George Roberts, M. A. (University of Wisconsin) in Latin and Greek

Thesis: An introduction to the fables of Phaedrus

*Manuel Luz Roxas, M. S. (University of the Philippines) in Agricultural Chemistry, Agricultural Bacteriology and Plant Chemistry

Thesis: The reaction between amino acids and carbohydrates as a probable cause of humin formation

Arlie William Schorger, M. A. (Ohio State University) in Chemistry of Forest Products, Pharmaceutical Chemistry, and Physical Chemistry

Thesis: Contributions to the chemistry of American conifers

Henry August Schuette, M. S. (University of Wisconsin) in Food Chemistry, Plant Chemistry and Botany

Thesis: A biochemical study of the Plankton of Lake Mendota

†James Morgan Sherman, M. S. (University of Wisconsin) in Agricultural Bacteriology, Dairy Husbandry and Zoology

Thesis: Studies on soil protozoa and their relation to the bacterial flora

Thomas Marshall Simpson, M. A. (University of Wisconsin) in Mathematics and Mathematical Physics

Thesis: On a functional equation of Abel

Harry Steenbock, M. S. (University of Wisconsin) in Agricultural Chemistry, Physiology, and Chemistry of Forest Products

Thesis: Studies in nutrition

William Nichols Steil, Ph. B. (University of Wisconsin) in Botany and Zoology

Thesis: Apogamy in Nephrodium hirtipes Hk

Joseph Clark Stephenson, B. S. (University of Chicago) in Zoology

Thesis: Studies on the development of characters in normal and hybrid chicks

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* Degree conferred since commencement, 1916.

† Degree conferred March 1, 1916.

Erwin Rudolph Stoekle, M. S. (University of Wisconsin) in Physics, Mathematical Physics, Electrical Engineering
Thesis: The thermionic properties of molybdenum
†Edwin Charles White, B. A. (Johns Hopkins University) in Chemistry of Forest Products, Physical Chemistry and Physics
Thesis: On the theory of indicators; the reactions of phenosulphonphthalein and some of its derivatives
Vive Hall Young, Ph. M. (University of Wisconsin) in Botany and Plant Physiology
Thesis: Some factors affecting enzyme formation in certain fungi

HONORARY DEGREES

Doctor of Laws

Burr W. Jones, Professor of Law in the University of Wisconsin, 1885–1915.

Doctor of Science

Ludvig Hektoen, Head of the Department of Pathology and Bacteriology in the University of Chicago, and the Director of the Chicago Memorial Institute for Infectious Diseases.

GRADUATION HONORS

Honors for Theses

College of Letters and Science

Abraham Assovsky, in Political Economy
Thesis: A Statistical comparison of unemployment in Massachusetts, New York, and Great Britain
Henry Barnbrock, Jr., in Political Economy
Thesis: Italians in Madison
Harry Ellis Benedict, in Commerce
Thesis: The labor problem of railroads
Franklin Blevins Bogart, in Bacteriology
Thesis: The bacteriology of the Madison water supply and its distribution through the bubble fountain
Laura Hanes Cadwallader, in History
Thesis: The relations of Queen Elizabeth with the freebooters
Lyle Coryell Clarke, in Commerce
Thesis: What Wisconsin newspapers should charge for advertising
Robert John Cunningham, in Political Science
Thesis: An investigation of the organization of the courts of Wisconsin

† Degree conferred March 1, 1916.

Ann Elizabeth Edwards, in Botany
Thesis: A comparison of the rates and direction of absorption in various commercial woods when immersed in water
George W. Haverstick, in Chemistry
Thesis: Application of the Van't Hoff equation to the determination of the heat of vaporization of mixed liquids
Mary Hemenway, in Latin
Thesis: Lucretius' theory of the development of man in civilization
Laura Roe Mills, in English
Thesis: Nietzsche's superman and Carlyle's hero—a contrast
Bernard Christian Mueller, in Political Economy
Thesis: The mail order lumber business
Edna Marie Nagle, in Latin
Thesis: The banquet satires of the Romans
Harriet Eastabrooks O'Shea, in Education
Thesis: Measurement of intelligence in school children
Louis Rosenberg, in Chemistry
Thesis: The composition of washing powders
Omar T. Sadler, in Manual Arts
Thesis: Adapting elementary school courses to the child who does not finish the high school
Edith Lucile Sharkey, in German
Thesis: The religious and ethical thought of Gustav Freussen
Fred Walter Stadelbauer, in Political Economy
Thesis: Economic legislation in Germany on account of the English blockade in 1914-1915
Joseph Vincent Taylor, in Physiology
Thesis: The effect of autolysis reaction on liver
Lyman Case Ward, in History
Thesis: Anglo-French diplomatic relations, 1880-1904

College of Agriculture

Murray Reid Benedict, in Farm Management (Agr. Economics)
Thesis: A study of the influence of cash crops upon the farm business
Florence Marie Ely, in Home Economics
Thesis: A study of the factors causing shrinkage in woolen cloth
Mary Grace Godfrey, in Home Economics
Thesis: The effect of superheated fat upon digestion
Gail Wesley Palmer, in Agricultural Engineering
Thesis: A study of the effect of the timing of the spark and the exhaust valve under various loads on the full consumption in the farm type of gas engine
†Charles S. Reddy, in Plant Pathology
Thesis: Preliminary report on bacterial blight of barley
Jacob Rovner, in Agricultural Bacteriology
Thesis: The degree of accuracy in determining the number of bacteria in milk by the standard methods
Oscar John Sieker, in Agronomy
Thesis: A study of the percentage of meat to hull of Wisconsin pedigreed oats

† Degree conferred March 1, 1916.

Peter Carl Strehlow, in Animal Husbandry
Thesis: Breeding records of the university swine herd for the seasons of 1915 and 1916
Barnett Sure, in Agricultural Chemistry
Thesis: The relation of amide nitrogen to the nitrogen metabolism of the pea plant
Horace Warner Truesdell, in Agricultural Bacteriology
Thesis: The effect of phosphorus upon alfalfa and alfalfa bacteria
Sarah Elizabeth Warwick, in Home Economics
Thesis: Department store organization and management

Law School

Edmond Galbraith Toomey
Thesis: Reform in civil pleading and practice

STUDENTS

GRADUATES

The Albert Markham Memorial Graduate Traveling Fellowship

Awarded for excellence in language and literature

*Sarah Morehouse Beach, Ph. D. (University of Wisconsin), in German and English

*Lucy George Roberts, Ph. D. (University of Wisconsin), in Latin and Greek

Fellows and Scholars

Armstrong, Robert Douglas	*Indianapolis, Ind.*
B. A., Indiana University	Scholar in Political Science
Bannen, Dorothy Agnes	*Milwaukee*
B. A., University of Wisconsin	Teaching Fellow in History
Baum, Harry Neal	*Madison*
M. A., University of Wisconsin	Fellow in European History
†Benger, Ernest Baden	*Madison*
M. S., University of Wisconsin	Honorary Fellow in Chemistry
Black, John Donald	*Madison*
M. A., University of Wisconsin	Fellow in Political Economy
Blosser, Christian B.	*Elkhart, Ind.*
B. A., Indiana University	Scholar in Horticulture
Boortz, Harvey Edward	*Waukesha*
B. A., Carroll College	Carroll College Scholar (German)
Briggs, Mitchell Pirie	*Le Mars, Iowa*
B. A., Morningside College	Scholar in American History
Browning, Harold William	*Madison*
M. S., University of Wisconsin	Fellow in Botany
Brunelle, Augustus Hall	*Madison*
M. A., University of Wisconsin	Fellow in Latin
Comstock, Mary Cecelia Everette t c	*Madison*
B. A., University of Wisconsin	Scholar in Romance Languages

*Not included in total.

†Appointment for the second semester, 1916-17.

Coulter, Ellis Merton — *Connelly Springs, N. C.*
M. A., University of Wisconsin — Fellow in American History

Crafts, Florence Kate — *Bradford, Vt.*
B. A., Smith College — Fellow in Greek

Dietz, Lorna — *Milwaukee*
B. A., Milwaukee-Downer College
Milwaukee-Downer Scholar (Political Economy)

*Doolittle, Sears Polydore — *Chicago, Ill.*
M. S., Michigan Agricultural College
Research Fellow in Plant Pathology

Du Mez, Andrew Grover — *Madison*
M. S., University of Wisconsin — Honorary Fellow in Pharmacy

Eicke, Wilmer Hughes — *Narragansett Pier, R. I.*
B. A., Brown University — Henry Gund Scholar in German

*Flint, Rebecca Punchard t c — *Madison*
B. A., Wellesley College — Fellow in Romance Languages

Fowler, Mary Lucile — *Fond du Lac*
B. A., University of Wisconsin — Teaching Fellow in English

Garnett, William Edward — *Charlottesville, Va.*
M. A., Peabody Teachers College — Scholar in Political Economy

Ge'sler, Clifford Franklin — *Bangor*
B. A., Milton College — Milton College Scholar (English)

Gibbs, William Merriott — *Madison*
M. S., University of Wisconsin
Fellow in Agricultural Bacteriology

Giddings, Nahum James — *Morgantown, W. Va.*
M. S., Vermont College — Honorary Fellow in Plant Pathology

Gustafson, Edgar Harold — *Hannaford, N. Dak.*
M. A., University of North Dakota — Fellow in Political Economy

Hageman, Aaron Martin — *Bund Brook, N. J.*
M. S., Rutgers College — Fellow in Chemistry

Higgins, Irene — *Eagle River*
B. A., University of Wisconsin — Teaching Fellow in History

Hodgson, Roberta — *Athens, Ga.*
M. A., University of Wisconsin — Fellow in Sociology

Holmes, Clarence Leroy — *Madison*
B. A., University of Michigan — Fellow in Agricultural Economics

Homann, Frederic Adolf — *New Braunfels, Tex.*
B. S., Agricultural and Mechanical College of Texas
Scholar in Steam and Gas Engineering

Hougen, Olav Andreas — *Madison*
B. S., University of Washington — Fellow in Chemical Engineering

Hoyer, Theodore Robert — *Milwaukee*
B. A., University of Wisconsin
Mary M. Adams Fellow in English

Hunt, Richard Nash — *Madison*
B. A., University of Wisconsin — Scholar in Geology

†Jenkins, James Francis — *Berlin*
B. A., University of Wisconsin — Fellow in Romance Languages

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*Appointment for the second semester, 1916-17.
†Resigned February 24, 1917.

*Johnson, Harlan Woodbridge — *Ames, Ia.*
M. S., Iowa State College — Scholar in Agricultural Bacteriology

Lehman, Elmer Ernest — *Wakarusa, Ind.*
B. A., Goshen College — Scholar in Agricultural Education

Lundy, Gabriel — *Grand Forks, N. Dak.*
B. S., North Dakota Agricultural College
Scholar in Political Economy

MacInnis, Earl C. — *Oshkosh*
B. A., Lawrence College
Lawrence College Scholar in Political Economy

Merrill, Henry Baldwin — *St. Paul, Minn.*
B. S., University of Wisconsin — Scholar in Chemistry

Merritt, John Wesley — *Hanover, N. H.*
M. S., Northwestern University — Fellow in Geology

*Michael, Louis Guy — *Hastings, Mich.*
B. S., Michigan Agricultural College
Honorary Fellow in Experimental Breeding

†Moore, Roger Emmett — *Madison*
M. S., University of Wisconsin — Fellow in Mathematics

Morris, Harry Elwood — *Bozeman, Mont.*
B. S., Montana State College — Honorary Fellow in Botany

Mulholland, Lionel George — *Riverside, N. J.*
B. S., Delaware College — Scholar in Dairy Husbandry

Nelson, Thurlow Christian — *Madison*
B. S., Rutgers College — Fellow in Zoology

Pearce, Rufus Burleson — *Richland, Tex.*
B. S., Agricultural and Mechanical College of Texas
Scholar in Civil Engineering

†Rands, Robert Delafield — *Lincoln, Neb.*
M. S., University of Wisconsin — Scholar in Plant Pathology

Roberts, Harold Stine — *Merchantville, N. J.*
M. A., Princeton University — Fellow in German

Sanders, Shipp Gillespie — *Georgetown, Tex.*
M. A., Princeton University
Charles Kendall Adams Fellow in Greek

Schwarz, Leonard John — *Chilton*
B. S., University of Wisconsin — Hollister Fellow in Pharmacy

Seeberg, Elizabeth Alexandra t c — *Milwaukee*
M. A., University of Wisconsin — Fellow in Psychology

Smith, Cora Davis — *Green Bay*
B. A., Ripon College — Ripon College Scholar (Latin)

Strong, John Stoughton — *Albion, Mich.*
B. A., Albion College — Fellow in Physics

Sutherland, Brenda — *Melbourne, Australia*
M. S., University of Melbourne — Fellow in Home Economics

Swanzey, Ruth Ellen — *Beloit*
B. A., Beloit College — Beloit College Scholar (History)

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*Appointment for the second semester, 1916–17.
†Resigned February, 1917.

Swenson, Rinehart John — *Radcliffe, Iowa*
M. A., University of Minnesota — Fellow in Political Science
*Tisdale, Wendell Holmes — *Madison*
M. S., University of Wisconsin
Horlick Scholar in Plant Pathology
†Tisdale, William Burley — *Bluff Springs, Fla.*
B. S., Alabama Polytechnic Institute
Horlick Scholar in Plant Pathology
Titchener, Margaret Seymour — *Ithaca, N. Y.*
B. A., Wells College — Scholar in Latin and Greek
†Titus, Esbon Yokum — *Madison*
M. A., University of Colorado — Honorary Fellow in Chemistry
Tompkins, Miriam Downing t c — *Wauwatosa*
B. A., University of Wisconsin — Scholar in English
Van Landegend, Edward — *Madison*
B. A., University of Michigan — Fellow in Education
Wakeman, Caroline Alice — *Chicago, Ill.*
Ph. B., University of Chicago — Scholar in European History
‡Walsh, Joseph Leonard — *Catonsville, Maryland*
B. S., Harvard University — Honorary Fellow in Mathematics
White, Horace Loring — *Fargo, N. Dak.*
M. A., Columbia University
Honorary Fellow in Agricultural Chemistry
Wilkinson, John Butler — *Madison*
B. S., University of Wisconsin — Fellow in Mechanical Engineering

Other Graduates

Aagaard, Arthur Hildeman — *Madison*
B. S., University of Illinois — Chemistry
Abbott, Roy Linn — *Conesville, Iowa*
B. A., Iowa State Teachers' College — Plant Pathology
Albert, Arthur Robert — *Madison*
B. S., University of Wisconsin — Soils
Alderman, William E. — *Madison*
M. A., Hiram College — English
Anderson, Achsah Cornelia — *Milwaukee*
B. A., University of Wisconsin — History
Anderson, Frank Clinkscales — *Centreville, S. C.*
B. S., Clemson College — Agronomy
Angel, William Piper — *Madison*
M. A., University of Tennessee — Physics
Armstrong, George Miller — *Madison*
B. S., Clemson College — Botany
Atkinson, Charles Otto — *Rockport, Ind.*
B. A., Indiana University — Botany
Atwood, Marion John — *Madison*
M. A., University of Wisconsin — Political Science

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*Resigned January 30, 1917.
†Appointed for the second semester, 1916-17
‡Appointed December 18, 1916

Avery, William Donald — *Hampton, Iowa*
B. A., Grinnell College — Political Science
Babcock, Rodney Whittemore — *Madison*
M. A., University of Wisconsin — Mathematics
Bachhuber, Leo John m — *Mayville*
M. S., University of Wisconsin — Experimental Breeding
Bain, Edgar Collins — *Ashtabula, Ohio*
M. S., Ohio State University — Chemical Engineering
Baird, Edgar Alan — *Madison*
M. A., University of Wisconsin — Botany
Baldwin, Isabella Nancy — *Washington, D. C.*
B. A., Goucher College — English
Barker, Henry D. — *Mountain Rest, S. C.*
B. S., Clemson College — Agronomy
Barnes, Robert James — *Menasha*
B. A., Lawrence College — Latin
Barr, Walter James — *Madison*
B. A., Wabash College — Physics
Bateman, Ernest — *Madison*
Ph. B., Yale University — Chemistry of Forest Prod
Bean, Ernest F. — *Madison*
M. A., University of Wisconsin — Geology
Beaubien, Edith Nell — *Lamar, Colo.*
B. S., Kansas State Agricultural College — Home Economics
Becker, Joseph Aloysius — *Madison*
M. S., University of Wisconsin — Agricultural Economics
Benger, Ernest Baden — *Madison*
M. S., University of Wisconsin — Chemistry
Bennett, James Percy — *Madison*
M. A., University of Missouri — Botany
Berghoff, Clement Anthony — *Chicago, Ill.*
B. A., Campion College — Political Economy
Bing, Phil C. — *Madison*
B. A., Miami College — Journalism
Binney, Morgan Thompson — *Milwaukee*
B. S., Kansas Agricultural College — Plant Pathology
Bishop, George Holman — *Madison*
B. A., University of Michigan — Zoology
Bishop, George Marsters — *Madison*
B. S., University of Wisconsin — Chemistry
Blanchard, William Oscar — *Oshkosh*
Ph. B., University of Wisconsin — Geography
Bloch, Louis — *Madison*
B. A., University of Wisconsin — Political Economy
Bogart, Franklin Blevins m — *Madison*
B. S., University of Wisconsin — Pathology
Bohn, Ralph Maxwell — *Madison*
B. S., University of Wisconsin — Agricultural Chemistry
Bohnson, Van Lorens — *Madison*
M. S., University of Wisconsin — Chemistry
Borsack, Karl Kasper m — *Fond du Lac*
B. A., University of Wisconsin — Medicine

Bosworth, Lloyd Athel — *Madison*
B. S., University of Wisconsin — Chemistry
Bo ulware, Lemuel Ricketts — *Springfield, Ky.*
B. A., University of Wisconsin — Political Economy
Boyer, DeWitt Angus — *Springfield, Utah*
B. A., University of Utah — Public Speaking
Bradley, Robert Foster, Jr. — *Madison*
M. A., University of South Carolina — French
Brandt, Walther I. — *Macfarland*
B. A., Luther College — American History
Brann, Albert — *Madison*
M. A., University of Wisconsin — Chemistry
Brann, John William — *Baileys Harbor*
M. S., University of Wisconsin — Plant Pathology
Breckon, William Darche — *Oconomowoc*
B. S., Toronto University — Agricultural Economics
Brenneman, William Dwight — *Oregon*
B. A., Mount Union College — Political Economy
Brookins, Julia Louis Clarke — *Madison*
M. A., University of Wisconsin — Political Economy
Brown, Mabel Mary — *Platteville*
M. A., University of Wisconsin — Botany
Brye, Edwin S. — *Minnewaukaw, N. Dak.*
B. A., Red Wing Seminary — Sociology
Buell, Mary Van Rensselaer — *Madison*
M. A., University of Wisconsin — Agricultural Chemistry
Burdick, Allison Lovelle — *Milton*
B. A., Milton College — Anatomy
Butler, Lee Wright — *Madison*
B. A., Simpson College — Physics
Cahn, Alvin Robert — *Chicago, Ill.*
M. S., University of Wisconsin — Zoology
Calderwood, Howard Newton, Jr. — *Madison*
B. S., University of Kansas — Chemistry of Forest Products
Calkins, Audley Berlyn — *Wayland, Mich.*
B. A., Hillsdale College — English
Campbell, Meridith Fairfax m — *Madison*
B. S., University of Wisconsin — Pathology
Campbell, Rachel Mary — *Milwaukee*
B. S., University of Chicago — Education
Cantu, Abel — *Madison*
B. A., William Jewell College — Spanish
Carncross, Elmer Aeneas — *Madison*
B. S., University of Wisconsin — Agricultural Economics
Carpenter, Otto F. — *Belleville, Mich.*
B. A., Ohio Northern University — Political Economy
Carsner, Eubanks — *Victoria, Tex.*
M. S., University of Wisconsin — Plant Pathology
Cave, Lo Ree — *Hays, Kans.*
B. A., Kansas State Agricultural College — Home Economics
Chamberlain, Ernest Barrett — *Madison*
M. A., B. D., Oberlin College — Medieval History

Charlton, Alice Grace — *Milwaukee*
B. A., Wellesley College — Agricultural Bacteriology
Cheyney, Alice Squires — *Philadelphia, Pa.*
M. A., Bryn Mawr College — Political Economy
Childs, Edward Powell — *Madison*
B. S., Denison University — Education
Clark, Emily Ethel — *Madison*
B. A., University of Wisconsin — Political Economy
Clemens, Cecil Arthur — *Sioux Falls, S. Dak.*
B. A., South Dakota University — Chemistry
Cleveland, William Roy — *Madison*
B. S., Kansas State Manual Training Normal
Chemistry of Forest Products
Clifford, Charles William — *Madison*
M. S., University of Wisconsin — Chemistry
Cole, Archie Evans — *Plymouth, Ohio*
B. A., Ohio Wesleyan University — Zoology
Conrad, Elizabeth — *Madison*
M. A., University of Wisconsin — French
Conrad, Sara Eugenia — *Madison*
M. A., University of Wisconsin
Conrey, Guy W. — *Madison*
M. A., University of Michigan — Soils
Cook, Guy Shimer — *Madison*
B. A., University of Missouri — Physics
Corbett, Gertrude Marion — *Milwaukee*
B. A., University of Wisconsin — Political Economy
Courtney, Alden Key — *Pettus, Tex.*
B. S., Agricultural and Mechanical College, Texas
Economic Entomology
Cowles, May Louise — *Sibley, Kans.*
B. S., Kansas State Agricultural College — Home Economics
Coxen, James Reason t c — *San Marcos, Tex.*
B. S., Kansas State Agricultural College — Manual Arts
Crandall, George Herbert — *Milton*
B. A., Milton College — Zoology
Crane, Alice Whittaker — *Brookline, Mass.*
B. A., University of Wisconsin — Philosophy
Crawford, Finla Goff — *Cameron Mills, N. Y.*
M. A., University of Wisconsin — American History
Crothers, Harold Marion — *Madison*
E. E., University of Wisconsin — Electrical Engineering
Curley, Ethel Delia — *Idaho Falls, Idaho*
B. A., Vassar College — Medical Bacteriology
Dadisman, Andrew Jackson — *Morgantown, W. Va.*
M. S., Cornell University — Agricultural Economics
Dahm, Thomas Matthew — *McGregor, Iowa*
M. A., Northwestern University — Physics
Davies, Ethel Elizabeth — *Barberton, Ohio*
Ph. B., University of Akron — Home Economics
Davis, Melvin Knolen — *Bedford, Ind.*
M. A., University of Wisconsin — Geology

Degeler, Alida — *Milwaukee*
M. A., University of Wisconsin — French
Dexter, Elise Forsythe — *Madison*
M. A., University of Wisconsin — German
Dickson, James Geere — *North Yakima, Wash.*
B. S., Washington State College — Botany
Dixon, Esther Margaret — Madison
M. A., University of Wisconsin — Spanish
Doherty, John Andrew — *Dorchester, Mass.*
B. A., Harvard University — Sanitary Engineering
Dooley, Mabel — *Knoxville, Tenn.*
M. A., University of Wisconsin — English
Drescher, Henry Adolph — *Sun Prairie*
M. S., University of Wisconsin — Agricultural Chemistry
Du, Chuin — *Honan, China*
B. A., Baldwin-Wallace College — Political Economy
Dunnewald, Theodore John — *Madison*
M. S., University of Wisconsin — Soils
Eagan, Joseph Bernard — *Avoca*
B. A., University of Wisconsin — Commerce
Eberle, George Jacquin — *Madison*
B. A., University of Wisconsin — Political Economy
Eggleston, George Konti — *Dallas*
B. A., Lawrence College — Philosophy
Elliott, Charlotte — *Dell Rapids, S. Dak.*
M. A., Leland Stanford University — Plant Pathology
Elliott, Helen Frances — *Superior*
B. A., St. Clara College — History
Ellis, Mattie Cook — *Austin, Minn.*
Winona, Minnesota, Normal — American History
Elmendorf, Armin — *Madison*
B. S., University of Illinois — Mathematics
Emsley, Bert — *Methuen, Mass.*
B. A., Harvard University — English
Erdmann, Henry Ernst — *Mitchell, S. Dak.*
B. S., South Dakota State College — Agricultural Economics
Essinger, Anna — *Madison*
German

Etheridge, Jesse I. — *Madison*
B. S., University of Wisconsin — Animal Husbandry
Evans, Augusta Dillman — *Frackville, Pa.*
B. A., Smith College — Home Economics
Ewing, Harry Earnest — *Buenos Aires, Argentine*
B. A., University of Colorado — Political Economy
Field, Albert Martin — *Madison*
B. S. University of Wisconsin — Agronomy
Finnegan, Robert Charles m — *La Valle*
B. A., Ripon College — Anatomy
Finner, Paul Frederick — *Dodge*
M. A., University of Chicago — Education
Fluke, Charles Lewis, Jr., — *Grand Junction, Colo.*
B. S., Colorado Agricultural College — Economic Entomology

Forster, Garnet Wolsery — *Wrentham, Mass.*
B. S., Cornell University — Agricultural Economics
Forster, George Francis — *Hawks Park, Fla.*
B. A., Emory University — Zoology
Foster, Leighton George — *Madison*
M. A., University of Wisconsin — Agricultural Economics
Frenzel, Harry Horton — *Sentinel, Okla.*
B. S., Oklahoma Agricultural and Mechanical College — Structural Engineering
Frey, Charles N. — *Caledonia, Mich.*
M. S., University of Wisconsin — Botany
Fulmer, Henry L. — *Batesburg, S. C.*
M. S., University of Wisconsin — Agricultural Bacteriology
Gardner, Max William — *Madison*
M. S., University of Wisconsin — Plant Pathology
Gaylord, Joseph S. — *Madison*
M. A., Harvard University — Philosophy
Geib, Horace Valentine — *Caledonia, Mich.*
B. S., Michigan Agricultural College — Soils
Gentner, Louis Gustave — *Portland, Ore.*
B. S., Oregon Agricultural College — Economic Entomology
Gerry, Eloise — *Madison*
M. A., Radcliffe College — Botany
Gibbens, Olga Charlotte — *Madison*
B. A., Fairmount College — German
Giessing, Charles Paul — *Brooklyn, N. Y.*
M. A., Cornell University — German
Gillette, Paul Clifford — *Madison*
B. S., Agricultural and Mechanical College of Texas — Hydraulic Engineering
Gilman, Laura Leonard — *Madison*
B. A., University of Wisconsin — Medical Bacteriology
Glaeser, Martin Gustave — *Sheboygan*
B. A., University of Wisconsin — Political Economy
Goodrich, Helen Hazel — *Ripon*
B. A., Ripon College — English
Goss, Robert Whitmore — *Fall River, Mass.*
M. S., Michigan Agricultural College — Plant Pathology
Graul, Edward John — *Independence*
B. S., University of Wisconsin — Soils and Bacteriology
Gray, Rena — *Arlington, Mass.*
B. S., Simmons College — Home Economics
Greenleaf, Charles Hunt — *Madison*
M. A., University of Wisconsin — Romance Languages
Greenslade, Grover Rawle — *Madison*
M. A., University of Washington — Physics
Griffin, Clara Adelaide — *Madison*
B. A., Wellesley College — Journalism
Guessford, Ora Ferne — *Des Moines, Iowa*
B. A., Drake University — Sociology
Gugler, Milton Clarence — *Chapman, Kans.*
B. A., Washburn College — Botany

Gunn, Reuben V. — *Madison*
B. S., University of Wisconsin — Agricultural Economics
Haake, Alfred Paul — *Madison*
M. A., University of Wisconsin — Political Economy
Hall, Nelson Clarence — *Franklin, Ind.*
B. A., Franklin College — Political Economy
Hanson, Lewis Peter — *Madison*
B. S., University of Wisconsin — Agricultural Chemistry
Hartman, Russell Edwin — *Madison*
M. S., University of Wisconsin — Plant Pathology
Harvey, Paul Atwood — *Cashmere, Wash.*
B. S., Oregon Agricultural College — Botany
Hastings, Henry Panet — *Hartford, Conn.*
M. A., University of Wisconsin — Chemistry of Forest Products
Haviland, Dora — *Janesville*
B. S., University of Wisconsin — Mathematics
Hawthorn, Horace Boies — *Castana, Iowa*
M. S., Iowa State College — Sociology
Hayden, Mary Marella t c — *Madison*
Ph. B., University of Wisconsin — History
Hayes, Augustus Washington — *Pleasant Plains, Ill.*
M. S., University of Wisconsin — Agricultural Economics
Haymaker, Herbert Henley — *Wichita, Kans.*
B. S., Kansas Agricultural College — Plant Pathology
Heddle, John Ronald — *Madison*
B. A., University of Wisconsin — Botany
Henning, Oscar A. — *Hamburg, Mo.*
M. A., Central Wesleyan College — German
Herreid, Cecelia — *Madison*
B. A., University of Wisconsin — Botany
Hester, Charles Floyd — *Mondovi*
B. A., Oberlin College — Political Economy
Hetherington, Daisy Alford — *Madison*
B. A., University of Wisconsin — Education
Hibbard, Clarence Addison — *Madison*
B. A., University of Wisconsin — English
Hills, Thomas Lawrence — *Burlington, Vt.*
M. S., University of Wisconsin — Agricultural Bacteriology
Hintzman, William Frederick — *Madison*
B. A., University of Wisconsin — Sociology
Hoag, Charles Dodge — *Madison*
B. S., University of Wisconsin — Agricultural Economics
Hooley, Osborne Edward — Milwaukee
M. A., University of Wisconsin — American History
Hoover, William H. — *Delphi, Ind.*
M. A., University of Wisconsin — Physics
Hopkins, Ada — *Madison*
B. A., University of Wisconsin — Romance Languages
Hopkins, Edward Stanley — *Vermilion, Alta, Can.*
B. S. A., Toronto College — Soils
Howard, Neale Frederic — *Milwaukee*
B. S., University of Wisconsin — Economic Entomology

Hoyord, Walter E. — *Scandinavia*
B. S., University of Wisconsin — Agronomy
Hull, Clark Leonard — *Madison*
M. A., University of Wisconsin — Psychology
Hungerford, Charles William — *Madison*
M. S., University of Wisconsin — Plant Pathology
Hunt, William Edwin m — *Chuchow, China*
B. S., Hiram College (Ohio) — Anatomy
Huser, Francis Edward — *Cumberland*
B. S., University of Wisconsin — Agriculture
Hwang, Lin — *Honan, China*
B. S., Baldwin-Wallace College — Political Economy
Inomata, Tsunao — *Nagaokashi, Japan*
B. A., Waseda College — Agricultural Economics
Iversen, Ingeborg Marie — Stoughton
B. S., University of Wisconsin — English
Jackson, Alice Fanny — *Madison*
B. L., University of Wisconsin — Home Economics
Jackson, Charles A. — *Madison*
B. S., University of Wisconsin — Agronomy
Jameson, Raymond Delos — *Madison*
B. A., University of Wisconsin — German
Jerome, Gladys Solomon — *Madison*
M. A., University of Wisconsin — English
Jerome, Harry — *Madison*
M. A., University of Wisconsin — Political Economy
Johnson, Alfred Julius — *Stanley*
B. S., University of Wisconsin — Chemistry
Johnson, Arthur Lowell — *Granville, Ohio*
B. A., B. S., Denison University — Physics
Johnson, Henry — *Milwaukee*
B. A., Lawrence College — Political Economy
Johnson, James — *Madison*
M. S., University of Wisconsin — Plant Pathology
Jones, Fred Reuel — *Madison*
M. S., University of Wisconsin — Plant Pathology
Jones, Hugh M. — *Madison*
B. S., University of Wisconsin — Agronomy
Jones, Sarah Van Hoosen — *Chicago, Ill.*
M. S., University of Wisconsin — Experimental Breeding
Karlson, Erick Hjalmar — *Madison*
B. A., Augustana College — Philosophy
Kinne, Burdette Ingersoll — *Madison*
M. A., University of Wisconsin — French
Kinney, Samuel Marks — *Madison*
B. A., Oberlin College — Political Economy
Kitchel, Anna Theresa — *Milwaukee*
M. A., University of Wisconsin — English
Knaplund, Paul — *Madison*
M. A., University of Wisconsin — English History
Kranz, Hermann Ernest — *Madison*
B. S., University of Wisconsin — Electrical Engineering

Kratsch, Edmund Charles	*Milwaukee*
B. A., University of Wisconsin	English
Krueger, Frederick Oscar	*Groton, S. Dak.*
B. A., University of South Dakota	Animal Husbandry
Krueger, Jean	*River Forest, Ill.*
Ph. B., University of Chicago	Home Economics
Krueger, Leonard Bayless	*Muskego*
M. A., University of Pennsylvania	Political Economy
Kuhlman, Arthur Henry	*Madison*
M. S., University of Wisconsin	Experimental Breeding
La Follette, Robert Russell	*Shelburn, Ind.*
B. A., Indiana State Normal	History
Lammel, Allabelle	*Menasha*
B. A., Lawrence College	Political Economy
Lange, Ernest Otto Albert	*Fond du Lac*
B. S., University of Wisconsin	Electrical Engineering
Langenhan, Henry August	*Madison*
M. S., University of Wisconsin	Pharmacy
Lee, Frederic Collins	*Madison*
M. A., University of Wisconsin	Chemistry of Forest Products
Li, Pao-lin	*Canton, China*
Ph. B., University of Chicago	Political Economy
Lippincott, William Adams	*Manhattan, Kans*
B. S., Iowa State College	Experimental Breeding
Loft, Genivera Edmunds	*Madison*
M. A., University of Wisconsin	Geography
Loughlin, Rosemary	*Madison*
B. A., Iowa State University	Home Economics
Lyon, Albert Eddy	*Madison*
M. A., University of Wisconsin	Spanish
McClanahan, Albion Arthur	*Deputy, Ind.*
B. A., Indiana Central Normal	Education
MacGregor, Ford Herbert	*Madison*
M. A., University of Wisconsin	Political Science
McDonald, Philip Walter	*Winnipeg, Canada*
M. A., University of Wisconsin	History
MacNaughton, Leslie m	*Argyle, N. Y.*
B. S., University of Wisconsin	Anatomy
McKay, John Gordon l	*Madison*
B. A., University of Wisconsin	Political Economy
McKinley, Charles	*Madison*
M. A., University of Wisconsin	Political Science
McMillin, Midge	*LaFayette, Ind.*
B. A., Indiana University	English
Major, David Maggard	*Madison*
B. A., Texas Polytechnic	Latin
Malone, Julian Yerkes m	*Ripon*
B. A., Ripon College	Pharmacology and Toxicology
Manning, Hazel	*Madison*
B. S., University of Wisconsin	Political Economy
Markham, Lucius Alonzo	*Janesville*
B. A., Fairmount College	Agriculture

Martin, Albert Pray	*Pawtucket, R. I.*
M. A., University of Wisconsin	German
Mathie, Edward Joseph	*Stevens Point*
B. A., University of Wisconsin	Sociology
Meacham, Merle Robert	*Ravinna, Ohio*
Ch. E., Purdue University	Chemistry of Forest Products
Mehl, Paul	*Madison*
B. S., Oregon Agricultural College	Agricultural Economics
Meuer, Helen Alma	*Madison*
B. A., University of Wisconsin	
Miller, Henry George	*Madison*
M. S., University of Wisconsin	Agricultural Chemistry
Miller, Maude	*Madison*
B. A., University of Wisconsin	Botany
Miller, Sidney Lincoln	*Madison*
M. A., University of Wisconsin	Political Economy
Mohaupt, Arthur George	*Milwaukee*
B. A., University of Wisconsin	Electrical Engineering
Moore, Thomas Russell	*Franklin, Ind.*
B. S., Franklin College	Commerce
Morris, Harold Hulett	*Madison*
M. A., University of Wisconsin	Chemistry
Mortimer, George B.	*Madison*
B. S., University of Wisconsin	Agronomy
Mueller, Norbert Robert	*Princeton*
M. S., University of Wisconsin	Pharmacy
Murphey, Hermon King	*Niagara Falls, N. Y.*
M. A., Harvard University	History
Murphy, Ella McCullock	*Shenandoah, Iowa*
B. A., Smith College	English
Mussehl, Frank Edward	*Madison*
B. S., University of Wisconsin	Agricultural Chemistry
Nebel, Walter	*Madison*
M. S., University of Wisconsin	Chemistry
Neff, Shannon D.	*Green's Fork, Ind.*
B. A., Earlham College	History
Negley, Noel Ardis	*Madison*
B. A., University of Nebraska	Animal Husbandry
Nelson, Karl Oscar	*Madison*
B. A., Bethany College	Psychology
Nelson, Victor Emanuel	*Madison*
M. S., University of Wisconsin	Agricultural Chemistry
Neubert, Armin Karl	*Madison*
B. S., University of Wisconsin	Agricultural Engineering
Neumann, John Xavier	*Madison*
B. S., University of Wisconsin	Medical Bacteriology
Nichols, Fred Clifford	*Madison*
B. A., Wabash College	Physics
Nichols, Merle Starr	*Madison*
B. S., University of Wisconsin	Physiological Chemistry
Ninman, Herman John	*Belle Plaine*
B. S., University of Wisconsin	Plant Pathology

Noble, George Bernard	*Portland, Oregon*
B. A., Oxford University	Political Science
Noer, Oyvind Juul	*Stoughton*
B. S., University of Wisconsin	Chemistry
Odegard, Sigurd Louis	*Madison*
B. A., University of Wisconsin	Political Economy
Oldenburg, Frederic William H.	*Madison*
B. S., University of Wisconsin	Agronomy
O'Malley, Agnes Elizabeth	*Madison*
B. A., University of Wisconsin	
Ortega, Joaquin	*Madrid, Spain*
	Romance Languages
Orvis, William	*Ripon*
B. A., Ripon College	Physics
O'Shea, Harriet Eastabrooks	*Madison*
B. A., University of Wisconsin	Education
Paine, George Porter	*Madison*
M. A., Harvard University	Physics
Palmer, Stella	*Montevallo, Ala.*
M. A., Columbia University	Education
Pardee, Mary Bockes	*Madison*
B. A., University of Chicago	Agriculture
Parker, Amy	*Fennimore*
B. A., University of Wisconsin	English
Peters, Mabel Charlotte	*Sac City, Iowa*
B. S., Iowa State College	Home Economics
Petersen, Max Heinrich	*Dundee, Ill.*
M. A., Northwestern University	Physics
Peterson, Oscar John	*Manistique, Mich.*
B. A., Kalamazoo College	Mathematics
Piggins, Ralph Sproule m	*Milwaukee*
B. A., University of Wisconsin	Medical Bacteriology
Pinney, George Graham	*Sturgeon Bay*
B. A., University of Minnesota	Education
Pitz, Walter	*Manitowoc*
B. S., University of Wisconsin	Agricultural Chemistry
Plunkett, Charles Tuck	*Cambridge, Mass.*
M. A., Harvard University	Romance Languages
Potter, George Frederick	*Madison*
M. S., University of Wisconsin	Horticulture
Prine, Charles Wilson	*Madison*
B. S., Denison University	Physics
Pugh, Grace Madeline	*Madison*
B. A., University of Wisconsin	Mathematics
Raddatz, William Godfrey	*Madison*
M. A., Lawrence College	Sociology
Ramenstein, Leroy Prince	*Chicago, Ill.*
B. A., Wabash College	Physics
Raney, William Francis	*Hastings, Nebr.*
B. A., Oxford University	European History
Reece, Richard Herb	*East Lansing, Mich.*
B. S., Kansas Agricultural College	Mathematics

Reynolds, William LaFayette — *Buck, Tex.*
B. S., Agricultural and Mechanical College of Texas
Steam and Gas Engineering

Richards, Clarise Audrey — *St. Marys, Ohio*
M. A., Miami University
Botany

Richtmann, William Oscar — *Madison*
B. S., University of Wisconsin
Pharmacy

Ricker, George Worcester — *Portland, Maine*
B. S., Bowdoin College
European History

Ritland, Georgine — *Elroy*
B. A., St. Olaf's College
American History

Ritter, George J. t c — *Madison*
Ph. B., University of Wisconsin
Chemistry

Roark, Eugene Washburn — *Madison*
M. S., University of Wisconsin
Plant Pathology

Roehm, Hiram Herbert — *Madison*
B. S., University of Wisconsin
Agricultural Bacteriology

Roelse, Harold V. — *Hastings, Nebr.*
B. S., Hastings College
Political Economy

Roeseler, Oscar Edwin Siegfried — *Superior*
M. S., University of Wisconsin
Chemistry

Rosenkrans, Duane B. — *Clemson College, S. C.*
B. A., Upper Iowa University
Botany

Rouse, James Edward — *La Belle, Mo.*
B. S. A., Kansas State Agricultural College
Experimental Breeding

Rowe, May Augusta — *Beloit*
B. S., Beloit College
Home Economics

Runner, Naomi Abbey — *Salem, Ore.*
B. A., Willamette University
English

Sands, Albert Theodore t c — *Chippewa Falls*
B. A., University of Wisconsin
Physical Education

Sawtelle, Donald Wing — *Madison*
M. S., University of Wisconsin
Agricultural Economics

Saxer, Alexander — *Milwaukee*
B. A., St. Gallen, Switzerland
German

Scallon, Margaret Agnes — *Hancock, Mich.*
M. A., University of Wisconsin
English

Schaal, Albert Amiel — *Cassville*
M. S., University of Wisconsin
Agricultural Chemistry

Schauermann, Karl — *Madison*
B. A., University of Wisconsin
German

Schersten, Albert Ferdinand — *Titusville, Pa.*
M. A., University of Wisconsin
English

Schierz, Ernest Rudolf — *Madison*
B. S., University of Wisconsin
Chemistry

Schilletter, August Edward — *Clemson College, S. C.*
B. S., Clemson College
Horticulture

Schubert, Marguerite Barbara tc — *Madison*
B. A., St. Mary's College
Latin

Schubring, Selma L. — *Madison*
M. A., University of Wisconsin

Schweppe, Alfred John — *Madison*
B. A., University of Wisconsin — English
Scott, Milton Harrison — *Sheldahl, Iowa*
B. S., Iowa State College — Animal Husbandry
Sevringhaus, Elmer Louis m — *New Albany, Ind.*
B. A., University of Wisconsin — Medicine
Seybolt, Ottilie — *Madison*
M. A., University of Wisconsin
Shafer, Maude Margaret Foster — *South Milwaukee*
Ph. B., University of Wisconsin — English
Shaw, George Robert — *Frederick, Md.*
M. A., Washington and Lee University — Chemistry
Shepherd, Louise — *Madison*
B. A., University of Wisconsin
Simmonds, Nina — *Fontana*
B. S., University of Wisconsin — Agricultural Chemistry
Simmons, Joseph Ellsworth — *Hazel Green*
B. S. A., University of Wisconsin — Agricultural Bacteriology
Sister Marie Lillian — *Sinsinawa*
B. S., St. Clara College — Chemistry
Sister Mary Aquinas — *Madison*
M. A., University of Wisconsin — Latin
Smelker, William Wallace — *New Madison, Ohio*
B. S., Ohio State Agricultural College
Agricultural Engineering
Smith, Edith — *Port Washington*
B. A., University of Wisconsin
Smith, Howell Kurtz — *Madison*
B. A., Western Maryland College — Chemistry of Forest Products
Smith, Pearl Mabry — *Madison*
M. A., University of Wisconsin — Botany
Smithey, William Royall — *Roanoke, Va.*
M. A., Randolph-Macon College — Education
Snell, Walter Henry — *Brockton, Mass.*
M. A., Brown University — Plant Pathology
Snyder, Andrew Joseph — *Waukesha*
B. S., Carroll College — Chemistry
Spahr, Walter E. — *Centerville, Ind.*
B. A., Earlham College — Political Science
Speicher, Paul — *South Bend, Ind.*
B. A., Northwestern College — English
Starky, Lawrence Vincent — *Platteville*
B. S., University of Illinois — Animal Husbandry
Starr, Bertha McClure — *Greeley, Colo.*
B. A., Colorado State Teacher's College — Home Economics
Steensland, Lohra — *Madison*
B. A., University of Wisconsin — German
Steigleder, Emil Oscar — *Madison*
Experimental Breeding
Stevens, Anna Jessamine — *Madison*
B. A., University of Wisconsin — Home Economics
Stewart, George Henry — *Weogufka, Ala.*
B. S., Alabama Polytechnic Institute — Agronomy

Stewart, Harold Wilson — *Madison*
B. S., University of Illinois — Soils
Stewart, K. Bernice — *Madison*
B. A., University of Wisconsin — Political Economy
Stone, Morton C. — *Madison*
B. A., Yale University — Hebrew
Storey, Vernon Madelaine — *Red Cloud, Nebr.*
B. A., University of Nebraska — German
Strowd, Wallace Headen — *Madison*
M. S., University of Wisconsin — Agricultural Chemistry
Sturtevant, Imogen — *Madison*
B. A., University of Wisconsin
Su, Kan — *Kwangsi, China*
B. S., University of Wisconsin — Hydraulic Engineering
Sure, Barnett — *Milwaukee*
B. S., University of Wisconsin — Agricultural Chemistry
Swarthout, Edyth Claire m — *La Crosse*
B. A., University of Wisconsin — Medicine
Sweet, Howard Elliott — *Des Moines, Iowa*
B. S., Drake University — Chemical Engineering
Swerig, Mabel Beatrice — *Madison*
B. A., University of Wisconsin
Szlupas, Keistutis George — *Scranton, Pa.*
B. S., Pennsylvania State College — Physics
Taylor, Charles Edgar — *Colorado Springs, Colo.*
B. A., Colorado College — Political Economy
Taylor, Clara Bertram — *Madison*
B. A., University of Wisconsin — Manual Arts
Taylor, Edward Gordon — *Newtonville, Mass.*
B. S., Massachusetts Institute of Technology — Physics
Taylor, Ethel Rose — *Sioux City, Iowa*
M. A., University of Wisconsin — German
Taylor, Joseph Vincent m — *Marple, Nebr.*
B. S., University of Wisconsin — Physiological Chemistry
Taylor, William Halvor — *Two Rivers*
B. A., Ripon College — Physics
Tetlow, Frances Howard — *Madison*
B. A., Radcliffe College — Political Economy
Thayer, Florence Adams — *Madison*
B. A., University of Wisconsin — Botany
Thayer, Vivian Trow — *Madison*
B. A., University of Wisconsin — Philosophy
Thompson, Henry Walter — *Madison*
M. A., University of Kansas — Political Science
Tiffany, Jay Miller — *Aberdeen, S. Dak.*
B. A., University of Wisconsin — Political Economy
Toole, Eben Henry — *Madison*
M. A., University of Wisconsin — Botany
Trautmann, William John — *Madison*
Ph. B., University of Wisconsin — Chemistry
Trowbridge, Myrtle — *Green Valley, Ill.*
B. A., University of Illinois — History

Trueblood, Charles Kingsley	*Richmond, Ind.*
M. A., Harvard University	English
Turner, Clarence Lester	*Milwaukee*
M. A., Ohio Wesleyan	Zoology
Uber, Harvey August	*Milwaukee*
Ph. B., University of Wisconsin	Geology
Valentine, Howard DeWitt	*River Forest, Ill.*
M. S., University of Illinois	Chemical Engineering
Van Dyke, Madge Patterson tc	*Kilbourn*
B. A., University of Wisconsin	Education
Van Liere, Edward Jerald m	*Bristol*
B. A., University of Wisconsin	Medicine
Vaughan, Floyd Lamar	*Madison*
M. A., University of Texas	Political Economy
Vissman, Dorothy B. m	*Louisville, Ky.*
B. A., Wellesley College	Medicine
Wahle, George Henry m	*Marshfield*
B. A., University of Wisconsin	Pathology
Wakefield, Henry Dorr	*Milwaukee*
B. A., University of Wisconsin	Geology
Walker, John Charles	*Racine*
M. S., University of Wisconsin	Plant Pathology
Wallace, Helen Flint	*Madison*
B. A., University of Wisconsin	French
Wallin, Zenas Beach	*Spooner*
Ph. B., University of Wisconsin	Agricultural Economics
Walster, Harlow Leslie	*Spring Green*
M. A., Harvard University	Geology
Wann, Louis	*Madison*
M. A., Columbia University	English
Waterhouse, Clifford Charles	*Weyauwega*
B. A., Lawrence College	Chemistry
Watrud, Hjalmar Oliver	*Blanchardville*
M. S., University of Wisconsin	Agricultural Economics
Watson, James Tolmie, Jr.	*International Falls, Minn.*
B. S., Carleton College	Physics
Weber, Henry Charles cph	*Milwaukee*
M. D., Marquette University	Public Health
Weik, Dorothy Ames	*St. Louis, Mo.*
B. A., DePauw University	Home Economics
Weiss, Florence Marie	*Madison*
B. S., University of Wisconsin	Physical Education
White, David George	*Madison*
M. F., University of Nebraska	Political Economy
White, Gertrude Marean	*Elmira, N. Y.*
M. A., University of Wisconsin	Zoology
Whitehouse, Herbert	*Markesan*
B. A., University of Wisconsin	Sociology
Whitmore, Lester McClellan	*Madison*
B. S., University of Wisconsin	Agricultural Chemistry
Wilde, Frederick Erdman Jesse	*Madison*
M. A., University of Wisconsin	History

Wilkinson, Otto Francis		*Hilliard, Ohio*
M. A., Ohio State University	Agricultural Economics	
Williams, Frank Ernest		*Madison*
M. A., University of Wisconsin	Geography	
Williams, Garvin Daniel		*Cambria*
B. S., University of Wisconsin	Agricultural Chemistry	
Williamson, Robert Crosier		*Madison*
B. A., University of Wisconsin	Physics	
Williamson, Robert Vernon		*Madison*
B. S., Oregon Agricultural College	Chemistry	
Wilson, Alva		*Lincoln, Nebr.*
M. A., University of Nebraska	Experimental Breeding	
Wilson, Eugene Hewitt		*Oneonta, Ala.*
B. S., Alabama Polytechnic Institute	Animal Husbandry	
Wolf, George Paul		*Menomonie*
M. A., University of Wisconsin	Soils	
Wood, Frederick		*Madison*
M. A., University of Wisconsin	Mathematics	
Wood, Waldo Emerson		*Michigantown, Ind.*
B. A., Central Normal College	Education	
Woodworth, Clyde Melvin		*Madison*
M. S., University of Wisconsin	Experimental Breeding	
Young, Kwang Pi		*Tientsin, China*
M. S., University of Wisconsin	Chemistry	
Young, Robert Vivian		*Beaver Dam*
B. A., Ripon College	Political Economy	
Yount, Courtland Matson		*Greenwood, Ind.*
M. A., Northwestern University	Political Science	

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UNDERGRADUATES

COLLEGE OF LETTERS AND SCIENCE

Seniors

Adams, Adelaide Angela tc	*Madison*
Adams, Marjorie Mae	*Chicago, Ill.*
Adler, Philip Abrams	*New York, N. Y.*
Albers, Ruth Hermione	*Wausau*
Albright, Raymond William	*Milwaukee*
Alvord, Ellsworth Chapman l	*Washburn*
Andrews, Joy Ella t c	*Portage*
Andrews, Stella Malitta tc	*Madison*
Anson, Barry Joseph tc	*Muscatine, Iowa*
Antes, Herbert Pullen	*Des Moines, Iowa*
Appleman, George Mordecai	*Viroqua*
Armen, George Krikor m	*Racine*
Ashby, Mary Alice t c	*Indianapolis, Ind.*
Ausman, Gladys Magdalena t c	*Eau Claire*
Axley, Harold m	*Cleveland*
Aylward, Thomas James, Jr. m	*Green Bay*
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.*
Barker, Howard Frederick	*Menomonie*
Barker, Robert Isaac t c	*Boscobel*
Barr, Helen Adeline	*River Forest, Ill.*
Barwig, Adele Eliza	*Mayville*
Battig, Leon	*Milwaukee*
Baumann, Adolph Otto W.	*Kiel*
Beach, Florence Mildred	*La Crosse*
Becker, George William	*Kenosha*
Bell, Donald Chesbro m	*St. Joseph, Mo.*
Bennett, Genevieve t c	*Lancaster*
Bent, Winifred t c	*Oshkosh*
Benton, Joseph Levi m	*Richland Center*
Berg, Max John	*Waupun*
Berger, Carl Herman	*Milwaukee*
Bergum, Belle Regina t c	*Madison*
Bird, Marie Eaton	*Wausau*
Bitterman, Ruth Genevieve t c	*Madison*

Black, Guy Woodrow	*Ft. Atkinson*
Bleckwenn, William Jefferson m	*Mendota*
Bloor, Edwin Garfield m	*Nashotah*
Boelte, Leda Henrietta t c	*Columbus*
Boll, Helen Flanders t c	*Rice Lake*
Bond, Edith Lorraine t c	*Madison*
Bond, Harry William m	*Wheeling, W. Va.*
Brabant, Josephine Mary t c	*Madison*
Bradish, Norman Conyers	*Decorah, Ia.*
Brand, Warner Holmes	*Madison*
Brewer, Fred French	*Menomonie*
Briggs, Henry Russell	*Madison*
Briggs, Howard Bovee	*Arena*
Brookins, Medora Clarke	*Madison*
Brooks, Dudley Cookingham t c	*Madison*
Brown, Lela Calhoun t c	*Hailey, Idaho*
Brown, Milo Sedgwick	*Hartland*
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, Ohio*
Burton, Alfred Harrison	*Chicago, Ill.*
Burwell, Marjorie	*Madison*
Calvert, Jacob Grafins, Jr.	*Jersey Shore, Pa.*
Caradine, Mahlon Humphrey l t c	*Monroe*
Cargill, George MacMillan	*Madison*
Carlson, Charles Gordon	*Ishpeming, Mich.*
Carlton, Marjorie Frances w l s	*Laurium, Mich.*
Carrell, Ross Marmon	*Des Moines, Iowa*
Carter, Eleanor Allen t c	*Louisville, Ky.*
Cazier, Lucile	*Chicago, Ill.*
Chapman, Margaret Frances t c	*Milwaukee*
Chase, Melvin Leslie	*Ashton, S. Dak.*
Chase, Ruth Wayland	*Madison*
Cheu, Bailey L.	*Shanghai, China*
Clark, John Lindsay t c	*Steubenville, O.*
Clark, Lois Jean	*Boise, Idaho*
Conover, Julian Darst	*Madison*
Conover, Marion Clarke	*Madison*
Cook, Irene Croxton	*Bluffton, Ind.*
Coughlin, Mary Gertrude t c	*Watertown*
Cramer, Clarence Everett	*Madison*
Crane, William Hanlon	*Chicago, Ill.*
Cremer, Marcia Baird t c	*Cashton*
Cummings, Raymond Henry t c	*Madison*
Dahl, Charles Henry	*Marinette*
Davis, Marguerite Vivian t c	*Williams Bay*
Dawson, Dorothy Ware t c	*Waverly, Iowa*
Day, Florence Evelyn t c	*Lake Geneva*

Day, Florence Hodson t c	*Hartford*
Dickens, Evelyn Forster	*Milwaukee*
Dietel, Else Harriet	*Waterloo, Iowa*
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.*
Dupuy, Mary Elizabeth	*Chicago, Ill.*
Durrie, Agnes	*Madison*
Duvall, Gladys Carolyn t c	*Kewaunee, Ill.*
Eastman, Mary Eleanor	*South Bend, Ind.*
Ebbert, Georgia Grosvenor	*Oak Park, Ill.*
Eddy, Elizabeth McKee	*Hot Springs, Ark.*
Edwards, Eugene Theodore	*La Crosse*
Egan, Ellen Winifred t c	*Shullsburg*
Egstad, Herman Melvin	*La Crosse*
Ellis, Mabel Evangeline t c	*Madison*
Emery, Myra Teel t c	*Madison*
Ernst, Otto Theodore	*Watertown*
Esson, Victor Emmanuel	*Oconto*
Evans, James Ambrose m	*La Crosse*
Farrand, Jack Easton	*Fargo, N. Dak.*
Fay, Margaret Virginia	*Madison*
Feeney, Jerome Joseph	*Madison*
Feinberg, Samuel Maurice m	*Watertown*
Felsher, Hannah m	*Madison*
Felten, Hilbert Oscar t c	*Milwaukee*
Fenelon, Eunice Sarah t c	*Weyauwega*
Fennessey, Katherine Christine t c	*Eau Claire*
Fields, Leah	*Hosston, La.*
Fischer, Frederick Roy m t c	*Lancaster*
Fisher, Grace Genevieve	*Baraboo*
Forschler, Viola May	*La Crosse*
Foulkes, Thomas Robert	*North Freedom*
Fowler, Esther Lucile t c	*Fithian, Ill.*
Fox, Osmon Charles t c	*Madison*
Frazier, Cecil Austin t c	*Prescott*
Freer, Norman Bradford	*Hinsdale, Ill.*
Fricke, Zura Marion t c	*Neillsville*
Fuller, Vivian Marguerite	*La Crosse*
Gage, Berta Marie	*Pasadena, Cal.*
Garber, Frank Webster	*Muskegon, Mich.*
Gardner, Dorothy Genevieve	*Platteville*
Garibaldi, John George Jr.	*Chicago, 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	*Madison*
Gibson, Charles Archie m	*Madison*
Gill, Charles Albert	*Madison*
Gillogley, Laurel Elaine t c	*Mt. Carroll, Ill.*

Gilpin, Margaret w l s	*Duluth, Minn.*
Glassner, Esther Miriam t c	*Milwaukee*
Gleerup, Virginia Loring t c	*Madison*
Gould, Dorothy	*Evanston, Ill.*
Greene, Marjorie t c	*Prophetstown, Ill.*
Griswold, Katharine Parker t c	*West Salem*
Griswold, Mabel Elizabeth	*Madison*
Gundersen, Gunnar m	*La Crosse*
Gundersen, Sigurd Bjarne m	*La Crosse*
Gurney, Carrie Louise t c	*Madison*
Gurney, Ellen Anna t c	*Madison*
Habhegger, Elmer Otto	*Milwaukee*
Hagopian, Bedros	*Troy, N. Y.*
Hahn, Emanuel Leopold	*St. Louis, Mo.*
Haley, Lillian Claire	*Madison*
Hall, Earl Hopkins m	*Oconto*
Hall, Sophia	*Oshkosh*
Hambleton, James Isaac	*Galloway, Ohio*
Hamilton, Florence Irene	*Tomah*
Hannon, Leo John m	*Sturgeon Bay*
Hansberry, James Harry	*Wonewoc*
Hansen, Erik l	*Milwaukee*
Harloff, Rose Alice	*Madison*
Hart, Dorothy	*Madison*
Hatch, Ethel Sumner	*Tacoma, Wash.*
Hawkins, Eskil Theodore	*Cumberland*
Hayden, Margaret Camilla	*Madison*
Hayes, Arthur Michael	*La Crosse*
Hayward, Laura Mae	*Madison*
Hazelberg, Esther Vivian	*Barron*
Heimerl, William Arthur t c	*Madison*
Heise, Anna Sophia t c	*Madison*
Heiskell, Mary Loretto	*Memphis, Tenn.*
Helmes, Lloyd Oscar m	*Madison*
Henkel, Almira Lisetta t c	*Milwaukee*
Henry, Mary Ette t c	*Reedsburg*
Herrington, Edna Truax t c	*Madison*
Heublein, Clarence Martin	*Fox Lake*
Higson, Francis Delmar	*Madison*
Hodges, Fred Jenner m	*Madison*
Holley, Mary Loraine t c	*Antigo*
Holmes, Marion Anna	*Madison*
Hopkins, Edward James	*Madison*
Huang, Feng-hua	*Canton, China*
Huber, Kate D.	*Madison*
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*
Hyslop, Robert James m	*Madison*
Isenberg, Estelle Helena t c	*Baraboo*

Jackson, Genevieve	*Aberdeen, S. Dak.*
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*
Jenkins, George Harry	*Oak Park, Ill.*
*Jennings, Irene Hawley t c	*Grand Rapids, Mich.*
Jenny, Adele Theodora t c	*Milwaukee*
Jensen, Esther Andrea t c	*Racine*
Jillson, Mary Louise t c	*Ripon*
Johnson, Gertrude Kildehl	*Madison*
Johnson, Ralph Burbank	*Roswell, N. Mex.*
Johnston, Charles Frederic, Jr. l	*Sheffield, Iowa*
Johnston, Edna Frances	*Rudolph, Ohio*
Jones, Emery Morris	*Madison*
Jones, Helen Agnes	*Ravinia, Ill.*
Jost, Della t c	*La Crosse*
Joy, Josephine Tremont	*Akron, Ohio*
Kaufman, Pearl Lillian	*Ladysmith*
Keeley, Margaret Mercedes t c	*Mayville*
Kehl, Sylvester Carl m	*Madison*
Kemmer, Frank Leonard t c	*Madison*
Kentzler, Ruth Purdy t c	*Madison*
Kiley, William Earl m	*Byron, Ill.*
Kittleson, Eva Sylvia t c	*Elroy*
Klontz, Vernon Earl t c	*Madison*
Knauer, Sophia Adeline m	*Brooklyn, N. Y.*
Knowlton, Margaret Roper	*Madison*
Koehler, Lilly Minnie t c	*Menomonee Falls*
Koepp, William Paul t c	*Madison*
Krasselt, Otto Louis t c	*Milwaukee*
Kuney, Bernice Donnelly	*Three Lakes*
Laemle, Leah Florence t c	*Marshfield*
Lake, Thomas Owens m	*Oshkosh*
Lambert, Wilbur	*Memphis, Tenn.*
Lange, Eleanor Anna t c	*Cedarburg*
Langer, Harold Myron l	*Waterloo*
Langer, Helen Mary	*Chicago, Ill.*
Langhoff, Carl Joseph	*Milwaukee*
Laue, Charlotte Margaret t c	*Alma*
Law, Edward John	*Madison*
Leary, Julia Lenore t c	*Madison*
Leven, Maurice	*Fond du Lac*
Levis, George Winden	*Madison*
Lewis, Florence Elizabeth t c	*Madison*
Lewis, Raymond	*Macfarland*
Liang, Chuan Ling	*Shantung, China*
Lind, Alberta Augusta w l s	*Madison*
Livingston, Edward Meakin m	*Madison*
Loughlin, Agnes Celestine t c	*Madison*

*Teaching fellow in English, second semester, 1916-17

Lounsbury, Helen Irene	*Madison*
Luebben, Gerold Edward	*Milwaukee*
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 t c	*Milwaukee*
McCoy, Leslie Layton m	*Pittsville*
McCroy, Raymond John t c	*Milwaukee*
McGuire, Margaret Agatha	*Superior*
McHenry, Ada Dorothy t c	*Milwaukee*
McKay, Betsey	*Philadelphia, Pa.*
McKay, Frederick William	*Oshkosh*
McKennan, Rachel	*Madison*
McKennan, Ruth t c	*Madison*
McMillan, Carol t c	*New York, N. Y.*
McNamara, Hazel Johanna	*Prophetstown, Ill.*
McRoberts, John Harold	*Aledo, Ill.*
Macgregor, Elizabeth Cruikshank	*Memphis, Tenn.*
Mackedon, Leo William m	*Milwaukee*
Maedje, Carl Waldemar	*E. Cleveland, Ohio*
March, James Herbert	*Warren, Ohio*
Marsh, Harry Gilmore m	*Waunakee*
Martin, Hazel Isabelle t c	*Madison*
Mathews, Isabelle Bertram t c	*Ashland*
Merrill, John Franklin	*Neshanic Station, N. J*
Middleton, Forest Case t c	*Madison*
Mielenz, Irving Albert t c	*Milwaukee*
Miller, Helen Rachel t c	*Lake Geneva*
Miller, George Ellsworth, Jr.	*Charleston, W. Va.*
Miller, Glen Henry m	*Omaho, Nebr.*
Miller, Myrtle	*West Salem*
Miller, Sidney Fred	*Helena, Mont.*
Milner, Myrtle Olive	*Charles City, Iowa*
Miner, Harry Eugene	*Milwaukee*
Moehlman, Lillian Susan w l s t c	*Madison*
Moll, Arthur Mackenzie m	*Kenton, Mich.*
Mooney, Marian Louise t c	*Superior*
Morris, Edith Irene	*Oshkosh*
Morsell, Mary Pendleton t c	*Milwaukee*
Morton, Charles Delos	*Chicago, Ill.*
Moser, Clara Pauline	*Elgin, Ill.*
Müller, Herbert Arthur t c	*Reedsburg*
Mullowney, Nora	*Milwaukee*
Murray, Katherine Margaret	*Estherville, Iowa*
Mygrant, Ethel Marie	*Madison*
Naffz, Ena Gertrude	*Madison*
Naylor, Vera Emma t c	*Tomah*
Nelson, Byron Christopher	*Madison*
Nelson, Theodora Chase t c	*Madison*
Nelson, Wilford Merriam m	*Madison*
Newman, Irene Mary t c	*Madison*
Newman, John Logan l	*Milwaukee*

Nicely, Ruth Sarah t c	*South Bend, Ind.*
Nichols, Clio Johnston	*Gallipolis, Ohio*
Nix, Else Margaret t c	*Indianapolis, Ind.*
Nixon, Earl Kaiser	*Severy, Kas.*
Nolan, Edward Paul	*Ishpeming, Mich.*
Noll, Inez Margaret t c	*Marshfield*
O'Connor, Clarence Wood	*Milwaukee*
Olson, Henry John m	*Beloit*
O'Neil, Catherine Eleanor t c	*Chippewa Falls*
O'Neill, Norma Millicent t c	*Chicago, Ill.*
Orton, Claribel Elizabeth t c	*Marietta, Minn.*
Oskamp, Alfred Stuart t c	*Wyoming, Ohio*
Palmer, Gladys Evelyn	*Oak Park, Ill.*
Pancoast, William Wiles	*Eaton, Ind.*
Parker, Edna Amelia	*Eaton, Ohio*
Parson, Leonard Bradt	*De Kalb, Ill.*
Patterson, Bertha Louise t c	*Madison*
Peebles, Grace Elizabeth t c	*Oconomowoc*
Penhallegon, Mary Genevieve t c	*Mineral Point*
Penningroth, Benjamin Gottlieb	*Tipton, Iowa*
Peters, Robert Leroy l	*Blue River*
Phillips, Harold Edward m	*Chicago, Ill.*
Pierce, Gladys Marie t c	*Brodhead*
Plumb, Mary Alma t c	*Fairview, Kans.*
Powell, Elias	*Madison*
Rainey, Edward Carlysle m	*Madison*
Ramsay, Eleanor t c	*Madison*
Ramsey, Madeline Eva	*Chicago, Ill.*
Reichert, John Lester m	*West Bend*
Reichert, Ramona t c	*West Bend*
Richardson, Chester Dee	*Madison*
Richdorf, Lawrence Francis m	*Maribel*
Rickett, Harold William	*Millbrook, N. Y.*
Rigast, Karl Adolph t c	*Milwaukee*
Rivers, Thomas Ellis	*Meridian, Miss.*
Roantree, Robert Peter m	*Parker, S. Dak.*
Roberts, Florence Jean	*Superior*
Roberts, Ruth Olive t c	*Madison*
Roberston, Ruth Elizabeth	*Indianapolis, Ind.*
Roder, Esther Carolyn t c	*Madison*
Rodgers, Clarence C. t c	*Madison*
Rodigan, Mary Virginia t c	*Racine*
Root, Margarette Josephine t c	*Peoria, Ill.*
Rosenblatt, Hymen	*Milwaukee*
Rubado, Clarence Arthur	*Platteville*
Runge, Elizabeth Agnes	*Milwaukee*
Ryan, Mark Edward m	*Oconomowoc*
Sachtjen, Sylvia Marie	*Madison*
Sachtjen, Wilbur Paul	*Madison*
Salsman, Thomas Jefferson, Jr.	*Oak Park, Ill.*
Sanders, Hazel Alvilda	*Madison*
Sarles, Frances Margaret	*Sparta*
Sawyer, Wilda Amy t c	*Menominee, Mich.*

Sayle, George William	*Madison*
Schacke, Martha Alvina t c	*Reedsburg*
Schardt, Alfred Arlie t c	*Milwaukee*
Schmidt, Ernst Conrad	*Chicago, Ill.*
Schrader, Ilse Josephine t c	*St. Paul, Minn.*
Schreiner, Margaret t c	*Lancaster*
Schultz, George Howard t c	*Milwaukee*
Schweichler, Lothar Adolph l	*Milwaukee*
Seeger, Gladys	*Manitowoc*
Seibold, Fred Carl l	*Camp Douglas*
Seids, James Vane m	*Moline, Ill.*
Shank, Carl Bradley	*Chicago, Ill.*
Sheakley, Eleanor Mary t c	*Chicago, Ill.*
Shearer, Harry Arthur m	*Edgerton*
Sherman, Ivan Ashley t c	*Marshall*
Sievers, Edward George	*New Holstein*
Skinner, Margaret Audrey	*Brookings, S. Dak.*
Slichter, Louis Byrne	*Madison*
Smith, Maxwell Austin	*Madison*
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*
Stallmann, Louise Helen t c	*Watertown*
Stark, Nina Caroline	*Zion City, Ill.*
Starry, Leo Joseph m	*Madison*
Stauffer, Margaret Guthrie	*Appleton*
Stitt, Lydia Isabel	*Rudolph, Ohio*
Sukeforth, Howard Arthur	*Duluth, Minn.*
Sweetman, Verna Blanche	*Indianapolis, Ind.*
Swerig, Vivian Pearl w l s	*Madison*
Swingle, Ruth Mable t c	*Muscoda*
Tabor, Beatrice Carroll t c	*St. Ignatius, Mont.*
Taylor, Paul Schuster l	*Sioux City, Iowa*
Taylor, Susan Shelby	*Madison*
Te Linde, Richard Wesley m	*Waupun*
Thomas, Charles Signor, Jr.	*Chicago, Ill.*
Thompson, Esther Katherine	*Elmwood*
Thompson, Nora Julia	*Grand Rapids, Mich.*
Thornton, Helen t c	*Indianapolis, Ind.*
Thwing, Consuelo Lay t c	*Toledo, Ohio*
Tillman, Arthur George	*La Crosse*
Tillotson, Ruth Amelia	*Madison*
Tobey, Ruth Hull w l s	*Wausau*
Totten, Helen Ruth	*Washington, Kans.*
Trilling, Blanche Mathilde	*Madison*
Truitt, John William m	*Naperville, Ill.*
Tufteland, Marcus B.	*Pekin, N. Dak.*
Tuller, Cass Carlene	*Morrison, Ill.*
Tupper, Warren Ernest m	*Cameron, Idaho*
Tye, William Leo	*West Chicago, Ill.*
Tyrrell, Gladys Dorothy	*Madison*

Vergeront, Marie Edna t c	*Madison*
Waite, Jay Davies	*Madison*
Wall, Lillian Marietta Gorman t c	*Eau Claire*
Waller, Theodore Adolph	*Madison*
Wattawa, Esther Wilhelmine t c	*Madison*
Wedel, Sylvia Carmen	*St. Louis, Mo.*
Weeks, Frank Amelia t c	*Racine*
Weeks, Louis George	*Chilton*
Weiner, Morris m	*Milwaukee*
Weisse, Curtis Clay	*La Crosse*
Welke, Ernest Gottlieb m	*Fall Creek*
Weller, Charles Grafton m	*Fond du Lac*
Wells, Alberta May	*Denver, Colo.*
Wengler, Harold	*Madison*
Werner, Walter Albert l	*Adams*
Wessel, Iona Johene t c	*Madison*
Westcott, May Kendall	*Baltimore, Md.*
Westgate, Clyde James m	*Cadott*
Wheaton, Harriette Maude	*La Harpe, Ill.*
Wheeler, Sylvester Laurence l	*Wauwatosa*
Whipple, Marthena	*Waterloo*
Whitney, Katherine Townsend t c	*Madison*
Wiehl, Dorothy Gerard	*St. Joseph, Mo.*
Wilcox, Lyle Brownell	*Madison*
Wilde, Edwin m	*Milwaukee*
Willcox, Faith Elizabeth	*Mount Vernon, N. Y.*
Williams, Virginia Baird	*Madison*
Wilson, Allene	*Cape Girardeau, Mo.*
Witthuhn, Elmer William t c	*Appleton*
Wood, Beatrix Lanore t c	*Hancock*
Wood, Irving William	*Oakland, Cal.*
Wood, Meta Aileen t c	*Fulton, Mo.*
Wood, Ralph Hereld	*Hancock*
Woodard, Allen Byrne	*Marengo, Ill.*
Woodhouse, Norma t c	*Bloomington*
Wooll, Gerald Kelley m	*Madison*
Wright, Omar Burton	*Belvidere, Ill.*
Yabroff, Rose t c	*Fond du Lac*
Youmans, Henry Augustus m	*Mukwonago*
Younker, Helen Hedwig t c	*Des Moines, Ia.*
Zeisig, Edward Frank t c	*Milwaukee*
Zellmer, Carl Edward m	*Antigo*
Zischke, Herman Albert l	*Horicon* —451

Course in Commerce

Barnum, Clifton Lawrence	*Clinton*
Bauman, John Sprague	*Oshkosh*
Beneke, Henry John	*Spokane, Wash.*
Blumenfeld, Franklin David	*Madison*
Boldt, Arnold John	*Davenport, Iowa*
Bottum, Stewart Neil	*Twin Bear, S. Dak.*

Burmeister, Roy Frederick l	*Gratiot*
Camp, Edwin Warren	*Madison*
Childe, John Pollock	*Wyoming, Ohio*
Coughlin, Raymond Michael	*Baraboo*
Davis, Oak Robert	*Milwaukee*
Denfeld, George August t c	*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 Le Roy	*Milwaukee*
Field, Harry William	*Rice Lake*
Findorff, Milton Bremer	*Madison*
Friedberg, Joseph	*Milwaukee*
Fuller, George Milton	*Madison*
Galbraith, Victor Arral	*Madison*
Gardner, Milton Leroy	*Ashland*
Garrigan, George Arthur	*Beloit*
Golla, Gertrude Marie	*Grand Rapids*
Good, Samuel Pulse	*Warren, Ind.*
Greunke, Emmery August	*Appleton*
Griem, Rolf	*New Holstein*
Haessler, Gertrude Johanna	*Milwaukee*
Haessler, Helen Annette	*Milwaukee*
Hamilton, Bradford	*Madison*
Harper, Benjamin Louis	*Peshtigo*
Helmer, John Horatio	*Clinton*
Hendricks, Wilbert Christian	*Tomah*
Heymann, Edgar Isaac	*Chicago, Ill.*
Hoppert, Arno Henry	*Sheboygan*
Hughes, William Robert	*Milwaukee*
James, Raymond Hoerner	*Chicago, Ill.*
Jennett, Edward James	*Streator, Ill.*
Jerabek, Joseph August	*Algoma*
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*
Kuentz, Herbert Daniel	*Colby*
Lange, Alex D.	*Madison*
Laughlin, John Leo	*Antigo*
Lederer, Carl Singer	*Chicago, Ill.*
Leonard, Lowell Austin	*Riverside, Ill.*
Lester, William Pullman	*Kenilworth, Ill.*
Lichtfeldt, Clarence Hellmuth	*Milwaukee*
McNulty, Mary Agatha	*Spring Green*
Macfadden, William Semple	*Fargo, N. Dak.*
Mahler, Herbert Phillip	*Milwaukee*
Mallow, Ray Shoults	*Madison*

Mandel, Herbert William	*La Grange, Ill.*
Marshall, Harry Lloyd, Jr.	*Chicago, Ill.*
Millard, Paul Vilas	*Antigo*
Mills, Joseph Alderman	*Nevada, Iowa*
Mitchell, John Lendrum l	*Milwaukee*
Monser, Edward Lomax	*Wenona, Ill.*
Moon, Joe Nathan	*Rosendale*
Nevin, William Ambrose	*Racine*
Nichols, Wellington Clifford	*Wausau*
Niemand, Alfred Richard	*Davenport, Iowa*
Olsen, Harold Goodwin	*Rice Lake*
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*
Ross, William Ernest	*Madison*
Routt, David	*Milwaukee*
Ruedebusch, Kurt Carl	*Mayville*
Russell, Samuel Wood	*Spokane, Wash.*
Schaefer, Leo Henry t c	*Muscoda*
Schubert, Arthur Frank	*La Crosse*
Schweke, Phillip Reinhart	*Reedsburg*
Service, George Lorenze	*Mishawaka, Ind.*
Shipek, Edward	*Antigo*
Simonson, Oscar Theodore	*Lanesboro, Minn.*
Smith, Earle Eugene	*Oshkosh*
Smith, Russell Evarts	*Madison*
Steele, Clay Evans	*Belmont*
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*
Watson, Elmer Eugene	*Madison*
Watzke, Louis August	*Madison*
Wiles, George Marshall *	*Madison*
Williams, Myron Charles	*Madison*
Withington, James Sterling	*Baraboo*
Wolf, Clarence Nathan	*Sun Prairie*
Young, William Monroe, Jr.	*Milwaukee*
Yu, Hsi Chi	*Shanghai, China*
Zwickel, Ernest Maurice	*Anderson, Ind.* —105

Course for Normal School Graduates

Allison, Alma t c	*Carthage, Mo.*
Ames, Walter Ray	*Madison*
Anderton, Ethel Vinita t c	*Prairie du Chien*
Boss, Bernard Lewis t c	*Abbotsford*

Damuth, Lenora Rosane t c	*Ft. Atkinson*	
Donalds, Elliott Raphael	*Superior*	
Donaldson, Nellie King	*Racine*	
Fuller, Florence Dell t c	*Madison*	
Gebhard, Cornelia Marie	*West Allis*	
Gray, Richard	*Milwaukee*	
Hodge, Edith Evelyn	*Waunakee*	
Jones, Jessie E. t c	*Madison*	
Ketcham, Hazel Mae	*Grand Rapids, Mich.*	
Krueger, Walter William t c	*Milwaukee*	
Mueller, Frederick George t c	*Madison*	
Naidl, George Mathew t c	*Whitelaw*	
Paulson, Walter Ernest	*Hollandale*	
Peterson, Alvin Martin t c	*Wausau*	
Prochaska, Joseph Frank t c	*Montfort*	
Ressmeyer, Emma Bertha	*Madison*	
Schraa, Nicholas Charles	*Antigo*	
Torgerson, Theodore	*Ontario*	
Van Beek, Clara	*Aberdeen, S. Dak.*	
Warner, Nellie	*Madison*	
Whipp, Anna Mabel	*River Falls*	
Wiener, Joseph Baxter	*Superior*	
Wilson, William Balfour	*Belleville*	—27

Course in Chemistry

Barber, George Edgerly	*Onalaska*	
Biersach, Henry Louis	*Freeport, Ill.*	
Chaplin, Edgar Lee	*Plymouth*	
Etter, Rolland Robert	*Monroe*	
Fleck, Louis Carl	*Depere*	
Graper, Leslie Gilbert	*Ft. Atkinson*	
Gregg, Wells Kellogg	*Milwaukee*	
Hardy, James Edward, Jr.	*Louisville, Ky.*	
Hosman, David Fay	*Norfolk, Nebr.*	
Huebner, Erwin Otto	*Oconomowoc*	
Jacob, Harold Monroe	*La Crosse*	
Krohn, Carl Arthur	*Marinette*	
Phillips, Max	*Evansville*	
Renich, Florence Caroline	*Woodstock, Ill.*	
Richardson, Marston Samuel	*Madison*	
Rude, Theodore Alfred	*Washburn*	
Schunk, Oliver Henry	*Menomonee Falls*	
Scott, Earl William	*Cambridge*	
Smith, William Lester	*La Crosse*	
Sproesser, William Charles	*Milwaukee*	
Stericker, William	*Manitowoc*	
Suhr, Lewis Delmar	*Madison*	
Vance, Sarah Huntoon	*Louisville, Ky.*	
Zick, William John	*Sauk City*	—24

Course in Journalism

Ayer, Esther Newell	*La Grange, Ill.*	
Blied, Leo John	*Madison*	
Buehler, Edmund	*Alma*	
Ellman, Florence Jeanette	*Madison*	
Getzloe, Lester Clyde	*Milwaukee*	
Judell, Maxson Foxhall	*Milwaukee*	
Kailen, Florence	*Madison*	
Moore, Willard Frank, Jr.	*Madison*	
Radder, Norman John	*Sheboygan Falls*	
Strong, Edwin Joseph	*Milwaukee*	—10

General Course

Clark, James George, Jr.	*Oshkosh*	
Karch, Charles Henry	*Blue Island, Ill.*	—2

Juniors

Abe, Arata	*Fukuoka, Japan*
Adair, George Leonard	*La Crosse*
Adams, Hope	*Madison*
Adams, Mae Alice	*Racine*
Alling, Eliza Treat	*Tallmadge, Ohio*
Andrews, Elizabeth Ona t c	*Darlington*
Andrews, Lulu Belle t c	*Madison*
Anundsen, Miss George Brynnilde	*Monroe*
Atwood, Fredrica	*Madison*
Babcock, Eleanor Bernice t c	*Berlin*
Baerenwald, Charles	*Milwaukee*
Bagley, John Earl	*Madison*
Bahe, Kenneth Edward	*Chicago, Ill.*
Ballard, Abbie Erminie	*Milwaukee*
Barber, Louise Medberry	*Oshkosh*
Barger, Robert Lynne	*Chicago, Ill.*
Batty, Helen Margaret t c	*Madison*
Beach, Richard White l	*Newcastle, Ind.*
Beckwith, David Van Waller	*Berlin*
Beech, Ruth Spalding	*Adams*
Bell, Dorothy Marion	*Willoughby, O.*
Belowsky, Harry S.	*Milwaukee*
Benson, Ada Lillian	*Princeton, Ill.*
Benson, Robert Henry	*Milwaukee*
Bentley, Faye Oretta t c	*Madison*
Berg, Lucile Harriet	*Ruthven, Ia.*
Berger, Walter Jesse	*Sheboygan*
Bestow, Leita Ruth t c	*Sparta*
Beyer, Ruth Laura t c	*Baraboo*
Blachly, Louis Bradley	*Madison*
Blackmun, Jay W. t c	*Twin Valley, Minn.*
Blair, John Covode	*Grand Rapids, Mich.*

Blanchard, Elizabeth Anne Rowell	*Oshkosh*
Blau, Clara Marie t c	*Spring Green*
Bliss, Madalin	*Chicago, Ill.*
Blix, Ovid Bernhart	*Turtle Lake*
Blum, Fred Gabriel	*Monticello*
Boardman, Newell Stephen	*New Richmond*
Bollman, Mari Henri	*St. Louis, Mo.*
Bondi, Hobart Edward	*Madison*
Bongey, Ralph Hutchinson t c	*Deerfield*
Bosworth, Leslie Jennings	*Mapley, Iowa*
Bowersox, Helene Jarvis t c	*Bryan, Ohio*
Boyce, Ruth Huldah	*Oconto Falls*
Boynton, Ruth Evelyn m	*La Crosse*
Bramlette, Ruth	*Madison*
Braun, Edward John t c	*Cassville*
Brennan, Joseph Patrick m	*Butte, Mont.*
Brewer, Robert Miller	*Indianapolis, Ind.*
Brinker, Dorothy Lillian	*Niagara Falls, N. Y.*
Brittingham, Edward George	*Los Angeles, Cal.*
Brorby, Melvin LeRoy	*Chicago, Ill.*
Brossard, Eugene Edward	*Columbus*
Brown, Alois Anthony	*La Crosse*
Brown, Christine Etna	*Urbana, O.*
Brown, Dorothy Grace	*Chicago, Ill.*
Brown, Mary Elizabeth	*Chicago, Ill.*
Brown, Neil Winthrop	*St. Louis, Mo.*
Bryden, James Alan	*Milwaukee*
Bryhan, Leone Grace t c	*Lancaster*
Buchanan, Perry Baker	*Winnetka, Ill.*
Buckstaff, Elsie Daniel	*Oshkosh*
Buell, Bessie Margaret t c	*Delavan*
Buell, Helen de Yoe	*Madison*
Bull, Helen Perkins	*Oak Park, Ill.*
Bundy, Katherine Mary	*Eau Claire*
Bunker, Ruby Mae	*Montfort*
Burlingame, LeRoy James	*Madison*
Burtness, Katherine Elvina t c	*Sioux City, Iowa*
Calkins, Marian Clinch	*Evansville*
Cantwell, Roger Clifton m	*Shawano*
Carpenter, Dow W.	*Des Moines, Ia.*
Casey, Marcus Thomas	*New Richmond*
Casey, Matthew Joseph	*Oconomowoc*
Chadwick, Rachel Beal	*Detroit, Mich.*
Chamberlain, Margaret	*Milwaukee*
Cheyney, Edward Ralph	*Philadelphia, Pa.*
Childs, Marshall Howard	*Eau Claire*
Christiancy, Carter Cornelius	*Warren, Ohio*
Clancy, Marion Leslie	*Winnetka, Ill.*
Clark, Jessie Overton	*Schoolcraft, Mich.*
Clark, Robert Hawley	*Grand Rapids, Mich.*
Clarke, Josephine Freeman	*Marietta, Ga.*
Clarke, Vera Margaret t c	*Madison*
Clow, Lucia Baldwin t c	*Oshkosh*

Coapman, Maude L.	*Kilbourn*
Cole, Marion Olive	*Chicago, Ill.*
Collins, Esther Agnes	*Fond du Lac*
Collins, Helen Jeanette t c	*Stevens Point*
Colosimo, Sarah Lois t c	*Hurley*
Colvin, Jessica Burt	*Evanston, Ill.*
Commons, John Alvin	*Madison*
Compton, Donald Elliot	*Tomah*
Conley, Crede Haymond	*Clarksburg, W. Va.*
Coon, Harold Macomber m	*Stevens Point*
Corstvet, Emma Gretchen	*Milwaukee*
Corwin, Winnafred Katherine	*Des Moines, Iowa*
Cox, Elizabeth Jean	*Madison*
Craig, Helen t c	*Jacksonville, Ill.*
Cranefield, Marion Charles t c	*Madison*
Crosby, Rosamond t c	*Grand Rapids, Mich.*
Culver, Catherine	*Milwaukee*
Cunningham, Louis	*La Crosse*
Currie, Paul Monser	*Minneapolis, Minn.*
Curtis, Kenneth	*Chicago, Ill.*
Curtis, Willard Lincoln	*Chicago, Ill.*
Dahl, Edwin John	*La Crosse*
Damkoehler, Emma Clara t c	*Milwaukee*
Davis, Beulah t c	*Tamms, Ill.*
Davis, Dudley Hopkins	*Madison*
Davis, Marion Evelyn	*Sioux City, Iowa*
Davis, Trayton Hooker	*Waupun*
Dawson, Helen Beryl	*Chicago, Ill.*
Dawson, Marion Lucile	*La Crosse*
Day, David Eliot	*Washington, D. C.*
Deming, Joseph Byron	*Madison*
Dennis, Clayton Stanley	*Grand Rapids, Mich.*
Dick, Mary Catherine t c	*Marshfield*
Diebold, Carrie Elise	*Milwaukee*
Diederich, Otto Peter m	*Madison*
Dodd, Helen Rose	*Ashland*
Dodd, Joseph Conway, Jr.	*Louisville, Ky.*
Dodge, Newell Phelps t c	*Madison*
Doran, Blanche Marie	*Harvard, Ill.*
Dormeyer, William George	*Chicago, Ill.*
Driver, Camilles Ogden m	*Racine*
Dudley, Grace Elizabeth	*Cincinnati, Ohio*
Duke, Helen Masner	*Indianapolis, Ind.*
Dummer, Ethel Sturges	*Chicago, Ill.*
Dunn, Florence Jane	*Madison*
Dunnette, Marian	*Alpine, Mich.*
Durst, Willis Henry	*Monroe*
Eaton, Helen Orrissa t c	*Madison*
Eaton, Howard Ormsby	*Madison*
Ebersole, Ruth	*Monmouth, Ill.*
Ede, Richard Hoyt	*Lyons*
Edwards, Everett Carlyle	*Ashland*
Edwards, William Donaldson	*Leipsic, Ohio*

Egan, Howard Edward t c	*Madison*
Elder, Edwin Sharretts	*Keokuk, Ia.*
Ellsworth, Thomas Thorpe	*Bowling Green, Ohio*
Ely, Anna Mason	*Madison*
Ely, John Thomas Anderson	*Madison*
Endres, Otto John	*La Crosse*
Erickson, Gertrude Winifred	*Evanston, Ill.*
Erlandson, Ray Sanford	*Wausau*
Ernst, Hilmar Furst	*Chicago, Ill.*
Espeland, Arthur	*Tacoma, Wash.*
Etnyre, Marjory	*Oregon, Ill.*
Etteldorf, Marie Rosine	*Milwaukee*
Evans, Jessie Marion t c	*Alma*
Evans, Margaret Mae t c	*Columbus*
Everett, Lucile	*Denver, Colo.*
Eversoll, Norton John m	*Cassville*
Ewald, Louis Philip	*Louisville, Ky.*
Ewing, Charles Oscar	*Louisville, Ky.*
Farquhar, Charles	*Chicago, Ill.*
Fauerbach, Clara Vierling	*Madison*
Fauerbach, Louis, Jr. m	*Madison*
Fay, Ivan Glen	*Evansville*
Feldmann, Louis Charles t c	*Thiensville*
Felsher, Rosa t c	*Madison*
Ferguson, Mary Josephine	*Madison*
Fischer, Warren Charles	*Two Rivers*
Fitzgerald, Gertrude	*Newton, Mass.*
FitzGibbon, Bernice Bridget t c	*Waunakee*
Fleming, Marion Edith t c	*Eau Claire*
Fleming, Mary Florence t c	*Shullsburg*
Flood, Olaf	*Galesville*
Forbes, Esther Louise	*Worcester, Mass.*
Forrand, James Leland	*Madison*
Foth, Annette Ernestine t c	*Sawyer*
Fox, Marion Adelaide	*Cornell*
Fox, Stephen Patrick	*Racine*
Francis, Hugh Huntington t c	*Bloomer*
Fraser, Margaret Alice	*Burlington*
Frisbie, Chauncey Osborn, Jr.	*Cornell*
Fruin, Elizabeth	*El Paso, Ill.*
Fullerton, Dorothy Jane	*Washington Court House, O.*
Gardiner, Glenn Leon	*Edgerton*
Gates, John Ferdinand G. m	*Racine*
Geiger, Kathryn Marie t c	*Monroe*
Germer, Gertrude Emily	*Chicago, Ill.*
Gether, Berenice Katherine	*Whitefish Bay*
Gidley, Annie Bertha	*N. Dartmouth, Mass.*
Gilbreath, William Sydnor, Jr.	*Indianapolis, Ind.*
Gilman, James Ward	*Evanston, Ill.*
Gilman, Robert Louis m	*Oshkosh*
Glover, Mary Staunton t c	*Madison*
Goodland, Doris Martha t c	*Oshkosh*
Goodwin, Harriet	*Hartland*

Gosline, Carl Anthony	*Beloit*
Graner, Richard Fischer	*Peoria, Ill.*
Grant, James Evert	*Madison*
Green, Jessie Louise	*Ligonier, Ind.*
Griesser, Marjorie Katherine	*Peoria, Ill.*
Grill, Karl Rudolf Natanael t c	*Waupaca*
Grosser, Reynolds Clarence	*Chicago, Ill.*
Grueneisen, Jesse Raymond	*Glenbeulah*
Guild, Eugene Schiller	*Wiggins, Miss.*
Guillemine, Madeleine	*North Milwaukee*
Guttmann, Lyd Paul m	*Kellnersville*
Halbert, Howard Valmore	*Chicago, Ill.*
Halik, Glen William t c	*La Crosse*
Halsor, Anna Semelie t c	*De Forest*
Halverson, Alma Newell	*Edmund*
Halverson, Estella Ione	*Edmund*
Hammon, Louise	*Evanston, Ill.*
Hanley, Mary Lois t c	*Milwaukee*
Hanson, Alma Christine	*Eau Claire*
Hanson, Elma May	*Delafield*
Hanson, Will Peter	*Michigan, N. Dak.*
Hardman, Jaunita Marie t c	*Winchester, Ind.*
Hartman, Leone Anne	*Madison*
Hartmann, Edna Gertrude t c	*Madison*
Hayes, Charles Addison	*Chippewa Falls*
Heckman, Ray Mathias	*Merrill*
Hefty, Paul Leo m	*New Glarus*
Helmes, Dorothy Alma	*St. Paul, Minn.*
Henderson, George von Bunsen	*Madison*
Hendrickson, Clarence w	*Madison*
Henry, Albert James	*Michigan City, Ind.*
Heseman, Harold Carl	*Evansville, Ind.*
Hessman, Amanda C. t c	*Madison*
Higgins, Catherine Romana t c	*Madison*
Hill, Frances Lucretia	*Beloit*
Hoefer, Merrill Clayton	*Freeport, Ill.*
Hoffmann, Nicholas Joseph	*Port Washington*
Holahan, Gretta Fenelon	*Madison*
Holstein, Gladys Mae	*Ft. Atkinson*
Hopson, Perle Mary	*Madison*
Horn, Ada Olga t c	*Oshkosh*
Hoskins, Letha Marjorie	*Bloomington*
Hosmer, Margaret C.	*Ashland*
Houck, Knut Koegh m	*La Crosse*
Hovrud, Nora Christine t c	*Mt. Horeb*
Hubbard, Miriam Beardsley t c	*Madison*
Hughes, Anna Myra	*Madison*
Hughes, Josephine Jane	*Waukesha*
Humiston, Beatrice Hayden	*Madison*
Hutchins, Lee Wilson	*Grand Rapids, Mich.*
Inglis, Winifred t c	*Hampton, Iowa*
Ingwersen, Clara Marie	*Chicago, Ill.*
Irwin, George Howard m	*Lodi*

Irwin, Macaulay	*Quincy, Ill.*
Jacobson, Roland Arthur m	*Billings, Mont.*
Jamieson, Frances Marguerite t c	*Shullsburg*
Jankel, Clara Augusta t c	*Sparta*
Janney, Francis Rush m	*Richland Center*
Jenkins, Esther t c	*Milwaukee*
Johannesen, Rolf Thorleif Horn t c	*Delavan*
Johnson, Charles Wallace	*Chicago, Ill.*
Johnson, Genevieve Catherine t c	*Madison*
Johnson, Gladys	*Nampa, Idaho*
Johnson, Harvey Chester	*Superior*
Johnson, Julia Agnes	*Portage*
Jones, Irene Helen t c	*Burlington*
Jones, Mildred Elizabeth t c	*Madison*
Julio, Laura	*Red Lodge, Mont.*
Kammerer, Helen Theresa t c	*Racine*
Kasiska, William Herman	*Baraboo*
Kasten, Harry Edward m	*Juneau*
Kellogg, Elenore Virginia	*Madison*
Kemp, Earl Parker	*Kempton, Ind.*
Kennedy, Dorothy Elizabeth	*Ashland*
Kepke, Clara Louisa Fredericka	*Madison*
Kesler, Edna Marie	*Peoria, Ill.*
Ketcham, Iva Nodene	*Madison*
Kevin, Paul Robert m	*La Crosse*
Keyes, Francis Orton	*Waldo*
Khanlian, Parsyl Benjamin m	*Madison*
Kimball, Emily Amanthus	*Platteville*
King, Alice Van Patten	*Madison*
Kinnan, Marjorie	*Madison*
Kinne, Harold Everett l	*Orofino, Idaho*
Kinsman, Francis Cyrenus m	*Manawa*
Kleinheinz, Theresa Marie t c	*Madison*
Klenk, Ione Magdalena	*Sandusky, Ohio*
Kluth, Amanda Augusta	*Clintonville*
Knower, Eve Tenney	*Interwald*
Knowlton, Helen Sheldon	*Madison*
Kobetich, Mary Rose	*Madison*
Koelsch, William Alfred m	*Boise, Idaho*
Kohlhoff, Carl Henry t c	*Burlington*
Kraatz, Walter Charles t c	*Milwaukee*
Krause, Rosa Laura	*South Bend, Ind.*
Kreitzer, Augusta Mathilde t c	*Sawyer*
Kremers, Elsa	*Madison*
Krieger, Florence Isabel	*De Forest*
Kriz, Rose Alice m	*Milwaukee*
Lackey, Esther Hutchins	*Oak Park, Ill.*
La Due, Russell Morseby	*Luverne, Minn.*
Lakoff, Charles B. m	*Chicago, Ill.*
Lander, Miles Krause	*Grand Forks, N. Dak.*
Lange, Ivan Louis	*Cedarburg*
Langjahr, Arno Robert m	*Plymouth*
Lathrop, Amy Cecelia t c	*Bridgeport*

Lathrop, Francis Child	*Madison*
Laut, Margaret Dorilla t c	*Wausau*
Lerch, Mary Fredrica	*Washington, D. C.*
Lingle, Paula Elizabeth Nancy	*Madison*
Littig, Esther Eugene t c	*Flandreau, S. Dak.*
Logan, Lucile Harshaw	*St. Louis, Mo.*
Longfield, Charles Samuel	*Madison*
Loomis, Dorothy	*Madison*
Loomis, John Lawrence m	*Madison*
Loverud, Alvin Matthew l	*Stoughton*
Loy, Georgia Adeline	*Chicago, Ill.*
Luessen, Alma Catherine t c	*Valley City, N. Dak.*
MacArthur, Arthur Stanley	*Dunbar*
MacDonald, Robert Paul	*South Bend, Ind.*
McCarthy, Margaret Mary	*Mellen*
McColl, William Fraser m	*Roberts*
McIntosh, Charles Thomas	*Edgerton*
McKinley, George Button	*Milwaukee*
McKnight, Emma Marie t c	*South Wayne*
McMurray, Marjorie	*Nashville, Tenn.*
Mabis, Katherine Virginia	*Des Moines, Iowa*
Mackenzie, James Norman	*Madison*
Madden, Marguerite Helen	*Menominee, Mich.*
Marquart, Martha Luella	*Springfield, Ohio*
Martin, Edith Margaret	*Waupun*
Martin, Kate Landis	*Gillette, Ark.*
Mattuschek, Ervin Edward	*Milwaukee*
Mayers, Marion Catherine	*Madison*
Metschl, John	*Milwaukee*
Meyer, Charles Alois	*Unity*
Meyer, Harrison A. t c	*Milwaukee*
Middlekauff, Margaret Lucy	*Freeport, Ill.*
Miller, Audra Evelyn	*Lebanon, Ind.*
Miller, David Beckwith	*Cleveland, Ohio*
Miller, Florence Emma t c	*La Crosse*
Miller, John Coventry	*Madison*
Mills, James Stewart m	*Janesville*
Milton, Margaret Kirtley	*Atlanta, Ga.*
Moeschler, Clara Margaret	*Stevens Point*
Mooney, Alice Elizabeth	*Superior*
Morris, Kathryn	*Madison*
Morris, Meade McKinley	*Madison*
Morse, Edwin French	*Sauk Center, Minn.*
Morter, Jennie Luella	*Rhinelander*
Moses, Milton	*Chicago Heights, Ill.*
Moyer, Julia Anne t c	*Monroe*
Mueller, Gilbert Frederick Charles m	*Milwaukee*
Mullen, Bernard Parker m	*Sturgeon Bay*
Murphy, Eleanor Janet	*Buffalo, N. Y.*
Murphy, Lorna	*Waukon, Iowa*
Muskat, Irving Isidor m	*Milwaukee*
Nash, John William t c	*Juneau*
Nehrlich, Margaret Regina	*Sheboygan*

Nelson, Ingrid Chase	*New Brunswick, N. J.*
Nelson, Lutie Marie	*Racine*
Neprud, Marion Catherine	*Coon Valley*
Nicolls, Evelyn Virginia t c	*Wausau*
North, Elizabeth Anne	*Houston, Texas*
O'Brien, Marie Eileen t c	*Madison*
Odèn, Constantin Luther Ambrosius m	*Belvidere, Ill.*
Oliver, George Peter	*Galesville*
Olsen, Lucille Eleanor	*Madison*
Opper, Clara Louise t c	*Weyauwega*
Partridge, Florence Alevia	*Chicago, Ill.*
Pearsall, Barbara Evelyn	*Evansville*
Pearson, Norma Lenys t c	*Bloomington*
Pergande, Loretta Mathilda	*Milwaukee*
Peterman, Mynie Gustav m	*Merrill*
Petersen, Arthur S. J. m	*Racine*
Peterson, Esther Adollia t c	*Racine*
Peterson, James Dahle l	*Minneapolis, Minn.*
Pierce, Cordelia Clement t c	*Waukesha*
Pink, John James m	*Oconomowoc*
Pohle, Viola Elizabeth t c	*Bloomington*
Porter, Adelaide Grace t c	*Holcombe*
Porter, Mary Eliza	*Madison*
Potter, Ellis David	*Madison*
Poulsen, Frank Edward	*Marinette*
Powers, Mary Eileen t c	*Mauston*
Preston, Esther Anne t c	*Brodhead*
Putman, Russell Lorain	*Wilmot, Ohio*
Raimey, Mable Watson t c	*Milwaukee*
Ramsey, John Robbins	*Racine*
Rasmussen, Vilas Lenor	*Oconomowoc*
Ratty, Frank John m	*Laona*
Raymond, Bernard	*New York, N. Y.*
Reetz, Otto Anton	*Bloomer*
Reid, Dorothy Emma	*Oconomowoc*
Rennebohm, Oscar	*Madison*
Renton, Allan	*Ewa, Hawaii*
Rice, Marion Elaine	*Chicago, Ill.*
Richards, Alberita Napier	*Hannibal, Mo.*
Richards, Dolores Millicent t c	*Mineral Point*
Rietbrock, Dorothy	*Milwaukee*
Rindy, Ethel Genevieve t c	*Madison*
Ristow, Olga Belle t c	*Black River Falls*
Ritter, Isabell Elizabeth	*Columbus*
Roberts, Junius Sturges	*Madison*
Robertson, Jen Marie	*Lodi*
Robinson, Alma Edith t c	*Duluth, Minn.*
Robinson, Margaret Ann	*Grand Rapids, Mich.*
Rogers, Alfred Moore	*Chicago, Ill.*
Rogers, Lucy Ella	*Kimball*
Rohm, Harold Valentine	*Milwaukee*
Rohrs, Helen Natalie	*Lake Geneva*
Roseman, Max	*Green Bay*

Ross, Dorothy	*Appleton*
Rossiter, Eva Lacile t c	*Milwaukee*
Rothwell, Paul Taylor	*Needham, Mass.*
Royce, Elizabeth	*Madison*
Rudd, Ingeborg Elizabeth	*Kenosha*
Ruehl, Wilbur Herman m	*Beaver Dam*
Ryan, Genevieve Ingersoll	*Janesville*
Sanford, Marian Elizabeth t c	*La Crosse*
Sapp, Gladys Marguerite	*Princeton, Ill.*
Saunders, Grace Margaret	*Superior*
Saunders, Otis Warren m	*Oconto Falls*
Sawyer, Estelle Julia	*Racine*
Scanlan, Marian Eunice Frances t c	*Prairie du Chien*
Schiller, Armand Robert	*Milwaukee*
Schmidt, Elsa Wilhelmina t c	*Marshfield*
Schmitz, Herbert Walter m	*Manitowoc*
Schrieter, Herbert Gustave t c	*Milwaukee*
Schustedt, Sarah Charlotte t c	*Madison*
Schweizer, Elinore Louise	*La Crosse*
Scott, Dorothy Belle	*Maywood, Ill.*
Searls, Fern Horton t c	*Grand Rapids*
Sennett, Margaret Devlin t c	*Madison*
Sharpe, Elizabeth Lucy t c	*Rock Island, Ill.*
Shepherd, Grace Lynoi	*Rewey*
Shepherd, Maud Agnes	*Platteville*
Shortess, Lois Fuller	*Charleston, Ill.*
Simenson, Oscar	*La Crosse*
Simonds, Paul William m	*Milwaukee*
Simonson, Marion	*Tomah*
Simpson, Edward Eber, Jr. m	*Oshkosh*
Simpson, Helen Winifred	*Madison*
Skaar, Martha Olea	*La Crosse*
Skemp, Thomas Harry	*La Crosse*
Slater, Harry Vergil	*Sturgeon Bay*
Sletteland, Oscar Bernard	*Pigeon Falls*
Slichter, Allen McKinnon	*Madison*
Smalley, Gwynette Ellsworth	*Cuba City*
Smith, Bessie Jenkins	*Milwaukee*
Smith, Harold David	*Platte, S. Dak.*
Smith, Katherine t c	*Columbus*
Smith, Nettie May	*River Falls*
Snell, Harriet	*Oshkosh*
Spencer, Adah Porter	*Chicago, Ill.*
Sprague, Mildred	*St. Joseph, Mo.*
Stack, Sylvester Stephen m	*Milwaukee*
Stanchfield, Madelyn Elizabeth	*Fond du Lac*
Statz, Rosalin Catherine t c	*Madison*
Stauffer, Norma Hoffman t c	*Appleton*
Steckbauer, Joseph Whittier m	*Oshkosh*
Stenjem, Eldon Mandt	*Madison*
Stephan, Carl Thompson m	*Chicago, Ill.*
Stephenson, Ralph Everett	*Indianapolis, Ind.*
Stevenson, Carlisle Edward	*Marinette*

Stewart, Mildred Virginia	*Bozeman, Mont.*
Stewart, William McKinley	*Chicago, Ill.*
Stier, Dimple Rhea t c	*Whitewater*
Stolte, Ruth Lucile	*Reedsburg*
Stolze, Joseph Ariel	*Wausau*
Straus, Michael Wolf	*Hinsdale, Ill.*
Sucher, Ralph Gunn	*Peoria, Ill.*
Sullivan, Angela Hope t c	*Dubuque, Iowa*
Sullivan, John Drepperd	*Dubuque, Iowa*
Sutherland, Judson Clare	*Eau Clare*
Swendson, James Jay m	*Amherst*
Taber, Jessie	*Madison*
Tarrant, Ella Almira	*Chicago, Ill.*
Taylor, Joseph Clark	*Logansport, Ind.*
Taylor, Sarah Jane	*Two Rivers*
Teckemeyer, Russell Arthur	*Madison*
Termansen, Hans Peter	*Sawyer*
Thieme, Cyrus Charles l	*S. Milwaukee*
Thompson, Olga Christiane	*Wausau*
Titus, Alberta Margaret t c	*Fond du Lac*
Tormey, Loretto Eden	*Madison*
Tredwell, Lillie	*Chicago, Ill.*
Tuchscherer, Frank Adam	*Menasha*
Tufts, Ruth Anna t c	*Withee*
Turner, Alice t c	*Port Washington*
Twells, Geneva Anna	*Logansport, Ind.*
Upgren, Inez Edna	*River Falls*
Utman, Beatrice Violet	*Hudson*
Van Den Berg, William John m	*Madison*
Vander Bie, Chauncey Learen t c	*Platteville*
Vander Bie, Miriam t c	*Eau Claire*
Vanderbie, Roscoe m	*Platteville*
Voigt, Luella Frances	*Oconomowoc*
Vose, Mary Ann Scott	*Macomb, Ill.*
Wackman, Charline Marie	*Oregon*
Wade, Margaret Moore	*Muscoda*
Walser, Dora May t c	*Northwood, Iowa*
Warner, Mary Vivian	*Chicago, Ill.*
Warren, Lucille Anna t c	*Baraboo*
Watson, Allen Smith m	*Madison*
Weber, Carl Joseph	*Pewaukee*
Webster, Margaret Rebecca t c	*Milwaukee*
Weidenfeller, Eleanor	*Highland*
Weix, Joseph Branick	*Beaver Dam*
Werden, Esther Winifred	*Chicago, Ill.*
Wessinger, Mary Esther t c	*Duluth, Minn.*
Wheeler, Warren Gregg	*Wauwatosa*
White, Cleveland J.	*Shullsburg*
White, Leon Oliver	*Madison*
White, Marcus Dee m	*St. Louis, Mo.*
White, Olive Annie	*Madison*
Whittet, James Lowell	*Edgerton*
Wickwire, Nina Mary	*Maquoketa, Iowa*

Wiener, Ingeborg	*Chicago, Ill.*	
Williams, Clara Bassett t c	*Whitewater*	
Williams, Dorothy Mae	*Gettysburg, S. Dak.*	
Williams, John Webster m	*Milwaukee*	
Wilmanns, Gertrude Meta	*Milwaukee*	
Wolfe, Ruth Matilda	*Sun Prairie*	
Wood, Frances Carolyn	*Denver, Colo.*	
Wright, Cornelia	*Winona, Minn.*	
Ziegler, Mabelle Gertrude t c	*Adell*	
Zum Brunnen, Hazel Irene t c	*Monroe*	—519

Course in Commerce

Achenbach, Lester William	*Alma*
Andrews, Charles Lippincott	*Moorestown, N. J.*
Austin, Carlton Leroy	*Grand Rapids, Mich.*
Babcock, William James Carey, Jr.	*Rensselaer, Ind.*
Baldwin, Eden John	*Milwaukee*
Balmer, Stanley Leslie	*Chicago, Ill.*
Belsky, Max Benard	*Dubuque, Iowa*
Berg, Edwin Louis	*Onalaska*
Biller, Jacob Robert	*Milwaukee*
Birch, Frank Victor	*Fond du Lac*
Bird, George Eaton l	*Wausau*
Bishop, Lawson Waterman	*Mallet Creek, Ohio*
Blake, Gilman Dorr	*Madison*
Blatz, Alvin Charles	*Milwaukee*
Bloom, Julien Louis	*La Crosse*
Boehne, John William, Jr.	*Evansville, Ind.*
Boeing, John Kruggel	*Fargo, N. Dak.*
Brennan, Rowland Edward	*Baraboo*
Brown, Lee Markham	*St. Louis, Mo.*
Bryant, Harold John	*La Crosse*
Burnside, Harlow Davis	*Washington, D. C.*
Buser, Earl Jones	*Madison*
Bush, Henry Huson	*Plymouth*
Chandler, Arthur Luther	*Madison*
Cleary, Thomas Louis	*Platteville*
Collins, Harold Cornelius	*Madison*
Colman, Charles Edward	*La Crosse*
Connor, Eugene Peter	*Madison*
Curtiss, Frederick Willard	*Madison*
Dahlman, Frank J.	*Kingsville, Tex.*
Donovan, James Rowells	*Waupun*
Drowatzky, Earle Frank	*Tomah*
Dutcher, Harry Roy	*Whitewater*
Eaton, Everett Hall	*Chicago, Ill.*
Ellman, Ben Louis	*Madison*
Emmerich, Carl Mallery	*Park Ridge, Ill.*
Entrop, Frank Joseph	*Racine*
Erdmann, Arthur Albert	*Sheboygan*
Evans, Bryant McAllister	*Waupaca*
Fairweather, Carl William	*Milwaukee*

Farley, Donald Stephen	*Madison*
Ferguson, William Friend, Jr.	*Madison*
Foskett, Horace Webster	*Shenandoah, Iowa*
Fox, Conrad Marion	*Racine*
Fuhrmann, Frederick William	*Dubuque, Iowa*
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*
Hanson, Arthur Guy	*Hatton, N. Dak.*
Hanssen, John Louis	*Davenport, Iowa*
Harrison, Don Edward	*Sarasota, Fla.*
Hart, Irene Eleanor	*Cumberland*
Hawkes, Rollin Curtis	*Duluth. Minn.*
Hemming, Victor Edward	*Janesville*
Hendrickson, Clarence Waldemar	*Portland, Ore.*
Hill, Byron MacLead	*Kenosha*
Hill, George Albert, Jr.	*Wyocena*
Hinton, George William	*Madison*
Hoffman, Sidney Guy	*Appleton*
Hogan, Leo Montgomery	*Dodgeville*
Holman, Cecil Lloyd	*Fond du Lac*
Holzberg, Philip Paul	*Superior*
Hughes, Frank Lyman	*Milwaukee*
Johnson, Welton Ellery	*Amherst*
Josephson, Clarence Egbert	*Cambridge*
Karcher, Raymond Eduard	*Freeport, Ill.*
Kerch, John Garver	*Akron, Ohio*
King, Marvin Stephen	*Arena*
Kittleman, Halford Harrison	*Berwyn, Ill.*
Laun, Albert Louis	*Kiel*
Lawrenz, Roy Herman	*Portage*
Lentz, Alvin Edward	*Mayville*
Levy, Robert Ferdinand	*Augusta*
Lindberg, Gustaf Heimer	*Tacoma, Wash.*
Lins, Cecilia Marie	*Spring Green*
Lipschutz, Hyman Stanley	*Oconto Falls*
McCoy William John	*Lancaster*
McGinnis, Donald William	*Kansas City, Mo.*
McMurry, Morland John	*Madison*
Marshall, Thomas George	*Belvidere, Ill.*
Marshall, William Hughes	*Madison*
Meier, Paul Adrian	*Plymouth*
Merrill, Willard Doris	*Orafino, Idaho*
Metz, Henry Lawrence	*Madison*
Miller, James Christolph	*Wausau*
Moffatt, Edwin Aldons	*Madison*
Moody, John Lawrence	*Weyauwega*
Morrissey, Raymond Peter	*Madison*
Moses, Victor Clinton	*Eau Claire*
Mungavin, James Francis	*Superior*

Nave, Cyril Winton	*Attica, Ind.*
Nicoll, Harold Vincent	*Barron*
Noer, Harold Rolf	*Wabeno*
Nuzum, William Alva	*Madison*
Ogle, Samuel Eugene	*Waldo*
Olshefsky, Alexander Joseph	*Kenosha*
O'Neill, Clifford Richards	*Orange, N. J.*
Packard, Vernon Wing	*Chicago, Ill.*
Perkins, John Raymond	*Madison*
Pollack, Harry Arnold	*Milwaukee*
Pribnow, Harry Warren	*Virginia, Minn.*
Quigg, Eugene Kramer	*Richmond, Ind.*
Razook, George	*Janesville*
Reichenbaum, Doré	*Milwaukee*
Reif, Carl William	*Madison*
Reynolds, Russell Burton	*Dundee, Mich.*
Rhodes, Edwin James	*Estherville, Iowa*
Richardson, James Marston	*Ft. Atkinson*
Roberts, Harvey Earl	*Madison*
Salit, Zigmund	*Madison*
Schmidt, George Arthur	*Milwaukee*
Schmitz, Karl Mathias	*Manitowoc*
Schubert, Harold John	*Madison*
Schultz, Armin Daniel	*Milwaukee*
Schwartz, William	*Waukegan, Ill.*
Sherwood, John Newton	*Kansas City, Mo.*
Silbernagel, George John	*Wausau*
Steele, Daniel Howard	*Oak Park, Ill.*
Stone, Gerald Daum	*Sun Prairie*
Stout, Sidney Allerdice	*Indianapolis, Ind.*
Suhm, Herbert Ralph	*Milwaukee*
Syburg, Frederic Gaffron von	*Milwaukee*
Teare, Daniel James	*Augusta*
Templeton, Wallace	*Chicago, Ill.*
Thoreson, Andrew Theodore	*Edgerton*
Trautmann, John	*Sheboygan*
Van Natta, Leslie Walter	*Platteville*
Vanden Braak, Gail	*Green Bay*
Warner, Barton Kerr	*Decorah, Iowa*
Weeks, Harold Parker	*Davenport, Iowa*
White, Donald William	*Manitowoc*
Widman, Paul Stevens	*Jefferson*
Williams, Edwin Giddings	*Ashtabula, Ohio*
Willis, Walter Weldon	*Canton, Ohio* —137

Course for Normal School Graduates

Banker, Louis Curtis	*Richland Center*
Bassford, George Ainslee	*Madison*
Bentley, Frances Ruth	*Platteville*
Bowden, Bernard Ray	*Madison*
Bowden, Beulah May	*Brodhead*
Boyce, Ella Martha	*De Kalb, Ill.*

Brooks, Beatrice Florence	*Pound*
Brown, Allan G.	*Almond*
Buehler, Gertrude	*Alma*
Christensen, Bernard Victor	*Westfield*
Colbeck, Elizabeth Bingham	*Superior*
Corey, Marion Julia	*De Kalb, Ill.*
Eastwood, Ralph E.	*South Wayne*
Ellian, Elmer Rufus	*Milwaukee*
Forseth, Victor Edward	*Martell*
Fuller, Eleanor	*Oak Park, Ill.*
Grimm, Marvel Mary	*Cassville*
Hopkin, Ruth	*Fond du Lac*
Isaacson, Myrtle May	*Superior*
Keeley, Florence Rose t c	*Hudson*
Mueller, Alfred Dominic	*Port Washington*
Murphy, Martin Michael	*Stockbridge*
Nichols, William Edward	*Seymour*
O'Reilly, Margaret Elizabeth	*Chicago, Ill.*
Parent, Charles William	*Florence*
Peterson, Ruth Agnes t c	*Wausau*
Pett, Harris Graw	*Winona, Minn.*
Reichle, Theresa Margaret	*Madison*
Robinson, Ellis Nelson	*Richland Center*
Sanford, Lion Waldo	*Westfield*
Schultz, Henry David	*Mountain Lake, Minn.*
Schwerdt, Mathilde Angela	*Madison*
Shilling, Ida Ruth	*Viroqua*
Taylor, Sarah Helen	*Superior*
Toner, Marjorie Ethel	*Madison*
Van Beek, Cora	*Aberdeen, S. Dak.*
Waddell, John Frank	*Evansville*
Washburn, Katharine Clark	*New York, N. Y.*
Wetmore, Ruth t c	*Janesville*
Wilkinson, Nellie Beth t c	*Lancaster* —40

Course in Chemistry

Beeman, Lyman Anderson	*Neenah*
Black, John Herman	*Chicago, Ill.*
Braun, Harold	*Milwaukee*
Cauwenberg, Winfred Joseph	*Green Bay*
Cole, Gordon Manley	*Madison*
Dickinson, Sheldon James	*Dundee, Ill.*
Domogalla, Bernhard Paul	*Milwaukee*
Downey, Hugh Henry	*La Crosse*
Epstein, Samuel Noah	*Jersey City, N. J.*
Fowler, William McKinley	*Kankakee, Ill.*
Friess, Ralph	*Saukville*
Henningsen, Carleton	*Oakfield*
Hetland, Victor Adolph	*Viroqua*
Hickey, Philip John	*Cleveland, Ohio*
Keebler, Irvin Wallace	*Milwaukee*

Koehler, Alfred E.	*Mishicot*	
Kraemer, Elmer Otto	*Madison*	
Lederer, Fred Ben	*Milwaukee*	
Olson, Walter Oliver	*Superior*	
Preiser, Godfrey Krause	*Racine*	
Quentmeyer, Philip Carl	*Watertown*	
Quick, Armand James	*Theresa*	
Schuler, Catharine Ellen	*Milwaukee*	
Shepard, Chester Elmore	*Oconomowoc*	
Smith, Perry Coke	*Madison*	
Starkweather, Ida Farr	*Madison, Ohio*	
Urech, Otho James	*Milwaukee*	
Warner, Charles Law	*Decorah, Iowa*	
Wendt, Herbert Carleton	*Racine*	
Wessel, Henry Hermann Edward	*Milwaukee*	
Westcott, Ray Delos	*Milwaukee*	
Wolf, Henry Nicholas	*Hilbert*	—32

Course in Journalism

Arnold, Waldo Robert	*Kiel*	
Barlow, Reuel Richard	*Monticello*	
Browne, Marshall Francis	*Madison*	
Burch, Harriet Imogene	*Minneapolis, Minn.*	
Doherty, Mary Louis	*Williamsburg, Iowa*	
Hefferan, Thomas Edward Daley	*Chicago, Ill.*	
Hendricks, Marjorie E.	*Madison*	
Kohr, Hugo John	*Chicago, Ill.*	
McCormick, Harriet Eunice	*Peoria, Ill.*	
Miller, Carl	*Chippewa Falls*	
Munro, Caroline Walker	*Princeton, N. J.*	
Puchner, Irving Alfred	*Edgar*	
Spensley, Sarah Amelia	*Minneapolis, Minn.*	
Swan, Harold Johnson	*Mazomanie*	
Tucker, Frank Thomas	*Milwaukee*	
Wallis, George Earl	*Rochester*	
Wight, Walter Greenwood	*Madison*	—17

General Course

Bigelow, Lowell Rumsy t c	*Madison*	
Evans, Thomas Iorwerth	*Milwaukee*	
Guy, Albert Kingsley t c	*Seattle, Wash.*	
Kohl, Clarence Elmer t c	*Hurley*	
Powell, Henry Miller l	*Reedsburg*	
Wolfers, Robert Charles	*Hopkins, Mo.*	—6

Sophomores

Alexander, Trent	*Madison*
Ashby, Sarah Elizabeth	*Indianapolis, Ind.*
Aszmann, Paul Eric	*Portage*
Baer, Edwin Ben	*St. Paul, Minn.*
Barker, George Stevenson	*Cleveland, Ohio*
Bartholf, Winifred	*Glencoe, Ill.*
Bartz, Mildred Barbara	*Bozeman, Mont.*
Bauer, Carl Philip	*Mandan, N. Dak.*
Beach, Joseph Barnes	*Whitehall*
Benisek, Helen Annette	*Antigo*
Bents, Zelda Caryl	*Madison*
Benz, Karl John	*Canton, S. Dak.*
Beyer, Sylva	*Rutherford, N. J.*
Bicknell, Constance Beverly	*Washington, D. C.*
Biederman, Lucille Wilhelmine	*Duluth, Minn.*
Bierbauer, Vera Louise	*Mankato, Minn.*
Binder, Walter James	*Newport, Ky.*
Bird, James Norman	*Milwaukee*
Bjornson, Marvel Milne	*La Moure, N. Dak.*
Bohan, Mary Zilpha	*Avoca*
Boll, Kathryn Mae	*Rice Lake*
Borden, William Henry	*Madison*
Born, Lucile Dorothy	*Toledo, Ohio*
Boutin, Anna Rose	*Bayfield*
Boutin, Hiller George	*Bayfield*
Bower, Irene Angela	*Ashland*
Bradford, Margaret Veronica	*Mineral Point*
Bradley, Gertrude	*Milwaukee*
Bray, Grace Catherine	*Elkhorn*
Breyley, Captola Rae	*Wadsworth, Ohio*
Briggs, Norman Randolph	*Corymans, N. Y.*
Brittingham, Louis George	*Los Angeles, Cal.*
Brogan, Katherine Ruth	*Ironwood, Mich.*
Brown, Clifton Martin	*Madison*
Brown, Kathryn Kent	*Rhinelander*
Brown, Reuben Samuel T.	*Madison*
Bruegger, Erwin Kehr	*Williston, N. Dak.*
Bruns, Darwin Elroy	*Morrisonville*
Bruns, Henry Albert	*Morrisonville*
Bucknam, Marian McDonald	*Antigo*
Burke, Thomas Nicholas	*Wayside*
Byers, Ruth	*Coldwater, Mich.*
Cape, Thomas Wilson	*Dodgeville*
Carpenter, Charles Hand	*Racine*
Charles, Ruth Eva	*Madison*
Christensen, Charline Mary	*Madison*
Chu, Keats Lynn	*Ningpo, China*
Chubb, Mavis Adelaide	*St. Louis, Mo.*
Churchill, Norma Eleanor	*Monroe*
Clark, Berta Fern	*Council Bluffs, Iowa*

Clarke, Ernest	*Hull, England*
Clarke, Mary Sterling	*York, Nebr.*
Cleveland, Chester Emery, Jr.	*Chicago, Ill.*
Coapman, Vida Alice	*Kilbourn*
Cobban, Lorraine Margaret	*Madison*
Cody, William Francis	*Fond du Lac*
Coleman, Arthur Leonard	*Ashton, S. Dak.*
Conkey, Ruth Taylor	*Superior*
Conklin, Lauretta Bugher	*Winnipeg, Manitoba*
Conley, Henry Harold	*Cazenovia*
Conlin, Ruth Margaret	*Madison*
Connell, John William	*Fond du Lac*
Conway, Paul Hoffmann	*Watertown*
Cook, Ogden	*Milwaukee*
Cooper, Gloria Olive	*Merrimack*
Cosgrove, Frank William	*Fond du Lac*
Coulthard, Wilda Joyce	*Benton*
Cox, Linton Alden	*Indianapolis, Ind.*
Croskey, William Winslow	*Madison*
Cunningham, Lawrence Eugene, Jr.	*Beloit*
Curran, Richard Francis	*Edgerton*
Dahle, Artman Harvey	*Sun Prairie*
Dana, Eleanor Fairchild	*Eau Claire*
Darling, Lorenzo Lyman	*Manawa*
Davis, Lois Adelyn	*Frankfort, Ind.*
Delaney, William Francis	*Milwaukee*
Deuss, Edward Louis, Jr.	*Sheboygan*
Dickelmann, Lorin Elmer	*Milwaukee*
Dimond, Dorothy Sara	*Albany, Ill.*
Dinkwitz, Oscar	*Marinette*
Dobie, Catherine Anna	*Superior*
Donacelski, Florence Agatha	*Preston, La.*
Donkle, Annetta	*Ft. Atkinson*
Douma, Eddina Pauline	*Sheboygan*
Dunn, Calvert Zeph	*Chicago, Ill.*
Dyson, Doris Elinor	*Viroqua*
Edwards, Lillian Marguerite	*Ft. Atkinson*
Eger, Harold Anderson	*Ishpeming, Mich.*
Eimon, Ora Signe	*Superior*
Eldridge, Irene	*Tomah*
Elsom, Bernardo Whitfield	*Madison*
Elston, Frances Marie	*Duluth, Minn.*
Emerson, Louise Lindsley	*Ekalaka, Mont.*
Engel, Adolph Charles	*Caroline*
Ernst, Leo Wainright	*Chicago, Ill.*
Escabi, José	*Mayagüez, P. R.*
Evans, Catherine Carol	*Madison*
Evans, Margarita	*Boonville, N. Y.*
Evans, Mildred Campbell	*Grand Rapids, Mich.*
Ewe, Joeina Mary	*La Crosse*
Exley, Erwin William	*Menasha*
Fairchild, Evelyn Van Zandt	*Silver Creek, N. Y.*
Faith, Don Carlos	*Washington, Ind.*

Falk, Gustave Rudolph	*Spooner*
Falk, Karen Fredrikka	*Stoughton*
Farley, Lenora Agnes	*Madison*
Fay, Marion Elizabeth	*Madison*
Fellows, Gladys	*Racine*
Ferger, Wirth Fitch	*Chattanooga, Tenn.*
Field, Harold Manoel	*Oelwein, Ia.*
Finsky, Morris	*Lake Geneva*
Fisher, Eleanor	*Milwaukee*
Fisher, Marjorie Katherine	*Baraboo*
Fitzgerald, Robert Drake	*Milwaukee*
Flaherty, Marian	*Grand Rapids, Mich.*
Flower, Gretta Leonore	*Madison*
Focke, Wilhelm John	*Chicago, Ill.*
Foster, Carlton Harwood	*Oshkosh*
Francis, Marguerite Arline	*Chicago, Ill.*
Frazier, Mildred Lucile	*Madison*
Frederickson, Edna Virginia	*Madison*
Freymiller, Ernest Fred	*Woodman*
Frish, Evelyn Agnes	*Madison*
Frye, Miriam Louise	*Madison*
Funk, Dorothy Konradine	*Des Moines, Iowa*
Gehr, Bertha	*Chicago, Ill.*
Geiger, Mary Bernice	*Madison*
Gerber, Estelle Marjorie	*Ligonier, Ind.*
Gibbon, Martha Gladys	*Madison*
Gillis, Clare Dorothy	*Superior*
Goldberg, Benjamin	*Antigo*
Goldmann, Madelaine Henriette	*Milwaukee*
Gough, James Arthur	*Sugar Bush*
Grace, Dorothy Patterson	*Oak Park, Ill.*
Gray, Helen	*Manitowoc*
Greenberg, James Edward	*New York, N. Y.*
Greenspon, Fannie	*Appleton*
Gregory, Maklem Wallis	*Delavan*
Gronfeldt, Esther Susan	*Hurley*
Gross, Alma Eleanor	*Duluth, Minn.*
Groves, Harold Martin	*Lodi*
Hadley, Ella Josephine	*Oregon*
Hafner, Irene Mary	*Oak Park, Ill.*
Haker, Milton Albert	*Portage*
Haley, John Wendell	*Madison*
Hanson, Rudolph	*Superior*
Hardy, Charles Stave	*Madison*
Harker, Myra Susan	*Madison*
Harkes, Barbara	*Coal City, Ill.*
Harrington, Florence Mary	*Milwaukee*
Harrington, Hannah Truesdale	*Rock Creek, Ohio*
Hart, Mabel Beth	*Hillsboro*
Hatch, A. Eugene	*Spring Green*
Hay, William J., Jr.	*Oshkosh*
Hayes, Louis James	*Janesville*
Hayes, Matthew Raymond	*Milwaukee*

Hayssen, Irma Charlotte	*Madison*
Head, Dorothy Brandon	*Madison*
Head, Elizabeth Rachel	*Madison*
Heddles, Rena	*Madison*
Hedquist, Oscar Arthur	*Madison*
Helgren, Fred Joseph	*Florence*
Hemsing, James Franklyn	*Milwaukee*
Herrick, Donald Lukes	*Milwaukee*
Higbie, Nathan Bradley, Jr.	*Chicago, Ill.*
Hipke, Lucius Warrington	*Milwaukee*
Hjermstad, Marie Emily	*Red Wing, Minn.*
Hoffman, Esther Clara	*Madison*
Hogan, Beatrice Muriel	*Madison*
Hokamp, Hester Louise	*Burlington, Iowa*
Hole, Dean	*Chicago, Ill.*
Holt, Ethel May	*Cambridge*
Howard, Joseph Elwyn	*Madison*
Howe, Helen Huntley	*Lake Mills*
Howison, William	*Menomonie*
Hoyer, Edward Ludwig Fredrick	*West Bend*
Hoyer, George Henry Christian	*West Bend*
Hsieh, Hsueh Hai	*West Gate, Wusih, China*
Huegel, Lillian Elizabeth	*Madison*
Hughes, Ruth Anne	*Downers Grove, Ill.*
Hummel, Fred Edgar	*Milwaukee*
Hunt, Rhea	*Barronette*
Huntley, Alton Karl	*Clyd, Ohio*
Ilett, Willard Everett	*La Grange, Ill.*
Jacobs, Gertrude Margaretta	*Reedsburg*
Jennings, Blandford	*Washington, D. C.*
Jensen, Dagmar Christine	*Racine*
Joannides, Minas	*Madison*
Johnson, Howard Lawrence	*Racine*
Johnson, Margaret Ruth	*Portage*
Johnson, Roscoe Edwin	*Eureka, Kans.*
Johnston, Mildred Lyne	*Fort Atkinson*
Jones, Donald Coffin	*Billings, Mont.*
Jones, Doris Elizabeth	*Madison*
Jones, Elbert William	*Waupun*
Jones, Thelma Fay	*Madison*
Kahlenberg, Hester	*Madison*
Karger, Ralph Simon	*Milwaukee*
Kayser, Paul	*Milwaukee*
Keller, Fanny Margaret	*Madison*
Kellog, Horace Banter, Jr.	*Antigo*
Kerns, Beulah Margaret	*Moline, Ill.*
Kerswill, Emily Louise	*Park Falls*
Keyes, Mary	*Madison*
Kieckhefer, Herbert Martin	*Milwaukee*
Kieckhefer, Hilda Louise	*Milwaukee*
Kimball, Charles Leonard, Jr.	*Oak Park, Ill.*
King, Florence Harriet	*Milwaukee*
Kleven, Garnet Estell	*Mt. Horeb*

Klug, John Leslie	*Lake Geneva*
Kramer, Paul Stevens	*Faribault, Minn.*
Kuenzli, David Benjamin	*Milwaukee*
Kupfer, Harriet Angeline	*Kenosha*
La Due, Laura Bert	*Luverne, Minn.*
La Follette, Philip Fox	*Madison*
La Follette, Robert Marion, Jr.	*Madison*
Lamb, Jeanette Jones	*Erie, Pa.*
Lamoreux, Vera Rosalind	*Mayville*
Larkin, William James	*Whitewater*
Larsen, Esther Amelie	*Madison*
Lathrop, Margaret	*Madison*
Lee, Burr Eduard	*Beloit*
Lemm-Marugg, Carl	*Hamilton, Mont.*
Lesh, Charlotte Bradley	*Indianapolis, Ind.*
Lewis, Lillian Lucile	*Macfarland*
Lewis, Margaret Jane	*Madison*
Liebermann, Lucile Sara	*Watertown*
Lindsay, Russell Gilbert	*Milwaukee*
Littig, Alice Gertrude	*Davenport, Iowa*
Littig, Lawrence Victor	*Davenport, Iowa*
Lloyd, Edwina Turner	*Ravinia, Ill.*
Lohe, Irene Leon	*Manitowoc*
Ludlow, Evelyn Charlotte	*Monroe*
Lyon, Cora Esther	*Brandon*
Lyons, Edith Roberts	*La Crosse*
McCandless, Donald Sisson	*Davenport, Iowa*
McCarthy, Emerson Joseph	*Ponce, Nebr.*
McDonald, Blanche Lois	*Beaver Dam*
McGarty, Michael Edwin	*Mauston*
McKay, Frances Josephine	*Fall River*
McKeague, John Jay	*Wautoma*
McKee, Wilna Russell	*Houston, Tex.*
McLeod, Imogene Doris	*Garnet, Mich.*
Maack, Fred William	*Chicago, Ill.*
Maher, Catherine Mary	*Milwaukee*
Maher, Evangeline Genevieve	*Minneapolis, Minn.*
Mailer, Andrew Robert	*Depere*
Manring, Eric Hammond	*Gaston, Ind.*
March, Mildred	*Warren, Ohio*
Marks, Harold Eugene	*Madison*
Markus, Norbert William	*Quincy, Ill*
Marquardt, Gladys Eugenia	*Wausau*
Marsh, Gladys Margaret	*Madison*
Marshall, Charles Robert	*Madison*
Maurer, Catherine	*Madison*
Mautz, Cora Amalie	*Madison*
Melby, Eva	*Madison*
Melnikow, Maurice	*Milwaukee*
Mengelberg, Walter Rudolf	*Milwaukee*
Merchant, Edythe Mae	*Ellendale, N. Dak.*
Merz, Aline Adeline	*Madison*
Meulemans, August Martin	*Wrightstown*

Meyer, Ernest Louis	*Milwaukee*
Miller, Marion Rachel	*Markesan*
Millikin, Kathleen	*Hamilton, Ohio*
Mitchell, Prescott Talman	*Cincinnati, Ohio*
Moe, Orpah Ruth	*Chetek*
Moe, Sigrid Winifred	*Chetek*
Montgomery, Allen Darnell	*Wichita Falls, Tex.*
Montgomery, Robert Bresse	*Madison*
Moore, Charles Francis	*Madison*
Moore, David Weston	*Onalaska*
Moore, Warren Gillespie	*Chicago, Ill.*
Morman, Wade Hampton	*Wausau*
Morris, Francis Joseph	*Timothy*
Mueller, Clara Ernestine	*Milwaukee*
Mueller, Walter Edward	*Davenport, Iowa*
Mugge, Lucile Elizabeth	*Harrisburg, Ill.*
Munson, Catherine Olive	*Viroqua*
Murphy, Brynhilde Josephine	*Stoughton*
Murphy, Ellida	*Berlin*
Murray, Robert Oliver	*Madison*
Murray, Walter Clinton	*Shell Lake*
Muther, Alice Marie	*Oak Park, Ill.*
Myrland, Eiel Harmon	*Mauston*
Naeckel, Harold William	*Davenport, Iowa*
Nelson, Dewey Vanard	*Darlington*
Nelson, Eleanor Du Mars	*Luverne, Minn.*
Nelson, Ernest Darandas	*Arcadia*
Nelson, Juanita Isabelle	*Lodi*
Nelson, Laura Marsh	*Madison*
Netherwood, Mirbell Annie	*Madison*
Newcomer, David Albert	*Washington, D. C.*
Newman, Rose Katherine	*Madison*
Noetzel, Gertrude Murilla	*Waukesha*
Nolte, Claire	*Davenport, Iowa*
North, Reynolds Bacon	*Green Bay*
Northam, Edna Mae	*Madison*
Nystrom, Elizabeth Ruth	*Wheaton, Ill.*
Ochsner, Bertha	*Chicago, Ill.*
Odegard, Ethel Jannette	*Merrill*
Odegard, Helena Martinsen	*Madison*
O'Laughlin, Eleanor Margaret	*Madison*
O'Laughlin, John Richard	*Madison*
Olesen, Martha Helena	*Humboldt, Iowa*
Olin, Doris Louise	*Florence*
Olin, Irene Hazel	*Florence*
Olson, Mamie IsaBella	*La Crosse*
Olson, Oscar Albert	*Galesville*
O'Malley, Stella Ethelbert	*Madison*
Opgenorth, Irene Kathryn	*Kewaskum*
Ormond, Roy Bazanquith	*Brookfield*
Osburn, Burl Neff	*Madison*
Osgood, Wayland	*Windsor*
Owens, Elizabeth Isett	*Dixon, Ill.*

Padley, Grace	*Lodi*
Pain, Charles Esmond, Jr.	*Chicago, Ill.*
Pardee, Florence Mae Miller	*Madison*
Parker, Louisa	*Clinton*
Pasewalk, Gladys	*Norfolk, Nebr.*
Patterson, Dorothy Jean	*Madison*
Peck, Margery	*Berlin*
Pein, Jane von	*River Forest, Ill.*
Pellow, Chauncey James	*Mineral Point*
Perlman, Jacob	*Madison*
Peterson, Margaret Irene	*Delavan*
Pfister, Mildred A.	*Madison*
Phelps, Clarence Henry, Jr.	*Milwaukee*
Pieh, Addie Emma	*Madison*
Pilpel, Emily Marion	*New York, N. Y.*
Piper, Purcell William	*Milwaukee*
Pleuss, Viola Elfrieda	*Madison*
Pollard, Seth Whitely	*Lannon*
Pomeroy, Leslie Klett	*Madison*
Porterfield, Alice Viola	*Kansas City, Mo.*
Post, Julia Harriet	*Madison*
Prueter, Arthur Paul	*Kiel*
Prussing, Ernest John	*Chicago, Ill.*
Puckett, Mildred Vail	*Rock Rapids, Ia.*
Purcell, Ruth Helen	*Hampton, Iowa*
Quigley, Vernon James	*Antigo*
Ramsay, Susan Bowen	*Madison*
Rathbun, James Malen	*Webster, S. Dak.*
Reed, Harold West	*Elkhorn*
Reid, Velma Agnes	*Hurley*
Reiman, Marie Agnes	*Terre Haute, Ind.*
Reinking, Margaret Beatrice	*Madison*
Richter, Charles Frederic Rand	*Milwaukee*
Ritchie, Catherine Jean	*Jefferson*
Roberts, Arnol Victor	*Wild Rose*
Robinson, Kathleen Mary	*Green Bay*
Roehm, Ruth Madolyn	*Ashland*
Rogers, Ezra Hazelton	*Hartford*
Ross, Frank Alsworth	*Madison*
Roth, Rada Rosalind	*Fowler, Ind.*
Ruder, Clara Louise	*Wausau*
Rudy, Paul Passmore	*Madison*
Rufsvold, Mildred Priscilla	*Marinette*
Runden, Randolph Hall	*Kansasville*
Ruston, Margaret	*Evansville, Ind.*
Sage, Donald McCormack	*Delavan*
Sandrock, Laura Mae	*Madison*
Saul, Lulu Estelle	*Douglas, Wyo.*
Schaffer, Clarence Keisling	*La Crosse*
Schmidt, Herbert Glueck	*Milwaukee*
Schmidt, Irma Bertha	*Evansville, Ind.*
Schmitz, Raymond Hubert	*Madison*
Schneiders, Edwin Francis	*Marathon*

Schnug, William	*Bonduel*
Scholtz, Theodore Livingston	*Madison*
Schroeder, Elinor Marie	*Cleveland, Ohio*
Schroeder, Nico Viola	*Geddes, S. Dak.*
Schulte, Margaret	*Freeport, Ill.*
Schultz, Margaret Charlotte	*Milwaukee*
Schwebs, Lorena Elizabeth	*Madison*
Scott, Harry Hegg	*Mondovi*
Seeley, June	*Mt. Pleasant, Iowa*
Semrad, Paul August	*Chicago, Ill.*
Sevringhaus, Lois Katherine	*New Albany, Ind.*
Sexton, Marjorie Jean	*Marshfield*
Shaw, Marlys Dove	*Parkston, S. Dak.*
Shimpa, Joseph Frank	*Boscobel*
Sinaiko, Josie	*Madison*
Sinaiko, Sohnia	*Madison*
Skinner, Helen Harriet	*Madison*
Slight, George Rigby	*Peshtigo*
Smith, Carol Josephine	*Grinnell, Iowa*
Smith, Emmett Patrick	*Madison*
Smith, Helen Belle	*Madison*
Smith, Mary Ruth	*Madison*
Snodgrass, Etha Cleaver	*Eugene, Ore.*
Sonnenburg, Willard Michael	*Sheboygan*
Speer, Bedell Hudson	*Sharpsburg, Pa.*
Spengler, Silas Llewellyn	*Menasha*
Stander, Arthur Earl	*Madison*
Stark, Harold	*Bayfield*
Stearns, Rachel Elizabeth	*Madison*
Steudel, Esther	*Chilton*
Stevens, Sara Fay	*Chicago, Ill.*
Stickle, Phoebe Elizabeth	*Cottage Grove*
Stockwell, C. George	*Spooner*
Sumner, Catherine Clawson	*Madison*
Sutton, Robert Mage	*Peoria, Ill.*
Swerig, Ada Lois	*Madison*
Taylor, Bessie Lillis	*Glenhaven*
Taylor, Cornelia Katheryne	*La Crosse*
Taylor, Harold Beecher	*Chicago, Ill.*
Temme, William Ford	*Berlin*
Tener, Virginia Simpson	*Wheeling, W. Va.*
Thornton, Eva May	*La Valle*
Thwaits, Mabel	*Milwaukee*
Tigay, Bertha Sophia	*Chicago, Ill.*
Tilleman, John Francis	*Green Bay*
Toennies, Ernest August, Jr.	*Sheboygan*
von Toerne, Dorothy Augusta Louise	*Madison*
Townsend, Eleanor	*Sycamore, Ill.*
Tripp, Leslie Robert	*Madison*
Tyndall, Harold Reed	*Merrill*
Vanatta, Agnes Catherine	*Brookston, Ind.*
Van Deursen, Ruth	*Dolton, Ill.*
Van Hise, Alice Ring	*Madison*

Vasey, Ethel Lois	*Menomonie*
Vernon, Jane Elizabeth	*Madison*
Vickery, Clara Maude	*Evansville, Ind.*
Vingom, Clair Odin	*Clew, Mont.*
Vivian, Robert Stansmore	*Madison*
Wahl, John Jacob	*Milwaukee*
Wallrich, Lucy Angeline	*Shawano*
Walton, Ruby La Verne	*Scales Mound, Ill.*
Ward, Edna Margaret	*Sioux City, Iowa*
Ward, Elizabeth Lane	*Madison*
Watson, Robert Dean	*Aurora, Ill.*
Weddendorf, Arno Herman	*New Ulm, Minn.*
Weers, Leland Henry	*Peoria, Ill.*
Weimar, Elizabeth Christine	*La Crosse*
Weisse, Harvey Jennings	*Sheboygan Falls*
Whelan, Allen	*Mondovi*
Whelan, Anna	*Mondovi*
Whitbeck, Florence	*Madison*
White, Dora Marguerite	*Mineral Point*
White, Ruby Claire	*Madison*
Whiteside, Katherine Page	*Louisville, Ky.*
Whitlock, Robert Laird	*Gettysburg, S. Dak.*
Wise, Gladys Minnie	*Madison*
Wishnefsky, Ben M.	*Milwaukee*
Wollin, Evelyn Anna	*Oconomowoc*
Woodward, King Grier	*Peoria, Ill.*
Works, Lucile Ruth	*Madison*
Wright, Robert Williams	*Belvidere, Ill.*
Wroe, Gerald Dillon	*Chicago, Ill.*
Yabroff, Anne	*Fond du Lac*
Yabroff, Bertha Dorothy	*Horicon*
Young, Martha Grace	*Memphis, Tenn.*
Young, Roy D.	*Galesville*
Ziesel, Lora Celista	*Elkhart, Ind.*
Zillmann, Ruth T.	*Thorpe*

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Course in Commerce

Adams, Gordon Dale	*Evansville*
Anderson, Calmar Thorpin	*Chippewa Falls*
Anderson, Earl Canute	*Grantsburg*
Baker, Herbert Miller	*Zanesville, Ohio*
Ballhorn, Gordon Charles	*Bear Creek*
Barklow, Ernest Edward	*Joliet, Ill.*
Bartlett, John Shepard	*Milwaukee*
Baxter, Marcus Luling	*Lancaster*
Beaver, Cyril James	*Madison*
Behrendt, Otto Herman	*Wausau*
Benson, Merrill Manning	*Sterling, Ill.*
Bergmann, Harold Raymond	*Fort Atkinson*
Bergset, Lloyd	*Eau Claire*
Boardman, Seymour Cook	*Milwaukee*

Bohnson, Roland Durfee	*Clinton, Iowa*
Brown, Porter Harris	*St. Louis, Mo.*
Buckstaff, Angus Griswold	*Oshkosh*
Campaign, Harry John	*Madison*
Carroll, Laurence Kinzie	*Madison*
Chase, Lyle Richard	*Ashton, S. Dak.*
Clague, Stanley Richard	*Winnetka, Ill.*
Clasmann, Fred	*Milwaukee*
Clayton, Thayer Zachariah	*Milwaukee*
Connell, Arthur John	*Beloit*
Copeland, John Bird	*Jefferson*
Craig, Harry Worthington	*Cleveland, Ohio*
Crownhart, George	*Madison*
Crump, William Gordon	*Madison*
Curtin, John Leslie	*Madison*
Dame, Ralph Ward	*Beloit*
Dana, Walter Duncan	*National Home*
Dohr, Donald	*Madison*
Doyle, Elmer Michael	*Cobb*
Drew, Francis Leo	*McAlester, Okla.*
Duwe, Henry J.	*Middleton*
Ebbs, Paul Allen	*St. Louis, Mo.*
Elliot, Horace Reed	*Evanston, Itl.*
Erdmann, Willard Valentine	*Sheboygan*
Fenn, Kenneth Newton	*Prophetstown, Ill.*
Fladoes, Martin Alfred	*Menomonie*
Freese, Herbert George	*Sioux Falls, S. Dak.*
Garnsey, Edward Grant, Jr.	*Chicago, Ill.*
Gass, George Frederick	*Shenandoah, Iowa*
Gerrits, Christopher Columbus	*Waupun*
Gibson, John Currie	*Oshkosh*
Gildermaster, Henry Herman	*Princeton, Ill.*
Gleerup, William Weston	*Madison*
Gotfredson, Henry Lawrence	*Green Bay*
Grede, William John	*Milwaukee*
Green, Thomas Henry	*Ligonier, Ind.*
Grieve, Gilbert George	*Madison*
Gurney, William Walter	*Madison*
Hardy, Earle William	*Waukesha*
Hardy, Robert Roy	*Ashland*
Hatch, Vernon Victor	*Eau Claire*
Hayden, Clement Donald	*Milwaukee*
Hayden, James Matthew	*Madison*
Heilemann, Alfred William	*Jefferson*
Hewett, Floyd Fisher	*Arlington, S. Dak.*
Horn, William Edward	*Muskego*
Hornaday, Howard Blair	*Danville, Ind.*
Hunter, James Jefferson	*Milwaukee*
Jacobson, Robert Louis	*Madison*
Jones, George Good	*Warren, Ind.*
Judevine, William Kenneth	*Oakdale*
Kahn, Herbert Mandel	*Appleton*
Kaiser, William Theodore	*Chilton*

Kircher, Paul Edgar	*Kiel*
Knutson, Oley Elmer	*Boscobel*
Kress, Fred Raymond	*Tomah*
Kuhn, Arno George	*Kiel*
Langdon, Byron Clifford	*Pardeeville*
Langemak, Wesley Erving	*Evansville*
Leopold, Frederic	*Burlington, Iowa*
Levy, Edward David	*Augusta*
Linehan, Raymond Francis	*Genesee*
Lins, Clemens Michael	*Spring Green*
Little, Harvey Bonnell	*Appleton*
McCabe, William John, Jr.	*Duluth, Minn.*
McDowell, Dyer Silas	*Logansport, Ind.*
McWilliams, Gerald Shearn	*Milwaukee*
Maier, Walter Louis	*Mellen*
Malzahn, Walter Ernst	*West Bend*
Mandel, Walter	*La Grange, Ill.*
Mann, Frederick John	*Evansville, Ind.*
Marsh, Maitland Barnett	*Omro*
Martin, Joseph H.	*Grand Rapids, Mich.*
Matzen, Herbert James	*Milwaukee*
Mauer, Eugene Dickens	*Madison*
Meyer, Lawrence Emmons	*Oshkosh*
Meyers, Ross Bacharach	*Darlington*
Mishelow, Edward David	*Westfield*
Moran, Edward Leonard	*Superior*
Morrissey, Walter Lee	*Bloomington*
Munz, Arthur John	*Milwaukee*
Mylecraine, Earl A.	*Philadelphia, Pa.*
Nelson, Frederick Washington	*Racine*
Niebergall, Floyd Arthur	*Pawpaw, Ill.*
O'Donnell, Frank Rowan	*Racine*
Olson, William Otto	*Wautoma*
Pagel, Herman Emil	*Stevens Point*
Pantzer, Frederick Morris	*Sheboygan*
Perkins, Edward Lee	*Joliet, Ill.*
Peterson, Carl Edwin	*Menomonie*
Pinther, Harold Otto	*Fond du Lac*
Plumb, Walter Gerald	*Grand Rapids, Mich.*
Pogue, Kenneth Hunt	*Pawpaw, Ill.*
Poindexter, Early Whitten, Jr.	*Kansas City, Kans.*
Porter, Lyell Potter	*Evansville*
Pratt, Harold James	*Edgerton*
Quinn, Thomas John	*Waterford*
Reeves, Joseph Oscar	*Albany*
Rietow, William Howard	*Sheboygan*
Rinder, George Henry	*Sioux Falls, S. Dak.*
Rogers, Roland Hanks	*Superior*
Rowlett, John McNess	*Murray, Ky.*
Rueth, Peter Alfons	*Sun Prairie*
Sachse, Erwin George	*Sheboygan*
Sanders, Lloyd Orville	*Mt. Horeb*
Saugstad, Albin Theophil	*Westby*

Schuknecht, Roy John	*Port Washington*
Seelbach, Otto Eberle	*Louisville, Ky.*
Seielstad, Albert Norman	*La Crosse*
Shakshesky, Willard Merrill	*Jefferson*
Shellenberger, Jack Herbert	*Madison*
Sherman, Howard Cole	*Grand Rapids, Mich.*
Sinnen, Harry Peter	*Racine*
Smiley, Russell Glen	*Janesville*
Smith, Everett Gregory	*Milwaukee*
Snow, William Patrick	*Ashland*
Stabo, Nils Eivind	*Decorah, Iowa.*
Stamm, Walter Albert	*Milwaukee*
Steelman, Albert Judson	*Madison*
Stout, Richard Harding	*Indianapolis, Ind.*
Strope, Loyd Morton	*Madison*
Stuhler, Frederick Stewart	*Monticello, Iowa*
Sullivan, Floyd Edmond	*Wausau*
Sweet, Ben	*Madison*
Thwaits, Edmund Harrison	*Milwaukee*
Toomey, John Joseph	*Boardman*
Tye, Paul Farrell	*West Chicago, Ill.*
Walters, Henry Benjamin	*Tipton, Iowa*
Ward, Truman Lane	*Madison*
Ward, Walter James	*Fond du Lac*
Watkins, Sherman Sheldon	*Evanston, Ill.*
Welsh, Daniel Scott	*Madison*
White, Charles Herman	*Rewey*
Wiedenbeck, Gerold	*Madison*
Wilder, Lloyd Leonard	*Evansville*
Wolff, Alfred	*Janesville*
Wurlitzer, Raimund Billing	*Cincinnati, Ohio*
Yegen, Peter Trepp	*Billings, Mont.* —152

Course in Chemistry

Andrews, Andrew Irving	*Oshkosh*
Arzberger, Cornelius Fred	*Helenville*
Beglinger, Harold Fred	*Oshkosh*
Brickbauer, Benjamin George	*Elkhart Lake*
Cheetham, Harold Cowan	*Milwaukee*
Chou, Ming-Heng	*Ningpo, China*
Finner, Lucy Louise	*Dodge*
Flogans, William Albert	*Chicago, Ill.*
Gooding, Ralph Urban	*Fond du Lac*
Hackbert, Clarence Reinold	*Poynette*
Helfaer, Bertram	*Milwaukee*
Hoffman, Alice Emily	*Madison*
Hogenson, George Harold	*Valders*
Hoppert, Carl Arthur	*Sheboygan*
Humphrey, Edward Twining	*St. Catherine, Ont., Can.*
Jung, Frederic Theodore	*Sheboygan*
Kaul, Hazen Herbert	*Waukesha*

Lee, Tachong	*Ka Yin, China*	
McCollum, Edgar De Bolt	*Rice Lake*	
Maleckar, William Richard	*Marinette*	
Melaas, Margaret Isabelle	*Stoughton*	
Nash, George Walter	*Milwaukee*	
Nehrlich, Clara Amelia	*Sheboygan*	
Newbury, Edwin Wilson	*Burlington*	
Park, Benjamin Herbert	*Fond du Lac*	
Peterson, Otto Norman	*Madison*	
Roessler, Leslie Albert	*Jefferson*	
Schmidt, Emil Gustave	*Osceola*	
Short, Robert Wright	*Elkhart, Ind.*	
Wiese, Hilda Frieda	*Madison*	
Wiethaup, Roland Albert	*Milwaukee*	
Young, John Henry	*Eau Claire*	—32

Course in Journalism

Ball, Ruth Lucile	*Muncie, Ind.*	
Collins, Florence Elma	*Tipton, Iowa*	
Comstock, William Thurston	*Oconto*	
Cranefield, Paul Frederic	*Madison*	
Davidson, Charles Mowbray	*Boise, Idaho*	
Dopkins, Elmo Carlyle	*River Falls*	
Farrington, Joseph Rider	*Honolulu, T. H.*	
Fedde, Katherine Anne	*Peotone, Ill.*	
Herz, Robert Thal	*Logansport, Ind.*	
Horner, Emilie Elizabeth	*Grand Rapids*	
Laird, Nellie Marie	*Milford, Ill.*	
Legler, Henry Maxson	*Chicago, Ill.*	
Lehrbas, Lloyd Alan	*Pocatello, Idaho*	
McCoy, Bruce Riege	*Sparta*	
Maw, Dora Elizabeth	*Madison*	
Obenauer, Victor Jackson, Jr.	*Kokomo, Ind.*	
O'Meara, Walter Andrew	*Cloquet, Minn.*	
Palmer, Russell Raymond	*Oak Park, Ill.*	
Parrish, Philip Hammon	*Corvallis, Ore.*	
Peck, Harold Brigham	*Berlin*	
Pruett, Mary Elizabeth	*Stoughton*	
Sinclair, Norris Albert	*Lorain, Ohio*	
Smertenko, Johan Jacob	*Rochester, N. Y.*	
Smith, Dorothy Paul	*Madison*	
Sperry, Frederick Lewis	*Oak Park, Ill.*	
Sperry, Margaret Bernice	*Rochester, N. Y.*	
Stromme, Ruth	*Madison*	
Thayer, Eugene Butler	*Wausau*	
Towsley, Jean Lytle	*Toledo, Ohio*	—29

General Course

Alabeck, Bernard	*Blue River*	
Browne, Helen Converse	*Waupaca*	

Carlson, George Nathaniel	*Waukegan, Ill.*	
Cleveland, Washington Irving	*Kensington, Mo.*	
Lupton, Adelma	*Hartford City, Ind.*	
Marohn, Irma Elaine	*Milwaukee*	
Martin, Finley Furman	*Crown Point, Ind.*	
North, Martha Mary	*Sheboygan*	
Notbohm, Lex William	*Dousman*	
Rix, Doris Cornelia	*Milbank, S. Dak.*	
Vaughan, Francis Harold	*Milwaukee*	—11

Freshmen

Adams, Thomas Edward	*Madison*
Anderson, Alex	*Oregon*
Anstey, Helen Belinda	*Beetown*
Arnold, Rupert Scranton	*Milwaukee*
Aronson, Harry J.	*Milwaukee*
Arpin, Cecile	*Grand Rapids*
Atkinson, Margaret Mary	*Green Bay*
Austin, Allen Sunday	*Milwaukee*
Bach, Clarence Edwin	*Milwaukee*
Bacon, Lee Fairchild	*Madison*
Bagley, Burton Bogardus	*Mason City, Iowa*
Baker, Dorothy Mae	*Miles City, Mont.*
Baker, Finley	*Bismarck, N. Dak.*
Bakken, Henry Harrison	*Blue Mounds*
Baldwin, Rodney Brown	*Hilliards, Ohio*
Barber, Dorothy M.	*Milwaukee*
Barney, Helen Agnes	*Elkhart, Ind.*
Barr, Wallace A.	*Milwaukee*
Barrett, Cecilia Winifred	*Edgerton*
Barron, Erva Luverne	*Madison*
Bartholf, Marjorie	*Glencoe, Ill.*
Barton, Alice Gwendolyn	*Albany*
Bassett, Dorothy Jane	*Rock Island, Ill.*
Bates, Willard Herald	*Wyocena*
Bauer, Alfred John	*Cedarburg*
Beal, Beatrice Elizabeth	*Oneida, N. Y.*
Beck, Howard Hubert	*Green Bay*
Beckett, Alice	*Hamilton, Ohio*
Benedict, Marion Elias	*Neillsville*
Berezniak, Dorothy	*Chicago, Ill.*
Bergmann, Otto Theofeld	*Sparta*
Beyer, Clara Helen	*Madison*
Bill, Edward Lyman	*New Rochelle, N. Y.*
Billau, Margaret Elizabeth	*Cedar Rapids, Iowa*
Bitterman, Grace Vivian	*Madison*
Bjornson, Gunhild Kathryn	*La Moure, N. Dak.*
Blair, James	*Grand Rapids, Mich.*
Blaul, Sophie Poehler	*Burlington, Iowa*
Blied, Edna W.	*Madison*
Bloodgood, Francis Joseph	*Milwaukee*

Blount, John Gray	*Milwaukee*
Blum, George Louis, Jr.	*Eau Claire*
Bonnin, Chris Henry	*Shawano*
Borgelt, Edward Hubert	*Milwaukee*
Bornstein, Sadie	*Almond*
Boutin, Dorothy	*Bayfield*
Brackebusch, Agnes Adelheid	*Lake Mills*
Bradley, Melcena Vereeda	*Sedalia, Mo.*
Braunschweig, Philleda	*Ft. Atkinson*
Breidablik, Anna	*Madison*
Brennan, Elsie May	*Lancaster*
Bridge, Dorothy Evelyn	*Madison*
Briggs, Adelin Sumner	*Madison*
Brown, Brice Burton	*Madison*
Brown, Gladys Elsie	*Peoria, Ill.*
Brown, Thomas Jasper	*Omaha, Nebr.*
Bruce, Violet Grace	*Madison*
Bruehl, Joseph Andrew	*Menasha*
Brunner, Albert Norbert	*Leopolis*
Buckmaster, Dean Albert	*Kenosha*
Buell, Gelia Mary	*Bozeman, Mont.*
Bump, Franklin E., Jr.	*Wausau*
Bundy, Egbert Bird	*Eau Claire*
Burch, Helen Upton	*Madison*
Burgy, Jacob Herbert	*Monticello*
Burnham, Constance Olds	*Waupaca*
Burns, Robert	*Racine*
Burrill, Phroso Mirick	*St. Louis, Mo.*
Candee, Elizabeth Cecelia	*Milwaukee*
Cannon, Sherman Elma Whipple	*Madison*
Caradine, John Gerald	*Monroe*
Carley, Verna Adeline	*Appleton*
Carlson, Helen Ovidia	*La Salle, Ill.*
Casey, James Matthew	*Madison*
Chappel, Meda Augusta	*Oregon*
Chidsey, Charles Augustus, Jr.	*Detroit, Mich.*
Childs, Margaret	*Madison*
Clark, Dorothy Elizabeth	*Madison*
Clarke, Harry Zacke	*Janesville*
Cleary, Helen Marie	*Everett, Wash.*
Clemens, Alta	*Lodi*
Clifton, Eleanor	*Madison*
Cochems, Kenneth	*St. Anthony, Idaho*
Coe, Orpha Maizie	*Barron*
Coerper, Dorothy Magdalene	*Hartford*
Colby, Helen Maud	*Madison*
Comstock, Grace	*Oconto*
Conklin, Katherine Mary	*Madison*
Conover, Daphne Grace	*Madison*
Converse, Mary	*Madison*
Cook, Irene May	*Madison*
Cook, Murray Joseph	*Ashtabula, Ohio*
Cosgrove, Frances Elizabeth	*Madison*

Cottrell, Lois Marie	*Madison*
Coulson, Lee	*Cedarburg*
Craig, Charles Wallace	*Kirkwood, Mo.*
Craighill, Elenor Rutherford	*Madison*
Craighill, Margaret D.	*Boston, Mass.*
Crawford, Robert Wood	*Frederic*
Cress, Cornelia Van Ness	*Columbus, N. Mex.*
Crook, Dorothy Dee	*Madison*
Crothers, Marjorie Dunlap	*Willoughby, Ohio*
Crowley, Kate Lucile	*Arena*
Culver, William Sloan	*Eau Claire*
Cummings, Mary	*Madison*
Cunningham, Thelma Sarah	*Madison*
Curtin, Anna Elizabeth	*Madison*
Cutler, Viola Alyse	*Dodgeville*
Dahlman, Oscar Conrad Earnest	*Sheboygan*
Dangel, Dorothy Louise	*Reedsburg*
Darling, Mamie Helen	*Lovejoy, Ill.*
Davenport, Jarvis Daniel	*Sturgis, S. Dak.*
Davey, Allan Cecil	*Sheboygan*
Dean, Ruth Cecilia	*Madison*
Desmond, Mae Elizabeth	*Woodstock, Ill.*
Dettman, Herbert William	*Richland Center*
Devine, Mildred Kathryn	*Madison*
Dick, Helen Mae	*Philip, Miss.*
Dickey, Alice Gertrude	*Racine*
Dixon, Evalyn Elizabeth	*Madison*
Dodge, Howard McLellan	*Valparaiso, Ind.*
Donald, Delma Ellen	*Madison*
Donaldson, Ruth Elizabeth	*Webster City, Iowa*
Donkle, Venice Marion	*Madison*
Dornbrook, Percy Fred	*Menasha*
Dresen, Leona Emma	*Prairie du Sac*
Drew, Iva Elizabeth	*Prairie du Sac*
Duecker, Hubert Carl	*Kiel*
Dunlop, Fannie Louise	*Madison*
Durrie, Janet	*Madison*
Edelman, Mary	*Sheridan, Wyo.*
Ek, John	*Phillips*
Elles, Aline Elizabeth	*Evansville, Ind.*
Elliott, James Rolland	*Apple River, Ill.*
Emmerling, Hans Frederick	*Milwaukee*
Ende, Arthur	*Sheboygan*
Endres, Hugo John	*La Crosse*
Engholm, Helen Patience Tinkham	*Madison*
Englander, Joseph Arthur	*Milwaukee*
Ericksen, Edna Florence	*Wittenberg*
Evans, Dorothy Charlotte	*Moline, Ill.*
Evans, Edward Thompson	*La Crosse*
Falk, Philip Hadley	*Lake Mills*
Feathers, Leonard Clark	*Troy, N. Y.*
Felsher, Minnie	*Madison*
Ferguson, Mary Ella	*Madison*

Fiedler, Donald John	*Mineral Point*
Fiedler, Ralph Oliver	*Milwaukee*
Fischer, Hilda Elizabeth	*Lancaster*
Fish, Helen Isabel	*Sullivan*
Fishburn, Katherine	*Madison*
Flamme, Grant August	*Richland Center*
Fletcher, Isabel Eleanor	*Winnipeg, Canada*
Florine, Frank Churchill	*Cuba*
Forsythe, Robert William	*Chicago, Ill.*
Foster, Joseph O'Kane	*Milwaukee*
Frank, Louis Robert	*New York, N. Y.*
Freese, Anna Louise	*Baileys Harbor*
Frohbach,Harold Otto	*Ashland, Ore.*
Fuller, Agnes Mattie	*Madison*
Fuller, Willard Love	*Madison*
Gafford, Eugene Joseph	*Burlington, Iowa*
Gallagher, Esther Clara	*Madison*
Garrity, Luella Marie	*Antigo*
Garst, Roswell	*Coon Rapids, Iowa*
Gausman, Avel Eleanore	*Madison*
Gaveney, Stanleigh	*Arcadia*
Gayton, Grace Abbey	*Beloit*
Gebhardt, Anna Laura	*Madison*
Gerds, Huldah Hedwig	*Milwaukee*
Gerhard, Marie Justin	*Fond du Lac*
Gerken, Florence Eva	*Elroy*
Gibbon, Elsie Florence	*Kenosha*
Gibbs, Marietta	*Princeton, Ill.*
Gill, Harold Arthur	*Madison*
Glassner, Rose Ruth	*Milwaukee*
Glenn, Robert Ralph	*Prairie du Chien*
Glück, Elsie	*New York, N. Y.*
Good, Frances Mary	*Ashland*
Grams, Marie Helen	*La Crosse*
Grant, Alexander Richardson	*Madison*
Gratz, Esther Rosena	*Madison*
Greco, Charles	*Madison*
Greene, John Havens Dayton	*Chicago, Ill.*
Gregory, Mary	*Delavan*
Grieve, Florence Delepleine	*Madison*
Grover, Georgia Beachel	*Kenosha*
Haberland, Erwin John	*Verona*
Hahn, Agatha Helen	*Watertown*
Hahn, Rose Linz	*St. Louis, Mo.*
Haldeman, Lennox	*Chicago, Ill.*
Hall, Dorcas Josephine	*Milwaukee*
Hall, Laurence Waterbury	*Madison*
Halperin, Bessie	*Madison*
Halperin, Harry	*Madison*
Hamilton, Phyllis Brayton	*Madison*
Hammel, Genevieve Marie	*Two Rivers*
Hanks, Carlos Cramer	*Laurium, Mich.*
Hansen, Sigrid Alfreda	*Ashland*

Hanson, Amanda Mathilda	*Ashland*
Harley, Kenneth Herman	*Madison*
Harloff, Gladys Louise	*Madison*
Harmon, Hubert Fish	*Sparta*
Harmon, John Claire	*Sparta*
Hart, Mae Evelyn	*Waunakee*
Hartmeyer, Helen Ann Elizabeth	*Madison*
Hastings, Minneta Annie Littlewood	*Madison*
Hatfield, Hazel Mae	*Madison*
Hathaway, Grace Esther	*Baraboo*
Hauk, Helen Celia	*Madison*
Hausmann, Eleanor Henrietta	*Madison*
Hawthorne, Gladys Ruth	*Monroe*
Heilmann, Eleanor Barbara	*Tomah*
Helbing, Vera Anna	*Watertown, S. Dak.*
Hendricks, Lela Mary	*Tomah*
Hendrickson, Norma Elvira	*Argyle*
Hersey, Ruth Boyce	*Brooklyn*
Herzfeld, Richard Phillip	*Milwaukee*
Hesnault, Walter Jack	*Walnut Grove, Minn.*
Hicks, Marion Adah	*Madison*
Hill, Jessie Mae	*Kenosha*
Himmler, Lowell Whitman	*Washington, D. C.*
Hinn, Helen Bertha	*Fennimore*
Hinners, Virginia Miller	*Milwaukee*
Hittner, Vernon James	*Seymour*
Hoffman, Arthur Louis	*Madison*
Hoffman, Adele Myrtle Louise	*Watertown*
Hogan, Mary Isabel	*Butte, Mont.*
Hohmann, Richard Pittman	*Oak Park, Ill.*
Holcombe, Ray Edward	*Madison*
Holland, Rebecca	*Madison*
Holscher, Maud Marie	*Macfarland*
Holway, Gordon Safford	*Madison*
Horton, Frederic Arthur	*Rockford, Ill.*
Horwitz, Lazarus Herman	*Sheboygan*
Householder, George Sergros	*Chicago, Ill.*
Hubble, Helen Mary	*Madison*
Husting, Nathaniel Juneau Brunduel	*Kaukauna*
Hyslop, Volney Butman	*La Valle*
Hyzer, Leland	*Janesville*
Ingalls, Louise Pebbles	*Oak Park, Ill.*
Irvine, Robert Kenneth	*Manawa*
Isaacs, Henry Garcia	*St. Louis, Mo.*
Jacobus, Garrett Leslie	*Wauwatosa*
Jennings, David Harry	*Newcastle, Ind.*
Jewell, Ernest Lemon	*Hillsboro*
Jobse, Amy Clara	*Milwaukee*
Johnson, Donald Briggs	*Rockford, Ill.*
Johnson, Jesse Johannes	*Wautoma*
Johnson, John B., Jr.	*Darien*
Johnson, Malcolm Francis	*Grand Rapids*
Johnson, Mary Anastasia	*Lemont, Ill.*

Johnson, Ruth Ann	*Rye, Fla.*
Johnson, Ruth Ellsworth	*Madison*
Johnston, Margaret	*Cincinnati, Ohio*
Johnston, Maude Cyrene	*Osceola*
Johnstone, Mary Cecilia	*Richland Center*
Jones, Russell Alger	*Oak Park, Ill.*
Jones, Vesta Norine	*Madison*
Jorndt, Ruth	*St. Louis, Mo.*
Joyner, Louise Vivian	*Roswell, N. Mex.*
Kaminski, Joanna Frances	*Watertown*
Kanouse, Georgia Bernadine	*Madison*
Karst, Edward William	*Fond du Lac*
Kearns, Edward Peter	*Pardeeville*
Kemp, Wilhemina Alice	*Beloit*
Kernan, Kathryn Elma	*Madison*
Kerns, Milton Uriah	*Milwaukee*
Kerr, Dorothy Margaret	*Green Bay*
Kerr, Florence Marie	*Green Bay*
Kidder, Earl Elton	*Madison*
Kiekhofer, Erna Lula	*Fond du Lac*
Kiesler, Laura Shaw	*Perryville, Mo.*
Kimball, Lucy Perry	*Chicago, Ill.*
King, Charles Curtis	*Birmingham, Ala.*
Kinney, Clarence	*Colfax*
Kischel, Goldes	*Wausau*
Knight, Harry Waller	*Madeira, Ohio*
Knipe, Merle Echo	*Cherokee, Iowa*
Knowlton, Mary Gertrude	*Madison*
Koehn, Irma Therasa	*Sheboygan*
Koenig, Francesca	*Milwaukee*
Kragh, Herbert Erthol	*Madison*
Kremers, Laura Ruth	*Madison*
Kroening, Ada Beach	*Milwaukee*
Krueger, William Arthur	*Tomah*
Kucheman, Marguerite Anna	*Bellevue, Iowa*
Kupfer, Lillian Ethel	*Madison*
Lamberson, Winifred Alida	*Whitehall*
Landsberg, Elizabeth Wilhelmina	*Erie, Pa.*
Larrabee, Edward Conyers Payne	*Bellingham, Wash.*
Law, Robert Oswald, Jr.	*Chicago, Ill.*
Lawton, Harry	*Burlington*
Lee, Margaret Irene	*Madison*
Lerdahl, Nels Christian	*De Forest*
Levin, Tillie Cecile	*Wausau*
Lew, George Herman	*Racine*
Lichtenwalner, Ray Peter	*Monroe*
Lindemann, Lawrence O.	*Viroqua*
Loomer, Zelta Grace	*Delavan*
Loose, Kathryn Alice	*Waukesha*
Loughlin, Edward Leo	*Madison*
Lowth, Robert	*Columbus*
Luckey, Ruth Campbell	*Madison*
Lund, Alf	*Eau Claire*

Lund, Reuel Ithiel	*Denmark*
Lyons, Grace Ethel	*Madison*
McBride, Elmer Martin	*Milwaukee*
McCandless, Stanley Russell	*Davenport, Iowa*
McCollister, Elizabeth	*Madison*
McCormick, George Boniface	*Waterloo*
McCoy, Malcolm Clark	*Sparta*
McDougall, Helen Elizabeth	*Pocatello, Idaho*
McIntosh, Aileen	*Edgerton*
McMahon, Dorothy	*Lancaster*
McMeans, Margaret Collins	*Davenport, Iowa*
McMullen, Nellie Marcella	*Madison*
McNamee, Shurly Lawrence B.	*Madison*
McNeil, Eileen Harrington	*Aniwa*
Maas, Phyllis Sylvester	*Milwaukee*
Machlis, Clara	*Madison*
Machlis, Samuel Arthur	*Madison*
Mackay, Ralph Sutherland	*Milwaukee*
Margraff, Gertrude Bertha	*New London*
Markham, Margaret Cornelia	*Manitowoc*
Marling, Robert Newcomb	*Madison*
Marsden, Wendell	*Fennimore*
Marshall, Samuel	*Madison*
Martin, Ruth Agnes Mary	*Madison*
Mason, Rose Katherine	*Whitewater*
Masten, Helen Adams	*Kansas City, Mo.*
Mathews, Murray Cornelius	*Ashland*
Mathison, Martin Clarence	*Winneconne*
Maurer, Cindarella Priscilla	*Glenbeulah*
Maurseth, Lars Hvern	*Madison*
Meiselwitz, Henrietta Caroline	*Kiel*
Meister, Ruth Phyllis	*Chicago, Ill.*
Melcher, Melvin William	*Horicon*
Meltzer, Edna Josephine	*Madison*
Mercer, Donald Winter	*Chicago, Ill.*
Meyer, Martin Emil	*Sheboygan*
Millard, Robert Dinsmore	*Antigo*
Miller, Maude	*Cumberland*
Miller, Phillip	*Madison*
Milligan, Margaret Eleanor	*Pontiac, Mich.*
Mills, Frederic Theo	*Nevada, Iowa*
Mitchell, Florence Elizabeth	*Sun Prairie*
Moehlman, William Frederick	*Madison*
Mohme, Erwin Theodore	*Kewaskum*
Moore, Anne Evelyn	*Watertown*
Morgan, Lloyd Charles	*Madison*
Muldowney, Fenton Richard	*Highland*
Murphy, Elizabeth Hazel	*Delavan*
Murphy, Lillian Elizabeth	*Madison*
Murphy, Roy Francis	*Manitowoc*
Murray, Agnes	*Madison*
Musgrove, Robert Earl	*Milwaukee*
Nebel, Harold	*Milwaukee*

Nelson, Eunice	*Edgerton*
Neprud, Lincoln	*Westby*
Nerdrum, Ruth Alfrieda	*Milwaukee*
Nichols, Lauretta Hessin	*Marshalltown, Iowa*
Noer, Rebecca Olena	*Stoughton*
Norton, Grace Elizabeth	*Marinette*
Noyes, Constance Pierrepont	*Kenwood, N. Y.*
Nutter, Lucile Adelaide	*Sac City, Iowa*
Nuzum, Marguerite Frances	*Madison*
O'Hora, Clarence Martin	*Madison*
Olds, Helen Brunette	*Albany, Ill.*
Oleson, Eleanor Marie	*Rio*
Olson, Clara Mrytle	*Tomah*
O'Malley, James Edward	*Waunakee*
Oppelt, Gertrude Josephine	*Ft. Wayne, Ind.*
Osborn, Eighmy-bell	*Madison*
Osborne, Robert Henry	*Madison*
Osgood, Carroll Wilcox	*Windsor*
O'Shea, Stanley Daniel	*Madison*
Ostlund, Elvira Otilia	*Butte, Mont.*
Overton, Orrin Van	*Beloit*
Owen, Allen Kenneth	*Milwaukee*
Paddock, John Munger	*Milwaukee*
Palmer, Joseph Fowler	*Buffalo, N. Y.*
Parks, Isabelle Margaret	*Washington, D. C.*
Parsley, Mannie Nutt	*Fort Worth, Texas*
Parsons, Mary Rutherford	*Chicago, Ill.*
Pelton, Harold Edwin Leslie	*Middleton*
Pentecost, Mildred May	*Elmhurst, Ill.*
Perkins, Homer Eli	*Endeavor*
Perlman, Tilly	*Madison*
Petersen, Helen Green	*Kenosha*
Peterson, Blanche	*Princeton, Ill.*
Peterson, Ephraim Lucius	*Stockholm*
Peterson, Leo Willis	*Granton*
Petley, Ruth Alice	*Milwaukee*
Philipp, Cyrus Lucius	*Milwaukee*
Phillips, Wendell	*Madison*
Philpott, Merrill Raymond	*Menomonie*
Pickhardt, Edwin Louis	*St. Louis, Mo.*
Pilpel, Mildred Georgiana	*New York, N. Y.*
Pleck, Joseph Harold	*Sturgeon Bay*
Porter, Autentia May	*Oak Park, Ill.*
Post, Leona Marie	*Edgerton*
Pratt, Elizabeth Brereton	*Kansas City, Mo.*
Prentiss, Marion Sara	*Grand Rapids*
Pringle, Edward Ogilvie	*Pasadena, Cal.*
Pringle, Katherine Edna	*Astico*
Puestow, Karver Louis	*Oshkosh*
Quackenbush, Hilda Lorie	*Rock Island, Ill.*
Quarberg, Isabelle Emma	*Mondovi*
Quinlan, Carroll Leander	*Antigo*
Quisling, Sverre	*Madison*

Ragatz, Lowell Joseph	*Madison*
Ramsay, Samuel Watson	*Chicago, Ill.*
Ramsett, Clarence	*Viroqua*
Ramsey, Helen	*Madison*
Rankin, Iva Lucille	*Pekin, Ill.*
Raube, Herbert Albert	*Waupun*
Reeder, Charles West	*Hays, Kans.*
Renander, Arthur William	*Clayton*
Rice, Marguerite Adele	*Kewaunee*
Richardson, Marie Caroline	*Madison*
Rietbrock, Fred Julius	*Milwaukee*
Riggs, Gladys Evelyn	*Cando, N. Dak.*
Roemer, Kate Pier	*Milwaukee*
Rohde, Berolina Theresa	*Estherville, Iowa*
Rosenblum, Harry Maurice	*Clinton, Ind.*
Rudy, Frances Eleanor	*Madison*
Rushenberg, Marene Jennie	*Roberts*
Ryan, Frances Ethel	*Madison*
Rydjord, John	*Webster, S. Dak.*
Salisbury, Jane Frances	*Sparta*
Salsman, Alice Louise	*Madison*
Salter, Arthur McKinley	*Unity*
Sarles, Agnes Bowden	*Madison*
Schapiro, Sol	*Milwaukee*
Scheidenhelm, Alber Knauer	*Wilmette, Ill.*
Scherer, Florence Anna	*Madison*
Schlicher, John Rudolph	*Terre Haute, Ind.*
Schlotthauer, Gertrude Marie	*Madison*
Schmitt, Francis Herman	*Milwaukee*
Schroeder, John Edward	*Milwaukee*
Schubert, Clarence Karl	*Madison*
Schultz, Edwin William	*Wautoma*
Schultz, Peter	*Milwaukee*
Schulz, Ella Myrtle	*Madison*
Schumacher, Ethel Maude	*Beloit*
Scott, Ralph	*Harden, Mont.*
Scoular, Katherine Janet	*Superior, Nebr.*
Scudder, Marjorie	*Marinette*
Sebora, William Joseph	*Athens*
Settle, Ruth	*Martinsdale, Mont.*
Seybold, Erwin George	*Forest Junction*
Seymour, Whitney North	*Madison*
Sharp, Donald Ellsworth	*Corning, N. Y.*
Shaw, Donald Lee	*Delavan*
Sheahan, Mary Brigetta	*Montello*
Shurtleff, Dorothy	*Manchester, N. H.*
Siebecker, Flora Josephine	*Madison*
Simpson, Alexander Lewis	*Shullsburg*
Simpson, Marjorie Du Val	*Chicago, Ill.*
Sinclair, Mildred Iantha	*Ladysmith*
Skolas, Christine Gertrude	*Madison*
Sliwinski, John Alvin	*Oconomowoc*
Smith, Hazel Dell	*Madison*

Smith, Herbert Harold	*Milwaukee*
Smith, Mabel Gertrude	*Menomonie*
Smith, Mabel Mayhew	*Chicago, Ill.*
Smith, Ralph Lane Polk	*St. Paul, Minn.*
Smucker, Celeste Mabel	*Oak Park, Ill.*
Smuckler, Robert Henry	*Milwaukee*
Sommers, Leo Ernest	*Madison*
Spence, Gertrude Elizabeth	*Martins Ferry, Ohio*
Spohn, George Daniel	*Janesville*
Spoor, Edith Mildred	*Lyons*
Statz, Eleanor Carissa	*Madison*
Stearns, Dana Preston	*Mason City, Iowa*
Stearns, William Yets	*Detroit, Mich.*
Steensland, Marie Louise	*Madison*
Stensrud, Victor Rudolph	*Frederic*
Stern, William	*Kenosha*
Stewart, Duncan James	*Rockford, Ill.*
Stoffel, Selda Margaret	*Racine*
Storbraaten, John Herbert	*New Effington, S. Dak.*
Strehlow, Anna Katherine	*Madison*
Sullivan, Samuel John	*So. Madison*
Sumner, Willard Carlyle	*Fennimore*
Swanson, Cleary Neil	*Marinette*
Taylor, Alfred Hendricks	*Ottawa, Ill.*
Taylor, Sarah Margaret	*Ottawa, Ill.*
Teigen, Arthur Henry	*Prairie Farm*
Templin, Vera May	*Baraboo*
Thomas, Robert Kevil	*Chicago, Ill.*
Thompson, James Moore	*St. Croix Falls*
Thompson, Roy Winfield	*Madison*
Threinen, Bert Anthony	*Kenosha*
Tierney, Edward Frederick	*Portage*
Tipple, Erwin Russel	*Oregon*
Toepfer, Nora	*Madison*
Tormey, Marion Elizabeth	*Madison*
Trachte, Clarence Gilbert	*Watertown*
Truax, Lyle Lester	*Galesville*
Tuttle, Clifton Milton	*Madison*
Tyrrell, Richard Hanlon	*Lake Geneva*
Ulrich, Helen Ruth	*Neenah*
Urban, Ruth Marie	*Wauwatosa*
Van Arsdale, Maurice William	*Racine*
Van Dyke, Philip Samuel	*Kilbourne*
Van Vleck, John Hasbrouck	*Madison*
Vaughn, Maurine Ella	*Des Moines, Iowa*
Velten, Walter Charles	*Bloomer*
Vinje, Arthur Miller	*Madison*
Vinje, Ethel	*Madison*
Votteler, Gretchen Pauline	*Waukesha*
Vrooman, Gertrude Sherman	*Washington, D. C.*
Wagner, Margaret	*Freeport, Ill.*
Wallau, Ernst Carl	*West Bend*
Wallis, Winifred	*Milwaukee*

Wanner, Esther Juliette	*Chicago, Ill.*
Ward, Evan	*Fort Atkinson*
Watson, Helen Adele	*Madison*
Weeks, Herbert John	*Chilton*
Wegel, Esther Catherine	*Fond du Lac*
Weimer, Elizabeth Ann	*Sheboygan*
Weinberg, Jacob Hyman	*Madison*
Weiss, Helen Catherine	*Madison*
Weld, Beatrice Louise	*South Bend, Ind.*
Weldon, Charles William Temple	*Milwaukee*
Wellauer, Henry Conrad	*Wauwatosa*
Westerfeld, Hattie Frone	*Madison*
Weston, Frank Laurence	*Mason City, Iowa*
Wheeler, Catherine Eleanor	*Wauwatosa*
White, Lola Anna	*Winneconne*
White, Paul Benjamin	*Omro*
Wightman, George Verne	*Madison*
Wiley, Robert LeRoy	*Cameron*
Willard, Helen Heitshu	*Marshalltown, Iowa*
Williams, David Charles	*Cambria*
Williams, Stalham Leon	*Chicago, Ill.*
Wilson, Ethel Edwina	*Chicago, Ill.*
Wilson, Herbert Durand	*Chicago, Ill.*
Winchell, Vira Frances	*Madison*
Winskell, Alma Anne	*Benton*
Wittenberg, Florence Bertha	*Chicago, Ill.*
Wittwer, Gladys Marie	*Madison*
Wolfe, Elizabeth Lamont	*La Crosse*
Wolfe, John Calvin	*Madison*
Wolff, Marie Borchardt	*Madison*
Wollaeger, Gertrude Elizabeth	*Milwaukee*
Woodworth, Douglas Harmon	*Sparta*
Woodworth, Lona Harriet	*Park Ridge, Ill.*
Wooll, Hildagarde Lucretia	*Madison*
Wright, Hazel Embree	*Webster Groves, Mo.*
Wright, Herbert Beach	*Milwaukee*
Young, Anna Lorena	*Springville, Iowa*
Young, Charlotte Cheney	*Monroe*
Zahorik, Edward John	*Milwaukee*
Zeigler, Alvin	*Athens, Tenn.*
Zeitz, Edwin	*Brooklyn, N. Y.*
Zwicker, Michael Henry	*Madison* —559

Course in Commerce

Abel, Edna Margaret	*Lewiston, Mont.*
Adams, Reuben Homer	*Kendallville, Ind.*
Alberg, Arthur Herman	*Madison*
Amel, Marvin Franklin	*Shawano*
Andersen, Elizabeth Marie	*Madison*
Anderson, Alfred Harold	*Coon Valley*
Arthur, Francis Churchill	*Fort Dodge, Iowa*

Aschenbrener, Willard George	*Park Falls*
Austin, Abe Smith, Jr.	*Wauwatosa*
Barnett, Maurice Edward, Jr.	*Neenah*
Baskerville, Henry Marwood	*Watertown, S. Dak.*
Bettendorf, Arthur Joseph	*Sublette, Ill.*
Bickel, Fred McIntyre	*Racine*
Bieske, Michael	*Endeavor*
Blair, Walter Borden	*Plainfield*
Blodgett, Clifford Alvaro	*River Falls*
Breidster, Milford Albert	*Milwaukee*
Brennan, Leo Thomas	*Madison*
Brown, Earl Don	*Madison*
Buettell, Nathan Leonard	*Dubuque, Iowa*
Burner, Kenneth Hansen	*South Bend, Ind.*
Callander, John Morgan, Jr.	*Des Moines, Iowa*
Carroll, Clark Joseph	*Watertown*
Chapman, Floyd De Loss	*Dixon, Ill.*
Chase, Roland G.	*La Crosse*
Chase, Ruluf Arthur	*Madison*
Clark, William Arthur	*Stoneville, S. Dak.*
Cook, Jesse Kennedy	*Groton, S. Dak.*
Crane, Carroll	*Evansville*
Crary, Laurence Mallory	*Delavan*
Culbertson, Charles	*Stanley*
Cullen, Kenneth Arthur	*Peshtigo*
Currie, Earl William	*La Crosse*
Dinkwitz, Willard Moses	*Marinette*
Dix, Arno Viol	*Port Washington*
Dobbratz, Elvin Louis	*Milwaukee*
Donohue, Raymond Earl	*Tipton, Iowa*
Doxtater, Jacob Harrison	*Oneida*
Drake, Chester Myrick	*Austin, Texas*
Duncan, Francis Willard	*Green Bay*
Dunne, Newman Leo	*Cedarburg*
Earle, William Watson	*Tomah*
Eaton, Harold Alexander	*Shelbina, Mo.*
Edwards, Leroy Eugene	*Madison*
Edwards, Raymond Delos	*Madison*
Eiler, William Henry	*Tipton, Iowa*
Eisele, Edward Joseph	*Madison*
Ellingson, Arvin Belford	*Milan*
Esch, Hugo Edward	*Manitowoc*
Farrell, Carl William	*Sterling, Ill.*
Fee, Archibald Hubert	*Superior*
Feldman, Grant	*Mason City, Iowa*
Fetter, Russell Marion	*Kendallville, Ind.*
Fiske, Earl Herbert	*New Richmond*
Fitzgerald, Lloyd Eugene	*Antigo*
Flikkie, Henry John	*Viroqua*
Frame, James Howard	*Madison*
Frank, Jacob	*Pittsburgh, Pa.*
Friedmann, Ralph Theodore	*Milwaukee*
Froelich, Harold	*Milwaukee*

Fuller, Henry Chester	*Whitewater*
Galvin, John Lyman	*Cottage Grove*
Ganzlin, Bruno	*Sauk City*
Garling, Arthur Carl	*Mayville*
Getschman, Walter Edward	*Kenosha*
Godfrey, Dudley James	*Wauwatosa*
Goethel, Carl	*Eau Claire*
Goetsch, Arthur	*Reedsburg*
Goetz, Fred William	*Stratford*
Grace, John Henry	*Oak Park, Ill.*
Gross, Arthur Albert	*Milwaukee*
Grout, Harold Main	*Columbus*
Gullickson, William	*Eau Claire*
Haessler, Dorothy Lina	*Milwaukee*
Hammond, Loring Theodore	*Wauwatosa*
Harker, John William	*Shullsburg*
Harrison, Kathleen	*Madison*
Hayden, John Ellsworth	*Milwaukee*
Hayter, Harry Clifton	*Shawano*
Healey, George William	*Evansville, Ind.*
Heffernan, Martin	*Caryville*
Heissmann, Milton John	*Watertown*
Helbing, Edgar Elmer	*Beaver Dam*
Held, Roland Riesen	*Milwaukee*
Hensey, Irene Annette	*Fort Atkinson*
Hickey, Clement Hugh	*Milwaukee*
Hoffman, Ralph Max	*Madison*
Hook, Harmon Porter	*Oak Park, Ill.*
Horn, Arnold Frank	*Muskego*
Horner, William Spencer	*Grand Rapids, Mich.*
Hornung, Charles Lester	*Ottawa, Ill.*
Hornung, William	*Ottawa, Ill.*
Horton, Ralph	*Miles City, Mont.*
Hubbell, Ernest Hamand	*Kansas City, Mo.*
Huntting, Laura Updegraff	*McGregor, Iowa*
Jandorf, Carl Edwin	*Grand Rapids, Mich.*
Joerndt, Clarence Venoah John	*Kenosha*
Johnson, Edwin Melvin	*La Crosse*
Johnson, Melvin Sylvester	*Paskin*
Johnson, Norman Gustave	*Wausau*
Jones, Mark Zera	*Madison*
Jones, Wesley Warren	*Sun Prairie*
Jordan, Stanislaus Stephen	*Antigo*
Karow, Eugene William	*De Forest*
Katzenstein, Henry Bonnus	*Milwaukee*
Keeley, Lawrence Charles	*Mayville*
Kellogg, Fred Conway	*Edgerton*
Kibbee, Howard Ryland	*Mitchell, S. Dak.*
King, John Stuart	*Glencoe, Ill.*
Kinzel, Lesley Kenneth	*Merrill*
Knorr, Lincoln Dewey	*Kiel*
Kuehn, Walter Louis	*Milwaukee*
Laemle, Berthold	*Marshfield*

Lathrop, Ralph Waldo	*Wauzeka*
Lau, Harry Frederick	*Cedarburg*
Laun, Carl Henry	*Kiel*
Laun, Ferdinand Henry	*Wausaukee*
Lawson, Carl Philip	*Clinton*
Layden, Arthur Kendall	*Baraboo*
Leinenkugel, Edward Jacob	*Eau Claire*
Leonhard, George Jacob, Jr.	*Marshfield*
Lewis, Hugh Lord	*Antigo*
Lewis, Percy Frederick	*Milwaukee*
Lindsey, James Milton	*Boise, Idaho*
Locken, Carl I.	*Aberdeen, S. Dak.*
Logan, Cedric Feldham	*South Milwaukee*
Londergan, Edward Chrysoganius	*Marcus, Ia.*
Lovell, Orren Blake	*Muscoda*
Luetscher, Frederick Jacob	*Madison*
Lunder, Orin John	*Madison*
Lynch, Clayton David	*Pardeeville*
Lyons, Raymond David	*Lapeer, Mich.*
McCarthy, John Barton	*Milwaukee*
McDonald, Durward Laurce	*Burt, Iowa*
McDowell, Lloyd James	*Waverly, Iowa*
McKenna, Eugene Joseph	*Antigo*
McKenzie, Basil	*Turtle Lake*
McPherrin, John Weitz	*Des Moines, Iowa*
McRae, William Jennings	*Rhinelander*
Maisel, Lorenz Jacob	*Madison*
Mann, Berthold Charles	*Mayville*
Meservey, Arthur Russell	*Minot, N. Dak.*
Meyer, Harvey Gustave	*West Allis*
Miller, Charles Dewey	*Madison*
Miller, Elmer Oscar	*Milwaukee*
Montague, Theodore Giles	*La Crosse*
Moore, Sidney	*Onalaska*
Morgan, Fay Lillian	*Madison*
Morrissey, Lewis William	*Madison*
Mueller, Alphons R.	*La Crosse*
Murphy, Alice Marie	*Baraboo*
Muther, Charles William	*Oak Park, Ill.*
Myers, Howard Kenneth	*Polo, Ill.*
Nash, Richard Michael	*Madison*
Nehrbass, Harry	*Milwaukee*
North, John Kenyon	*Houston, Texas*
O'Brien Herbert James	*Milwaukee*
Olds, Russell Baldwin	*Charles City, Iowa*
Olson, John Hjalmar	*Hurley*
Owen, Gordon	*Madison*
Paine, Wendell Wyman	*Milwaukee*
Parker, Herbert Nichols	*Dixon, Ill.*
Parr, Lester William	*Madison*
Patterson, William Francis	*North Freedom*
Pearson, Bertha Ingeborg	*Wausau*
Pearson, Ralph Jenkins	*Madison*

Pease, Harlow	*Wauwatosa*
Peters, Oswald Henry	*West Bend*
Petrie, Hazen Hill	*Madison*
Pett, Alma Emilie Johanna	*Johnson Creek*
Pieh, Roy John	*Madison*
Powers, Edward Wellington	*Youngstown, Ohio*
Quinn, Henry Albert, Jr.	*Council Bluffs, Iowa*
Ramsay, Floyd Allen	*Beloit*
Ramsey, Ronald	*Madison*
Ray, Charles Harold	*Milwaukee*
Reese, Kenneth Keith	*Madison*
Rewey, Robert Livingston	*Rewey*
Reynolds, Donald Wagener	*Sturgeon Bay*
Roberts, De Witt Leland	*Chicago, Ill.*
Rose, Austin T.	*Canton, O.*
Sadlier, Richard Edward	*Stanley*
Salzenstein, Harold	*Peoria, Ill.*
Sanders, Edward Willard	*Detroit, Mich.*
Schatzle, Henry	*Delavan*
Schenk, Edwin William	*Madison*
Schenk, Willard	*Madison*
Schmidt, Arno John	*Davenport, Iowa*
Schowalter, Herbert Philip	*Jackson*
Schuette, John August	*Manitowoc*
Schumann, Harold Louis	*Watertown*
Schwartz, Charles Floyd	*Sharon*
Schwartz, Myron Edward	*Two Rivers*
Severance, Dean Carlisle	*Milwaukee*
Silverman, Edward	*Milwaukee*
Silverness, Emil Leonard	*Mondovi*
Simpson, John Douglas	*Minneapolis, Minn.*
Sinaiko, Isaac	*Madison*
Sinaiko, Jacob	*Madison*
Smith, Ethel Crandall	*Green Bay*
Smith, Sanford Fred, Jr.	*Edgerton*
Sode, Otillia Emma	*Evansville, Ind.*
Spettel, Marcus	*La Crosse*
Spurrier, Donald Parrish	*Whiting, Ind.*
Squire, Staniford	*Chicago, Ill.*
Stauffacher, Henry Elasius	*Monticello*
Steele, Richard	*Oak Park, Ill.*
Stiles, Ralph Demeritt	*Lake Mills*
Sunderland, Paul	*Kansas City, Mo.*
Swift, John Dewey	*Darlington*
Swift, William Arthur	*Darlington*
Tandberg, Harry	*Chippewa Falls*
Teweles, Monroe Gilbert	*Sturgeon Bay*
Theisen, George Dewey	*Green Bay*
Thompson, Evan Gwynne	*Lake Mills*
Thwing, Elizabeth	*Toledo, O.*
Toerne, Oscar von	*Madison*
Trainor, Roy Daniel	*Madison*
Turner, William Joseph	*Port Washington*

Upgren, Arthur Rheinholdt	*River Falls*
Van Auken, Paul Stanley	*Des Moines, Iowa*
Van Gent, Paul	*Fish Creek*
Verhulst, John	*Sheboygan*
Vits, Albert Leslie	*Manitowoc*
Vits, Henry William	*Manitowoc*
Walker, Harland Bert	*Almond*
Wallis, Robert Shephard	*Rochester*
Ward, Alonzo La Rue	*Aberdeen, S. Dak.*
Webb, Frank Myrle	*Belmont*
Weckesser, Florence Emma	*Madison*
Werrbach, Archie John	*Milwaukee*
Westphal, Harry Leroy	*Preston, Iowa*
Whedon, Vyse Beckwith	*Appleton*
Wheeler, Horace Phillips	*Beloit*
White, William Jackson, Jr.	*Russellville, Ark.*
Wilder, Frank Edward	*Madison*
Williams, Lloyd H.	*Des Moines, Iowa*
Winskell, Joseph Alvin	*Benton*
Wirth, John Palmer	*Cedarburg*
Wittenberg, Carl Theodore	*Cedarburg*
Wittenberg, John Frederick, Jr.	*Cedarburg*
Wolf, Lester Michael	*Sheboygan*
Wolfe, Seth August	*Madison*
Wurth, Walter William	*Madison*
Yauman, Charles Robert	*Columbus*
Young, Gavin William, Jr.	*Neenah*
Zander, Henry George, Jr.	*Chicago, Ill.*
Zimmerman, Harry Francis	*Neillsville*
Zulfer, Anthony George	*Chicago, Ill.* —249

Course in Chemistry

Archie, David Wait	*Marinette*
Beckman, Orville Charles	*Madison*
Blonien, Andrew Bert	*Milwaukee*
Coe, Arthur William	*Horicon*
Hentzen, Erwin Albert	*Milwaukee*
Holt, Norman Herbert	*Cambridge*
Kahlenberg, Herman Heald	*Madison*
Kletzien, Hobart Henry	*New Holstein*
Koch, John Ralph	*Janesville*
La Ganke, Nelson Paul	*East Cleveland, Ohio*
Liebe, Henriette Christene	*Stoughton*
Olsen, Hjalmer Leroy	*Madison*
Phillips, George Dewey	*Milwaukee*
Rhapstock, Carl Gordon	*Plainfield*
Richter, Henry Wingfield	*Milwaukee*
Scott, Ian Cameron	*Milwaukee*
Segal, Isadore Harold	*Park Falls*
Shapiro, Abraham	*Superior*
Steinle, John Vernon	*Madison*

Taylor, Francis Nightingale	*Byron*	
Taylor, Henry Gordon	*Madison*	
Vong, Pao Ho	*Shanghai, China*	—22

Course in Journalism

Allie, Arthur Francis	*Two Rivers*
Beck, Nina Susannah	*Lebanon, Ind.*
Berger, Doris	*Milwaukee*
Booth, Robert Tunstall	*Chevy Chase, Md.*
Breyley, Mildred Allegra	*Wadsworth, Ohio*
Colean, Miles Lanier	*Peoria, Ill.*
Cutting, Richard Dana	*Kalamazoo, Mich.*
Dotson, Craig York	*Sioux Falls, S. Dak.*
Draper, John Harold	*Oak Park, Ill.*
Dunn, Mame B. Griffin	*Fox Lake*
Edison, Alice Grace	*Sun Prairie*
Erikson, Leonard	*Chicago, Ill.*
Germer, Frederic Moore	*Chicago, Ill.*
Gould, Randall Chase	*Bozeman, Mont.*
Greif, Marion Elizabeth	*Joliet, Ill.*
Grossfeld, Julian Arthur	*Chicago, Ill.*
Guernsey, Dorothy	*Chicago, Ill.*
Hanson, Rolfe Hjelmar	*Stoughton*
Hartung, Leatha Vesta	*Two Rivers*
Helfaer, Evan Philip	*Milwaukee*
Henry, Marcella	*Dayton, Ohio*
Johnson, Hazel Estelle	*Superior*
Johnson, Margaret Mabel	*Great Falls, Mont.*
Johnson, Roy Albin	*Michigan City, Ind.*
Kraemer, Elmore Andrew	*Rockfield*
Kuehmsted, Irvin	*Sheboygan*
Lorenz, Ellen	*Madison*
Ludlum, Louise Perkins	*Sioux City, Iowa*
McCaffery, Arthur Laurence	*Madison*
McConnell, Ansley Bryan	*Darlington*
Mace, Aaron John	*Oshkosh*
Maloney, Gerald Clifford	*Ladysmith*
Meyers, Bernard Edward	*Kenosha*
Moore, Ellen Olmstead	*Appleton*
Moore, Marian Eleanor	*Madison*
Moorman, Lola Fae	*Muskegon, Mich.*
Orr, Robert Connell	*Waukesha*
Quarberg, Lincoln Andrew	*Mondovi*
Quinlan, Margaret Amelia	*Antigo*
Richards, Archer Card	*Sioux City, Iowa*
Scott, Owen LeGrand	*Sioux Falls, S. Dak.*
Shurtleff, Bernice Roe	*Wilmette, Ill.*
Stott, Vesta	*Mason City, Iowa*
Whipple, Marcia	*Madison*
Wolf, Hazel Zeta	*Mt. Horeb*
Zilmer, Bertram George	*Monroe* —46

General Course

Amborn, Lewis William	*Bristol*	
Apple, Addie A.	*Waterford*	
Baumann, Anna Amalia	*Kiel*	
Crump, Florence Fern	*Lake Mills*	
Donovan, Emma Margaret	*Madison*	
Duncan, Myron George	*Wausau*	
Fitzgerald, William C.	*Fond du Lac*	
Gaik, Eleanor Adelheid	*South Bend, Ind.*	
Gomber, Frances Sutherland	*Brodhead*	
Grodinsky, Julius	*Milwaukee*	
Hopkins, Harley Johns	*Whitehall*	
Johnson, Wilbur Myron	*Wausau*	
Loper, Carlton Foster	*Oshkosh*	
McCabe, Anna Marion	*Rock Island, Ill.*	
Maxwell, Donald Reginald	*Madison*	
Meyer, Baron De Hirsh	*Brillion*	
Moody, Sidney Frederick	*Weyauwega*	
O'Shea, Michael Vincent	*Madison*	
Ritter, William Leonard	*Hartford City, Ind.*	
Roddy, Rhea Goodson	*Forney, Texas*	
Snyder, Helen Marion	*Milwaukee*	
Spellum, Laila Alberta	*La Crosse*	
Stark, Howard Bailey	*Milwaukee*	
Walker, Dorothy	*Columbus*	
Walton, C. Wesley	*Dubuque, Iowa*	
Young, James Dudleigh	*Neenah*	—26

FOUR YEAR COURSE IN PHARMACY

Falstad, Clarence Henry	*Eau Claire*	Sophomore
Gunderson, Alf Helge	*La Crosse*	Freshman
Johnson, Jalme Bernard	*Eau Claire*	Sophomore
Kesten, Homer Davies	*Milwaukee*	Sophomore
Salentine, Joseph Henry	*Calhoun*	Senior
Skaar, Ragnhild Synnevo	*La Crosse*	Freshman
Whelan, Julia Priscilla	*Mondovi*	Sophomore
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TWO YEAR COURSE IN PHAMACY

Allen, George Buell	*Beloit*	Second Year
Anderson, Oscar Edward	*Taylor*	First Year
Arneson, Clifford Wilhelm	*Spring Valley*	First Year
Bacon, Franklin James	*New London*	First Year
Baker, Howard Holton	*Gary, Ind.*	First Year
Bergstein, Leonard	*Duluth, Minn.*	First Year
Boberg, Harriet Agnes	*Eau Claire*	Second Year
Bock, Harold Duke	*Gotham*	First Year
Boies, Lawrence Randall	*Centuria*	Second Year
Diehl, Phillip Morrill	*Mitchell, S. Dak.*	First Year
Dodge, Harold A.	*Darien*	Second Year

Doeringsfeld, Clara Lois	*Fennimore*	First Year
Druding, Rufus Roy	*Ellsworth*	First Year
Elliott, Alvah Charles	*Muscoda*	First Year
Everson, Carl Olai	*Stoughton*	First Year
Gabler, Vern Elmer	*Highland*	Second Year
Gitzen, Joseph Adolph	*Port Washington*	First Year
Groffman, Harlan George	*Manitowoc*	First Year
Johnson, Mabel	*Ogdensburg*	First Year
Kuenzi, Ernest Gottfried	*Colgate*	First Year
La Crosse, Jonas Louis	*Madison*	First Year
Lanz, Arthur	*Monroe*	Second Year
Lewis, Roy E.	*Madison*	First Year
Mills, George Kellar	*Rice Lake*	First Year
Mills, William Kenneth	*Hazel Green*	First Year
Noel, Gustave Joseph	*Casco*	First Year
Olsen, Minnard Oliver	*Spring Valley*	First Year
Paull, Chester	*Ridgeway*	First Year
Paull, Harry	*Ridgeway*	First Year
Paynter, Charles Perry	*Mineral Point*	Second Year
Pugh, Clifford Luzern	*Richland Center*	Second Year
Randall, Walter Elzworth	*Fall Creek*	First Year
Rath, Charlotte Rose	*Almond*	First Year
Rognlien, Otto A.	*Strum*	First Year
Rupp, Claude Earl	*La Crosse*	Second Year
Staples, Irene Foster	*Osceola*	Second Year
Stiles, Helen Margaret	*Sturgeon Bay*	Second Year
Tousley, Henry Darius	*Spring Valley*	First Year
Vorlop, Hugo Joseph	*Reedsburg*	First Year
Winkelblech, Lida Luella	*Aaronsburg, Pa.*	First Year
Young, Harold Bradley	*Oconomowoc*	Second Year

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Adult Special Students

Bachman, Louise Catherine	*Madison*	Freshman
Birchler, Henry William	*Milwaukee*	Sophomore
Brandenburg, Catherine Sarles	*Madison*	Freshman
Brinton, Donald Adair	*Madison*	Freshman
Brockhausen, Herbert Henry	*Milwaukee*	Freshman
Brockhausen, William Emil	*Madison*	Junior
Brown, Ernest James	*Madison*	Sophomore
Burke, Catharine Genin	*Madison*	Freshman
Callander, William Forrest	*Madison*	Freshman
Clarke, Lena Lorena	*Cassville*	Freshman
Colignon, Lucie Bertrand	*Green Bay*	Freshman
Conley, Irene Grace	*Revillo, S. Dak.*	Sophomore
Cooper, Flora Belle	*Baraboo*	Junior
Darnstaedt, Herman Lester	*Racine*	Freshman
De Pasquale, Homer	*Milwaukee*	Freshman
Duffy, Walter A.	*Moquah*	Freshman
Fagerstrom, Harriet	*Racine*	Freshman
Fishburn, Mabel Pearse	*Madison*	Freshman
Frederickson, Shirley Rosalind	*Madison*	Freshman

Fried, Lillian Deldee	*Fountain City*	Freshman
Goedecke, Walter Scott	*Ableman*	Sophomore
Green, Walter Elmer m	*Milwaukee*	Junior
Haake, William John	*Chicago, Ill.*	Sophomore
Hansen, Dora May	*Madison*	Freshman
Hanson, Louis m	*Marinette*	Junior
Hartwig, Elizabeth Adolphine	*Hartland*	Freshman
Hefner, Alma Bochert	*Milwaukee*	Freshman
Hesse, Lucie Sophie Catherine	*Madison*	Freshman
Hindman, Harry Hingston	*Madison*	Sophomore
Howell, Elsie Margaret	*Woodhull, Ill.*	Junior
Johnson, Austin Norman	*Madison*	Freshman
Johnson, Elmer Clarence	*Woodhull, Ill.*	Freshman
Koepp, Otto August	*Madison*	Sophomore
Kronquist, Emil Arthur	*Madison*	Junior
Landon, Elmer William	*Milwaukee*	Freshman
Linen, John Schuyler	*East Orange, N. J.*	Freshman
Liska, Victor I.	*Brunn, Austria*	Freshman
McCampbell, Mina Ruth	*Madison*	Freshman
McGilvary, Elizabeth Paton	*Madison*	Freshman
McMillen, Dorothy	*Albuquerque, N. M.*	Sophomore
Minor, Charles Samuel	*Belmont*	Sophomore
Moore, Mary Eliza	*Madison*	Freshman
Moore, Thomas Francis	*Watertown*	Freshman
Moran, Mary Rose	*Madison*	Sophomore
Murphy, Samuel Alfred m	*Madison*	Junior
Oberlander, Marie	*New York, N. Y.*	Sophomore
O'Laughlin, Mary Gertrude	*Madison*	Freshman
Oskamp, Alexander McLeod	*Wyoming, O.*	Sophomore
Parr, Olive Mary	*Madison*	Freshman
Paulson, Clara Olive	*Hollandale*	Sophomore
Peil, Francis William	*Racine*	Freshman
Perel, Rose	*Madison*	Senior
Pieh, William John	*Madison*	Freshman
Purtell, Edna Maie	*Madison*	Sophomore
Raasch, Ewald Carl	*Milwaukee*	Freshman
Ransley, Harry Condor	*Stanley*	Freshman
Rawlings, Charles Alfred	*Rochester, N. Y.*	Sophomore
Riha, Joseph Wencel	*Kewaunee*	Junior
Robin, Paul	*New York, N. Y.*	Freshman
Roemer, Caroline Hamilton	*Milwaukee*	Sophomore
Sammes, Ingeborg Marie	*Madison*	Freshman
Sapira, Ida Edith	*Milwaukee*	Junior
Schoen, Frank Martini	*Madison*	Sophomore
Schroeder, Alma Louise	*Madison*	Sophomore
Sinaiko, Marcella	*Madison*	Freshman
Sister Mary Jeanette Bodoh	*Fond du Lac*	Freshman
Solon, Ruth	*Chicago, Ill.*	Senior
Sommer, Fanny Elizabeth	*Madison*	Sophomore
Stehn, Florence Clarke	*Madison*	Freshman
Stein, Herman	*Madison*	Freshman
Stilp, Rolland	*Eau Claire*	Freshman
Strasser, William m	*Madison*	Senior

Summerville, Warren James	*Madison*	Freshman
Thomas, Jane Austin	*Cambridge, Mass.*	Sophomore
Town, Henry Galloway	*Madison*	Freshman
Wakeman, M. Lydia	*Madison*	Sophomore
Warner, Mildred Katherine	*Madison*	Freshman
White, Adeline	*Madison*	Freshman
Witts, Milford	*Madison*	Junior
Wittig, Clara Julia	*Milwaukee*	Freshman
		—80

Course in Commerce

Anderson, Arthur Lloyd	*Eau Claire*	Freshman
Bird, Mason Traill	*Wellesley Hills, Mass.*	Freshman
Dunham, Lewis Wills	*Versailles, Ohio*	Freshman
Edwards, Allan Aaron	*East Aurora, N. Y.*	Freshman
Fruetel, Sheldon William	*Winona, Minn.*	Sophomore
Hefner, Hasbrouck Hansen	*Milwaukee*	Freshman
Leviant, Abe	*Milwaukee*	Freshman
Mayer, Frederic Austedt	*Milwaukee*	Freshman
Parr, Fred, Jr.	*Madison*	Freshman
Ross, Maurice	*Milwaukee*	Junior
Rubert, William Frederick	*Madison*	Sophomore
Watters, John, Jr.	*Ravenna, Ohio*	Freshman
Weber, Phillip Thomas	*Racine*	Freshman
Zapf, Wallace George	*Batavia, N. Y.*	Freshman
		—14

Course in Chemistry

Hey, Clement	*Sterling, Ill.*	Sophomore
Town, George Galloway	*Madison*	Senior
		—2

Course in Journalism

Cowan, John Warren	*Waltham, Mass.*	Freshman
Fehrenbach, August John	*Madison*	Sophomore
Lefebvre, Anne Dorothy	*Ashland*	Freshman
Meredith, Harry Franklin	*Union Grove*	Freshman
Peterson, Carl Victor	*Washburn, N. Dak.*	Freshman
Weiss, David	*New York, N. Y.*	Sophomore
		—6

General Course

Cleary, Maurice Joseph	*Fond du Lac*	Freshman
		—1

Course in Pharmacy

Reif, Herman Peter	*Madison*	Senior
		—1

SCHOOL OF MUSIC

Seniors

Miller, Leila Evangeline	*Evansville*	
Piper, Helen Elizabeth	*Madison*	—2

Juniors

Beecher, Dorothy Alice	*Peoria, Ill.*	
Campbell, Lucille Eleanor	*Madison*	
Dieter, Esther Evangline	*Montfort*	
Hull, Hazel Margaret	*Milton*	
Leibing, Frances Ernestine t c	*Terre Haute, Ind.*	
Mayer, Hildagarde Henriette t c	*Jefferson*	
Skelton, Agnes Cecelia t c	*Madison*	—7

Sophomores

Barwig, Elsa Marie	*Mayville*	
Gausman, Rachael Marie	*Madison*	
Gibson, Charlotte Katherine	*Grand Rapids*	
Glynn, Maude Elizabeth t c	*Superior*	
Horner, Catherine Adele	*Grand Rapids, Mich.*	
Kilpatrick, Mary Lulu t c	*Belmont.*	
Levitan, Ethel	*Madison*	
Luhmann, Robert Adolph	*Sheboygan*	
Schneider, Esther Irene	*Madison*	
Schwerke, Irving Charles	*Appleton*	
Walden, Huldah Avalon	*Argyle*	
Wheeler, Harold Parker	*Milwaukee*	—12

Freshmen

Bischoff, Lenora Lena	*Madison*
Blessing, Ethel	*Port Washington*
Burke, Agnes Mary	*Madison*
Burke, Beatrice Vincentia	*Madison*
Files, Alice Elizabeth	*Forsyth, Mont.*
Higley, Frances Leonora	*Waukegan, Ill.*
Hitt, Lavinia Ann	*Alma*
Jandl, Libbie t c	*Racine*
Jerdin, Pearl Genevieve	*Madison*
Look, Florence Blackstone	*Shullsburg*
Nash, Florence Marie	*Juneau*
Pfanku, Alice Pearl	*Arena*
Richardson, Sybil Hanks	*Janesville*
Simonson, Doris Marion	*Tomah*
Stowell, Mildred Esther	*Madison*

Stubbs, Carrie Hunter	*Billings, Mont.*	
Timlin, Violet Loraine	*Phillips*	
Yost, Edna Myeah	*Kansas City, Mo.*	—18

Supervisor's Course

Second Year

Ahern, Mary Lillian t c	*West Chicago, Ill.*	
Boyden, Vivian Josephine t c	*Seymour*	
Briggs, Anne	*Madison*	
Fox, Blanche Irene	*Madison*	
Grimstad, Agnes t c	*Mt. Horeb*	
Hanson, Herdis Parker t c	*Milwaukee*	
Hatton, Florence Ceceilia t c	*Neenah*	
Hinzie, Anne Blessington t c	*Two Rivers*	
Knutson, Louise Marie t c	*Marinette*	
Koch, Marjorie Booth t c	*Pekin, Ill.*	
La Billois, Edith Mary t c	*Menominee, Mich.*	
LeRoy, Elizabeth Laura	*Marinette*	
Polk, Irene Genevieve t c	*Madison*	
Shafer, Mary Elizabeth	*Merrill*	
Sichler, Agnes Elizabeth t c	*Alma Center*	
Smith, Ruth Carol t c	*Wauwatosa*	
Smith, Wilhelmina Lenore t c	*Chicago, Ill.*	
Trier, Edrye Mary t c	*Hurley*	
Tyler, Laura Claire t c	*Hurley*	
Wiedenbeck, Emilie Agnes t c	*Madison*	
William, Madelon Charity t c	*Madison*	—21

First Year

Bur, Catherine Hedwig t c	*Green Bay*	
Burrichter, Dorothy	*Galena, Ill.*	
Draggs, Carol t c	*Fennimore*	
Eastman, Orpha Marie t c	*Bellevue, Iowa*	
Fecht, Adelia Mary t c	*Madison*	
Fleming, Gertrude Kathlyn t c	*Shullsburg*	
Galpin, Charlotte Josephine t c	*Indianapolis, Ind.*	
Gravenbrock, Florence B. t c	*Fennimore*	
Hadfield, Anna Helen	*Madison*	
Haffele, Mildred Josephine t c	*Shullsburg*	
Heise, Flora W.	*Green Bay*	
Heiber, Lucilia Caroline t c	*Ashland*	
Knight, Florence Treneary	*Mineral Point*	
Kraemer, Eleanor Catherine	*Milwaukee*	
Lampert, Florence May	*Lena, Ill.*	
Law, Susan Elvira t c	*Toledo, Ohio*	
Lenahan, Nellie Cecellia t c	*Fennimore*	
Nelson, Marie Monica t c	*Argyle*	
Ogle, Frankie Margaret t c	*Sheboygan Falls*	
Riley, Justa Irene	*Madison*	

Schneider, Leona Annette t c	*Two Rivers*	
Schoepf, Leo Lawrence	*Madison*	
Schwalbe, Isabelle Sanderson t c	*Milwaukee*	
Servatius, Florence Ruth Marie t c	*Menominee, Mich.*	
Turner, Ruth t c	*Hebron, Ill.*	
Zander, Edith Marie t c	*Two Rivers*	—26

Adult Specials

Four Year Course

Anderson, Anna Louise	*Madison*	Junior
Reindahl, Olive Selma	*Madison*	Freshman
		—2

Supervisor's Course

Darrin, Josephine Nellie t c	*Chicago, Ill.*	Freshman
Hughes, Cora Catherine	*Madison*	Freshman
Jaquish, John Henry	*Madison*	Freshman
Lee, Lullie Karen t c	*Stoughton*	Freshman
Stark, Anna Lydia t c	*Madison*	Sophomore
Tovey, Minnie Blanche	*White Lake, S. Dak.*	Sophomore
		—6

Unclassified

Anderson, Margaret	*Madison*	
Ayer, Mary L.	*Verona*	
Gilman, Flora Moseley	*Madison*	
Huff, Charles John	*Portage*	
James, Mary Ventura	*Madison*	
King, Florence Gilmore	*Madison*	
Mahre, Ronald Henry	*Amery*	
Mowry, Jean Jamieson	*Madison*	
Odenbrett, Marjorie	*Sheboygan*	
Paltz, Marie A. E.	*Madison*	
Purtell, Jessie M.	*Madison*	
Rubado, Marie Hannah	*Madison*	
Torgerson, Irma Bitney	*Lodi*	
Wolley, Hilda Lydia	*Madison*	—14

MEDICAL SCHOOL

Second Year

Armen, George Krikor l s	*Racine*
Axley, Harold l s	*Cleveland*
Bachhuber, Carl Alvin l s	*Mayville*
Benton, Joseph Levi l s	*Richland Center*
Bleckwenn, William Jefferson l s	*Mendota*
Bloor, Edwin Garfield l s	*Nashotah*

Bogart, Franklin Blevins, B. S. g	*Chattanooga, Tenn.*
Bond, Harry William l s	*Wheeling, W. Va.*
Burns, Robert Emmett l s	*Madison*
Campbell, Meredith Fairfax, B. S. g	*Madison*
Farisy, Arthur Thomas, B. S.	*Franklin, Minn.*
Feinberg, Samuel Maurice l s	*Watertown*
Finnegan, Charles Robert, B. A. g	*Lavalle*
Fischer, Frederick R. l s	*Lancaster*
Gibson, Charles Archie l s	*Madison*
Hall, Earl Hopkins l s	*Oconto*
Hannon, Leo John l s	*Sturgeon Bay*
Helmes, Lloyd Oscar l s	*St. Paul, Minn.*
Hodges, Fred Jenner l s	*Madison*
Hyslop, Robert James l s	*Madison*
Jackson, Arnold Stevens, B. A.	*Madison*
Kehl, Sylvester Carl l s	*Madison*
Kiley, William Earl l s	*Byron, Ill.*
Lake, Thomas Owens l s	*Oshkosh*
McCoy, Leslie Layton l s	*Pittsville*
Marsh, Harry Gilmore l s	*Waunakee*
Moll, Arthur Mackenzie l s	*Kenton, Mich.*
Nelson, Wilford Merriam l s	*Madison*
Olson, Henry John l s	*Beloit*
Phillips, Harold Edward l s	*Madison*
Piggins, Ralph Sproule, B. A., g	*Milwaukee*
Rainey, Edward Carlysle l s	*Madison*
Reichert, John Lester l s	*West Bend*
Richdorf, Lawrence Francis l s	*Maribel*
Roantree, Robert Peter l s	*Parker, S. Dak.*
Ryan, Mark Edward l s	*Oconomowoc*
Shearer, Harry Arthur l s	*Edgerton*
Stang, Hartwick M., B. S.	*Eau Claire*
Starry, Leo Joseph l s	*Madison*
Strasser, William l s	*Madison*
Swarthout, Edyth Claire, B. A., g	*La Crosse*
Taylor, Joseph Vincent, B. S., g	*Marple, Nebr.*
Truitt, John William l s	*Naperville, Ill.*
Tupper, Warren Ernest l s	*Cameron, Idaho*
Van Liere, Edward Jerald, B. A., g	*Bristol*
Wahle, George Henry, B. A., g	*Marshfield*
Weiner, Morris, l s	*Milwaukee*
Welke, Ernest Gottlieb l s	*Fall Creek*
Weller, Charles Grafton l s	*Fond du Lac*
Westgate, Clyde James l s	*Cadott*
Wilde, Edwin l s	*Milwaukee*
Wooll, Gerald Kelley l s	*Madison*
Zellmer, Carl Edward l s	*Antigo* —53

First Year

Aylward, Thomas James, Jr. l s	*Green Bay*
Bachhuber, Leo John, M. S. g	*Mayville*
Bell, Donald Chesbro l s	*Madison*

Borsack, Karl Kasper, B. A. g	*Fond du Lac*
Boynton, Ruth Evelyn l s	*La Crosse*
Brennan, Joseph Patrick l s	*Butte, Mont.*
Cantwell, Roger Clifton l s	*Shawano*
Cook, Benjamin Franklyn B. S.	*Compton, Ill.*
Coon, Harold Macomber l s	*Stevens Point*
Diederich, Otto Peter l s	*Madison*
Driver, Camilles Ogden l s	*Racine*
Evans, James Ambrose l s	*La Crosse*
Eversoll, Norton John l s	*Cassville*
Fauerbach, Louis, Jr. l s	*Madison*
Felsher, Hannah l s	*Madison*
Gates, John Ferdinand G. l s	*Racine*
Geibel, Carl Diedrich, B. S.	*Madison*
Gilman, Robert Louis l s	*Oshkosh*
Green, Walter Elmer l s	*Milwaukee*
Gundersen, Gunnar l s	*La Crosse*
Gundersen, Sigurd Bjarne l s	*La Crosse*
Guttmann, Lyd Paul l s	*Kellnersville*
Hanson, Louis l s	*Marinette*
Hefty, Paul Leo l s	*New Glarus*
Holt, Harriette Grace, M. A.	*Madison*
Houck, Knut Koegh l s	*La Crosse*
Hunt, William Edwin, B. S. g	*Chuchow, China*
Irwin, George Howard l s	*Lodi*
Jacobson, Roland Arthur l s	*Billings, Mont.*
Janney, Francis Rush l s	*Richland Center*
Kasten, Harry Edward l s	*Juneau*
Kevin, Paul Robert l s	*La Crosse*
Khanlian, Parsyl Benjamin l s	*Madison*
Kinsman, Francis Cyrenus l s	*Manawa*
Knauer, Sophia Adeline l s	*Brooklyn, N. Y.*
Koelsch, William Alfred l s	*Boise, Idaho*
Kriz, Rose Alice l s	*Milwaukee*
Lakoff, Charles B. l s	*Chicago, Ill.*
Langjahr, Arno Robert l s	*Plymouth*
Livingston, Edward Meakin l s	*Madison*
Loomis, John Lawrence l s	*Madison*
McColl, William Fraser l s	*Roberts*
McCradie, Robert Drinnan, B. A.	*Grandin, N. Dak.*
MacNaughton, Leslie, B. S. g	*Argyle, N. Y.*
Mackedon, Leo William l s	*Milwaukee*
Malone, Julian Yerkes, B. A. g	*Ripon*
Miller, Glenn Henry l s	*Omaha, Neb.*
Mills, James Stewart l s	*Janesville*
Mueller, Gilbert Frederick Charles l s	*Milwaukee*
Mullen, Bernard Parker l s	*Sturgeon Bay*
Murphy, Samuel Alfred l s	*Madison*
Muskat, Irving Isidor l s	*Milwaukee*
Odèn, Constantin Luther Ambrosius l s	*Belvidere, Ill.*
Peterman, Mynie Gustav l s	*Merrill*
Petersen, Arthur S. J. l s	*Racine*
Pink, John James l s	*Oconomowoc*

Ratty, Frank John l s	*Laona*	
Ruehl, Wilbur Herman l s	*Beaver Dam*	
Saunders, Otis Warren l s	*Oconto Falls*	
Schmitz, Herbert Walter l s	*Manitowoc*	
Searle, Carl Carpenter B. S.	*Topeka, Kans.*	
Seids, James Vane l s	*Moline, Ill.*	
Sevringhaus, Elmer Louis, B. A. g	*Madison*	
Simonds, Paul William l s	*Milwaukee*	
Simpson, Edward Eber, Jr. l s	*Oshkosh*	
Stack, Sylvester Stephen l s	*Milwaukee*	
Steckbauer, Joseph Whittier l s	*Oshkosh*	
Stephan, Carl Thompson l s	*Chicago, Ill.*	
Stuessy, Sylvia Gertrude, B. S.	*Madison*	
Swendson, James Jay l s	*Amherst*	
Te Linde, Richard Wesley l s	*Waupun*	
Van Den Berg, William John l s	*Madison*	
Vanderbie, Roscoe l s	*Platteville*	
Vissman, Dorothy B., B. A. g	*Louisville, Ky.*	
Watson, Allen Smith l s	*Madison*	
White, Marcus Dee l s	*Madison*	
Williams, John Webster l s	*Milwaukee*	
Youmans, Henry Augustus l s	*Mukwonago*	
Zillmer, Helen Jane, B. A.	*Milwaukee*	—79

COURSE IN PUBLIC HEALTH

Weber, Henry Charles g	*Milwaukee*	—1

COLLEGE OF ENGINEERING

Seniors

Abel, Charles Fred	*Colby*	M. E.
Affleck, Gregor Sidney	*Muscoda*	Ch. E.
Akenhead, James Earl	*Sparta*	E. E.
Almon, Grover Cleveland	*Weyauwega*	M. E.
Ashenbrenner, Rudolph Alois	*Stratford*	E. E.
Babush, Joseph Samuel	*Milwaukee*	M. E.
Baebler, Harold Zach	*Bangor*	E. E.
Blodgett, Charles Wallace	*Madison*	C. E.
Bond, Aubrey H.	*Eugene, Ore.*	C. E.
Bostwick, George Lawrence	*Eau Claire*	E. E.
Brandt, Ellis Rolland	*Edgerton*	M. E.
Brown, Herbert Henry	*Milwaukee*	C. E.
Bruce, Warren Richardson	*Boise, Idaho*	M. E.
Buck, Howard	*Eau Claire*	C. E.
Carlson, Thorwald Alexander	*East Helena, Mont.*	Ch. E.
Case, Percival Fuller	*Racine*	M. E.

Casey, Thomas Bernard	*Chicago, Ill.*	C. E.
Clausing, Benjamin John	*Grafton*	M. E.
Cooper, Clarence Edward	*Ashland*	Ch. E.
Cotter, Chester	*Madison*	M. E.
Davis, Roy Harold	*Madison*	C. E.
Dehler, Rudolph Walter	*Helena, Mont.*	E. E.
Dodge, Chester Carlton	*Devils Lake, N. Dak.*	E. E.
Eby, Samuel Hilary	*Milwaukee*	C. E.
Eichhorn, Harry Louis	*La Crosse*	M. E.
Ellison, Elwood Charles	*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	*Madison*	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*	C. E.
Gefke, Jerome Henry	*Windsor*	E. E.
Geisse, John Harlin	*Fond du Lac*	M. E.
Gill, Terence Alister	*Chicago, Ill.*	Ch. E.
Gloger, William Hugo	*Watertown*	C. E.
Gockel, Arthur Philip	*Cleveland, Ohio*	Ch. E.
Goldammer, Charles James	*Elkhart Lake*	E. E.
Gould, Edwin Fish	*Kansas City, Mo.*	C. E.
Gould, Stephen Grover, Jr.	*Kansas City, Mo.*	C. E.
Gower, Arthur William	*Chippewa Falls*	E. E.
Grant, Eugene Lodewick	*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, Ohio*	E. E.
Grubb, Walter Frank	*Stanley*	C. E.
Hagen, Oscar Edwin	*Stoughton*	M. E.
Hallock, Neil Carey	*Taylorville, Ill.*	C. E.
Hartung, Raymond Clarence	*Appleton*	E. 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.
Hilton, Earl	*Chippewa Falls*	M. E.
Holmes, Charles Arthur	*Trempealeau*	E. E.
Hoppe, Alfred George	*Milwaukee*	M. E.
Houghland, Glen Sanford	*Madison*	Ch. E.
Jehle, Carl Winterfield	*Elgin, Ill.*	Ch. E.
Jenkins, James Wade	*Grand Rapids*	E. E.
Jewett, Clarence Gardner	*Piymouth*	E. E.
Johnson, Gordon Gosmann	*Amherst*	M. E.
Johnson, Robert Colton	*Madison*	C. E.
Johnson, William Spencer	*Beloit*	C. E.

Jones, Victor Hugo	*Mankato, Minn.*	E. E.
Kauffman, Clark Emory	*Chicago, Ill.*	M. E.
Kelty, Asher Esaias	*Rice Lake*	M. E.
Kenney, Edward Leander	*Elkhorn*	E. E.
Kitzman, Walter Leslie	*Eau Claire*	E. E.
Knocke, Louis Thielemann	*Waukesha*	M. E.
Knott, Richard Francis, Jr.	*Marseilles, Ill.*	M. E.
Kreuz, Louis George	*Madison*	Ch. E.
Kurtz, Edwin Bernard	*Cedarburg*	E. E.
Kurz, Louis David	*Appleton*	E. E.
Lane, Richard Kelvin	*Dodgeville*	M. E.
Lawson, Stuart Condit	*East Orange, N. J.*	Min. E.
Ludden, Homer Jameson	*Mineral Point*	E. E.
McHugh, Keith Stratton	*Madison*	Ch. E.
Mackey, Walter Curriden	*Madison*	Ch. E.
Margenau, Milo Louis	*Ashland*	E. E.
Martin, Byron Harold	*Delavan*	E. E.
Mendelsohn, Isador William	*Madison*	C. E.
Mielenz, Harold Frederick	*Milwaukee*	C. E.
Miller, Edmund	*Milwaukee*	Ch. E.
Nelson, Leslie Vernon	*Duluth, Minn.*	E. E.
Nethercut, Donald Warren	*Wauwatosa*	E. E.
Newton, Louis Christie	*Superior*	M. 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	*Madison*	E. E.
Pamperin, Arnold Trudell	*Oconto*	E. E.
Paul, Parry Haines	*Moorestown, N. J.*	M. E.
Pederson, John Peter	*Tunnel City*	M. 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.
Ramsey, Ralph Edwin	*Beloit*	Ch. E.
Rau, Charles Alexander	*Madison*	E. E.
Reinhardt, Joseph Albert	*Madison*	Ch. E.
ReQua, Frederick Livingston	*Chicago, Ill.*	E. E.
Richardson, Glenn Carrol	*Milwaukee*	M. E.
Roberts, Morgan Evan	*Superior*	Min. E.
Roddewig, Gilbert Ferdinand	*Davenport, Iowa*	M. E.
Schubring, Albert Howard	*South Milwaukee*	E. E.
Schustedt, Frederick Nathaniel	*Madison*	C. E.
Scott, Allison Fendall Hannay	*Washington, D. C.*	E. E.
Shuffelbarger, Frank David	*Albuquerque, N. M.*	C. E.
Sinnen, Fred Emil	*Racine*	E. E.
Skirm, Joseph Gaskill	*Madison*	Min. E.
Suhm, Clarence Falk	*Milwaukee*	Ch. E.
Sweet, Howard Elliott	*Des Moines, Iowa*	Ch. E.
Truran, Walter Weatherby	*Pierre, S. Dak.*	E. E.
Tyrrell, Donald William	*Lake Geneva*	Ch. E.

Utegaard, Thomas	*Eau Claire*	C. E.
Van Patten, Everett Hoxie, Jr.	*Evansville*	M. E.
Vigneron, Eugene Morgan	*Chicago, Ill.*	E. E.
Vorlop, Edward William	*Reedsburg*	E. E.
Wadsworth, Randolph Lincoln	*Ft. Thomas, Ky.*	M. E.
Wahle, Walter Edwin	*Davenport, Iowa*	Ch. E.
*Weaver, Warren	*Madison*	C. E.
Webb, Walter Ray	*Sioux City, Ia.*	E. E.
Whipple, Newton Dean	*Waukegan, Ill.*	Ch. E.
Wolverton, Fred Melville	*Oshkosh*	Min. E.
Wood, John Morgan	*Albany*	M. E.
Wood, Raymond	*Waupun*	E. E.
Wyatt, Ralph Moore	*Fond du Lac*	E. E.
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Juniors

Anderson, Edward	*Racine*	M. E.
Andrews, Arthur Martin	*Baraboo*	Ch. E.
Avery, Herbert Laflin	*Shreveport, La.*	E. E.
Axtell, Wayne Osman	*Rochester*	C. 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.
Brock, Harold William	*Madison*	E. E.
Brown, Hugh Farrington J.	*St. Louis, Mo.*	C. E.
Brown, Stacy Lewis	*Beloit*	Ch. E.
Buchholtz, Arthur Otto Frederick	*Madison*	M. E.
Burzynski, Ladislaus Edward	*Milwaukee*	M. E.
Buzzell, Harold Winfield	*Delavan*	E. E.
Call, Lloyd Lenard	*Marshall*	E. E.
Camlin, William John	*Madison*	C. E.
Cole, Everett Leland	*Madison*	E. E.
Collar, George Creighton	*Phillips*	E. E.
Collins, Clark Smith	*Chicago, Ill.*	E. E.
Conaty, Bernard Martin	*Whitewater*	C. E.
Conley, Brooks Lawson	*Madison*	E. E.
Connolly, John Mark	*Milwaukee*	E. E.
Dennis, Charles Edwin, Jr.	*Baltimore, Md.*	C. E.
Donaldson, Chase	*Washington, D. C.*	E. E.
Drake, Ronald Irwin	*Mendota*	Ch. E.
Durgin, Trueworthy Orin David	*Racine*	Ch. E.
Fredericksen, Arthur Frederick	*Milwaukee*	M. E.
Gould, Sydney W.	*Canton, Ohio*	Ch. E.
Grams, Raymond Carl	*La Crosse*	E. E.
Gray, Daniel Charles	*Lorain, Ohio*	Ch. E.
Gumprecht, Henry Herman	*Rice Lake*	C. E.
Hansen, Waldo G.	*Beloit*	M. E.
Hanson, John Albert	*Wausau*	Ch. E.
Hanson, Malcolm Parker	*Milwaukee*	M. E.
Haubrich, Alfred Frederick	*Kenosha*	M. E.

*Scholar in Applied Mechanics 1916–17.

Hayden, Carl Frederick	*Milwaukee*	Ch. E.
Heintzen, Harry Richard	*Milwaukee*	E. E.
Hirshheimer, Harry West	*La Crosse*	M. E.
Holling, Harold Herman	*Plymouth*	M. E.
Hosler, Harold John	*Reedsburg*	C. E.
Huntzicker, Paul	*Greenwood*	C. E.
Hussissian, Khoren Leon	*Madison*	Min. E.
Jackson, George Stephenson	*Depere*	E. E.
Johnson, Russell Shults	*Milwaukee*	Ch. E.
Kaiser, Frank Andrew	*Milwaukee*	C. E.
Kalvelage, Clem	*Milwaukee*	E. E.
Kielsmeier, Edward Henry	*Milwaukee*	Ch. E.
Kirch, Louis Adolf	*Mazomanie*	C. E.
Kleimenhagen, Karl Christian	*Kilbourn*	Ch. E.
Klemme, Glenn Harmon	*Belmond, Iowa*	C. E.
Kottler, Carl Frederic	*Milwaukee*	E. E.
Lange, Herbel Arthur	*Beloit*	M. E.
Liang, Wen Paul	*Hong Kong, China*	E. E.
Lindow, Rudolph Frederick	*Elkhorn*	E. E.
Linvog, Chresstie Ole	*Seattle, Wash.*	E. E.
Lord, Herbert Overton	*Oconto*	C. E.
McMullen, Cleve A.	*Dodgeville*	E. E.
Mackowski, John Edward	*Princeton*	E. E.
Mansfield, Robert Dustin	*Williston, N. Dak.*	M. E.
Mead, Harold Washburn	*Madison*	C. E.
Meiselwitz, Adolph William	*Kiel*	C. E.
Meyers, Paul Duncan	*Milwaukee*	Ch. E.
Miller, Ivan Chesbrough	*Madison*	Ch. E.
Miller, Raymond	*Milwaukee*	M. E.
Moore, George Thomas	*Madison*	M. E.
Morse, Ernest Benedict	*Appleton*	E. E.
Nachtrab, Lawrence John	*Oshkosh*	C. E.
Nash, Lucius Byron	*Eau Claire*	E. E.
Nathan, Walter Solomon	*Milwaukee*	E. E.
Negley, William Henry	*Dayton, Ohio*	Ch. E.
Newton, Jay Earl	*Ft. Atkinson*	E. E.
Nielsen, Arthur Charles	*Berwyn, Ill.*	E. E.
Olson, Victor Axel	*Marinette*	Ch. E.
Owen, Halsey Franklin	*Milwaukee*	M. E.
Peachy, James Alfred	*Burnett*	M. E.
Pergande, Arthur George	*Cedarburg*	E. E.
Peterson, Arthur Frederick	*Ironwood, Mich.*	Min. E.
Pottinger, Clarence Albert	*Ft. Atkinson*	E. E.
Rasmussen, John Peter	*Oshkosh*	C. E.
Roberts, James Frank	*Madison*	M. E.
Rove, Louis Claude	*Milwaukee*	M. E.
Rumpel, Arthur Henry	*Milwaukee*	C. E.
Ryan, William Dennis	*So. Kaukauna*	C. E.
Saberhagen, Edward Elmer	*Sheridan, Wyo.*	M. E.
Saecker, Carleton Engler	*Appleton*	M. E.
Schlosser, William Clarence	*Chicago, Ill.*	E. E.
Schmidt, Clarence Walter	*Brillion*	E. E.
Schmidt, Edwin	*Milwaukee*	M. E.

Schmidt, Paul Herman	*Milwaukee*	Ch. E.
Schneider, Claire Leslie	*Madison*	E. E.
Schrader, Herbert Eugene	*So. Kaukauna*	M. E.
Schrank, Edward Sylvester	*Ashland*	M. E.
Schwartz, Ernest Henry	*Mayville*	Min. E.
Searight, Hamilton Folts	*Austin, Texas*	C. E.
Seelbach, Kurt Louis	*Cleveland, Ohio*	M. E.
Seybold, Lawrence Frederick	*Forest Jct.*	E. E.
Shaw, Harold Nichols	*Milwaukee*	E. E.
Shiels, Kenneth Grinnell	*Madison*	M. E.
Shnable, Earle Potter	*Wilmette, Ill.*	M. E.
Staidl, Joseph Arnold	*Shawano*	Ch. E.
Storer, Richard Milton	*Des Moines, Iowa*	Ch. E.
Tan, Nelson Bo	*Peking, China*	Ch. E.
Townsend, John Banes	*St. Joseph, Mo.*	E. E.
Tufty, Harold Guilford	*Duluth, Minn.*	E. E.
Van Ermen, Louis	*Green Bay*	Ch. E.
Vernon, Joseph Rexford	*Madison*	C. E.
Wall, James Joseph	*Eau Claire*	E. E.
Walz, Chester Davison	*Louisville, Ky.*	E. E.
Welk, Harold Emil	*Manitowoc*	C. E.
Whitcomb, Kenneth Frederick	*La Salle, Ill.*	M. E.
White, Robert Bruce	*Wilmette, Ill.*	M. E.
Wichnovitz, Peter Ernest	*Marinette*	E. E.
Wilcox, Burr Curtis	*Madison*	M. E.
Wilder, Willard Smith	*Madison*	E. E.
Williams, John Wesley	*Racine*	Ch. E.
Wirka, Raymond Michael	*Madison*	M. E.
Yates, De Witt Edward	*Chippewa Falls*	M. E.
Zahorik, Peter Anton	*Milwaukee*	C. E.
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Sophomores

Albers, Walter Leland	*Prairie du Sac*	E. E.
Bachhuber, Gilbert Eugene	*Mayville*	Min. E.
Bagemihl, Michael Walter	*Milwaukee*	M. E.
Balderston, William	*Boise, Idaho*	C. E.
Barrows, Kenneth Campbell	*Duluth, Minn.*	E. E.
Becker, David Dallas	*Galesville, Mich.*	Min. E.
Behrens, Ray Emil	*West Allis*	C. E.
Bellock, Willard Bernhard	*Columbus*	M. E.
Blattner, David Jones	*Sulphur, Okla.*	E. E.
Blowney, Walter Edward	*Waukegan, Ill.*	E. E.
Blume, George Martin, Jr.	*New York, N. Y.*	Ch. E.
Bodenstein, Alexander Frederick	*Madison*	C. E.
Bohn, Donald Ivan	*Madison*	M. E.
Braun, Alvin Charles	*Milwaukee*	Ch. E.
Brenner, Erwin Charles Julius	*Milwaukee*	Ch. E.
Brewer, Richard Wallace	*Mineral Point*	E. E.
Breyvogel, Allie Lloyd	*Brodhead*	M. E.
Brill, William	*Green Bay*	C. E.
Broker, Harvey Raymond	*Chilton*	Ch. E.

Butler, Merrill Francis	*Appleton*	C. E.
Camlin, Harold Andrew	*Rockford, Ill.*	M. E.
Campbell, Lawrence Franklin	*Oshkosh*	M. E.
Charlson, Melvin Robert	*Eau Claire*	C. E.
Charmock, Elroy Jonas	*Racine*	E. E.
Christensen, Harold Lund	*Berlin*	Ch. E.
Collins, Carl Harold	*Madison*	E. E.
Cox, John Van Brunt	*Horicon*	E. E.
Cross, Charles Willard	*Waldo*	E. E.
Dahlen, Caleb Manuel	*Madison*	C. E.
Davis, Malvin	*Reedsburg*	E. E.
Davis, Russell Gardner	*Milwaukee*	M. E.
Dequine, George Frederick	*Fond du Lac*	E. E.
Dey, Van Brunt	*Waukesha*	E. E.
Dresen, Joseph Ignatius Herman	*Madison*	M. E.
Edmunds, Melvin	*Aberdeen, S. Dak.*	E. E.
Elwood, Charles Davidson	*Madison*	M. E.
Fisbeck, Finley Leland	*Terre Haute, Ind.*	C. E.
Frank, Reimar August	*Milwaukee*	M. E.
Frater, George Gordon	*Elkhorn*	M. E.
Fratt, Charles Diller, Jr.	*Madison*	M. E.
Fuller, Howard Hastings	*Madison*	E. E.
Gallun, Edwin Alfred	*Milwaukee*	M. E.
Gerhardt, Fred Peter	*Milwaukee*	C. E.
Glaettli, Herbert	*Milwaukee*	C. E.
Greenslade, Irving Jones	*Milwaukee*	E. E.
Gregg, Scranton Hugh	*Milwaukee*	C. E.
Griswold, Milton Pettit	*Madison*	M. E.
Grosse, Joseph Anton	*Cross Plains*	E. E.
Hall, John Alexander	*Fargo, N. D.*	C. E.
Hanson, Maurice Miller	*Madison*	C. E.
Hasenpflug, John Leroy	*Geneva, Ohio*	E. E.
Hawkins, Raymon Nelson	*Milwaukee*	Ch. E.
Haznaw, Louis Frank	*Watertown*	Ch. E.
Heffernen, Raymond Arthur	*Green Bay*	C. E.
Holmes, Presley Dixon	*Southwest Harbor, Me.*	Ch. E.
Ives, Clifford Elihu	*Sharon*	M. E.
James, Burton Egbert	*La Crosse*	M. E.
Kane, Eugene Aloysius	*Chicago, Ill.*	E. E.
Keating, Paul Hepburn	*Pueblo, Colo.*	E. E.
Keats, John	*Milwaukee*	Ch. E.
Keuchel, John Nicholas	*Lake Geneva*	E. E.
King, Tower Wadsworth	*Madison*	E. E.
Knapp, Harold Clark	*Milwaukee*	Ch. E.
Koehler, Walter A.	*Mishicot*	Ch. E.
Kurtz, Henry William	*Sheboygan*	C. E.
Kurtz, Paul Henry	*Two Rivers*	M. E.
Ladwig, William John	*Juda*	E. E.
Lange, William Hobart	*West De Pere*	C. E.
Lehman, Donald Griffith	*Waupaca*	E. E.
Light, Robert Ferguson	*Dayton, Ohio*	C. E.
Lillesand, Lynn Norman	*Stoughton*	E. E.
Link, Marcus William	*Madison*	Min. E.

Loomis, Casey Vaughn	*Milwaukee*	E. E.
Lyman, Alfred Tileston	*Milwaukee*	M. E.
McCallum, Verni Ernest	*Rowan, Iowa*	E. E.
McCollum, George Willard	*Rice Lake*	E. E.
McCullough, Allen Chase	*Oshkosh*	E. E.
McGraw, Vincent George	*Racine*	C. E.
McManus, James Francis, Jr.	*Chicago, Ill.*	E. E.
Mainland, Irvine Chadwick	*Kenosha*	M. E.
Mantonya, William George	*Chicago, Ill.*	M. E.
Mariotte, Walter Williams	*Etroy*	E. E.
Marshall, Oren Herbert, Jr.	*East Troy*	M. E.
Mather, Lyman McConnell	*La Grange, Ill.*	E. E.
Meath, Charles Arthur	*Cylon*	E. E.
Meihack, Albert William	*Eagle River*	E. E.
Melcher, Burton Walter	*Madison*	Ch. E.
Mertes, John Peter	*Eden*	Ch. E.
Mighton, Merrill Wallace	*Painesville, Ohio*	E. E.
Mikna, Alois Joseph	*Milwaukee*	M. E.
Miller, Chester Joseph	*Milwaukee*	Ch. E.
Mitchell, John Sidney	*La Crosse*	E. E.
Moss, Charles Wallace	*Mattoon*	E. E.
Moulton, Frank Stillman	*Madison*	C. E.
Mueller, Emmet John	*Milwaukee*	M. E.
Murat, Walton Belford	*Scandinavia*	M. E.
Myers, Charles Albert	*Madison*	M. E.
Nelson, Delmar Wood	*Peshtigo*	M. E.
Nelson, Howard George	*Carrollton, Ill.*	E. E.
Nordmeyer, Carl Louis	*Madison*	M. E.
Oberly, John Joseph	*Milwaukee*	Ch. E.
Peters, Leo James	*Edgemont, S. Dak.*	E. E.
Peterson, Lynnford Lawrence	*Deming, N. M.*	E. E.
Prince, Earl Samuel	*Downer's Grove, Ill.*	Min. E.
Puerner, Bertram Harvey	*Jefferson*	M. E.
Puerner, Russell Edward	*Jefferson*	M. E.
Radke, Orville Edward	*Madison*	E. E.
Rankl, Fred Anthony	*Milwaukee*	C. E.
Reinhard, Raymond Colton	*Tomah*	E. E.
Robertson, Martin Rindlaub	*Indianapolis, Ind.*	M. E.
Robison, Bryan	*Chippewa Falls*	E. E.
Rood, Arnold Ellsworth	*Whitewater*	E. E.
Rosenberg, Edwin Herbert	*Madison*	E. E.
Royer, Paul Anson	*North Milwaukee*	M. E.
Schaal, Norbert James	*Princeton*	M. E.
Schaper, Harold Henry	*Milwaukee*	M. E.
Schlueter, Henry John	*Richland Center*	C. E.
Schmidt, Ethan Warner	*Chicago, Ill.*	M. E.
Schneider, George Russell	*East Liverpool, Ohio*	C. E.
*Schrom, Theodore James	*Madison*	M. E.
Schuyler, Philip Kingsland	*Orange, N. J.*	C. E.
Schwebke, Harry John	*Milwaukee*	C. E.
Scott, Kenneth Loyal	*Madison*	E. E.

*Died February 3, 1917.

Smith, Philip Harold	*Oconto*	C. E.
Smith, Robert Harold	*Wauwatosa*	C. E.
Spees, Edgar Addison	*Plainfield*	E. E.
Steinle, Clinton Rolland	*Madison*	M. E.
Stern, Emil Fred	*West Allis*	M. E.
Svitavsky, Robert Ingersoll	*Racine*	E. E.
Swift, John Disnonef	*Portage*	M. E.
Tillisch, Michael Ravn	*Merrill*	E. E.
Warren, Glenn Barton	*Girard, Kans.*	M. E.
Waung, Cho Jan	*Soochow, China*	C. E.
Werba, Otto Edward	*Milwaukee*	Min. E.
Williams, Edward Barnes	*Milwaukee*	M. E.
Wise, Edmund Merriman	*Fond du Lac*	E. E.
Works, Lawrence Perry	*Madison*	E. E.
Youngberg, Adolf Frederick	*La Crosse*	M. E.
Zarse, Clarence Henry	*Milwaukee*	Ch. E.

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Freshmen

Adams, Edward Ernest	*Madison*
Affleck, Herbert John	*Muscoda*
Alexander, Robert Hunter	*Zanesville, Ohio*
Allen, Littleberry Calhoun	*Shreveport, La.*
Amel, Floyd Adelbert	*Shawano*
Ames, Melvin Dewey	*Madison*
Amidon, George Wallace	*Milwaukee*
Anderson, Edgar Willis	*Manitowoc*
Anderson, Gerald Andrew	*Whitehall*
Anthony, Herman Russell Chidsler	*Madison*
Arpin, Edward Arsene	*Grand Rapids*
Avery, N. Kirk	*Peoria, Ill.*
Babbitz, Henry Lucius	*Milwaukee*
Baker, Loyal Southwick	*Evansville*
Baumann, Walter Otto	*Medford*
Bautz, Garland Jasper	*Milwaukee*
Bellis, Mark Edward	*Wausau*
Bergman, Miles Joseph	*Bark River, Mich.*
Bille, Harold Wilhelm	*Marshfield*
Blom, Max	*Louisville, Ky.*
Bohlender, William Elmore	*Dayton, Ohio*
Bradford, Theodrick William	*Grand Rapids*
Bramlette, Milton Nunn	*Madison*
Brewer, Orval William	*Manitowoc*
Bristol, Fern Watson	*Oakfield*
Brown, Theron Adelbert	*Madison*
Buckingham, Lyman Everett	*Ludington, Mich.*
Buckley, John William	*Grand Rapids*
Burr, William Garcia	*Santiago, Chile*
Bushell, Robert Earl	*Racine*
Carlson, Louis Albert	*Milwaukee*
Carpenter, Everett N.	*Milwaukee*
Carson, William Henry, Jr.	*Pittsburg, Texas*

Chamberlain, George Henry	*Milwaukee*
Charlton, Alexander Richard	*Milwaukee*
Chiang, Chen Le	*Shanghai, China*
Chudacoff, George	*Peshtigo*
Church, Carl Adelbert	*Sheridan, Wyo.*
Cirves, Frank Herman	*Madison*
Clarke, Caryl Chapin	*Milwaukee*
Condron, George Tolman	*Oak Park, Ill.*
Congdon, Claire Cressey	*Delavan*
Connolly, Harry	*Racine*
Connor, Edward Hanson	*Leavenworth, Kans.*
Conway, David Gabriel	*Waunakee*
Cram, Kenneth Blaisdell	*Chicago, Ill.*
Cretney, Robert Wesley	*Ridgeway*
Cummings, Willis Bachelder	*Chicago, Ill.*
Dahlen, Andrew Oliver	*Madison*
Dale, Leslie Harry	*Galesville*
Day, Harold Paton Scott	*Shullsburg*
Dean, Horace Kleffler	*Milwaukee*
DeSombre, Karl Herman	*Fond du Lac*
Dierfeld, Arnold Henry	*Whitewater*
Dobberpuhl, Raymond H.	*Cedarburg*
Edwards, Max Hadsell	*Madison*
Emanuel, Walter Arthur	*Fall Creek*
Erickson, William Ernest	*Madison*
Fabian, Philip Joseph	*Hurley*
Farrington, Ralph Waldo	*Wyocena*
Ferguson, John James	*Plain*
Fiedler, Elmore Walter	*Sheboygan Falls*
Foulkes, George Clarke	*Terre Haute, Ind.*
Fox, Stuart K.	*Chicago, Ill.*
Gardner, Ralph David	*Beloit*
Gaubatz, Arthur William	*Chilton*
Geussenhainer, Frederick William	*Sheboygan*
Giddings, William Werner	*Mendota*
Goerner, Erwin Fuhr	*Milwaukee*
Gould, Stevens	*Oshkosh*
Gray, Charles Richardson	*Washington, D. C.*
Griswold, Frank Lynn	*Madison*
Griswold, Henry Farnam, Jr.	*Madison*
Gross, George H.	*Milwaukee*
Hall, John Wesley	*Hinsdale, Ill.*
Hamacheck, Daniel Fred	*Two Rivers*
Hamilton, Frank John	*Madison*
Hamilton, Roy Ezra	*Almond*
Hankin, Harry	*Marinette*
Hanley, Edward Vincent	*Milwaukee*
Hanson, Clarence Ferdinand	*Waupaca*
Hantzsch, Ralph Eugene	*Milwaukee*
Hastings, Henry Lawrence	*Kenosha*
Hatlen, Hjelmer Oscar	*Chippewa Falls*
Hawn, Gavin Campbell	*Asheville, N. C.*
Hays, Frank Sevarance	*Superior*

Hiestand, Francis Hall	*Madison*
Hill, Russell James	*Chicago, Ill.*
Hockings, William Francis	*Burlington*
Holmes, Harold Frederick	*Trempealeau*
Hooper, Noel James	*Houghton, Mich.*
Howard, George Ephriam	*St. Croix Falls*
Huber, Herman Harry	*Milwaukee*
Hulbert, Milton Frank	*Reedsburg*
Hymer, Howard Golden	*Madison*
James, Roy Walter	*Madison*
Johnson, James Warren	*Rye, Fla.*
Johnson, Leonard Marion	*Orfordville*
Kachelhoffer, Fred George	*Madison*
Karger, Frank	*Milwaukee*
Keeley, Calvert Constant	*West Bend*
Kelley, William Harold	*Milwaukee*
Kelly, Pennell Clarke	*Ft. Atkinson*
Kerler, Ernest Alfred	*West Allis*
Kidder, Charles Pomeroy	*Madison*
Kincannon, Leo Theodore	*Excelsior*
King, Kenneth Jacob	*Superior*
Kitchingman, Raymond Frank	*Racine*
Klandrud, Lester Otis	*Galesville*
Klann, Alvin Rietbrock	*Milwaukee*
Klingler, Charles Henry	*Milwaukee*
Kranzfelder, Louis John	*Bloomer*
Krause, Gustavus Theodor	*Colfax*
Krotz, Alva Shirley	*Janesville*
Kuebler, George Benjamin	*Wausau*
Kummerow, Paul Frederick, Jr.	*Fond du Lac*
Lamont, Dallas Ralph	*Oregon*
Lenck, Arthur Roy	*Milwaukee*
Lewis, William Turner	*Racine*
Liebert, Arthur Eugene	*Milwaukee*
Limberg, Leland J.	*Plymouth*
Lindemann, Herbert Eddie Albert	*Milwaukee*
Loeb, Ralph Ellis	*Milwaukee*
Lugoff, Leonard Seymour	*Duluth, Minn.*
Lundberg, Gusta	*Superior*
Lusted, Howard Leslie	*Lake Mills*
McAdams, Frank Clarence	*Madison*
McClintock, Alan Carr	*Oshkosh*
McConnell, James David, Jr.	*Stevensville, Mont.*
*McIntosh, Kenneth Dargon	*Bradford, Pa.*
Mann, Louis Russell	*Muskegon, Mich.*
Manthey, Rollin Henry	*Ableman*
Martens, Armin	*Mayville*
Martin, Orville Wells	*Oshkosh*
May, George Louis	*Stevensville, Mont.*
Meisekothen, Edwin Edward	*Madison*
Melvin, Roy Earl	*Wausau*

*Died February 3, 1917.

Mench, Eugene L.	*Beaver Dam*
Merwin, Gile Ernest	*Trempealeau*
Meyer, Royal Lewis	*Kewaunee*
Meyrick, Gordon Sumner	*Milwaukee*
Miles, Benjamin	*Riverside, Ill.*
Miller, George Paul	*Madison*
Miller, Harry Irl	*Madison*
Miller, Robert Lee	*Milwaukee*
Mitchell, Donald Eugene	*Beloit*
Montessori, Mario	*New York, N. Y.*
Morice, Elton Knight	*Madison*
Morsell, Curtis Benedict	*Milwaukee*
Mortiboy, Lea	*Taylor*
Mueller, Emil Arthur	*Baraboo*
Murphy, Robert Joseph	*Kenosha*
Nash, Clyde	*Eau Claire*
Nash, Garrett John	*Two Rivers*
Nelson, Hilding Franklin	*Rockford, Ill.*
Nicholson, Miller	*Lakewood, Ohio*
Nordby, Marshall Bertrand	*Mellen*
Oetjen, Richard John	*Williams Bay*
Olson, Arthur Oliver	*Madison*
Olson, Earl Vivan	*Wausau*
Olson, Edward Erick	*Milwaukee*
Olson, Julian	*Hixton*
Paddock, Rychen Mayhew	*Wyoming, Ohio*
Peterson, Clarence William	*Salem*
Pond, Stuart Andrew	*Madison*
Porter, John William	*Madill, Okla.*
Potter, Rusk Philetus	*Antigo*
Prosser, Isador Carleton	*West Milwaukee*
Ragatz, Roland Andrew	*Madison*
Rashid, Jacob Karl	*Avoca*
Ray, Otto Adolph	*Fish Creek*
Reading, Clyde William	*Oak Park, Ill.*
Reineking, Winston Frederick Charles	*Milwaukee*
Reuter, William Robert	*Milwaukee*
Rheingans, William Jacob	*Jackson*
Rice, Alexander	*Milwaukee*
Richardson, Claude Irwin	*Dane*
Roedl, Leo Jacob	*Beaver Dam*
Rose, Donald Ghering	*Madison*
Rowland, Harry Eugene	*Hutchinson, Kans.*
Rubel, Henry Michael, Jr.	*Cincinnati, Ohio*
Rush, John Courtney	*Joplin, Mo.*
Saunders, Neill McIntosh	*Wilmette, Ill.*
Schindler, Walter Gabriel	*New Glarus*
Schluter, Harold John	*Moline, Ill.*
Schmidt, Carlton Leonard	*Avoca*
Schmidt, Ray Otto	*Davenport, Iowa*
Schrage, Charley Thayer	*Sheboygan*
Sherburne, Lewis Raymond	*Fremont*
Sherr, Joe Robert	*Milwaukee*

Sickert, Otto Leonard	*Milwaukee*
Siegel, Robert Charles	*Madison*
Silbernagel, Edward	*Wausau*
Skow, Charles Theodore	*Racine*
Slaker, Donald Valentine	*Freeport, Ill.*
Smith, Robert Evans	*Milwaukee*
Snider, William Herbert	*Davenport, Iowa*
Spafford, Allen	*Morrison, Ill.*
Steele, Will Robert	*Lodi*
Stelling, Lenno Albert	*Osceola*
Stewart, John DeMuth	*Madison*
Stiles, Dwight Hawthorne	*Lake Mills*
Stockum, Samuel Frederick	*Wausau*
Swinson, Edwin Albert	*Galesville*
Taylor, Edwin Lucius	*Westfield*
Taylor, J. L., Jr.	*Barker, N. Y.*
Taylor, Thomas Dewey	*Chicago Heights, Ill.*
Terry, Halstead Coleman	*Lowell*
Thompson, Francis Henry	*Edgerton*
Thorne, Thomsen Francis	*Riverside, Ill.*
Timm, Harold Daniel	*Grand Rapids*
Tishler, Hyman	*Milwaukee*
Toner, Harold James	*Madison*
Tooman, Arthur Ronald	*Racine*
Torgeson, Oscar Windfield	*So. Madison*
Toupal, Adolph Charles	*Lena*
Trantin, Ernest	*Madison*
Turneaure, Frederick Stewart	*Madison*
Tuthill, Howard	*Grand Rapids, Mich.*
Valier, Ronald Robert	*La Crosse*
Van Slyck, Louis Wellington	*Lake Geneva*
Velguth, Waldemar	*Milwaukee*
Voss, Forest Earl	*Mazomanie*
Waldo, Donald Edwin	*Columbus*
Walraven, Peter	*Kenosha*
Walters, Warren Weir	*Madison*
Welch, Halbert Austin	*Oconomowoc*
Wheeler, Charles Eugene, Jr.	*Beloit*
White, Arthur Bradford	*Madison*
Whitnall, George Reynold	*Milwaukee*
Wiepking, Christopher Armin	*Grafton*
Wilhelm, Henry Arthur	*Marshfield*
Wise, Sol	*Cincinnati, Ohio*
Wright, Duey Ervin	*Wausau*
Wright, Lewis Marion	*West Allis*
Zieske, Albert Roland	*Madison*
Zimmerman, Lee R.	*Monticello*
Zimmerman, Wallace	*Beaver Dam*

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Adult Specials

Bloomquist, Gustave Emanuel	*New Diggins*	E. E. Junior
Drolenga, Nicholas Clarence	*Elroy*	Freshman
Fahlberg, Ernest David	*Madison*	Ch. E. Junior
Flatman, George James	*Madison*	E. E. Sophomore
Goff, Harold Wheeler	*Eau Claire*	E. E. Senior
Jensen, Alford Magnes	*Madison*	Freshman
Knoerr, Rudolph Robert	*Milwaukee*	Freshman
Lorig, Robert Alexander	*S. Milwaukee*	M. E. Sophomore
Redin, LeRoy Wilmer Cornelius	*Rockford, Ill.*	Freshman
Schroeder, Alfred George	*Madison*	Min. E. Junior
Wertheim, Ferd Eliel	*Madison*	M. E. Senior

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LAW SCHOOL

Third Year

Allman, Major Fisher	*Crown Point, Ind.*
Anderson, Morgan MacDonald, B. A.	*Milwaukee*
Beers, Stanley Emerson	*Madison*
Bishop, Stuart Alfred	*Madison*
Boreson, Bradner Frank	*Beloit*
Breakstone, Irving	*Oconto*
Brendel, Roy Albert, B. A.	*Milwaukee*
Broadfoot, Grover Lee	*Mondovi*
Brunkow, Arthur Herman	*Marshall*
Brunner, Louis John	*Madison*
Bull, Benjamin Henry	*Madison*
Carey, George	*Beloit*
Carpenter, Byron Joseph	*Stevens Point*
Caskey, Earl James, B. A.	*Beloit*
Collette, William Harold	*Green Bay*
Ewers, Robert Ferdinand, B. A.	*Milwaukee*
Gleick, Harry Samuel, B. A.	*Webster Groves, Mo.*
Godfrey, Alfred Laurance, B. A.	*Whitewater*
Gullickson, Gerhardt Oscar, B. A.	*Eau Claire*
Horner, Louis Cowdick	*Madison*
Jackson, Raymond Thomas, B. A.	*Mineral Point*
Jolley, Albert Rembrandt	*Whitewater*
King, George Yeldham	*Tigerton*
Kleinpell, Arthur, B. A.	*Cassville*
Loomis, Orlando Steen	*Mauston*
Malone, Donald Bourke	*Beaver Dam*
Meuer, William Joseph, B. A.	*Madison*
Murphy, John William	*Platteville*
Napiecinski, Peter Anthony	*Two Rivers*
Neuenschwander, Adolph Herman	*Athens*
Neuenschwander, Edward John	*Athens*
Pomeroy, Herbert Stuart, B. A.	*Madison*

Pors, William Emil	*Marshfield*	
Potter, Louis Richard	*Milwaukee*	
Pottinger, Earl Henry	*Fort Atkinson*	
Puetz, Harold Henry	*Madison*	
Ramsdell, Bailey Edwin, B. A.	*Madison*	
Sanborn, Philip Golder	*Madison*	
Smith, Kenneth Blume, B. A.	*Viroqua*	
Smith, Melville Alsworth	*Milwaukee*	
Smith, Walton Kimball, B. A.	*Milwaukee*	
Stack, William Cornelius	*Superior*	
Werba, Arthur Marcus	*Milwaukee*	
Wilson, Charles Atwater	*Superior*	
Young, Carl Fred	*Green Bay*	—45

Second Year

Altenhofen, Roland Frederick	*Cedarburg*
Alvord, Ellsworth Chapman l s	*Washburn*
Benton, John Knox, B. A.	*Richland Center*
Biart, Nathaniel Paul, B. A.	*Madison*
Bogner, Ernst William George	*Tanunda, S. Australia*
Brendenmuehl, Alvin Gottfried	*Watertown*
Brody, Lawrence John	*Cashton*
Brunner, Stephen Walter	*Madison*
Caradine, Mahlon Humphrey l s	*Monroe*
Cunningham, Robert John, B. A.	*Janesville*
Dunn, Charles Bryan	*Madison*
Fahrion, Louis Edward, B. A.	*Madison*
Forehand, Harry Verne	*Platteville*
Frawley, James Robert, B. A.	*Eau Claire*
Glassner, William, B. A.	*Milwaukee*
Gooding, Laurence Earl	*Fond du Lac*
Gross, John, Jr., B. A.	*Madison*
Janes, Arthur DeWitt	*Tomah*
John, Henry Walter, B. A.	*Madison*
Johnson, Russell Lowell, B. A.	*Madison*
Küehnl, John Frederick	*Madison*
Lebowsky, Charles Adolph	*Milwaukee*
McGaughey, Guy E., B. A.	*Lawrenceville, Ill.*
McKay, John Gordon, B. A. g	*Madison*
McWilliams, Glenn John	*Darlington*
Mallonee, L. Dee	*Madison*
Marsh, Carl James	*Madison*
Peterson, Evan Hugo	*Stockholm*
Phelan, Vincent Laurence	*Sandusky*
Porter, Carl Elder	*Madison, S. D.*
Raeder, Lester William	*Cedarburg*
Rawson, Harry Walker, B. A.	*Plainfield*
Robinson, Philip Kyle	*Madison*
Schmidt, Karl August	*Wausau*
Shuttleworth, Ferrand Dames	*Madison*
Slocumb, Ira Otis	*Neillsville*

Toohy, John Croft	*Superior*	
Tuteur, Armand Joseph	*La Crosse*	
Wattawa, John	*Madison*	
Whiffen, Clarence Fred, B. A.	*Madison*	
White, Irvin Arnold, B. A.	*Antigo*	
Whyte, Malcolm Kenneth, B. A.	*Madison*	
Wickham, J. Arthur	*Eau Claire*	
Wilberscheid, Jacob Charles	*Valders*	
Wilkinson, James Richard, B. C.	*Madison*	
Winton, Eugene Ward	*Appleton*	—46

First Year

Barnett, Joseph Evans	*Lancaster*
Behnke, Carl Edwin	*Manawa*
Bishop, Eugene Alford	*Gillner, Nebr.*
Bowey, Harry J.	*Eau Claire*
Brown, George Everett	*Platteville*
Buelow, Earl Francis, B. A.	*Waupun*
Conley, Emmett Joseph	*Superior*
Curran, Robert Emmet	*Berlin*
De Witt, Roy Martin	*Sparta*
Eder, Abraham John, B. A.	*Milwaukee*
Eielson, Carl Ben	*Halton, N. Dak.*
Flanagan, Arthur Eugene	*Lannon*
Foley, Leon Francjs	*Grand Rapids*
Foss, Arthur Rolf	*Onalaska*
Grotophorst, Carl	*Plain*
Hill, Charles Roeliff	*Whitewater*
Hoffman, Ernest Louis	*Thiensville*
Jenkins, Lyel Newton	*Leon*
Kloetzner, Ottomar	*Milwaukee*
Lappley, Gilbert Frost	*Milwaukee*
Loberg, Jesse Dewey, B. A.	*Nelsonville*
Lucas, Spencer Alexander	*Sparta*
McFetridge, George William, B. A.	*Clam Falls*
Mitchell, John Gordon	*Milwaukee*
O'Hora, John Edwin	*Madison*
Park, Lyman Barnes	*Stevens Point*
Parker, Ira Sheldon, B. A.	*Tomahawk*
Pors, Charles Miller, B. A.	*Marshfield*
Pritzlaff, Edward Frank	*Milwaukee*
Riley, Harry William	*Winneconne*
Roberts, David Webster	*Superior*
Robertson, Richard, B. A.	*Meridian*
Rosenberg, Edwin Leo	*Milwaukee*
Salen, Herman Roy	*Waukesha*
Staidl, Steve A.	*Shawano*
Stevenson, William Henry	*Onalaska*
Sutherland, Robert J.	*Madison*
Thiele, Arthur Albert	*Green Bay*
Thorpe, Byron McKown	*Blue River*

Thurwachter, Loron Francis	*Waukesha*	
Trottman, Joseph Stafford, B. A.	*Milwaukee*	
Uhlman, Lamont Douglas	*Roberts*	
Van Camp, William John	*Winnetoon, Nebr.*	
Volk, Hubert Thomas	*Plymouth*	
Wurster, Carroll Barton	*Mazomanie*	
Zetteler, Howard Lester	*Milwaukee*	—46

Law Specials

Barrett, Albert Charles Louis	*Chippewa Falls*	First
Bentley, Bert Cecil	*Baraboo*	First
Bloor, George James	*West Allis*	First
Brossard, Matthew	*Madison*	First
Brunner, Marie Angelina	*Madison*	Third
Dean, Harry Carpenter	*Glenwood City*	First
Dean, James Stanley	*Milwaukee*	Third
Dimmick, Earle Winter	*Black River Falls*	First
Dinerstein, Isadore	*Milwaukee*	First
Gavigan, Francis Hugh	*Waukesha*	First
Gleason, Bernard Robert	*Bruce*	First
Goodsitt, Lawrence Manfred	*Milwaukee*	First
Hartman, George Anthony	*Juneau*	Third
Juster, Eugene Meyer	*Milwaukee*	First
Klassy, Ernest Robert	*Monticello*	First
Landry, Leo John	*Tomahawk*	Second
Lehner, Otto	*Oconto Falls*	Second
Loftsgordon, Henry Albert	*Madison*	First
Luecker, Elmer William	*Brillion*	First
MacQuaid, John Harrison	*Milwaukee*	Second
Monk, Robert William	*Neillsville*	First
Petersen, James Daniel H.	*La Crosse*	Second
Robinson, Harry William	*La Crosse*	First
Robson, Marshall William	*Stoughton*	First
Schultz, Edward Emil	*Juneau*	Third
Shemick, Frank William	*Marinette*	Second
Smith, Fred Michael	*Depere*	Second
Steeholm, Hardy	*Racine*	First
Thauer, Wallace	*Watertown*	First
Thurwachter, Raleigh Holmes	*Janesville*	First
Uehren, Robert Monat	*Chippewa Falls*	First
Wilbert, Gustave Carl	*Thiensville*	First
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Students in Letters and Science Electing Law Studies

Beach, Richard W.	*New Castle, Ind.*
Bird, George E.	*Wausau*
Burmeister, Roy Frederick	*Gratiot*
Hansen, Erick	*Milwaukee*
Johnston, Charles Frederick, Jr.	*Sheffield, Iowa*
Keeley, Clarence Armand	*Mayville*
Kinne, Harold Everett	*Orofino, Idaho*

Langer, Harold Myron	*Waterloo*	
Loverud, Alvin Matthew	*Stoughton*	
Mitchell, John Lendrum	*Milwaukee*	
Newman, John Logan	*Milwaukee*	
Peters, Robert Leroy	*Blue River*	
Peterson, James Dahle	*Minneapolis, Minn.*	
Powell, Henry Miller	*Reedsburg*	
Schweichler, Lothar Adolph	*Milwaukee*	
Seibold, Fred Carl	*Camp Douglas*	
Taylor, Paul Schuster	*Sioux City, Iowa*	
Thieme, Cyrus Charles	*So. Milwaukee*	
Werner, Walter Albert	*Adams*	
Wheeler, Sylvester Lawrence	*Wauwatosa*	
Zischke, Herman Albert	*Horicon*	—21

COLLEGE OF AGRICULTURE

LONG COURSE

Seniors

Aeppler, Carl William t c	*Campbellsport*
Ames, Norton Travis	*Oregon*
Anderson, Hilding Edward	*North Crandon*
Bailey, Ernest Hayden	*Madison*
Bailie, Arthur Ray	*Lancaster*
Baldwin, Harry McLaughlin t c	*Brooklyn*
Barlass, Robert McFarlane t c	*Janesville*
Barrett, John Walton	*Freeport, Ill.*
Bauman, Gus Adolf, Jr.	*Quincy, Ill.*
Beck, Arnold Joel	*Arcadia*
Becker, Oscar John	*Melvina*
Belden, John Ellsworth	*Racine*
Belden, Stanley Raymond	*Racine*
Blaisdell, James Brooks	*Madison*
Blatchford, Percival John	*Chicago, Ill.*
Brusse, William	*Baldwin*
Burnham, Donald Robert t c	*Waupaca*
Burwell, Edward Langworthy, Jr. t c	*Madison*
Campbell, John Walter t c	*Lakeside, Ohio*
Carr, Carlyle t c	*Madison*
Carson, William Waller	*Birmingham, Ala.*
Chandler, George Anthony	*St. Louis, Mo.*
Colville, Clarence Leroy	*Rogers, N. Dak.*
Crothers, Donald Hayne t c	*Neillsville*
Desnoyers, Philip Baird	*Green Bay*
Dietz, Eugene Francis	*Madison*
Dorsey, Louise Lydia	*Anchorage, Ky.*
Downing, Charles James	*Kansas City, Mo.*
Downing, John Fonda, Jr.	*Louisville, Ky.*

Duddleston, Benjamin Harrison	*La Valle*
Edler, Ray Charles	*Chippewa Falls*
Erwin, Grant West	*Milwaukee*
Eyers, William, Jr.	*Negaunee, Mich.*
Felton, Louis Norman	*Mer Range, La.*
Frazier, William Carroll t c	*Madison*
Geimer, Maxmillian Peter	*Madison*
Giese, John William t c	*Kewaunee*
Gilman, Carl Callow	*Linden*
Gross, Erwin George	*Merrimac*
Gundersen, Borge Carl	*La Crosse*
Harbach, Ralph August	*Milwaukee*
Hargrave, Archibald Russell	*Ripon*
Hart, Milton Edward	*Chicago, Ill.*
Hay, Ellsworth	*Beloit*
Heider, Frederick Alonso t c	*Kewaunee*
Hickey, James Sheridan	*Milwaukee*
Hill, George O'Neil	*Rosendale*
Hodgson, Albert Lee	*Mazomanie*
Hopper, Ward Loan t c	*Oshkosh*
Horst, Edward Gustav t c	*Superior*
Horton, Raymond Edgar	*Chicago, Ill.*
Jahsman, William Edward t c	*Manawa*
Jungkunz, William Kunz t c	*Freeport, Ill.*
Kasten, Albert William t c	*Madison*
Kauffman, William Frederick	*Madison*
Keating, Fred Earl t c	*Ogdensburg*
Kelley, Kenneth Moseley t c	*Tomah*
Kellogg, Robert Ensign t c	*Randolph*
Knott, Arthur William	*Eau Claire*
Lerner, Nathan Hyman t c	*New York City, N. Y.*
Lewis, Stevenson Paul	*Cleveland, Ohio*
Loescher, Clarence Albert	*Menasha*
McAdams, Arthur James t c	*Mukwonago*
MacArthur, Hugh	*Superior*
McCudden, Louis Daniel t c	*Iron River*
Machlis, Joseph Arthur t c	*Madison*
Marquardt, Julius Charles t c	*La Crosse*
Martin, August Henry t c	*Reedsburg*
Martin, Ross George t c	*Oregon*
Mengel, Joseph Torbitt	*Louisville, Ky.*
Moore, George William	*Burke*
Morgan, Robert Edward	*Oshkosh*
Mosher, James Barnes	*Prophetstown, Ill.*
Mucks, Arlie Max	*Oshkosh*
Noble, Harrison Robert	*Manitowoc*
Pettis, Charles Semple	*Madison*
Pope, Charles Alfred	*Racine*
Post, Samuel t c	*Madison*
Quick, Victor Hugo	*Peshtigo*
Raymundo, Mariano Bartolome	*Morong, Rizal, P. I.*
Roberts, Harlow Pliny	*Madison*
Roberts, John Basil	*Madison*

Robinson, Arthur Harrison	*Madison*	
Rogan, Hubert Edward t c	*Racine*	
Schafer, Harold George	*Chilton*	
Schelling, Edward William t c	*Racine*	
Sedgwick, James Howard	*Peoria, Ill.*	
Settle, Edward J.	*Bozeman, Mont.*	
Shear, Sherwood William	*Vienna, Va.*	
Sheffer, Lafayette Miles	*Morganfield, Ky.*	
Sholl, Lloyd Banks	*Milwaukee*	
Skalitsky, Ernest Elmer t c	*Marshall*	
Slagg, Charles Mervyn	*Cambridge*	
Smith, Carman Bigelow	*Bay City, Mich.*	
Smith, David William	*Mazomanie*	
Steul, Edwin Karl	*Madison*	
Stone, Francis Downing t c	*South Range*	
Strelzin, Morris Harry t c	*Milwaukee*	
Thompson, John Abbott	*Madison*	
Van Evera, Rynier	*Marquette, Mich.*	
Wagner, Melvin Ferdinand	*Haven*	
Wallrich, William	*Shawano*	
Walton, Charles William	*Scales Mound, Ill.*	
Weaver, Russell Oran	*Dayton, Ohio*	
Wells, James Earl t c	*Mitchell, S. Dak.*	
Wentzel, Harvey Julius	*Oshkosh*	
White, Morris Densmore	*Superior*	
Wright, Merton LaMont	*New London*	
Wright, Morris Harry	*New London*	
Zuehlke, Ulrich Randolph	*Milwaukee*	—110

Juniors

Albertz, Hugo William t c	*Watertown*
Anderson, Harry Gerdhart	*Washburn*
Banta, George Veyne	*Logansport, Ind.*
Barnes, William, Jr.	*Decatur, Ill.*
Bascom, Deane Smith t c	*Madison*
Behling, Fred Louis	*Johnson Creek*
Benkert, Roy Frederick	*Monroe*
Billerbeck, Lawrence Markert	*Milwaukee*
Binney, Thomas Henry	*Gilbert, Minn.*
Brace, Charles Curtis	*Lone Rock*
Bradford, William Russell	*Bonham, Texas*
Brann, Andrew Jacob	*Baileys Harbor*
Brant, Howard Jonathan t c	*Youngstown, Ohio*
Brown, Sidney Thompson	*Waterloo*
Brunkow, Orvin Richard	*Darlington*
Button, Milton Harold	*Lone Rock*
Caldwell, Donald Alan	*Madison*
Campbell, Stuart Vande Veer	*Kansas City, Mo*
Casterline, Charles Ross	*West Salem*
Chandler, William Stephen t c	*Waupaca*
Clark, Elmer Russell t c	*Lodi*

Clarke, Carroll Curtis	*Madison*
Conrey, Hugh Frank	*Madison*
Cornish, Harry Bridges	*Ft. Atkinson*
Cowie, Earl Galbreath	*Superior*
Craig, Walter Scott	*Janesville*
Crowell, Solon Donald	*Paw Paw, Ill.*
Cummings, John Holbrook	*Oberlin, Ohio*
Dally, Walter Robert	*Milwaukee*
Davis, Deane Griswold t c	*Duluth, Minn.*
Dixon, Spurgeon Herschel	*Madison*
Dyer, Porter Smith t c	*De Soto*
Ellis, Ned Royce	*Lancaster*
Fargo, John Merrill	*Mt. Horeb*
Finner, Emil Erich	*Dodge*
Ford, Marion Conner	*Bowling Green, Ky.*
Frederixon, Reider Ronald	*Blair*
Fütterer, Wolfram Alexander	*Chicago, Ill.*
Gallentine, Julian Seymour	*Morrison, Ill.*
Gatton, Cyrus John	*Bozeman, Mont.*
Gibson, Harry Irven	*Madison*
Gibson, Irven Gray t c	*Platteville*
Grams, William Theodore	*Watertown*
Gratiot, Edward Collins	*Shullsburg*
Hammen, Edwin August	*Chicago, Ill.*
Hancock, Howard Joseph t c	*Shullsburg*
Harris, Carl Quantick t c	*Chicago, Ill.*
Hartwell, Richard Winsor t c	*Mazomanie*
Hatleberg, Clarence Nels Bugge	*Madison*
Heck, Christian George	*Racine*
Heisig, Adolph William	*Mt. Horeb*
Hendrickson, Clarence Irving	*Argyle*
Hill, John Hugh	*Wyocena*
Hills, Carroll Cody	*Evanston, Ill.*
Hoesly, Henry Chester	*Monroe*
Horlamus, Orlando Oswald	*West Bend*
Jantzen, Allons L.	*Milwaukee*
Jensen, Severt Martin	*Clinton*
Johnson, Clarence Stanley	*Iron River, Mich.*
Johnson, Leland S.	*Grand Rapids*
Kappel, Gustav Ulrich t c	*Waldo*
Kelley, William Michael	*Mitchell, S. Dak.*
Kendall, Elizabeth Norris	*Chicago, Ill.*
Kennard, Dwight Clinton	*Santa Rosa, Cal.*
Kivlin, Vincent Earl t c	*Oregon*
Koch, William Walter	*Davenport, Iowa*
Korst, Fred Alexander	*Janesville*
Kralovec, Arthur James	*Chicago, Ill.*
Lacy, James Jerome	*South Wayne*
Lang, Edgar F. t c	*Jefferson*
Lee, Julian Orville	*Clinton*
Lieberstein, Franklin Leslie t c	*Cascade*
McClure, Richard Alfred	*New York, N. Y.*
Malloy, Edward John	*Port Washington*

Marshall, Richard Hughes	*Madison*
Meyer, William Frederic	*Milwaukee*
Moore, Glenn Edward	*Albion, Ind.*
Moore, Robert Lyman	*Humbird*
Nelson, Elmer Martin	*Grand Rapids*
Oliver, Myrl Lee	*Eau Claire*
Osborn, Guy Asa	*Kenilworth, Ill.*
Overbaugh, Merrill Herbert	*Hartland*
Payton, James Martin Anthony	*Madison*
Pedley, Timothy Asbury, Jr. t c	*Owensboro, Ky.*
Peirce, Harry Edgar	*River Falls*
Phillips, William Butterworth	*Evanston, Ill.*
Preston, Nathaniel Gifford	*Brodhead*
Priewe, Elmer Clarence	*Orangeville, Ill.*
Reid, William H. E. t c	*La Crosse*
Remsberg, Oscar Zachariah	*Buckeystown, Md.*
Ross, Charles Waldo	*Mansfield, Pa.*
Ross, Herbert Hugo	*Milwaukee*
Ross, William Herman	*Milwaukee*
Roth, Edward Walter t c	*Milwaukee*
Ryall, Ernest Van t c	*Ladysmith*
Schacht, Harland George	*West Bend*
Schapper, Ferdinand Edwin	*Powers Lake*
Schrader, Albert Lee t c	*South Kaukauna*
Scott, Cornelius Chapman, Jr.	*Darlington, S. C.*
Shane, Tracy Ray	*Bangor*
Shapiro, Harold Jack	*Milwaukee*
Shearman, William Hugh	*Chicago, Ill.*
Smith, Dudley Chase, Jr.	*Normal, Ill.*
Sommer, Hugo Henry	*Sheboygan*
Sponholz, Herbert Herman	*Milwaukee*
Stueber, George Henry	*Juneau*
Sullivan, Francis Thomas t c	*Arena*
Taylor, John Radford	*Bozeman, Mont.*
Tennis, Gilbert Theodore	*Stanley*
Varney, Verne Vincent t c	*Greenwood*
Walker, William Allen	*Racine*
Wallin, Franklin Whittelsey	*Grand Rapids, Mich.*
Walsh, Charles Earl	*Eau Claire*
Wanzer, Howard Stanley	*Chicago, Ill.*
Warner, John Clement	*Madison*
Weed, Linton Gilmore t c	*Phelps*
Wenstadt, Julius Louis	*Shawano*
Whitney, Francis Edward	*Milwaukee*
Wild, Seargent Peabody t c	*Chicago, Ill.*
Williams, Guy P. t c	*Oconto*
Williams, Judson Sparks	*Bristol*
Wolfram, Julius August t c	*Ft. Atkinson*
Zellmer, Milton C.	*Oshkosh*

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Sophomores

Albrecht, Harold Taylor	*Merrill*
Altschwager, Edwin Henry	*Sheboygan*
Anderson, Daniel Alvin	*Chippewa Falls*
Bethke, Roland Martin	*Elkhart Lake*
Black, Archie	*Ft. Atkinson*
Boerner, Charles Frederick	*Wheeling, W. Va.*
Brewster, Herbert George	*East Troy*
Brown, Harry Henry	*Platteville*
Bruder, Edgar George	*Mayville*
Burr, Allen Russel	*Waterloo*
Chipman, Harold Robert	*Morrisonville*
Cole, Harold Harrison	*Marshall*
Conger, Paul Sidney	*Prairie du Sac*
Corstvet, Thomas Edward	*Milwaukee*
Cramer, Herbert Lyle	*Mendota*
Crandall, Allen Russell	*Richmond, Ill.*
Crowgey, Richard Reginald	*Wytheville, Va.*
Dayton, Willard Louis	*Rhinelander*
Dreier, Allman Vernon	*Norwalk*
Drips, William Edward	*Madison*
Eke, Paul Axle Clarence	*Bruce*
Fardy, Charles Michael	*Mukwonago*
Farrington, Edgar George	*Mondovi*
Gibson, Percy DeWitt	*Washington, D. C.*
Gilmore, Albert Frank	*Madison*
Graff, Edward Crolius	*Hinsdale, Ill.*
Grashorn, Robert Andrew	*Greenwood*
Greenfield, Russell Snow	*Superior*
Griem, Milton Emil	*New Holstein*
Griswold, Lincoln Bon	*Tomah*
Hackney, Jacob Sidwell	*Uniontown, Pa.*
Hales, Harry Orin	*Granton*
Hardell, Robert Edwin	*Washington, D. C.*
Hayes, William Platt	*Asheville, N. C.*
Heassler, Earl Albert	*Madison*
Henn, John Erwin	*Chicago, Ill.*
Hitchcock, Morris Leroy	*Edgerton*
Hood, Robin	*Palacios, Texas*
Hovde, Harold Arthur	*Washburn*
Hurley, Edward Knight	*Chicago, Ill.*
Jacques, James Theodore	*Neillsville*
Jeffers, Austin Pierpont	*Jeffers, Mont.*
Jennett, Clarence Bernard	*Streator, Ill.*
Jensen, Francis Field	*Ogdensburg*
Jones, James Hazlitt	*Spring Green*
Kaasa, Leonard Jerome	*Merrill*
Keane, Homer Emmett	*London*
King, C. Howard	*Madison*
Kornreich, Eugene	*Milwaukee*
Lacey, David Robert	*Madison*

Lade, Arthur William	*Campbellsport*
Larson, George William	*Gilmanton*
Lasher, Philip Henry	*Elgin, Ill.*
Lee, Dih Hoe	*Shanghai, China*
Little, George Clifford	*Park Falls*
Mansfield, Oral Wilson	*Indianapolis, Ind.*
Meacham, Elmer Reynolds	*Downing*
Meineke, Norman Theodore	*Two Rivers*
Miller, Emil Alfred	*Superior*
Mobley, Basil	*Derwood, Md.*
Murat, Sidney Parkman	*Scandinavia*
Nadeau, Louis Brooks	*Nadeau, Mich.*
Nafziger, Ralph Otto	*Benton Harbor, Mich.*
Nicoll, Edward William	*Kenosha*
Nightingale, William Isaac	*Antigo*
Owen, Carl Frederick	*Mayville*
Patterson, Leon Shreve	*Evansville*
Person, Reynolds Clark	*Madison*
Pond, Willard Tucker	*Chicago, Ill.*
Puerner, Wilfred Julius	*Jefferson*
Quasigroch, Leopold J.	*Madison*
Riley, Victor Bradford	*Chippewa Falls*
Roehm, Linus Theodore	*Ashland*
Shape, Carl Theodore	*Milwaukee*
Shepard, Gordon Hastings	*Mineral Point*
Sheridan, Martin James, Jr.	*Madison*
Smith, Robert George	*Frankfort, Ind.*
Smith, Robert Norman	*Mineral Point*
Splittgerber, Albert Herman	*Waterloo*
Spoor, Francis Perlt	*Berlin*
Stehn, Richard John	*Chicago, Ill.*
Stewart, John Elden Lee	*West Allis*
Stokdyk, Ellis Adolph	*Sturgeon Bay*
Stoltenberg, Hugo Adolph	*Timothy*
Stumpf, Harry A.	*Menasha*
Thomas, David Griffith	*Randolph*
Thompson, Charles Aycock	*Goldsboro, N. C.*
Tillotson, Robert Forrest	*Detroit, Mich.*
Turner, Charles Wesley, Jr.	*Madison*
Tuttle, Thomas Westley	*Verona, N. J.*
Van Lone, Eldyn E.	*Jefferson*
Vennus, Elizabeth Mary	*Menasha*
Walderbach, William Edward	*Hartford*
Walton, Joseph Levi	*Moorestown, N. J.*
Wang, Chin Wu	*Honan, China*
Weller, Walter Trowbridge	*Fond du Lac*
Wendt, Walter Alfred	*Juda*
Wertz, Virgil Roe	*Madison*
Wilcox, Arthur Noble	*Madison*
Woline, Ernst Wilhelm	*Cumberland* —100

Freshmen

Baker, Leonard John	*Fond du Lac*
Baldwin, Richard Walsh	*Chicago, Ill.*
Baldwin, Robert Donald	*Brooklyn*
Ballantine, George Neal	*Bloomington*
Ballantine, James Roland	*Bloomington*
Beck, Frederick Lowe	*Sharon, Pa.*
Bent, Wylie Chandler	*Madison*
Bill, Anne Sophe	*Madison*
Boeck, Edwin William Robert	*Milwaukee*
Booth, Edwin Ray	*Monroe*
Bradner, Charles Edward	*Powers, Mich.*
Brandon, William McKinley	*Madison*
Brodersen, Leroy	*Harlan, Iowa*
Bullis, Leslie James	*Eau Claire*
Burg, Oliver Michael	*Wausau*
Burns, Alexander Bradley	*Downers Grove, Ill.*
Butts, Stanley Van Dyke	*Tomah*
Caldwell, Thomas Beverly	*New Orleans, La.*
Capel, James Borzilla	*Milwaukee*
Carswell, Harry Eaton	*Richland Center*
Cartter, Bruce Lanpher	*Black River Falls*
Christy, Robert Harry	*Eureka, Kans.*
Clark, Thomas Collier	*Evanston, Ill.*
Crandall, George Washington	*Madison*
Crane, Wilder	*Stanley*
Daane, Edwin Henry	*Sheboygan*
Day, Kenneth Sterling	*Cleveland, Ohio*
Doonan, Gerald Joseph	*Superior*
Drewry, Charles Bemrose	*Waldo*
Eide, Arthur Melvin	*Cumberland*
Fink, Howard Rolland	*Kenosha*
Fogg, Russell Harding	*Toledo, Ohio*
Forbus, Edward Law	*Nitta Yuma, Miss.*
Ford, Lester Dixon	*Trempealeau*
Frost, Russell Elwell	*Madison*
Hamlin, John Francis	*Lula, Miss.*
Healy, Warren Cameron	*Seattle, Wash.*
Hipke, Gilbert Jacob	*New Holstein*
Hipkins, Jesse Nelson, Jr.	*Wheeling, W. Va.*
Hoard, William Dempster, Jr.	*Ft. Atkinson*
Knapstein, Raymond Ferdinand	*New London*
Langum, Clinton Gilman	*Eau Claire*
Leaper, Vern Clayton	*Green Bay*
Lepkovsky, Samuel	*Kenosha*
Luban, Simon	*Milwaukee*
McAdam, Lincoln Grant	*Beloit*
McCabe, Lester Follett	*Duluth, Minn.*
McDonald, Martin Eugene	*Menomonie*
Mates, Clay Franklin	*Belmont*
Mathews, Edward Washington	*Wheeling, W. Va.*

Megeath, Jessie	*Ardsley-on-Hudson, N. Y.*
Moy, William Schoephoister	*Mondovi*
Mulrooney, Leonard Joseph	*Mt. Hope*
Murphy, Lawrence Edwin	*Algoma*
Neelen, Robert Bruno	*Milwaukee*
Nord, Samuel K.	*Rice Lake*
Olson, Leonard Chester	*Weyerhauser*
Pfaler, Joseph Andrew	*Madison*
Pinney, John James	*Sturgeon Bay*
Post, William Jobse	*Milwaukee*
Pryor, George Russel	*West Allis*
Rankin, Eugene Joseph	*Forestville*
Ruhsam, Erwin Henry	*New London*
Sayre, Baxter Page	*Edgerton*
Schernecker, Edward George	*Madison*
Schneider, Howard Stang	*Madison*
Schomberg, Richard Jost, Jr.	*Milwaukee*
Smith, Wyman Sydney	*Brandon*
Stemmler, William	*Milwaukee*
Strickland, William James	*Coronado, Cal.*
Uhl, Allen Philip	*Galesville*
Ulmer, Charles Henry	*Pottsville, Pa.*
Van Hagen, George Ely	*Barrington, Ill.*
Vanderjagt, Ellis Leonard	*Milwaukee*
Wall, Floyd Russell	*Highland*
Warren, Wadsworth, Jr.	*Detroit, Mich.*
Wolf, Archie Andrew	*West Salem*
Wolf, Frank Charles	*Mazomanie* —78

MIDDLE COURSE

Second Year

Amundson, Robert Andrew	*Rio*
Bachmann, Earl Arthur	*Mosinee*
Barbour, John Menzies	*Helena, Mont.*
Bean, Orin True	*De Soto*
Blow, Harold Matt	*Waupun*
Bovee, Lemuel Franklin	*Bayfield*
Bowstead, John Edelston	*Madison*
Cahoon, Edward David	*Racine*
Cook, Arthur Marsh	*Grand Rapids, Mich.*
Dance, Benjamin Dixon	*Brookfield*
Davidson, Robert Mowbray	*Boise, Idaho*
Davis, Evan Raymond	*Green Bay*
Dawson, Thomas Bainbridge	*Benton*
Doeringsfeld, Carl Louis	*Fennimore*
Drew, Floyd Richard	*McAlester, Okla.*
Eicke, Carl Arthur	*Indianapolis, Ind.*
Erbach, William A.	*Athens*
Fish, Warren Lyman	*Kilbourn*
Hammond, Robert L.	*Cottage Grove*
Hembre, Helmer John	*Greenwood*

Hill, Gillette	*Galveston, Texas*	
Hines, Raymond Louis t c	*Prescott*	
Hunsader, Arthur John t c	*Algoma*	
Johnson, Alfred William	*Lake Geneva*	
Koeniger, Edward Russell	*East Orange, N. J.*	
Kutil, Clarence Leonard	*Manitowoc*	
Madden, Thomas Joseph t c	*New London*	
Manz, Alvin Henry	*Eau Claire*	
Martin, Loren Ormus	*West McHenry, Ill.*	
Norgaard, Uffe Jensen t c	*Withee*	
Pattinson, Lester Lee	*Darlington*	
Peterson, Roger Franklin	*Chicago, Ill.*	
Potter, Harold Wiswell	*Elkhorn*	
Reese, Gordon Braman	*Milford, N. H.*	
Roberts, Charles Von Lunen	*Johnstown, Pa.*	
Rouse, Julius Howard	*Paynes Depot, Ky.*	
Sabine, Ralph Paul	*Washington, D. C.*	
Sargent, Harold James	*Madison*	
Sargent, Lawrence Densmoor	*Madison*	
Saul, Willis	*Depere*	
von Schenk, Karl Richard	*Rockville, Conn.*	
Schoeninger, William Jacob	*Chicago, Ill.*	
Schroeder, Guido Christian	*West Bend*	
Schwantes, Arthur John	*Kewaunee*	
Stillman, Jay Howard t c	*Madison*	
Tolman, Blanche Stevens	*Chicago, Ill.*	
Turner, Victor Caesor	*Madison*	
Van Lone, Orlo Winfield	*Jefferson*	
Williams, Russell Lawrence	*Baraboo*	
Wolf, Homer Herbert	*La Crosse*	—50

First Year

Austin, Kenneth Ward	*Neillsville*
Barnes, Harrison Crain	*Grand Forks, N. Dak.*
Bergman, Edwin Jasper	*Bark River, Mich.*
Carmody, Arthur Michael	*Mt. Hope*
Cooley, Charles Frederick, Jr.	*Madison*
Crump, Kenneth Mosher	*Lake Mills*
Cuff, Clarence Hamelton	*Hortonville*
Dasso, Augusto César	*Boston, Mass.*
Dickinson, Albert Boyd	*Lake Geneva*
Doke, Howard Bailey	*Stamford, Conn.*
DunWiddie, Leon Foster	*Delavan*
Ellison, Hjalmar Olaf	*Superior*
Gasser, Lloyd Emerson	*Plain*
Giles, Fred Dexter	*Delavan, Ill.*
Green, George Emal	*Ligonier, Ind.*
Hall, Clarence Hays	*Yorkville, Ill.*
Hanson, Harry Erwin	*Chippewa Falls*
Harkrader, Vance Creighton	*Wytheville, Va.*
Hines, Luster Eugene	*Prescott*

Howard, Frank Emerson	*Madison*
Jacobi, Gustav Reinhold	*Grand Forks, N. Dak.*
Johnson, Albert Randolph	*East Orange, N. J.*
Knutson, Arthur Magnus	*Sawyer*
Koch, John William	*Milwaukee*
Kolensky, Edward John	*Two Rivers*
Krueger, Wabun Clarence	*Sawyer*
La Due, Charles Mayo	*Lu Verne, Minn.*
Lampman, Clifford Elmer	*Arena*
Mathews, James Antnony	*Ashland*
Matthes, Charles Dewey	*Viola*
Modesitt, Pansy Mae	*Terre Haute, Ind.*
Moe, Melvin	*Whitehall*
Newman, William Shadwick	*Juda*
Niles, Frank Ernest	*Lake Geneva*
Nussbaum, Hamilton Smith	*Chicago, Ill.*
Olson, Russell Eugene	*Chicago, Ill.*
Omdahlen, Perry Thomas	*Rice Lake*
Pinkerton, John, Jr.	*Waupaca*
Reynolds, Thomas Albert	*Monroe*
Ridgman, Chester Percy	*Grand Rapids*
Rundell, Paul	*Roberts*
Schmidt, George Albert	*Arcadia*
Smith, Claire Kindwall	*Chippewa Falls*
Stanbury, Robert Ogelvie	*Superior*
Strodthoff, Erwin William	*Manitowoc*
Suhs, Fred Allen	*Waupaca*
Trumbo, Riley Ambrose	*Marseilles, Ill.*
Vine, Chauncey Kenneth	*Packwaukee*
Wagner, Worth Edward	*Knoxville, Iowa* —49

COURSE IN HOME ECONOMICS

Seniors

Alderson, Vera Louise t c	*Chicago, Ill.*
Anderson, Esther Hannah t c	*Cambridge, Ill.*
Aurland, Helen	*Minot, N. D.*
Barker, Helen Elizabeth t c	*North Freedom*
Beatty, Mary Elizabeth t c	*Davenport, Iowa*
Briggs, Rosa Fitch t c	*East Grand Forks, Minn.*
Brundage, Dorothy t c	*Grand Rapids*
Buchner, Gladys Rhodes t c	*Milwaukee*
Cook, Dorothy Margaret t c	*Madison*
Cooley, Margaret Hamilton	*Jamaica, N. Y.*
Dahle, Thea Otelia	*Mt. Horeb*
Eckert, Helen Elizabeth t c	*Webster Groves, Mo.*
Gasser, Mary Elizabeth t c	*Madison*
Gaubatz, Alma Therese t c	*Chilton*
Gavin, Ellen M.	*Omaha, Nebr.*
Gunderson, Nellie May t c	*Madison*
Hanpeter, Hildegard Elizabeth t c	*St. Louis, Mo.*

Hudson, Katherine	*Charleston, Ill.*
Jones, Marjorie Helen t c	*Portage*
Kent, Hazel Eva t c	*Madison*
Kleinheinz, Frances Margaruite t c	*Madison*
Koch, Elizabeth Emma	*Madison*
Lewis, Jane Deborah t c	*Portage*
Lottes, Marie	*Madison*
Lubeno, Vera	*Trevor*
Martin, Ramona Theora t c	*Michigan City, Ind.*
Matthewson, Norma Naomi t c	*De Kalb, Ill.*
Nagler, Genevieve Catherine t c	*Osceola*
Orr, Flora Gracia t c	*Mt. Hope*
Overholser, Vinnie t c	*Sterling, Ill.*
Ray, Florence t c	*Madison*
Ray, Margaret Elizabeth t c	*Madison*
Reed, Helen Morse t c	*Necedah*
Roberts, Dorothy t c	*San Diego, Cal.*
Scheid, Emerald Amelia t c	*Madison*
Scheinpflug, Marie Mabel t c	*Boscobel*
Schuler, Ann t c	*Milwaukee*
Seymour, Helen Elmina t c	*Madison*
Speerstra, Ruth t c	*Whitehall*
Waring, Grace Anna	*Washington, D. C.*
Wengel, Edith Magdalene	*Madison*
White, Amy Gertrude t c	*Mineral Point*
Whittemore, Thelma Attalie t c	*Huntington, W. Va.* —43

Juniors

Bennett, Helen Houghton	*Interlaken, N. Y.*
Bigelow, Vieva Marion	*Madison*
Bird, Carol t c	*Madison*
Bond, Marjorie Anette	*Green Bay*
Branine, Hazel Eliot t c	*Hutchinson, Kans.*
Broune, Warren Katherine t c	*Waupaca*
Butler, Maribel Jeannette	*Marshall, Ind.*
Case, Dorothy Serena t c	*Detroit, Mich.*
Churchill, Helen Petrovna t c	*Monroe*
Cooley, Ray	*Chicago, Ill.*
Cronin, Helen Catherine t c	*Madison*
Cronin, Magdalen t c	*Oconomowoc*
Cumming, Helen Maria t c	*Milwaukee*
Davis, Helen McKie t c	*Delavan*
Dickerson, Dorothy Wheeler t c	*Helena, Mont.*
Enger, Frances Mildred t c	*Chicago, Ill.*
England, Emma Alvina t c	*Prairie du Chien*
Findorff, Dorothy Catherine t c	*Madison*
Foley, Anne Cecelia t c	*Madison*
Fultz, Edith t c	*Wichita, Kans.*
Garrow, Leona May t c	*Madison*
Gifford, Esther Emeline t c	*Franksville*
Gifford, Ysobel Jordan t c	*Dawson, Alaska*

Goldfarb, Esther Laura t c	*Baraboo*
Haessler, Marie Louise t c	*Milwaukee*
Hagerty, Mildred Isabel t c	*Knapp*
Hale, Wealthy Maria	*So. Kaukauna*
Hall, Wanda Hester	*Eau Claire*
Haner, Reba Cordelia t c	*Sun Prairie*
Hawthorn, Hazel Waples (Mrs.)	*Madison*
Hayes, Joanna Rose	*Janesville*
Healey, Martha Jane t c	*Webster Groves, Mo.*
Heisig, Esther Helen t c	*Madison*
Hodges, Virginia Clay t c	*Madison*
Humphrey, Martha Estelle t c	*Madison*
Jackson, Bettina	*Madison*
Jobse, Myrtle Elvira t c	*Milwaukee*
Johnson, Hazel Orena t c	*Madison*
Johnson, Mildred Emma t c	*Madison*
Johnson, Verna Louise t c	*Great Falls, Mont.*
Karnopp, Evelyn Grace	*Mishicot*
Kuhns, Ruth Cordelia t c	*Madison*
Levy, Frances Eleanor t c	*La Crosse*
McClymont, Alice t c	*Milwaukee*
MacDougall, Edwina Mae t c	*Whitewater*
McGinnis, Dorothy Ellen t c	*Kansas City, Mo.*
McNulty, Sadie Agatha t c	*Spring Green*
Madison, Betsey	*Bowling Green, Ky.*
Martin, Frances Theodosia t c	*Michigan City, Ind.*
Martin, Helen Anne t c	*Madison*
Moffitt, Frances Jean t c	*Wichita, Kans.*
Morey, Marjorie Janet	*Racine*
Morrissey, Nellie Ethel t c	*Bloomington*
Noer, Ruth Douglas t c	*Wabeno*
O'Malley, Frances Mary	*Madison*
Paine, Dorothy t c	*Milwaukee*
Parkinson, Helen Elizabeth t c	*Madison*
Peters, Avis Marie t c	*Madison*
Reid, Janet Ella t c	*Hurley*
Rice, Helen t c	*Milan, Mo.*
Rogers, Margaret Gertrude t c	*Lisle, Ill.*
Ross, Gale L.	*Schofield*
Rountree, Jennie Irene t c	*Burlington*
Russell, Gertrude Estelle	*Madison*
Sage, Martha Ross	*Delavan*
Scheid, Garnetta Elsie t c	*Madison*
Schnackenberg, Myrtle May t c	*Madison*
Shadall, Norma Carolyn t c	*Milwaukee*
Sichler, Ida Mary	*Alma Center*
Sims, Hazel Angeline t c	*Kingston*
Sinaiko, Sarah Rhena	*Madison*
Smith, Helen Florence t c	*Madison*
Smith, Vera Sarah	*Kalamazoo, Mich.*
Smylie, Hannah Bigelow t c	*Omaha, Nebr.*
Sprecher, Florence Mildred t c	*Madison*
Stevens, Margaret Frances t c	*Yankton, S. Dak.*

Stout, Llewellyn t c	*Rice Lake*	
Thielke, Adele Marie t c	*Mayville*	
Todd, Mary Margaret t c	*Cincinnati, Ohio*	
Townsend, Marion Margaret t c	*Des Moines, Iowa*	
Ullrich, Dorothy Wilhelmina	*Evanston, Ill.*	
Van Wart, Ethel t c	*Evansville*	
Walsh, Helen Marguerite	*Beloit*	
Wilson, Elizabeth Nancy t c	*Keokuk, Iowa*	
Wilson, Mary Estelle	*Bethany, Nebr.*	—85

Sophomores

Barnes, Ruth	*Madison*
Barry, Grace Maurine	*Richland Center*
Beattie, Marguerite Reno	*Madison*
Bellinger, Frances	*Plainwell, Mich.*
Bollenbeck, Ida Kathryn	*Madison*
Boyce, Marion	*Milwaukee*
Bruff, Winifred Jessie	*Hoopeston, Ill.*
Bull, Irene Leota	*Beloit*
Burke, Edith Eleanor	*Madison*
Campbell, Sara Eugenia	*Needham, Mass.*
Carpenter, Rachel Jane	*Iron River, Mich.*
Christman, Mildred Irene	*Joplin, Mo.*
Coldwell, Vera Iris	*Blue Mounds*
Danforth, Mary Florence	*Washington, Ill.*
Dernehl, Emma Martha	*Milwaukee*
Dolan, Winifred	*Cashton*
Dumas, Marguerite Vera	*Madison*
Dunwiddie, Jennette Martha	*Delavan*
Erikson, Kathryn Mary	*Crystal Falls, Mich.*
Faville, Laura Elizabeth	*Lake Mills*
Ferney, Regina Mary	*Madison*
Fernald, Mabel Grace	*Madison*
Ferris, Margaret Fraser	*Osage, Iowa*
Finucane, Grace Rosalind	*Antigo*
Fitzmaurice, Mary Teresa	*Beaver Dam*
Flynn, Mary Gertrude	*Waterloo*
Foote, Josephine Agnes	*Hartford*
Fuller, Elizabeth	*Oak Park, Ill.*
Gage, Marian	*Montclair, N. J.*
Gough, Genevieve Elizabeth	*Boonville, Ind.*
Graper, Florence Marie	*Fort Atkinson*
Groendyke, Mae	*Crawfordsville, Ind.*
Hancock, Miriam	*Chicago, Ill.*
Horton, Mae	*Pardeeville*
Hussa, Mildred Marie	*La Crosse*
Hutton, Margaret Isabel	*Madison*
Johnson, Grace Alice	*Portage*
Jones, Katherine	*Milwaukee*
Lewis, Marion	*Milwaukee*
Luther, Breta Marie	*Madison*

Krueger, Dorothy Adelaide	*River Forest, Ill.*	
McConnell, Bessie Harriet	*Woodstock, Ill.*	
Moore, Genevieve Downs	*Joliet, Ill.*	
Nemeck, Mildred Estelle	*Winnipeg, Man.*	
Nienaber, Katherine Mable	*Madison*	
Olbrich, Marion Grace	*Harvard, Ill.*	
O'Neil, Miriam Catherine	*Chippewa Falls*	
Osmundsen, Stella Mae	*Madison*	
Outhouse, Julia Pratt	*Madison*	
Paine, Adelaide	*Milwaukee*	
Paull, Helen Grace	*Woodruff*	
Phillips, Alice Emma	*Madison*	
Pieh, Margaret Elizabeth	*Madison*	
Portz, Mildred Helen	*Hartford*	
Rilling, Florence Frances	*Milwaukee*	
Ryan, Marjorie Pearl	*Baraboo*	
Schneider, Veronica	*Madison*	
Sell, Mariana Theresa	*Madison*	
Severin, Gladys Marie	*Cedar Falls, Iowa*	
Showers, Gladys Marguerite	*Delavan*	
Soukup, Belle G.	*Sturgeon Bay*	
Stanchfield, Eleanor Jean	*Fond du Lac*	
Sutherland, Elizabeth	*Hudson*	
Tamblingson, Wava Beth	*Fort Atkinson*	
Trickey, Dorothy May	*Berlin*	
Uzzell, Helen	*Denver, Colo.*	
Ward, Dolores	*Madison*	
Wilson, Harriette	*Milwaukee*	
Wolcott, Hazel Gertrude	*Milwaukee*	
Wolfe, Margaret Josephine	*Madison*	
Yates, Lucile Margaret	*Oak Park, Ill.*	—71

Freshmen

Abramson, Vittie Victoria	*Chippewa Falls*
Anawalt, Mary Carmelita	*Wilkinsburg, Pa.*
Bennett, Leone Hannah	*Dodgeville*
Chamberlain, Mable Mathilda	*Madison*
Chase, Eleanor Duane	*St. Louis, Mo.*
Cleveland, Catherine Eloise	*Kensington, Md.*
Coates, Carol Mathilda	*Milwaukee*
Collins, Frances Louise	*Oak Park, Ill.*
Cook, Katherine John	*Madison*
Coulson, Ruth Antoinette	*St. Louis, Mo.*
Couton, Freeda Marguerite	*Forsyth, Mont.*
Cox, Martha Jane	*Horicon*
Crowell, Charlotte Lois	*Erie, Pa.*
Devine, Margaret Helen	*Madison*
Dickson, Margaret Mary	*Indiana Harbor, Ind.*
Donovan, Katherine	*Baraboo*
Durant, Dorothy Otillie	*Quincy, Ill.*
Edwards, Clara Alice	*Fennimore*

Elliott, Mary Katherine	*Superior*
Fitch, Elizabeth May	*Green Lake*
Fowler, Mary	*Fithian, Ill.*
Gallagher, Tessie Arene	*Oak Park, Ill.*
Gebhard, Clara Mabel	*Wausau*
Harman, Helen Margaret	*Madison*
Heisig, Gertrude Mathilde	*Madison*
Helberg, Guinoir	*Madison*
Helland, Eleanore Mathilde	*Madison*
Hinman, Marjorie May	*Pontiac, Mich.*
Holtz, Minnie E.	*Ableman*
Hottel, Agnes Elizabeth	*Norwalk, Ohio*
Hutton, Mary Kinlock	*Madison*
Ingwerson, Evangel Emma	*Kenosha*
Ives, Harriet Ruth	*Delavan*
Kirk, Alice Jeannette	*Madison*
Kuehn, Bernice Norris	*Brandon*
Lamb, Cleo Eleanor	*Ridott, Ill.*
Leavitt, Hazel Ruth	*Beloit*
Lees, Katherine Elna	*Milwaukee*
Logemann, Margaret	*Milwaukee*
Lowe, Edythe Louise	*Peoria, Ill.*
McLay, Christina Menzies	*Janesville*
McLay, Isabell Zuill	*Janesville*
Malm, Eleanor Frances	*Norfolk, Nebr.*
Marsh, Marguerite Elizabeth	*Mankato, Minn.*
Maxwell, Geraldine Elizabeth	*Madison*
Meredith, Sarah Louise	*Springfield, Ohio*
Miller, Ada Elizabeth	*Madison*
Mittelstaedt, Irma Marion	*Milbank, S. Dak.*
Morrison, Marjorie Ludington	*Madison*
Poland, Ruth Grace	*Racine*
Roehm, Margaret Hoatson	*Madison*
Sanderson, Lucile Luetscher	*Madison*
Schernecker, Mae Eleanor	*Madison*
Schroeder, Meta Louise	*Schofield*
Schueler, Erma Amanda	*Fredonia*
Sherman, Helen Julia	*Appleton*
Smith, Gertrude Beatrice	*Berwyn, Ill.*
Snyder, Flora Curry	*Ironwood, Mich.*
Spence, Erma Anna	*Martins Ferry, Ohio*
Stackhouse, Katherine Frances	*Indianapolis, Ind.*
Steurwald, Ernestine Anna	*St. Ansgar, Iowa*
Stuckert, Eleanore Bertha	*Milwaukee*
Tallmadge, Naomi	*Chicago, Ill.*
Tenney, Ellen Mae	*Madison*
Tucker, Verna May	*Wilmette, Ill.*
Wood, Dorothy Belle	*Milwaukee*
Woodruff, Margaret	*Mason City, Iowa*
Wright, Margaret	*Berlin*
Wuerpel, Lois	*St. Louis, Mo.*
Young, Frances Margaret	*Grand Rapids, Mich.*
Yung, Helen K.	*Peotone, Ill.* —71

Adult Special Students

LONG COURSE

Adams, Grace Arlena	*Omro*	Sophomore
Anderson, John Arlington	*Racine*	Sophomore
Brown, Lawrence Murphy	*Madison*	Junior
Couture, Arthur Joseph	*Rice Lake*	Junior
Fiedler, Albert Charles	*Madison*	Senior
Hammer, Lloyd Allen	*Madison*	Junior
Hughes, Daniel Patrick	*Union, Mont.*	Senior
Hussey, Joseph Michael	*Whitelaw*	Senior
Katel, Elmer John	*Kewaunee*	Freshman
Kirsch, William	*Madison*	Junior
Lustig, Joseph Charles	*Milwaukee*	Freshman
Schmidt, Walter Hubert	*North Crandon*	Freshman
Sergeant, Marshall William t c	*Madison*	Junior
Silva, Santiago	*New York, N. Y.*	Freshman
Tiedjens, Victor Alphons	*Marinette*	Freshman
Tosterud, Martin	*Caledonia*	Senior
Wood, Benjamin B.	*Duluth, Minn.*	Freshman

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MIDDLE COURSE

Caldwell, Cholett Beach	*Madison*	Freshman
Desebrock, Henry William	*Milwaukee*	Freshman
Gaffney, Edward James	*Madison*	Freshman
Kidder, Delos Bliss	*Highwood, N. J.*	Sophomore
Sprinkman, Arthur Cristle	*Milwaukee*	Freshman

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HOME ECONOMICS COURSE

Birong, Estella Marguerite	*Madison*	Junior
Foote, Nelle Margaret	*Hartford*	Freshman
Huseby, Nina Anna	*Madison*	Freshman
Keller, Sophia Dorothea	*Fond du Lac*	Junior
Mayfield, Grace Margaret	*St. Louis, Mo.*	Freshman
Winter, Lillian	*Madison*	Freshman

—6

WISCONSIN LIBRARY SCHOOL

Armstrong, Hazel E.	*Terre Haute, Ind.*
Carlson, Corinne J.	*St. Louis, Mo.*
Caton, Laura S.	*Ottawa, Ill.*
Clark, Charlotte H.	*Hudson*
Davis, Florence H.	*Grand Forks, N. Dak.*
Foley, Mae E.	*Manson, Iowa*
Foster, Beatrice	*Macomb, Ill.*
Fredrickson, Esther M.	*St. Joseph, Mo.*
Goodnow, Mildred F.	*Chicago, Ill.*

Hance, Emma O.	*Washington, D. C.*	
Hook, Gladys M.	*So. Milwaukee*	
Howard, Grace E.	*Buffalo, N. Y.*	
Jenks, Jessie P.	*Toledo, Iowa*	
Kidder, Harriet L.	*Madison*	
Laing, Hazel D.	*Gladstone, Mich.*	
Lee, Mary B.	*Dubuque, Iowa*	
Von der Lippe, Kathinka I.	*Kristiania, Norway*	
Lyons, Alice	*Brodhead*	
Melnikow, Esther	*Milwaukee*	
Mueser, Emilie	*New York City, N. Y.*	
Osmotherly, Sue G.	*Hot Springs, S. Dak.*	
Price, Florence E.	*Des Moines, Iowa*	
Richie, Emily M.	*Shelby, Mich.*	
Risser, Josephine E.	*Ripon*	
Root, Harriet T.	*York, Pa.*	
Scanlan, Madaline M.	*San Diego, Cal.*	
Shelp, Blanche B.	*Amsterdam, N. Y.*	
Sorenson, Ruth A.	*Eau Claire*	
Stevenson, Helen S.	*Decatur, Ill.*	
Swain, Esther M.	*Detroit, Mich.*	
Wennerblad, Sonja	*Chicago, Ill.*	—31

Joint Course

Carlton, Marjorie Frances	*Laurium, Mich.*	
Gilpin, Margaret	*Duluth, Minn.*	
Lind, Alberta Augusta	*Dover, Ohio*	
Moehlman, Lillian Susan	*Madison*	
Swerig, Vivian Pearl	*Madison*	
Toby, Ruth Hull	*Wausau*	—6

SUMMER SESSION OF 1916

GRADUATES

Adam, Margaret — *St. Johns, Ore.*
B. A., University of Wisconsin

Agrimson, Jacob A. — *Pittsville*
B. A., Red Wing Seminary

Albaugh, Mary Edna — *Salt Lake City, Utah*
B. A., University of Utah

Albray, Sarah Abbie — *Cincinnati, Ohio*
B. L., University of Cincinnati

Allan, Winifred — *Rochester, N. Y.*
B. A., University of Rochester

Allen, Marion Bradburn — *Cambridge*
B. A., University of Wisconsin

Alvord, Carrie Ellen — *Washburn*
B. A., Macalester College

Amery, Elizabeth — *Osceola*
B. S., University of Wisconsin

Anderson, George Alfred — *Ottawa, Kans.*
M. S., Purdue University

Anderson, Zeta Hester — *Epworth, Iowa*
B. A., Cornell College

Andrews, Mary Evelyn — *Powhattan, Kans.*
B. A., Kansas University

Appleman, Winifred — *Clermont, Iowa*
B. A., University of Iowa

Armington, Dorothy — *Dixon, Ill.*
B. A., University of Illinois

Armstrong, Amy — *Lathrop, Mo.*
B. A., Baker University, Baldwin, Kans.

Armstrong, George Miller g — *Madison*
B. S., Clemson College

Armstrong, Jean Bowman — *Connellsville, Pa.*
B. A., Hood College

Atwood, Marion John g — *Madison*
M. A., University of Wisconsin

Atwood, William Henry — *Granite City, Ill.*
M. A., Washington University

Avery, Elizabeth — *New York, N. Y.*
Ph. B., Cornell University

Bachman, Irma — *Indianapolis, Ind.*
B. A., Butler College

Baird, Edgar Alan g — *Madison*
M. A., University of Wisconsin
Baird, William Jesse — *Berea, Ky.*
B. S., Berea College
Baker, Elizabeth — *Madison*
B. A., University of Wisconsin
Baker, Ethel May — *East Orange, N. J.*
B. A., Wellesley College
Baker, Lillian Eloise — *East Orange, N. J.*
B. A., Wellesley College
Baker, Roscoe Conklin — *Weston, Ohio*
B. S., Ohio Northern University
Bancroft, Ross Leon — *Ames, Iowa*
M. S., Iowa State College
Bannen, Dorothy Agnes g — *Milwaukee*
B. A., University of Wisconsin
Banta, Lucile — *Burnett*
B. A., Georgetown College, Shelbyville, Ky.
Barker, Henry D. g — *Mountain Rest, S. C.*
B. S., Clemson College, S. C.
Barland, Agnes Louise — *Eau Claire*
B. A., Oberlin College
Barnard, Elizabeth — *Earlville, Ill.*
B. A., University of Wisconsin
Barnett, Stanley Pugh — *Danville, Ind.*
B. A., De Pauw University
Bateman, Adelaide Ruth — *Colorado Springs, Colo.*
B. A., Colorado College
Bateman, Lillian Grace — *Colorado Springs, Colo.*
B. A., Colorado College
Bates, Lew Wallace — *Hebron, Ohio*
B. S., Hiram College, Ohio
Bauman, Walter John — *Monroe*
B. A., University of Wisconsin
*Baumgartel, Walter Herbert — *Fargo, N. Dak.*
B. S., North Dakota Agricultural College
Beach, Floyd Clifford — *Beaver Dam*
B. A., State University of Iowa
Beach, Sarah Morehouse — *Bridgeport, Ct.*
Ph. D., University of Wisconsin
Beard, Irma Haynie — *Wilkinsburg, Pa.*
M. A., University of Pittsburgh
Beck, Maro Marguerite — *Warren, Ind.*
B. A., Ohio Wesleyan University
Beebe, Joanna — *Princeton*
B. A., Ripon College
Beegle, Frank Moore — *Wooster, Ohio*
B. S., Pennsylvania State College
Begey, Nelle Marie — *Kansas City, Mo.*
B. A., Missouri State University
Behnke, John Ernest — *Newark, N. J.*
B. A., Valparaiso University

Belden, Carroll Reed — *Omaha, Nebr.*
B. S., Amherst College
Bell, Helen Florentine — *Bristol, Pa.*
B. A., Smith College
Bellis, William — *Mt. Pleasant, Mich.*
B. S., University of Chicago
Benedict, Katherine Ladd — *Cleveland, Ohio*
M. A., Columbia University
Bennett, Grace Alice — *Milwaukee*
Ph. B., Lawrence College
Bennett, James Percy g — *Madison*
M. A., University of Missouri
Berryman, Thomas — *Pittsburgh, Pa.*
B. S., Antioch College
Beyer, Adelbert John — *Milwaukee*
B. A., University of Wisconsin
Bibby, Irwin John — *Galesville*
M. S., University of Idaho
Binder, Margarita — *Chicago, Ill.*
B. A., Vassar College
Birch, Grace Washburn — *Greencastle, Ind.*
B. A., De Pauw University
Birch, Lulu G. — *New Rochelle, N. Y.*
Ph. B., Cornell University
Birdsell, Dorothea Elizabeth — *Antigo*
B. A., St. Mary of the Woods, Ind.
Bishop, Erma Rosaline — *Pennsboro, Mo.*
B. S., University of Missouri
Bishop, Eugene Alfred l — *Kansas City, Kans.*
B. A., York College, Nebraska
Black, John Donald g — *Fort Atkinson*
M. A., University of Wisconsin
Black, Lorraine Edna — *Green Bay*
B. A., Lawrence College
Blackburn, Lura — *Oak Park, Ill.*
B. A., University of Wisconsin
Blanchard, William Oscar g — *Oshkosh*
Ph. B., University of Wisconsin
Blankenagel, John Carl — *Baltimore, Md.*
Ph. D., University of Wisconsin
Blattner, George Wayman — *Madison*
B. A., University of Texas
Bleck, Clara — *Naperville, Ill.*
B. A., Northwestern College
Blizzard, Grace Rock — *Fonda, Iowa*
B. A., Cornell College
Bodine, Wilfred Greenleaf — *Alton, N. H.*
B. S., University of Vermont
Bogart, Franklin Blevins g m — *Madison*
B. S., University of Wisconsin
Bohn, Ralph Maxwell g — *Madison*
B. S., University of Wisconsin

Bohstedt, Gustav — *Madison*
B. S., University of Wisconsin

Bolt, Cornelius Frederick — *Bismarck, N. Dak.*
B. A., University of Michigan

Boone, Chelsea Charles — *Oconto*
B. A., Lincoln College

Booth, Fern Valentine — *Chicago, Ill.*
B. S., Columbia Teacher's College

Borgers, William Benjamin — *Chicago, Ill.*
B. A., University of Wisconsin

Borthwick, Margaret Graham — *Los Angeles, Cal.*
B. A., University of Southern California

Boundey, Alma Vater (Mrs.) — *Milwaukee*
B. A., University of Wisconsin

Bowler, Joseph Lyndel — *Wichita, Kans.*
B. A., University of Kansas

Bowser, Goldie May — *Gibsonburg, Ohio*
B. A., Oberlin College

Boyd, Ellinor Fitzjerald — *Independence, Kans.*
B. A., Kansas University

Boyle, Margaret — *Butte, Mont.*
B. A., University of Wisconsin

Boyson, Maybelle — *Minneapolis, Minn.*
B. A., University of Minnesota

Braam, Maximilian — *Cincinnati, Ohio*
M. A., University of Cincinnati

Brandau, Justus Heinrich — *Dubuque, Iowa*
B. A., Dubuque German College and Seminary

Brandt, Walter I. g — *Macfarland*
B. A., Luther College

Breckon, William Darche g — *Oconomowoc*
B. S., Toronto University

Brennecke, Alvina Mary — *Watertown*
B. A., University of Wisconsin

Brenner, Emily Mary — *Port Carbon, Pa.*
B. S., Albright College

Bressler, Raymond George — *Austin, Texas*
M. A., Wofford College

Brister, Emma Louise — *Kenosha*
B. A., Ripon College

Brittingham, Harold Hixon — *New Haven, Conn.*
B. A., Yale University

Bronson, Reuben Harland — *Waupun*
B. S., Beloit College

Brooks, Kendall Page — *Mt. Pleasant, Mich.*
M. A., University of Michigan

Brooks, Laverne Wright — *Racine*
M. A., Lawrence College

Brown, Josephine Chopin — *St. Paul, Minn.*
B. A., Bryn Mawr College

Brown, Martha Elizabeth — *Daytona, Fla.*
B. A., University of Indiana

Brown, Other Dwight — *Mead, Wash.*
B. A., Ohio Wesleyan University
Brunelle, Augustus Hall g — *Madison*
M. A., University of Wisconsin
Buckley, Mabel — *Washington, Iowa*
B. A., University of Iowa
Buckner, James Morgan — *Fairfax, S. C.*
B. S., Clemson College, South Carolina
Buell, R. A. — *Watertown*
B. A., Beloit College
Bulloch, Mary Ethel — *Annandale, Minn.*
B. A., Aurora College
Burns, Sara — *St. Paul, Minn.*
B. S., University of Minnesota
Burnson, Anga Marie — *Sun Prairie*
B. A., University of Wisconsin
Burrow, Herbert T. — *Beaver Dam*
B. A., University of Wisconsin
Bussard, Alita Lois — *Milwaukee*
B. A., Lawrence College
Bussewitz, Walter Richard — *Linden*
B. A., University of Wisconsin
Butler, Lee Wright g — *Madison*
B. A., Simpson College
Butz, Florence Julia — *Wilmette, Ill.*
B. A., Northwestern University
Byrne, Margaret Jane — *Fitchburg*
B. A., University of Wisconsin
Cadwallader, Laura Stanes — *Philadelphia, Pa.*
B. A., University of Wisconsin
Cady, Grace Raymond — *Reedsburg*
B. A., University of Wisconsin
Calvert, Gay Edna — *Sullivan, Ind.*
M. A., Indiana University
Calvin, Everett Young — *Alliance, Ohio*
B. A., Mt. Union College
Cameron, Hugh Albert — *Sylvania, Pa.*
B. A., Oberlin College
Campbell, Wilfrid Gladstone — *Superior*
B. A., Macalester College, St. Paul
Cantu, Abel g — *Brownsville, Texas*
B. A., William Jewell College
Carpenter, Otto Frank g — *Weston, Ohio*
B. S., Ohio Northern University
Carrier, Mary Esto — *Vinton, Iowa*
B. A., Knox College
Carsner, Eubanks g — *Madison*
B. A., University of Texas
Carter, James Treat — *Madison*
B. A., Oberlin College
Caves, Reginald Eugene — *Hancock*
B. A., Lawrence College

Chandler, Harvey West — *Rochester, Ind.*
B. A., Franklin College of Indiana
Chatham, Leslie Willis — *Lovington, Ill.*
B. S., Ewing College
Chenoweth, Ida Alberta — *Shoals, Ind.*
B. A., Indiana State University
Chickering, Arthur Merton — *Beloit*
Ph. B., Yale University
Childress, Harvey Ernest — *Freedom, Ind.*
B. S., Central Normal College
Childress, Leslie Ambrose — *Mecca, Ind.*
B. A., Indiana State Normal
Childs, Edward Powells g — *Madison*
B. S., Denison University
Chrisman, Dorothy — *Hutchinson, Kans.*
Ph. B., Baker University
Christensen, Dorothy Bess — *Madison*
B. A., University of Wisconsin
Clark, Georgiana — *Portage*
Ph. B., University of Wisconsin
Clark, Katharine — *Medina, Ohio*
B. A., Oberlin College
Clark, Norris Parker — *Brunswick, Ohio*
B. A., Roanoke College
Clarke, Bruce Walrath — *Madison*
LL. B., University of Wisconsin
Clarke, Mary Fifield — *Centreville, R. I.*
B. A., Brown University
Cleveland, Ewart — *Soldiers Grove*
B. A., University of Wisconsin
Cleveland, William Roy g — *Madison*
B. S., Kansas State Normal
Cleverdon, Helen Frances — *Oak Park, Ill.*
B. A., Carroll College
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Cobb, Myron A. — *Mt. Pleasant, Mich.*
B. S., Michigan Agricultural College
Cobb, Ollie C. — *Sun Prairie*
B. S., Michigan Agricultural College
Cochran, Emory Ellsworth — *Greensburg, Ind.*
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Cody, Mary Louise — *Sioux City, Iowa*
B. A., University of Iowa
Coen, Benjamin Franklin — *Fort Collins, Colo.*
B. L., University of Wisconsin
Cohn, David — *Greensville, Miss.*
LL. B., University of Virginia
Colman, Willard Henry — *La Crosse*
B. S., Massachusetts Institute of Technology
Condrey, Ralph Smith — *Mt. Carmel, Ill.*
B. A., McKendree College

Conklin, Julia Frances — *Madison*
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Connor, William L. — *Crystal Falls, Mich.*
B. A., Indiana State Normal School
Conrad, Agnes — *Madison*
B. S., University of Arizona
Conrad, Elisabeth g — *Madison*
M. A., University of Wisconsin
Consoer, Meta — *Oak Park, Ill.*
B. A., University of Illinois
Converse, Blair — *Danville, Ill.*
B. A., Earlham College
Converse, Franklin Elmer — *Beloit*
B. L., University of Michigan
Converse, Paul D. — *Pittsburg, Pa.*
M. A., Washington and Lee University
Cook, Archie Adelia — *Mexico, Mo.*
B. Lit., Stephens College, Texas
Cook, Ruth Mary — *Alma, Mich.*
B. A., Alma College
Cooley, Fred B. — *Fox Lake*
B. A., Alleghany College
Cooper, Grace Bernice — *Walworth*
B. A., Beloit College
Cooper, Orpha Frances — *Bland, Mo.*
Pd. B., State Normal, Warrensberg, Mo.
Cornelius, Alice Winifred — *Monroe*
B. A., Beloit College
Cornforth, Edna Amy — *Auburn, Me.*
B. A., Bates College
Cotterill, Robert Spencer — *Westminster, Md.*
M. A., University of Virginia
Cotterman, Harold F. — *Eaton, Ohio*
B. S., Ohio State University
Cowles, May Louis — *Sibley, Kans.*
B. S., Kansas State Agricultural College
Coxen, Harry H. — *San Marcos, Tex.*
B. S., Kansas State Agricultural College
Coyner, Clara Ethel — *Lyndon, Ohio*
B. A., Miami University
Craig, Noel Edwin — *Kewaunee, Ill.*
B. S., Knox College
Crane, Edith — *Cincinnati, Ohio*
B. A., Vassar College
Crane, Millard — *Winona Lake, Ind.*
M. S., University of Wisconsin
Crawford, Carroll Albert — *Freeport, Ill.*
B. S., Carthage College
Creutz, Lester — *Beaver Dam*
B. A., University of Wisconsin
Crocheron, Annette — *Gadsden, Ala.*
B. A., Agnes Scott College, Decatur, Georgia

Cromwell, George — *Ashboro, Ind.*
B. A., Indiana State Normal
Cruikshank, Lewis Walke — *Philadelphia, Pa.*
M. E., Maryland Agricultural College
Dahm, Justine Genevieve — *McGregor, Iowa*
B. A., University of Wisconsin
Das, Rajani Kanta — *Dacca, India*
M. A., University of Wisconsin
Davidson, Edward Waters — *Huron, S. Dak.*
B. A., Wooster College
Davies, William Robert — *Endeavor*
B. A., Ripon College
Davis, Hallie Aleen — *Marion, Ind.*
B. A., Western College, Oxford, Ohio
Davis, Searl S. — *Lincoln, Nebr.*
B. A., University of Nebraska
Davis, Winifred Lemon (Mrs.) — *Madison*
B. S., Ohio Wesleyan University
Day, Milo Frank — *Weeping Water, Nebr.*
B. A., Yankton College
De Bruin, Louis Cornelius — *West Depere*
B. A., University of Wisconsin
Decker, Charles Ernest — *Buda, Ill.*
B. D., Aurora College, Aurora, Illinois
Degeler, Alida g — *Pullman, Wash.*
M. A., University of Wisconsin
De Laney, Norine H. — *Lynchburg, Ohio*
B. A., Western College, Oxford, Ohio
De Lano, Adele — *Beloit*
B. A., Beloit College
Delin, Jane Gilbert — *Warren, Ohio*
Pd. B., New York State Teachers' College
Deming, Helen W. — *Neillsville*
B. A., University of Wisconsin
De Mombrou, Mary Pansy — *Horse Cave, Ky.*
Ph. B., Greenville College, Ill.
De Nise, Carrie Louise — *Burlington, Iowa*
Ph. B., Grinnell College
Dessaint, Edna — *Colorado Springs, Colo.*
B. A., University of Wisconsin
Detjen, Rudolph Henry — *St. Louis, Mo.*
B. A., Washington University
Dewald, Carl C. — *Marinette*
B. S., Heidelberg University, Ohio
Dewitz, Esther Pauline — *Rocky Ford, Colo.*
Ph. B., Colorado State Teachers' College
Dewitz, Gertrude Marion — *Rocky Ford, Colo.*
Ph. B., Colorado State Teachers' College
Dexter, Albert Jenness — *Madison*
B. S., University of Wisconsin
Dexter, Elise Forsythe g — *Madison*
M. A., University of Wisconsin

Dice, Charles Amos — *Strasburg, Ohio*
M. A., Harvard University
Dickerman, Daisy Hortense — *Oswego, Kans.*
Ph. B., Central University of Iowa
Dickerman, R. Anna — *Oswego, Kans.*
Ph. B., Central University of Iowa
Dickes, Herman William — *Canton, Ohio*
B. A., Christian University
Dickson, Cora Linton — *Marshall, Mo.*
Ph. B., Missouri Valley College
Dietz, Arthur — *Horicon*
B. A., University of Wisconsin
Dobbs, Zoe Malinda — *Talladega, Ala.*
B. A., Tuscaloosa Female College
Dorris, Jonathan Trueman — *Mt. Carmel, Ill.*
B. A., Illinois College
Douglas, James Lee — *Madison*
B. A., University of Wisconsin
Downs, Lynwood Gifford — *Minneapolis, Minn.*
M. A., Cornell University
Drenan, Sprague Warner — *Barre, Vt.*
B. A., Dartmouth College
Du, Chuin — *Honan, China*
B. A., Baldwin-Wallace College, Berea, Ohio
Du Mez, Andrew Grover g — *Madison*
M. S., University of Wisconsin
Dunbar, Elizabeth Urquhart — *Madison*
B. S., University of Rochester
Dunbar, Joseph Elias — *Bowers, Ind.*
B. A., Manchester College
Dunbar, Merlin Malcom — *Hartford City, Ind.*
B. A., LL. B., Indiana University
Dunham, Amelia H. (Mrs.) — *Cincinnati, Ohio*
B. S., University of Cincinnati
Dunkel, Arthur A. — *Phillips*
B. S., University of Wisconsin
Dunkelberg, Grace Mae — *Waterloo, Iowa*
B. A., Iowa State Teachers' College
Dunlap, Anna Laura — *Holland Patent, N. Y.*
B. A., Leland Stanford University
Dunn, Helen Jeanette — *Union City, Ind.*
B. A., Earlham College
Durfee, Winifred Hackley (Mrs.) — *Holland, Mich.*
B. A., University of New York
Du Shane, Donald — *Madison, Ind.*
B. S., Hanover College
Dwyer, Ellen Frances — *Charleston, Ill.*
B. A., University of Illinois
Dyer, Margaret Brydie — *St. Louis, Mo.*
B. A., Bryn Mawr College
Dyer, Mildred — *Des Moines, Iowa*
Ph. B., Drake University

Eaglesfield, Guy Earle — *Rapid City, S. Dak.*
B. A., University of Wisconsin
Earhart, Franc Corrilla — *Hopkinton, Iowa*
B. S., Lenox College
Eastlund, Lillian — *Superior*
B. S., University of Wisconsin
Edwards, Edgar Matthew — *Elwood, Ind.*
B. A., Franklin College of Indiana
Edwards, Gwendolyn Helen — *Warren, Ohio*
B. A., Western Reserve University
Elliott, Mary Deborah — *Stockwell, Ind.*
Ph. B., De Pauw University
Ellman, Frances Catherine — *Madison*
M. A., University of Wisconsin
Elmendorf, Armin g — *Madison*
B. S., University of Illinois
Elmer, Walter Edgar — *Hartford*
B. L., University of Wisconsin
Elwell, Elizabeth — *Minneapolis, Minn.*
B. A., University of Minnesota
Elwell, Mary Isabelle — *Minneapolis, Minn.*
B. A., Carleton College
Ely, Elsie May — *Fayette, Ohio*
B. A., Oberlin College
English, Elsie Mary — *Delaware, Ohio*
B. A., Ohio Wesleyan University
Ernst, Carola Léonie — *Brussels, Belgium*
Erskine, Esther — *St. Louis, Mo.*
B. S., University of Missouri
Estrem, Andrew — *Red Wing, Minn.*
Ph. D., Cornell University
Evans, Dina Rees — *Sturgis, S. Dak.*
B. A., University of South Dakota
Evans, Lora Belle — *Eau Claire, Mich.*
B. A., University of Michigan
Eyestone, Walter Howard — *Mt. Vernon, Iowa*
B. S., Cornell College
Faber, Marion Julia — *Peoria, Ill.*
B. A., Leland Stanford Junior University
Fairbairn, Helen S. — *Madison*
B. A., University of Wisconsin
Farwell, Helen Margaret — *Newton Center, Mass.*
B. A., Wellesley College
Feasley, Noble Raymond — *Dallas City, Ill.*
B. A., Knox College
Fehleisen, Minnie Catharine — *Boone, Iowa*
B. S., Coe College
Felt, Alice Helen — *Galesburg, Ill.*
B. A., Knox College
Ferris, Holmes Dunbar — *Beloit*
B. A., Beloit College
Fields, Marjorie Ross — *Shreveport, La.*
B. A., Randolph-Macon College

Filter, Raymond Otto — *Milwaukee*
M. A., University of Wisconsin
Finnegan, Charles Robert g m — *La Valle*
B. A., Ripon College
Finner, Fred Frank — *Dodge*
B. A., University of Wisconsin
Finner, Paul Frederick g — *Madison*
M. A., University of Chicago
Fletcher, Elizabeth Blair — *St. Louis, Mo.*
M. A., Washington University
Fogle, David Edgar — *Georgetown, Ky.*
M. A., Harvard University
Fonda, Clara Luella — *Austin, Texas*
B. A., University of Texas
Fonda, Ethel Mary — *Austin, Texas*
B. A., University of Texas
Foote, Lucy Dodds — *St. Louis, Mo.*
B. A., Park College
Ford, Charles F. — *Edwardsville, Ill.*
B. A., Knox College
Ford, Willard Stanley — *Sparta*
B. A., Lawrence College
Foster, Guy Kenneth — *Youngstown, Ohio*
B. A., University of Missouri
Fowble, George Albert — *Monteray, Ind.*
B. A., Earlham College, Indiana
Fowler, Mary Lucile g — *Fond du Lac*
B. A., University of Wisconsin
Francis, Harry Dalton — *Madison*
B. A., Beloit College
Frear, Marguerite — *Washington, D. C.*
B. A., University of Wisconsin
Freeman, Grace — *Aurora, Ill.*
B. A., University of Chicago
Frick, Flora Margaret — *Indianapolis, Ind.*
M. A., Northwestern University
Fritsch, Emily Shields — *Amsterdam, N. Y.*
B. A., Mt. Holyoke College
Froggatt, Lillian Mary — *Albertville*
B. A., University of Wisconsin
Frost, Marion Nellie — *Grand Rapids, Mich.*
B. A., University of Michigan
Fuchs, Gustave Otto — *Stanton, Nebr.*
B. A., University of Nebraska
Fuller, Fannie Alberta — *Whitewater*
B. A., University of Wisconsin
Fulmer, Henry L. g — *Batesburg, S. C.*
M. S., University of Wisconsin
Furness, Margaret Louise — *Madison*
B. S., Northwestern University
Gaddis, Birney Higgins — *Evansville*
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Gaffron, Martha Otelia — *Plymouth*
B. S., University of Wisconsin
Gardner, Max William g — *Madison*
M. S., University of Wisconsin
Gates, Harry Clarence — *Chattanooga, Tenn.*
B. A., University of Chattanooga
Gates, Neva Florence — *Fort Dodge, Iowa*
B. A., University of Wisconsin
Gaytin, Catherine Lulu — *Beloit*
B. A., Beloit College
Geise, Fred William — *University Place, Nebr.*
B. A., Nebraska Wesleyan University
Gentzen, Harold John — *Beaver Dam*
B. A., University of Wisconsin
Gephart, Mildred — *Valley Falls, Kans.*
B. A., Washburn College
Ge'sler, Clifford Franklin g — *Bangor*
B. A., Milton College
Giesel, Frederick William — *Lawrence, Kans.*
B. A., University of Kansas
Gilliland, James Finney — *Arkansas City, Kans.*
B. A., Kansas University
Given, Meta Hortense — *Bland, Mo.*
Pd. B., Warrensburg, Missouri, State Normal
Givens, Mary Louise — *Fayette, Mo.*
B. A., Randolph-Macon College
Glandon, Frances — *Mexico, Mo.*
B. S., University of Missouri
Glasier, Emma Belle — *Manitowoc*
B. A., University of Wisconsin
Gleim, Minnie Mae — *Wheelersburg, Ohio*
Pd. G., Ohio Northern University
Gleim, Sophia Christena — *Wheelersburg, Ohio*
B. A., Ohio Northern University
Glover, Donald Mitchell — *Urbana, Ill.*
B. A., University of Illinois
Goddard, Mabel — *Freeport, Ill.*
B. A., University of Wisconsin
Godfriaux, Henry Renile — *Chicago, Ill.*
B. A., William Jewell College
Goldthwaite, Margaret — *Marion, Ind.*
B. A., Western College
Goodman, India Stuart — *Waterloo, Iowa*
B. A., State University of Iowa
Goodwin, Alice — *Hartland*
B. A., University of Wisconsin
Gordon, William Clark — *Auburndale, Mass.*
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Graff, Marshall Conant — *Elkhorn*
B. A., University of Wisconsin
Graham, Elizabeth Adeline — *Pella, Iowa*
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Grave, Benjamin H. *Galesburg, Ill.*
Ph. D., Johns Hopkins University
Gray, Dorothy *Manitowoc*
B. A., Wellesley College
Greene, Harry Gibson *Atlanta, Ga.*
B. S., Georgia Technical College
Greene, Mary Elizabeth *Evansville*
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Gregory, Lewis Throckmorton *Chicago, Ill.*
B. A., University of Illinois
Greiner, Martha Nathalia *Pella, Iowa*
M. A., University of Michigan
Gress, Ernest Milton *Pittsburgh, Pa.*
M. A., University of Pittsburgh
Griffin, Florence *Burlington, Iowa*
B. A., Cornell College
Grinstead, Wren Jones *Richmond, Ky.*
M. A., University of Kentucky
Gronert, Theodore Gregory *Prairie du Chien*
M. A., University of Wisconsin
Gross, Selma *Merrimac*
B. A., University of Wisconsin
Grove, Henry Frederick, Jr. *Madison*
B. A., University of Wisconsin
Grover, Alice Mary *Madison*
B. A., University of Wisconsin
Guild, Helen Gertrude *Hiawatha, Kans.*
B. A., Washburn College
Guild, Jessie *Duluth, Minn.*
B. S., Washburn College
Guild, Susan Margaret *Waukesha*
B. A., Washburn College
Gustafson, Carl William *Chicago City, Minn.*
B. A., University of Minnesota
Gutsche, Frank Carl *Manhattan, Kans.*
B. S., University of Minnesota
Hafer, Edna Newman *Chambersburg, Pa.*
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Hagberg, John Bernhard *Madison*
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Haight, Rex Cassidy *Cedar Falls, Iowa*
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Haines, Sarah Deborah *Long Beach, Cal.*
B. A., University of Oklahoma
Halderson, Raymond Hiram *Trempealeau*
B. S., University of Wisconsin
Halliburton, Louise *Carthage, Mo.*
B. S., University of Missouri
Hamilton, Mary Emma *Oskaloosa, Kans.*
Ph. B., Baker University
Hamilton, Ruth Humphrey *Fordyce, Ark.*
B. A., Galloway College

Haner, Helen Sara — *Madison*
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Hanley, Blanche Margaret — *Terre Haute, Ind.*
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Hanna, Helen Irene — *Epworth, Iowa*
B. A., Central College
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B. A., University of Wooster
Hansen, Alvin Harvey — *Madison*
M. A., University of Wisconsin
Hanson, Joel Hjalmer — *Eau Claire*
B. A., University of Wisconsin
Hanson, Viggo — *Socorro, New Mexico*
B. S., State University of South Dakota
Harbert, Arlos Jackson — *Madison*
B. A., Washington and Lee University
Harned, Emma Marie — *Indianola, Iowa*
B. A., Simpson College
Harrah, Mary Olive — *Fort Wayne, Ind.*
B. A., Indiana University
Harris, Ethel — *Neenah*
B. A., Lawrence College
Harrison, Esther Agnes — *Hibbing, Minn.*
B. A., University of Minnesota
Harrison, Lorena — *Hibbing, Minn.*
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Harrison, Lucile — *Hibbing, Minn.*
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Harvey, Walter Worth — *West Terre Haute, Ind.*
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Havenor, Reslo Sherman — *Belvidere, Ill.*
B. A., University of Wisconsin
Haviland, Dora Luella g — *Janesville*
B. L., University of Wisconsin
Hawk, Miles Edwin — *Medina, Ohio*
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Hays, Agnes Mary — *La Crosse*
B. A., University of Wisconsin
Haymaker, Herbert Henley g — *Madison*
B. S., Kansas Agricultural College
Healy, Carolyn — *Wyoming, Ohio*
B. A., University of Cincinnati
Healy, Hazel Marie — *Muscatine, Iowa*
B. A., Simpson College
Hedgcock, Charles B. — *Menominee, Mich.*
B. S., Knox College
Hedges, Clair Frank — *Neenah*
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Heffelfinger, John Byers — *Arkansas City, Kans.*
B. A., Baker University
Heidbreder, Edna — *Quincy, Ill.*
B. A., Knox College
Helm, Mark Powers — *Crawfordsville, Ind.*
B. A., Indiana University
Helm, Martha — *Webb City, Mo.*
Pd. B., Missouri State Normal
Henry, John Martin — *Junction City, Ohio*
B. A., University of Ohio
Henry, Nellie Crumb — *Kansas City, Mo.*
M. S., University of Chicago
Herbert, Harold Harvey — *Norman, Okla.*
B. A., University of Illinois
Herbert, Myrtle — *Scottdale, Pa.*
B. A., Allegheny College
Hermann, Alma Alfaretta — *St. Louis, Mo.*
B. A., Washington University
Herr, Gertrude Anne — *Humboldt, Iowa*
B. S., Iowa State College
Herrington, John Anderson — *College Station, Texas*
M. E., Texas Agricultural and Mechanical College
Herstein, Lillian — *Chicago, Ill.*
B. A., Northwestern University
Hetherington, Daisy Alford (Mrs.) g — *Madison*
B. A., University of Wisconsin
Higgins, Martin Henry — *Madison*
B. A., University of Wisconsin
Highsaw, James Leonard — *Memphis, Tenn.*
B. A., University of Oklahoma
Hills, Thomas Lawrence g — *Burlington, Vt.*
M. S., University of Wisconsin
Hipple, Walter John — *St. Louis, Mo.*
B. A., Princeton University
Hively, Ethel Irene — *Alliance, Ohio*
B. A., Mt. Union College
Hodges, Annie Newell — *Greensburgh, Ky.*
B. A., University of Kentucky
Hodgson, Roberta g — *Athens, Ga.*
M. A., University of Wisconsin
Hoffman, Ivan Martin — *St. Louis, Mo.*
B. A., Simpson College
Hogrefe, Pearl — *Wichita, Kans.*
M. A., Kansas University
Hohlfeld, Helen Minnie — *Madison*
B. A., University of Wisconsin
Holden, Eugene Davenport — *Merrill*
B. S., University of Wisconsin
Hollis, Harriet Frances — *Chicago, Ill.*
B. A., University of Chicago
Homburg, Frederick — *Cincinnati, Ohio*
M. A., University of Wisconsin

Hook, Maude Persis — *So. Milwaukee*
B. A., University of Wisconsin
Hopkins, Edward Stanley g — *Vermilion, Can.*
B. S., University of Toronto
Horner, Robert Messenger — *Sterling, Kans.*
M. A., University of Kansas
Householder, Frederick Franklin — *Ames, Iowa*
B. A., University of Wisconsin
Houseman, Harley Vernon — *Madison*
M. A., University of Indiana
Howard, Neale Frederick g — *Madison*
B. S., University of Wisconsin
Howe, J. Edwin — *Chrisney, Ind.*
B. A., Winona College
Hoyt, Grace Elizabeth — *Madison*
M. A., University of Wisconsin
Hudson, Nelle Grace — *Boscobel*
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Huffman, Werden Dunroe — *Hartford City, Ind.*
B. A., Indiana University
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Hull, Clark Leonard g — *Madison*
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B. A., Western College
Humphrey, Rufus Richard — *Thompsonville, Mich.*
B. Pd., Michigan State Normal
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B. S., Kansas State Agricultural College
Hupp, Wilmette — *Slater, Mo.*
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Hurley, Robert Vernon — *Milton*
B. A., Milton College
Hutchinson, John Lewis — *Pittsburg, Kans.*
B. S., Kansas Manuel Training Normal
Hutchinson, Mark Eastwood — *Madison*
M. A., University of Nebraska
Huth, Raymond William — *Watertown*
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Huwaldt, Edward — *Randolph, Nebr.*
B. A., University of Nebraska
Hwang, Lin g — *Honan, China*
B. S., Baldwin-Wallace College
Hypes, George William — *Austed, W. Va.*
B. S., University of Illinois
Ide, Herbert Paist — *Webster, S. Dak.*
B. A., Hamline University
Inomata, Tsunao g — *Nagaoka, Japan*
B. A., Waseda University
Ivins, Benjamin Franklin Price — *Kalamazoo, Mich.*
B. A., Valparaiso University

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B. S., Ohio State University
Jackson, Jacob Hugh — *St. Louis, Mo.*
B. A., Simpson College
Jacques, Marjorie — *Neillsville*
B. A., University of Wisconsin
Jameson, Kate Wetzel (Mrs.) — *Madison*
M. A., University of Wisconsin
Jamieson, Charline — *Marion, Ind.*
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B. S., University of Illinois
Jennings, Beatrice — *St. Louis, Mo.*
B. A., Washington University
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B. A., Washington University
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M. A., University of Wisconsin
Johnson, Carl — *Tyler, Minn.*
B. A., University of Minnesota
Johnson, Ethel Dorothy — *Broken Bow, Nebr.*
B. A., University of Nebraska
Johnson, Guy Arthur — *Ashland*
B. A., Northland College
Johnson, Herbert Henry — *Pittsburgh, Pa.*
Ph. B., University of Wooster
Johnson, Jorgen Ansten — *Arkdale*
B. A., St. Olaf College
Johnson, M. Louise — *St. Charles, Minn.*
B. A., Carlton College
Johnson, Nora Olive — *Bussy, Iowa*
B. A., Drake University
Johnson, Russell L. l — *Madison*
B. A., University of Wisconsin
Johnston, Margaret — *Burnt Prairie, Ill.*
B. A., Knox College
Johnston, Roy Kenneth — *Brandon*
B. A., Lawrence College
Jones, Fred Reuel g — *Madison*
M. S., University of Wisconsin
Jones, Martha — *Terrace Park, Ohio*
B. L., University of Cincinnati
Jones, Richard Uriah — *Madison*
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B. A., Eureka College
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B. A., Augustana College
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B. A., Beloit College
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B. S., University of Chicago
Kelly, Clara Mae *Cape Girardeau, Mo.*
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Kendall, Calla Frances *Byron, Minn.*
B. A., Carlton College
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M. A., Princeton University
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B. A., Lake Erie College
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B. A., Washington University
Kidder, Charles Joseph *Madison*
B. A., University of Wisconsin
Kidwell, Helen *Columbus, Ohio*
B. A., Ohio State University
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B. A., Hood College
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Kinney, Genieve *Lawrence, Kans.*
B. A., University of Kansas
Kinney, Samuel Marks g *Madison*
B. A., Oberlin College
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B. A., University of California
Klem, Mary Jeanette *St. Louis, Mo.*
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B. A., MacAlester College
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Kümmerle, Harrison Matthew — *New York City*
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Kunz, Herman W. — *Glendale, Ohio*
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Kyper, Guy D. — *So. Milwaukee*
B. S., Tri State College
Ladd, William Stanton — *Madison*
B. S., University of Illinois
Lagemann, Alfred Frederic — *Chamois, Mo.*
B. S., University of Missouri
Lammers, Minnie Bertha — *Madison*
B. A., Indiana University
Lane, May Rogers — *Cambridge, Mass.*
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Langworthy, Amy Eunice — *Leavenworth, Kans.*
B. A., University of Kansas
Lasley, John Sidney — *Kansas City, Mo.*
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B. A., Oberlin College
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Lee, Henry Gustave — *Madison*
B. A., University of Wisconsin
Lee, Hunyet — *Batavia, Java*
E. M., Colorado School of Mines
Leedy, John Wentworth — *Madison*
M. S., University of Wisconsin
Leiser, Frederick Oscar — *Madison*
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Lewis, Frank C. — *La Crosse*
B. S., Kansas State College
Lewis, Jennie — *Sandusky, Ohio*
B. A., Ohio Wesleyan University
Ley, Henrietta Marie — *De Pere*
B. A., Lawrence College
Lide, Claudia Clayton — *St. Louis, Mo.*
B. A., Washington University

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B. A., Ripon College
Lightcap, Earl Kempthorne — *Madison*
Ph. B., University of Wisconsin
Lincoln, Mildred Ella — *Rochester, N. Y.*
B. A., Syracuse University
Lind, Amelia Mary — *Madison*
B. A., Indiana State University
Lind, Frances Clara — *Madison*
Ph. B., University of Wooster
Lins, Hildegarde Margaret — *Spring Green*
B. A., University of Wisconsin
Litchen, Ruth Eleanor — *Leavenworth, Kans.*
B. A., University of Kansas
Lofland, William Thomas — *Hillsboro, Texas*
B. S., Baylor University, Waco, Texas
Logan, David M. — *Tahlequah, Okla.*
B. A., University of Oklahoma
Logan, Leonard — *Tahlequah, Okla.*
B. A., University of Oklahoma
Logan, Milon Grout — *Louisville, Ky.*
B. S., Dartmouth College
Long, Charles Ellsworth — *Charleston, Ill.*
B. A., Lake Forest College
Lorch, Augusta Christine — *Middleton*
B. A., University of Wisconsin
Loughlin, Rosemary g — *Madison*
B. A., State University of Iowa
Lowe, Cecil E., — *Madison*
B. A., Washburn College
Lowry, Ralph Brownlee — *Lowryville, S. C.*
B. S., Clemson College
Lucas, Ernest Leslie — *Kosciusko, Miss.*
B. S., Mississippi Agricultural and Mechanical College
Luck, George Felton — *Concord, Tenn.*
B. S., Georgia School of Technology
Lundy, Gabriel g — *Grand Forks, N. Dak.*
B. S., North Dakota Agricultural College
Lutes, Olin Silas — *Rochester, Minn.*
B. A., Ohio University
Lynch, Lummie — *Robertsville, Mo.*
B. A., Missouri University
McAdams, Edward E. — *Bryan, Texas*
B. S., Agricultural and Mechanical College of Texas
MacCaffertry, Louellen — *St. Joseph, Mo.*
B. S., University of Chicago
McCarter, John K. — *Odon, Ind.*
B. A., Indiana State Normal
McCarty, Leslie Combes — *Preston, Minn.*
B. A., University of Indiana
McCaughtry, Esther Lucille — *Carthage, Mo.*
B. A., Drury College

McCauley, Katharine Lay — *Highland Park, Ill.*
B. A., Bryn Mawr College
McClintock, Margaret — *Chicago, Ill.*
B. S., University of Illinois
McCordic, Ada — *Groton, S. Dak.*
M. A., University of Wisconsin
McCorkel, Henry James — *Pittsburgh, Pa.*
B. S., Carnegie Institute of Technology
McCormick, Francisca Helen — *Yankton, S. Dak.*
B. A., University of South Dakota
McCormick, Pearl Marie — *Yankton, S. Dak.*
B. A., Yankton College
McCoy, Susan — *Des Moines, Iowa*
B. A., University of Chicago
McCoy, Susan Gertrude — *Carthage, Mo.*
B. S., University of Missouri
McCradie, Robert D. m — *Grandin, N. Dak.*
B. A., Fargo College
McCreery, James Wesley — *Columbia, Mo.*
B. S., University of Missouri
McCully, Harry McKee — *Pittsburgh, Pa.*
B. S., Carnegie Institute of Technology
McElfresh, Gertrude Elizabeth, (Mrs.) — *Corvallis, Ore.*
B. A., Cornell University
McFetridge, Clarissa May — *Oshkosh*
B. A., Carroll College
McGill, Helen Margaret — *Montezuma, Iowa*
Ph. B., Grinnell College
McGrath, Robert Timothy — *Madison*
Ph. B., University of Wisconsin
MacGregor, Ford H. g — *Madison*
M. A., University of Wisconsin
McKean, Harry Willis — *Kansas City, Kans.*
B. A., Westminster College
McKenney, Howard Lathrop — *Auburn, Ind.*
B. S., Valparaiso University
McKeough, Michael John — *West Depere*
B. A., St. Norbert's College
McKinley, Lorenzo Ellis — *Van Wert, Ohio*
Pd. B., Ohio Northern University
McKinney, Edward Kirk — *West Newton, Ind.*
B. A., Earlham College
MacKinney, Loren Carey — *Milwaukee*
B. A., Lawrence College
McKittrick, Bess Jane — *Wilson, Kans.*
B. A., University of Kansas
McLaughlin, Margaret Loretta — *Indianapolis, Ind.*
Ph. B., University of Chicago
McMahon, Alma Louise (Mrs.) — *Madison*
M. A., University of Wisconsin
McMurry, Donald LeCrone — *Nashville, Tenn.*
M. A., University of Wisconsin

McNeel, James Herbert — *Beloit*
B. A., University of Wisconsin
McNutt, William Charles — *St. Louis, Mo.*
LL. B., Benton College of Law
McPheeters, William Henry — *College Station, Texas*
B. S., Oklahoma Agricultural and Mechanical College
MacQueen, Donald Windsor — *College Station, Ark.*
B. A., Centre College of Kentucky
MacWilliams, Lucile — *Meridian, Miss.*
B. S., Mississippi Industrial Institute and College
Macdonnell, Carey Ryker — *Windsor, Mo.*
B. A., Hanover College, Hanover, Indiana
Macklin, Theodore — *Manhattan, Kans.*
B. S., Iowa State College
Madden, Elwood C. — *Cherokee, Okla.*
B. A., University of Oklahoma
Madson, Nina Augusta — *Ames, Iowa*
B. S., Iowa State College
Major, David Maggard g — *Madison*
B. A., Polytechnic College
Malone, Julian Yerkes — *Ripon*
B. A., Ripon College
Mangelsdorf, Bertha Wilhelmina — *Atchison, Kans.*
B. S., Kansas State Agricultural College
Marberry, James Oscar — *Robinson, Ill.*
B. A., Ewing College
Marble, Elma Anne — *Girard, Ohio*
B. A., Western Reserve University
Markham, Harriet — *Rosedale, Kans.*
B. A., Washburn College
Marshall, Irene — *Lead, N. Dak.*
B. A., Simpson College
Marshall, Marion Genevieve — *Mandan, S. Dak.*
B. A., University of Wisconsin
Martin, Harry Edwin — *Alliance, Ohio*
M. A., University of Wisconsin
Martindale, Katherine — *La Crosse*
B. A., Smith College
Mason, Elizabeth Browning — *Washington, D. C.*
B. A., Wellesley College
Mason, Harry Wickcliffe — *Lafayette, Ind.*
B. A., De Pauw University
Mason, Thomas Alfred — *Moorhead, Minn.*
B. A., St. Olaf College
Mathie, Edward Joseph g — *Madison*
B. A., University of Wisconsin
Matson, Mamie — *Evansville*
B. S., South Dakota State College
Mattson, Olive May — *Chicago, Ill.*
B. A., University of Illinois
Maxson, Mabel — *Milton Junction*
M. A., University of Wisconsin

May, Phyllis Crawford — *Platteville*
B. A., University of Wisconsin
Meador, Mildred — *Cincinnati, Ohio*
B. A., University of Cincinnati
Meadows, Roy Nathan — *Madison*
B. A., Beloit College
Meek, Joseph Henry — *Dinwiddie, Va.*
B. A., Roanoke College
Melnikow, Henry Playman — *Milwaukee*
B. A., University of Wisconsin
Melrose, James Albert — *Ironwood, Mich.*
B. A., Hamilton College, New York
Mendham, Nelly Maude — *Kirkwood, Mo.*
B. A., Washington University
Merkelbach, Marie Louise — *Milwaukee*
M. A., University of Wisconsin
Mersereau, Edward Burkhart — *Beaver Dam*
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Mewaldt, Nathanael Herman — *Kaukauna*
M. A., University of Wisconsin
Mickey, Mary Emily — *Leavenworth, Kans.*
B. A., University of Kansas
Miller, Helen Scribner — *Grinnell, Iowa*
B. A., Grinnell College
Miller, Jean — *East Orange, N. J.*
B. A., University of Michigan
Miller, Maurice Ethelred — *Holly Springs, Miss.*
B. S., Mississippi Agricultural and Mechanical College
Millikan, Ray Spencer — *Cassville*
B. A., Indiana University
Milne, William — *Merrill*
Ph. B., University of Wisconsin
Minsart, Anton Peter — *Green Bay*
B. A., University of Wisconsin
Mitchell, Halcyon Margaret — *Gaston, Ind.*
B. A., Western College for Women
Mitchell, Morton Leslie — *Indianola, Ind.*
B. A., Simpson College
Mix, Morton Earl — *Alfred, N. Y.*
Ph. B., Alfred University
Mohaupt, Arthur George g — *Milwaukee*
B. A., University of Wisconsin
Mohr, Walter Harrison — *Cincinnati, Ohio*
B. A., Swarthmore College
Moore, Milton Donaldson — *Washington, D. C.*
B. A., George Washington University
Moorhouse, Harold William — *Stillwater, Okla.*
B. A., Beloit College
Morgan, De Witt Schuyler — *Madison*
B. A., Henry Kendall College
Morgan, John William — *Madison*
B. A., Richmond College

Morgan, Samuel Lewis — *Henderson, N. C.*
B. A., Richmond College
Morris, Caroline Ruth — *Oshkosh*
B. A., University of Wisconsin
Morris, Clara Evelyn — *Boulder, Colo.*
B. A., Colorado Teachers' College
Morris, Delia — *Pekin, Ind.*
B. Pd., Valparaiso University
Morris, Florence Janie — *Cambria*
B. A., Carroll College
Morrissy, Elizabeth — *Milwaukee*
B. A., Beloit College
Morrow, John Richardson — *Pittsburgh, Pa.*
B. A., Washington and Jefferson College
Morse, Carrie Zettie — *Ripon*
B. A., Ripon College
Mueller, Alice Floyd — *Chicago, Ill.*
M. A., University of Chicago
Mueller, Johanna Caroline — *Indianapolis, Ind.*
B. A., Butler College, Indianapolis
Muench, Alice Frances — *St. Louis, Mo.*
B. A., Washington University
Murphy, Ray V. — *Bloomington, Ill.*
B. S., Illinois Wesleyan
Murphy, Walter Henry — *St. Paul, Minn.*
B. A., University of Wisconsin
Murray, Frances Josephine — *Madison*
B. A., University of Wisconsin
Murry, Grace M. — *Ridgeway, Mo.*
Pd. B., Warrensburg State Normal, Missouri
Musselman, L. J., — *Camden, Ind.*
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B. A., University of Wisconsin
Nafe, Gertrude — *Denver, Colo.*
B. A., University of Colorado
Nash, Francis R. — *St. Croix Falls*
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B. A., University of Wisconsin
Negley, Ella Gunn — *Madison*
B. A., University of Nebraska
Neller, Joseph Robert — *Austin, Minn.*
M. S., University of Minnesota
Nelson, Stacy Elijah — *Chattanooga, Tenn.*
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M. S., University of Wisconsin
Neprud, Maude Eunice — *La Crosse*
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Newton, Lucy Cogar — *Ferguson, Mo.*
B. A., Washington University
Nichols, Merle Starr g — *Madison*
B. S., University of Wisconsin
Nicholson, Caroline L. — *Richmond, Ind.*
B. A., Earlham College
Nicholson, Eugene Nesbit — *Dahlanega, Ga.*
B. S., University of Georgia
Ninman, Herman John g — *Belle Plaine*
B. S., University of Wisconsin
Norton, Ruth — *Sioux Falls, S. Dak.*
M. A., University of Wisconsin
Nugent, Milton Benjamin — *Elnora, Ind.*
B. A., Indiana State Normal College
Olcott, Clara Louise — *North Vernon, Ind.*
B. S., Central Normal College
Oldfather, Charles Henry — *Hanover, Ind.*
B. A., Hanover College
Oldham, Stanley Reginald — *Pittsfield, Me.*
B. A., Lebanon Valley College
Olds, Helena Mae — *New Paltz, N. Y.*
M. A., Bucknell University
Olmsted, Ruth Harwood — *Washington, D. C.*
B. A., Mt. Holyoke College
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B. A., University of Illinois
Olson, Kenneth E. — *Ashland*
B. A., Northland College
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B. A., University of Wisconsin
Onsgard, Henry — *Aberdeen, S. Dak.*
B. A., Luther College
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B. A., Lawrence College
O'Rourke, Lawrence J. — *Appleton*
B. A., Lawrence College
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Osborn, George Morris — *Clarksburg, W. Va.*
B. S., West Virginia University
Osborne, Ella Maxwell — *Anderson, Ind.*
B. A., Indiana University
Osler, Rebecca Tyler — *Pensauken, N. J.*
B. A., Swarthmore College
Osmond, Alice Josephine — *Webster Groves, Mo.*
B. A., University of Missouri
Ostlund, Harry John — *Winnebago, Minn.*
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B. A., University of Nebraska
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B. A., University of Wisconsin
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M. S., University of Wisconsin
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B. E., Centenary College
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B. A., University of Iowa
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B. A., Oberlin College
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Pettibone, Nile Edward *Bellevue, Ohio*
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Phillips, Henry L. *St. Louis, Mo.*
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Piggins, Ralph Sproule g *Milwaukee*
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Pleasant, Eunice — *Kansas City, Mo.*
B. A., University of Kansas
Pomeroy, Mabel Frances — *Madison*
B. A., University of Wisconsin
Ponsler, Rolla — *Flatrock, Ind.*
B. A., Indiana State Normal
Porter, Annie Augusta — *Excelsior, Minn.*
B. S., University of Wisconsin
Post, Kate — *Madison*
B. A., University of Wisconsin
Post, Robert Lewis — *Madison*
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B. A., University of Illinois
Pray, Perry Sheldon — *Memphis, Tenn.*
B. A., Ripon College
Preston, Genie Johanna — *Strawberry Point, Iowa*
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Preston, William Hall — *Mauston*
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Racy, Amelia Mary — *St. Louis, Mo.*
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Raddatz, William Godfrey g — *Madison*
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Barnes, Roy Hassett	*Burlington, Iowa*
Barnum, Fred Lewis	*Antigo*
Bartels, Freda Caroline	*Chicago, Ill.*
Bartholf, Adelaide June	*Milton*
Bartle, Laura J.	*Dodgeville*
Baska, Louis Martin	*Atchison, Kans.*
Bates, Myrle Meron	*Galesburg, Ill.*
Bauer, Carl Philip l s	*Mandon, N. Dak.*
Baus, Irma	*Madison*
Beach, Maud Mary	*Springfield, Ill.*
Beardsley, Charles	*Eau Claire*
Beck, Mildred Maud	*Ironwood, Mich.*
Beckler, Jacob Elden	*Madison*
Beckman, Orville Charles l s	*Madison*
Beegle, Marguerite Bruch (Mrs.)	*Wooster, Ohio*
Behrendt, Ida Irene	*St. Joseph, Mo.*
Belgum, B. N.	*Manitowoc*
Bell, Donald Chesbrough l s, m	*Madison*
Bell, Sallie L.	*Louisville, Ky.*
Belleville, Dorothy	*Pittsburgh, Pa.*
Bellis, Mark Edward l	*Wausau*
Bender, Genevieve Florence	*Kalamazoo, Mich.*
Bender, Lloyd L.	*Sioux Falls, S. Dak.*
Beneke, Henry John l s	*Spokane, Wash.*
Benish, George Anthony	*Eau Claire*
Bennett, Genevieve l s	*Lancaster*

Bennett, Rose Elizabeth	*South Bend, Ind.*
Benson, Ada l s	*Princeton, Ill.*
Benson, Robert Henry l s	*Milwaukee*
Bent, Winifred l s	*Oshkosh*
Benton, Joseph Levi l s, m	*Richland Center*
Bentz, Jennette Katharine	*Chicago, Ill.*
Berg, Leona	*Canton, Ohio*
Berge, Abel John	*Belleville*
Bergstein, Leonard l s	*Duluth, Minn.*
Bergum, Belle Regina l s	*Madison*
Berthelet, Edna	*Sheboygan*
Beust, Nora	*La Crosse*
Beyrer, Anna Edith	*South Bend, Ind.*
Bicknell, Helen Chase	*Omaha, Nebr.*
Bieberman, Lucile W. l s	*Duluth, Minn.*
Biederman, Alfred	*Cleveland, Ohio*
Biggam, Earl E.	*Saginaw, Mich.*
Bill, J. Raymond	*New York City, N. Y.*
Binder, Marie Luise	*Chicago, Ill.*
Birch, Frank Victor l s	*Fond du Lac*
Birch, Mabel Hubbard (Mrs.)	*Cincinnati, Ohio*
Bishop, Adolph Edward, Jr	*Chicago, Ill.*
Bishop, Lawson, W. l s	*Madison*
Bishop, Stuart Alfred l	*Madison*
Bitker, Bruno V.	*Milwaukee*
Bitterman, Ruth Genevieve l s	*Madison*
Bjornstad, Emma Irene	*La Crosse*
Bjornstad, Mabel Caroline	*La Crosse*
Blaha, Bessie B.	*Two Rivers*
Blaich, Lydia Rebecca	*Indianapolis. Ind.*
Blair, John C. l s	*Grand Rapids, Mich.*
Bleyer, Addison Milton	*Manitowoc*
Blied, Leo John l s	*Madison*
Blodgett, Marion North	*Janesville*
Bloodgood, Francis Joseph l s	*Milwaukee*
Boeckeler, Charlotte Marie	*St. Louis, Mo.*
Boldt, Arnold John l s	*Madison*
Bolshaw, May	*Kansas City, Mo.*
Bond, Harry William l s	*Wheeling, W. Va.*
Bonfoey, Jennie Prudence	*Milwaukee*
Book, Irma	*Omaha, Nebr.*
Borden, Clarke Atwood	*Milton*
Borden, William Henry l s	*Madison*
Borgerding, Jerry William	*Auburn, Ill.*
Borofka, Philip Joseph	*Green Bay*
Borst, Florence	*Grand Rapids, Mich.*
Böeshagen, Emmy Alice	*Columbus, Ohio*
Bosier, Marion Lewis	*Jackson, Mich.*
Boss, Bernhard Louis l s	*Oregon*
Boucher, Nettalie Harriet	*Oshkosh*
Bowden, B. Ray, l s	*Sextonville*
Bowden, Everett	*Brodhead*
Bowen, Arthur Eugene	*Kalamazoo, Mich.*

Bowen, Esther	*Duluth, Minn.*
Bowen, Paul E.	*Big Falls, Minn.*
Boyd, Mary	*Decatur, Ill.*
Boyer, De Witt Angus g	*Springfield, Utah*
Boyle, James D.	*Stillwater, Minn.*
Brabant, Josephine Mary l s	*Madison*
Bradbury, Lily Grace	*Fennimore*
Bradish, Norman Conyers l s	*Decorah, Iowa*
Bradley, Melcena l s	*Madison*
Brainerd, Nemi Homer	*Albany*
Bramlette, Milton Nunn e	*Milwaukee*
Brandt, Anna Marie	*Pewaukee*
Brannon, Edith M.	*Milbank, S. Dak.*
Braun, Harold l s	*Milwaukee*
Breeding, M. Louise	*St. Louis, Mo.*
Breen, Mildred Helen	*Ashland*
Brewer, Richard Wallace e	*Mineral Point*
Brewer, Virginia Fletcher	*Rockville, Md.*
Briback, Carrie	*St. Louis, Mo.*
Briggs, Howard Bovee l s	*Arena*
Brindley, Roy	*Boscobel*
Bringgold, Jessie Elizabeth	*Hayfield, Minn.*
Brink, Stanley L.	*Evansville*
Brinker, Dorothy Lillian l s	*Niagara Falls, N. Y.*
Brittingham, Edward George l s	*Madison*
Brittingham, Louis George l s	*Madison*
Brockert, John Clarence	*Platteville*
Brolin, Marion Theodora	*Rockford, Ill.*
Brooks, Robert Ray	*St. Louis, Mo.*
Brown, Alois Anton l s	*Madison*
Brown, Christine Etna l s	*Urbana, Ohio*
Brown, Earl Franklin	*Deer Park*
Brown, Ernest James l s	*Madison*
Brown, Jessie Beatrice	*Kansas City, Mo.*
Brown, Lela Calhoun l s	*Hailey, Idaho*
Brown, Marion Frances	*Madison*
Brown, Milo Sedgwick l s	*Hartland*
Brown, Nellie Margaret	*Beaver Dam*
Brown, Patrick Henry	*New Richmond*
Browne, Cyril G.	*Detroit, Mich.*
Browne, Helen Converse l s	*Waupaca*
Bruce, Marshall Everett	*St. Louis, Ill.*
Brummeler, Marguerite	*Grand Rapids, Mich.*
Brunhoff, Sophie Wilhelmina	*Cincinnati, Ohio*
Brunner, Edwin James	*Glidden*
Brustad, Agnes	*Muskegon, Mich.*
Bryan, Walter Reid l s	*Madison*
Buboltz, William Frank	*Milwaukee*
Buck, Jennie Pearl	*Arkansas City, Kans.*
Buckeridge, Bess	*Webb City, Mo.*
Buehler, Laura	*Alma*
Buell, Helen de Yoe l s	*Madison*
Buell, Irene	*Toledo, Ohio*

Burch, Harriet Imogene l s	*Minneapolis, Minn.*
Burdick, Ralph St. Elmo	*Creighton, Nebr.*
Burke, Mary Virginia	*Chicago, Ill.*
Burnham, Dorothy	*Glenview, Ill.*
Burns, Robert Emmett l s, m	*Madison*
Butcher, Guy Henry	*La Farge*
Butterworth, Alfred Lindley	*Marion, Ind.*
Butterworth, Ruth Clark	*Marion, Ind.*
Byram, Anna D.	*Indianapolis, Ind.*
Camp, Edwin Warren l s	*Madison*
Campbell, Archie Phelps	*East Ellsworth*
Campbell, Cora	*Springfield, Ill.*
Campbell, Jane Allen	*Ann Arbor, Mich.*
Campion, Howard Arthur	*Faribault, Minn.*
Canniff, Maud	*Toledo, Ohio*
Cannon, Earl James	*Minocqua*
Cape, Mary Josephine	*Madison*
Capen, Esther Halliday	*St. Louis, Mo.*
Capen, Lila	*St. Louis, Mo.*
Carey, Ray John	*Madison*
Cargill, George MacMillan l s	*Madison*
Carlson, Clara	*Cincinnati, Ohio*
Carlyle, Tomsyna (Miss)	*La Crosse*
Carroll, Elmer Howey	*Brown City, Mich.*
Carson, William Henry, Jr. e	*Pittsburg, Texas*
Carter, Eleanor Allen l s	*Louisville, Ky.*
Carter, Lurene	*Beloit*
Carter, Nora Gheens	*Louisville, Ky.*
Cassidy, Frances Mary	*Chicago, Ill.*
Cauwenberg, Winfred Joseph l s	*Green Bay*
Chau, Tsung Ngok	*Canton, China*
Chapin, Daisy Winifred	*Winslow, Ill.*
Chapman, Margaret Frances l s	*Milwaukee*
Chapman, Nellie	*Indianapolis, Ind.*
Charles, Eva Ruth l s	*Madison*
Chase, Ruluf Arthur l s	*Madison*
Chatelain, Barbara Alphonsine	*Omaha, Nebr.*
Cheu, Bailey l s	*Shanghai, China*
Childe, John Pollock l s	*Wyoming, Ohio*
Childs, Edward Powell, Jr.	*Madison*
Chilson, Margaret Elizabeth	*Beloit*
Chilson, Margaret Elizabeth (Mrs.)	*Beloit*
Chynoweth, Phillips	*Madison*
Cisne, Willis Gerard	*Fairfield, Ill.*
Clack, Willis Charles	*Pittsville*
Clark, Donald Hugh	*Waverly, Iowa*
Clark, Dorothy Elizabeth l s	*Boise, Idaho*
Clark, Lois Jean l s	*Boise, Idaho*
Clark, Robert Halley l s	*Madison*
Clarke, Anna Marie	*Whitewater*
Clarke, Josephine Freeman l s	*Marietta, Ga.*
Clauson, Elizabeth Bertha	*Red Wing, Minn.*
Clayton, Edith Louise	*Kansas City, Mo.*

Clifford, Elzie Milo	*Nashville, Mich.*
Cobb, Helena Josephine	*Mt. Pleasant, Mich.*
Cobban, Lorraine l s	*Madison*
Coffman, Arline Ada	*Madison*
Cogswell, Nancy Lee	*Independence, Mo.*
Cole, Nella Hannah	*North Adams, Mass.*
Conklin, Katherine Mary l s	*Madison*
Conley, Henry Harold l s	*Madison*
Connor, Edwin Joseph	*Madison*
Connors, Harold Francis	*Hurley*
Conover, Marion Clark l s	*Madison*
Conrad, Jessie Sargent	*Waukesha*
Constance, Fern Elizabeth	*Waupaca*
Conway, Lorene Anne	*Milwaukee*
Conway, Ruth	*Helena, Mont.*
Cook, Irene Croxton l s	*Bluffton, Ind.*
Coon, Fayette Burdick	*Hartland*
Cooper, Florence Evelyn	*Bloomington*
Cooper, Kathryn Lois	*Kenosha*
Cooper, Walter Grant	*Lansing, Mich.*
Corcoran, Lillie E.	*St. Louis, Mo.*
Corcoran, Marguerite M.	*St. Louis, Mo.*
Coubal, Laudimire Joseph	*Manitowoc*
Covey, Edwin Linnell	*Peoria, Ill.*
Cowan, John Warren	*Janesville*
Cox, Linton Alden l s	*Indianapolis, Ind.*
Cox, Sam J.	*Hamilton, Mo.*
Cox, Walter Albert	*East Chicago, Ind.*
Coy, Abbie D. (Mrs.)	*Fort Collins, Colo.*
Cozzens, Mildred Josephine	*Pueblo, Colo.*
Craig, Harry Worthington l s	*Cleveland, Ohio*
Craig, Laura Philippa	*Victoria, Mich.*
Crandall, George Washington a	*Madison*
Cronk, Grace Bell	*Toledo, Ohio*
Culver, Catherine l s	*Milwaukee*
Cummings, Charles Milton	*Madison*
Cummings, Raymond Henry l s	*Madison*
Cuneo, Rose Yolanda	*Chicago, Ill.*
Currie, Agnes Elizabeth	*Superior*
Curtis, Kenneth l s	*Chicago, Ill.*
Cuson, Emilie Barbara (Mrs.)	*Chicago, Ill.*
Czapanskiy, Rosella Marie	*Madison*
Dabney, William L.	*Madison*
Daetsch, Lillian	*Milwaukee*
Dahl, Charles Henry l s	*Marinette*
Dahn, Adelaide Henrietta	*Toledo, Ohio*
Damuth, Lenora Rosane l s	*Fort Atkinson*
Darling, William Thomas	*Milwaukee*
Darrenougue, June Marie	*Reedsburg*
Daugherty, Lewis Sylvester	*Cameron, Mo.*
Daugherty, Millie C. (Mrs.)	*Cameron, Mo.*
Davidson, James Ferdinand	*Oshkosh*
Davies, Nellie Eleanor	*Oshkosh*

Davis, Carrie	*Independence, Mo.*
Davis, Frank Dewey	*Juda*
Davis, Marguerite Vivian l s	*Williams Bay*
Davis, Marion Evelyn l s	*Sioux City, Iowa*
Davis, Martha Ella	*Madison*
Day, Evelyn l s	*Lake Geneva*
Day, Nellie Maud	*Chicago, Ill.*
Dean, James Reeve	*Madison*
Decker, Venora (Mrs.)	*Buda, Ill.*
De Jough, Helen Theodora	*Freeport, Ill.*
Denfeld, Emma L.	*Duluth, Minn.*
Denfeld, George August l s	*Wausau*
Denison, Clara Elizabeth	*Mt. Washington, Ohio*
Dennett, Jeanne	*Port Washington*
Dennis, Clayton Stanley l s	*Grand Rapids, Mich.*
Devany, Anne Mildred	*Minneapolis, Minn.*
De Vilbiss, Bess Beatrice	*Ft. Wayne, Ind.*
Dick, Mary Catherine l s	*Marshfield*
Dickson, Gail	*Indiana Harbor, Ind.*
Diebold, Carrie Elise l s	*Milwaukee*
Ditmer, Jean Albaugh	*Cleveland, Ohio*
Dixon, Evalyn Elizabeth l s	*Madison*
Dodds, Josephine	*Champaign, Ill.*
Doherty, Helen	*Williamsburg, Iowa*
Doherty, Mary Louis l s	*Williamsburg, Iowa*
Dolan, Anna Lenore	*Chicago, Ill.*
Dolan, Edith A.	*Cincinnati, Ohio*
Dolch, Isabel Scherer	*St. Louis, Mo.*
Doll, Walter George	*Prairie du Sac*
Donalds, Elliott Raphael l s	*Superior*
Donaldson, Nellie King l s	*Racine*
Donovan, Margaret l s	*Madison*
Dopkins, Elmo Carlysle l s	*River Falls*
Doran, Blanche Marie l s	*Harvard, Ill.*
Dorsey, Ruth Anna Laird	*Denver, Colo.*
Dorward, Elsie Estelle	*Madison*
Doudna, Edgar George	*Richland Center*
Dougherty, B. Fay	*West Lima*
Douglas, Helen	*Atlanta, Ga.*
Douma, Eddina Pauline l s	*Sheboygan*
Downey, Elizabeth	*Indianapolis, Ind.*
Downs, Donna	*Hurley*
Downs, Frank Emmett	*Madison*
Drake, Vera Marguerite	*Eau Galle*
Dresser, Minnie	*Kansas City, Mo.*
Drew, Janet M.	*Milwaukee*
Duecker, Werner Wilfred	*Kiel*
Duffy, G. Marguerite l s	*Fond du Lac*
Duggan, Elizabeth Veronica	*Woodstock, Ill.*
Duke, John Logan	*Madison*
Dukes, Mary Geraldine	*Winimac, Ind.*
Dumas, Marguerite Vera a	*Madison*
Dummer, Ethel Sturges l s	*Chicago, Ill.*

Dunham, Henry Kennon	*Cincinnati, Ohio*
Dunlap, Lulu Thoma	*Pittsburgh, Pa.*
Dunn, Mabel Louise	*Milton*
Dunn, Wendell Earl	*Madison*
Dunning, Laura Francelia	*Chicago, Ill.*
Dunster, Corlie Frances	*Hayward*
Dupuy, Mary Elizabeth l s	*Chicago, Ill.*
Durrie, Agnes l s	*Madison*
Durrie, Janet l s	*Madison*
Dyer, Lilia	*St. Louis, Mo.*
Dyrenforth, Carroll	*Oak Park, Ill.*
Early, James Marshall	*Oswego, N. Y.*
Eastland, Vera	*Richland Center*
Eaton, Helen Orissa l s	*Madison*
Ebbert, Georgia Grosvenor l s	*Oak Park, Ill.*
Edwards, Daniel Webster	*Hot Springs, Ark.*
Edwards, Eugene Theodore l s	*La Crosse*
Egan, Ellen Winifred l s	*Shullsburg*
Ehler, Helen	*Madison*
Eickhoff, Emma Marie	*Woodstock, Ill.*
Eisenhardt, Lucille	*St. Louis, Mo.*
Elbert, Ethel Bernice	*Council Bluffs, Iowa*
Elder, Edwin Sharretts l s	*Keokuk, Iowa*
Elder, Eunice Mary	*Madison*
Eldred, Roy Frank	*Fond du Lac*
Elliker, Dorothea	*New Glarus*
Elliott, Anna	*Stockwell, Ind.*
Ellis, Margaret Helen	*Terre Haute, Ind.*
Ellis, Mildred	*Des Moines, Iowa*
Ellman, Florence Jeanette l s	*Madison*
Elmer, Winifred May	*Hartford*
Ely, Anna Mason l s	*Madison*
Ely, Marjorie Grace	*Morrison, Ill.*
Enge, John Jacob	*Chicago, Ill.*
Engelbrecht, Elma Caroline	*Elgin, Ill.*
Engelbrecht, Mabel Angeline	*Elgin, Ill.*
Ennis, Lester Carl	*Missoula, Mont.*
Enslein, Claude	*Atchison, Kans.*
Erb, Priscilla Ann	*Pittsburgh, Pa.*
Erickson, Fred William	*Madison*
Erickson, Gertrude Winifred l s	*Evanston, Ill.*
Erickson, Gratia Shipman	*Evanston, Ill.*
Escabi, José l s	*Madison*
Eskelson, Carl Ludwig	*McLaughlin, S. Dak.*
Etheridge, Edith Grimshaw	*Mexico, Mo.*
Etter, Rolland Robert l s	*Monroe*
Eubank, Myrtle Ann	*Madison*
Evans, Grace Imogen	*Waukesha*
Evans, Thomas Iorworth l s	*Milwaukee*
Evenson, Oscar Edwin Martinius	*Scandinavia*
Everett, Lucile l s	*Denver, Colo.*
Eversoll, Norton John l s, m	*Cassville*
Ewald, Louis Philip l s	*Madison*

Ewers, Clyde Morgan	*Hillsboro*
Failing, Estella Rachel	*Ottawa, Ill.*
Fairchild, Alleene	*Glen Ridge, N. J.*
Faith, Don Carlos l s	*Washington, Ind.*
Farisy, Arthur Thomas l s, m	*Franklin, Minn.*
Farley, Lenora A. l s	*Madison*
Farr, Helen Esther	*Eau Claire*
Farrand, Jack Easton l s	*Madison*
Farrer, Katherine Janet	*Mason City, Iowa*
Farrington, Joseph Rider l s	*Honolulu, H. I.*
Fauerbach, Louis Jr. l s, m	*Madison*
Feathers, Leonard Clark l s	*Troy, N. Y.*
Fedler, F. Ernst	*Sheboygan*
Feeney, Jerome Joseph l s	*Madison*
Feeney, Mary Elizabeth	*Madison*
Fellman, Judson Le Roy l s	*Milwaukee*
Felten, Hilbert Oscar l s	*Milwaukee*
Fendley, Jessie	*Galveston, Texas*
Fenelon, Eunice Sarah	*Weyauwega*
Ferguson, Edna Rae	*Wauwatosa*
Finch, Bertha Parsons	*Chicago, Ill.*
Findeisen, Arthur Henry	*Green Bay*
Fink, August Oscar	*Fond du Lac*
Fink, Howard Rolland a	*Kenosha*
Finnegan, Lawrence Raymond	*Ironton*
Fischer, Roy Frederick l s, m	*Lancaster*
Fisher, Myrtle Marvelle	*Sidney, Mont.*
Fisher, Tessie Pearl	*Warren, Ind.*
Fitzpatrick, Daniel W.	*Missoula, Mont.*
Flagg, Charles Abner	*Ashland*
Flint, Jessie Ethel	*Sun Prairie*
Floode, Rose Esther	*Chicago, Ill.*
Foran, Mary B.	*Joliet, Ill.*
Foristell, Naomi Whitfield	*Foristell, Mo.*
Foskett, Horace Webster l s	*Shenandoah, Iowa*
Foster, Mary Louise	*Indianapolis, Ind.*
Fowler, Oscar Fern	*Algonquin, Ill.*
Fox, Earl W.	*Plum City*
Fox, Milford Gerald	*Shepherd, Mich.*
Frahm, Alvina	*Milwaukee*
Fraser, Margaret Alice l s	*Burlington*
Frazier, Cecil Austin l s	*Prescott*
Freeman, James Richard	*Sparta*
Freund, Walter Emerson	*Cedarburg*
Friday, Clara Augusta	*Oshkosh*
Friedgen, Elisabeth	*Connersville, Ind.*
Fristoe, Nancy Jane	*St. Louis, Mo.*
Fritsche, Albert	*Minneapolis, Minn.*
Fuehring, Fred John	*Evansville, Ind.*
Fuller, Ada Alfarata	*Grand Rapids, Mich.*
Fuller, Eva	*Grand Rapids, Mich.*
Fuller, Florence Dell l s	*Madison*
Fuller, Henry Chester l s	*Whitewater*

Fullerton, Anna Marguerite	*Janesville*
Fulton, Charles Archibald	*Stevens Point*
Funkhouser, Selmes Paul	*St. Louis, Mo.*
Gaarder, Herbert M.	*Onalaska*
Gabler, Elmer Vern l s	*Madison*
Gaffney, Edward James a	*Green Bay*
Galbraith, Victor Arrol l s	*Janesville*
Gallagher, Bertha	*Independence, Mo.*
Gallagher, Katherine Bodwin	*Independence, Mo.*
Gardner, Dorothy Genevieve l s	*Platteville*
Gasser, William Pape	*Naperville, Ill.*
Gath, Flora Mabel	*Madison*
Gaveney, Stanleigh l s	*Arcadia*
Geary, Sada Malone (Mrs.)	*Pittsburgh, Pa.*
Geiss, Margaret Kathrine	*Evansville, Ind.*
Gibbon, Owen Benjamin	*Madison*
Gibson, Ethel Hardy (Mrs.)	*Oklahoma City, Okla.*
Giddings, William Werner e	*Mendota*
Giffey, Hertha	*Oak Park, Ill.*
Gilbert, Otto Gustav	*Milwaukee*
Gildey, Margaret Louise	*Waupun*
Gill, Charles Albert l s	*Madison*
Gill, Roy E.	*Galesburg, Ill.*
Gillies, Mary Catherine	*Chicago, Ill.*
Gillis, Dorothy Clare	*Superior*
Gillogly, Laurel Elaine l s	*Mt. Carroll, Ill.*
Gilpin, Margaret l s, w l s	*Duluth, Minn.*
Girard, R. Bernadine	*Edgerton*
Glandon, China Miriam	*Mexico, Mo.*
Glassner, Esther Miriam l s	*Milwaukee*
Gleason, Ida	*New Richmond*
Glenn, Frances	*Chilton*
Godfrey, Redella Jane	*Whitewater*
Goetz, Anna Frances	*Milwaukee*
Golden, Jennie Alberta	*Marinette*
Gollmar, Edith	*Baraboo*
Gordon, Edith Miller (Mrs.)	*Auburndale, Mass.*
Gordon-Smith, Jean	*Madison*
Gorman, Robert Nestor	*Cincinnati, Ohio*
Gossard, Helen Ray	*Kansas City, Mo.*
Grandstrand, Alice Virginia	*Copas, Minn.*
Grandy, Arlia Mary	*Shiocton*
Grason, Eunice May	*Council Bluffs, Iowa*
Graves, Geneva Muriel	*Viroqua*
Greene, Bertha Hobart (Mrs.)	*Marinette*
Greening, Florence	*Toledo, Ohio*
Gregg, John William	*Minneapolis, Minn.*
Gregg, Wells Kellogg l s	*Madison*
Gregor, Rosa Claire	*River Falls*
Griesbach, Linda Minnie	*Plymouth*
Griewisch, Edna Marguerite	*Green Bay*
Grigsby, Doris Bertha	*Evansville, Ind.*
Griswold, Frank Lynn l s	*Madison*

Griswold, Mabel Elizabeth l s	*Madison*
Gronberg, Clarence O.	*Elgin, Ill.*
Gross, Arthur Albert l s	*Milwaukee*
Gruber, Sarah	*Milwaukee*
Guggenheim, Irene	*Chicago, Il.*
Gurney, Ellen Anna l s	*Madison*
Haack, Robert Conrad	*Monroe*
Haagen, Caroline Magdalen	*St. Louis, Mo.*
Haas, Francis Joseph	*St. Francis*
Haessler, Gertrude J. l s	*Milwaukee*
Haessler, Helen A. l s	*Milwaukee*
Hagopian, Bedros l s	*Madison*
Hahn, Allan Richard	*Ironwood, Mich.*
Hahn, Emanuel Leopold l s	*St. Louis, Mo.*
Hahn, Hannah (Mrs.)	*St. Louis, Mo.*
Hahn, Rose Linz l s	*St. Louis, Mo.*
Hain, Esther M.	*St. Louis, Mo.*
Haines, Clara Lydia	*Merrimac*
Halbert, Frances	*Chicago, Ill.*
Halbert, Howard Valmore l s	*Chicago, Ill.*
Haley, Ellen Marie	*Woodstock, Ill.*
Hall, Earl Hopkins l s, m	*Madison*
Hall, Lawrence Waterbury l s	*Madison*
Hall, Luella Jemima	*Mohall, N. Dak.*
Halsor, Anna Semelia l s	*De Forest*
Halvorson, Adolph Lawrence	*Oconomowoc*
Hames, Martha Rose	*Madison*
Hamilton, Florence Irene l s	*Tomah*
Hamilton, Mabel Delia	*Oshkosh*
Hamilton, William James	*Two Rivers*
Hancox, Lottie	*Chicago, Ill.*
Hanley, Edward Vincent e	*Milwaukee*
Hanley, Marguerite Catherine John	*Portage*
Hanley, Mary Lois l s	*Milwaukee*
Hanberry, James Harry l s	*Wonewoc*
Hansen, Elmer Harry	*Minneapolis, Minn.*
Hanson, Alma Christine l s	*Eau Claire*
Hanson, Bertha Gladys	*Stacyville, Iowa*
Hanson, Bess Frances	*Stacyville, Iowa*
Harbert, Agnes	*Madison*
Hardy, James Edward, Jr. l s	*Louisville, Ky.*
Hargitt, George Merton	*Normal, Ill.*
Harker, Will	*Argyle*
Harlan, Mabel Louise (Mrs.)	*La Fayette, Ind.*
Harloff, Rose Alice l s	*Madison*
Harris, Pickens E.	*Huntsville, Texas*
Harrison, Norvell	*Charleston, W. Va.*
Hart, Bernard Ellis	*College Station, Ark.*
Hartwig, Elizabeth Adolphine l s	*Hartland*
Harwell, Edward Allen	*Jackson, Miss.*
Harwood, Viola	*Devil's Lake, N. Dak.*
Hassard, William R.	*Ashland*
Hasse, Otto William	*Monroe*

Hastings, Henry Lawrence e	*Kenosha*
Hawkey, Alice Lucille	*Fedioute, Pa.*
Hawkins, Eskie Theodore l s	*Cumberland*
Hawkins, Walter Hurlburt	*Chicago, Ill.*
Hayes, Arthur Michael l s	*Madison*
Hayes, Kathryn Hope	*Woodstock, Ill.*
Hayssen, Irma Charlotte l s	*Madison*
Healey, Marie C.	*Cincinnati, Ohio*
Healy, Margaret Ellen	*Milwaukee*
Heaston, Anna Margaret	*Marion, Ind.*
Heath, G. Earl	*Chicago, Ill.*
Heaton, Helen Reitze	*Ft. Wayne, Ind.*
Heckerman, Ruth	*Newport, Ky.*
Heckmann, M. William	*Kiel*
Heffron, Della Agnes	*River Falls*
Heffron, Eileen Stinson	*Milwaukee*
Hegner, Nancy A.	*Wyoming, Ohio*
Heilbronner, Herbert E.	*Milwaukee*
Hein, Edward Nicholas	*Madison*
Hein, Frederick William	*S. Milwaukee*
Heiser, Juliet Eloise	*Marion, Ind.*
Helmes, Lloyd Oscar l s, m	*Madison*
Helz, Marie Frances	*Milwaukee*
Hemenway, Homer Selmo	*Edgar*
Henderson, George von Bunsen l s	*Monadnock, N. H.*
Henkel, Albert John	*Pardeeville*
Henkel, Almira Lisetta l s	*Milwaukee*
Henning, Oscar C.	*Madison*
Henry, Marcella l s	*Dayton, Ohio*
Herke, Salen	*Peoria, Ill.*
Herman, Eliza J.	*Bay City, Mich.*
Herman, Estelle	*Milwaukee*
Herrick, Donald Lukes l s	*Milwaukee*
Hertzberg, Oscar Edward	*Omro*
Hess, Mildred A.	*St. Louis, Mo.*
Hessman, Amanda C. l s	*Madison*
Heublein, Clarence Martin l s	*Fox Lake*
Heyman, Edna May	*Louisville, Ky.*
Hickey, James Sheridan a	*Milwaukee*
Hicks, Beaxton	*Menominee, Mich.*
Hicks, Myldred Amy	*Battle Creek, Mich.*
Higgins, Catherine Romana l s	*Madison*
Hillman, Gertrude Cecelia	*Hazelton, Iowa*
Hineline, Harris Dale	*Madison*
Hintzman, William Frederick l s	*Madison*
Hipke, Lucius Warrington l s	*Milwaukee*
Hirsch, Everett Charles	*Park Falls*
Hjort, Amanda Marie	*Beacon, Iowa*
Hodges, Fred Jenner l s, m	*Madison*
Hoffman, Hannah Emma	*Appleton*
Hoffman, Otis Edward	*Madison*
Hoidahl, Aagot Dorothea	*Stanley*
Holbrook, Laura Prudence	*Philadelphia, Pa.*

Hollahan, Catharine E.	*Dayton, Ohio*
Holm, Eiffel Alfred	*Willmar, Minn.*
Holman, Alfreda	*Milwaukee*
Holub, Libbie Marie	*Milwaukee*
Holzer, Mae Luella	*Baldwin*
Homan, Helen Elizabeth	*Quincy, Ill.*
Hood, Sadie E.	*Racine*
Hoppin, Edith	*Milwaukee*
Horner, Frances Lavantia	*Rockville, Md.*
Horwitz, Herman Lazarus	*Sheboygan*
Hosler, Gilbert Roy	*Chester, Pa.*
Hosman, David Fay l s	*Madison*
Hosty, Margaret Mary	*Chicago, Ill.*
Hovrud, Nora Christine l s	*Mt. Horeb*
Howell, Etta Hudson	*Winona, Minn.*
Hsieh, Hsueh Lian l s	*Wusih, China*
Huaco, Sergio Arturo	*Arequipa, Peru*
Huang, Feng-hua l s	*Canton, China*
Huber, Kate D. l s	*Madison*
Huber, Wallace Fred	*Fountain City*
Hughes, Anna Myra l s	*Madison*
Hughes, Idrys Oralend	*Madison*
Hughes, Margaret Mary	*Madison*
Hughes, Robert William	*Milwaukee*
Huguenin, Helen Converse	*Racine*
Hull, Helen Claire l s	*Madison*
Hummel, Earl Phillip	*Green Bay*
Hunsdon, Nelson S.	*San Antonio, Texas*
Hunter, Mary Catherine	*Indianapolis, Ind.*
Hutchison, Josephine Ladner	*Mineral Point*
Hyldofl, Ewold Andrew	*Elgin, Ill.*
Hyslop, Robert James l s, m	*Madison*
Ingebritsen, Clarence Otis	*Hollandale*
Irish, Foster William	*Eau Claire*
Irvine, Margaret Rendall	*Oshkosh*
Isenberg, Estelle Helena l s	*Baraboo*
Jackman, Flossie Esther	*Madison*
Jackson, Sydney Charles	*Madison*
Jacob, Harold l s	*La Crosse*
Jacobi, Florence Ethel	*Mondovi*
Jacobs, Gertrude Margaretta l s	*Reedsburg*
Jamieson, Arthur A.	*Poynette*
Janssen, Elmer Theodor	*Sterling, Ill.*
Jantz, Edward Frank	*Oshkosh*
Jay, Erskine L.	*Madison*
Jenison, Marguerite Edith l s	*Fond du Lac*
Jenkins, Esther l s	*Madison*
Jenkins, George H. Jr., l s	*Oak Park, Ill.*
Jenkinson, Jennie Simmons	*Arlington Heights, Ill.*
Jenny, Adele Theodora l s	*Milwaukee*
Jensen, Alfred Magnus e	*Madison*
Jensen, Esther Andrea C. l s	*Racine*
Jenson, Clara	*Edgerton*

Jerabek, Joseph August l s	*Madison*
Jillson, Mary Esther	*West Allis*
Johnson, Agnes Hansena	*Markesan*
Johnson, Anna Emily	*Stanley*
Johnson, George Albert	*Madison*
Johnson, Helen	*Superior*
Johnson, Lula Martha	*Atlanta, Ga.*
Johnson, Mary Edmunds	*Indianapolis, Ind.*
Johnson, Maude Evangeline	*Rockford, Ill.*
Johnson, Paul Aaron	*Muskegon, Mich.*
Johnson, Ralph Burbank l s	*Roswell, New Mexico*
Johnson, Randall	*Wausau*
Johnson, Roscoe Edwin l s	*Eureka, Kans.*
Johnson, Ruth Ellsworth l s	*Madison*
Johnson, Sophia Munroe	*Superior*
Johnson, Virginia Head	*Washington, D. C.*
Johnston, Edna Frances l s	*Rudolph, Ohio*
Johnstone, Mary Cecelia l s	*Richland Center*
Jones, Elbert William l s	*Waupun*
Jones, Emery Morris	*Madison*
Jones, Gladys Omega	*Newton, Mo.*
Jones, Harrison John	*Platteville*
Jones, Harry Ervin	*West Salem*
Jones, Ina E.	*Friendship*
Jones, Irving Willard	*Madison*
Jones, Minnie Williams	*Milwaukee*
Jones, Thelma Fay l s	*Madison*
Judd, Siegel Wright	*Grand Rapids, Mich.*
Judell, Maxson Foxhall l s	*Madison*
Judson, Eppie Eleanor	*Kalamazoo, Mich.*
Judson, Ethel Emmaline	*Galesburg, Ill.*
Kahlenberg, Hester l s	*Madison*
Kahler, Harry Herman	*Coughton, Nebr.*
Kahler, Minnie Augusta	*Hillsboro*
Kahn, Herbert Manderl l s	*Appleton*
Kailen, Florence l s	*Madison*
Kalfahs, Agatha Emily Marie	*Wauwatosa*
Karger, Ralph Simon l s	*Madison*
Karlstram, C. E.	*St. Peter, Minn.*
Kaufman, Pearl l s	*Ladysmith*
Keating, Marie Angelo	*Kenosha*
Keeler, Cordelia	*Brookville, Ind.*
Keim, Lois	*Carthage, Mo.*
Keirn, Martha	*Carrollton, Miss.*
Keller, Mabel	*Greensburg, Ind.*
Kelley, Fern	*Elgin, Ill.*
Kelley, Harriet Clark	*Indianapolis, Ind.*
Kelley, Lelia Rose	*Pleasant Prairie*
Kellogg, Horace B. l s	*Antigo*
Kemmer, Frank Leonard l s	*Madison*
Kemp, Earl Parker l s	*Kempton, Ind.*
Kentzler, Ruth Purdy l s	*Madison*
Kepke, Clara Louise Fredericka l s	*Madison*

Kepner, Harold Raymond	*Denver, Colo.*
Kerckhoff, Viola Nellie	*St. Louis, Mo.*
Kerrigan, Marguerite	*Elroy*
Kerswill, Emily Louise l s	*Park Falls*
Kesterson, Mabel Irene	*Princeton, Mo.*
Ketcham, Hazel Mae l s	*Grand Rapids, Mich.*
Keyes, Mary l s	*Madison*
Kidder, Mattie Elizabeth (Mrs.)	*Madison*
Kiefer, Gladys Lola	*Hazelton, Iowa*
Kiewit, Ethel Grace	*Omaha, Nebr.*
Kiley, William Earl l s, m	*Byron, Ill.*
Killian, Catherine Adele	*Chicago, Ill.*
Kindley, Ralph Bernard	*La Crosse*
Kindred, Geraldine Ruth	*Meadow Grove, Nebr.*
Kindred, Gladys Martin	*Meadow Grove, Nebr.*
King, John Fitch	*Youngstown, Ohio*
King, Zita	*Johnstown, Pa.*
Kinney, Carlotta Hortense	*Galesburg, Ill.*
Kissner, Florence Emma	*St. Louis, Mo*
Kittleson, Kyrren Becca	*Junction*
Kleb, Marie Rosine	*Reedsburg*
Kletzien, Adonis l s	*Madison*
Kletzien, Loyal Herman l s	*New Holstein*
Klontz, Vernon Earl l s	*Madison*
Knipp, George Lewis	*Auburn, N. Y.*
Knowlton, Helen Sheldon l s	*Madison*
Knowlton, Margaret Roper l s	*Madison*
Knutson, Esther Gunilda	*Muskegon, Mich.*
Koehler, Benjamin	*Mishicot*
Kohlhoff, Carl l s	*Madison*
Kohr, Hugo John l s	*Chicago, Ill.*
Koons, Ernest N.	*Temple, Okla.*
Kraatz, Walter Charles l s	*Madison*
Kragh, Herbert Erthol l s	*Madison*
Krasselt, Otto Louis l s	*Milwaukee*
Kraus, Glenn Viering	*Marshfield*
Krebs, Martha M.	*St. Louis, Mo.*
Krieger, Frida Johanna	*Milwaukee*
Kroening, Emil Carl	*Wausau*
Kruschke, Walter Frank	*Waldo*
Kuechenberg, Marie Edith	*Waupun*
Kum, Keen-Seen	*Shanghai, China*
Kyllo, Christie MacLennan	*Wausau*
Lackey, Esther Hutchins l s	*Oak Park, Ill.*
Lacy, Mabel Vivien (Mrs.)	*Grand Rapids, Mich.*
Ladley, Stella S.	*Pittsburgh, Pa.*
La Due, Russell Marseby l s	*Luverne, Minn.*
Lakoff, Charles Benjamin l s, m	*Chicago, Ill.*
Lamont, Dallas Ralph e	*Oregon*
Landauer, Cecile	*Atlanta, Ga.*
Lander, Miles Krause l s	*Grand Forks, N. Dak.*
Landwehr, Margaret Emma	*Milwaukee*
Lang, Edgar F.	*Jefferson*

Lang, Marcella O'Leary A. (Mrs.)	*Spokane, Wash.*
Langan, Mary Elizabeth	*Kenosha*
Lange, Alexander l s	*Madison*
Lange, John Robert	*Wausau*
Lange, Marjorie Max	*Madison*
Langwith, Olive	*Davenport, Iowa*
La Pierre, Lillian	*South Bend, Ind.*
Larck, Miriam Messner	*Chicago, Ill.*
Larrick, Erma Beatrice	*Lenora, Kans.*
Larsen, A. Ferdinand	*Pembine*
Larsen, Gustav	*Madison*
Lasher, John Howard	*Thorp*
Lasley, Mary Lois	*Kansas City, Mo.*
Lathers, Olive Gladys	*Madison*
Lathrop, Albert Isaac	*Madison*
Lawrence, Clara	*Marion, Ind.*
Lawrenz, Roy Herman l s	*Portage*
Layde, Joseph Bernard	*Seneca*
Leaper, Clarence Gillingham	*Madison*
Leary, Julia Lenore l s	*Madison*
Leasure, Ernestine	*Arkansas City, Kans.*
Leavitt, Helen H.	*Minneapolis, Minn.*
Lederer, Carl S. l s	*Chicago, Ill.*
Lee, Blanche Rebecca	*San Angelo, Texas*
Lee, Tachong, l s	*Kayin, China*
Leeden, Hebe	*Madison*
Leggett, Marvin Charles	*Madison*
Lehner, Otto P. l	*Madison*
Lemmel, Lawrence Howarth	*Seattle, Wash.*
Lenz, Edwin Robert	*Wausau*
Leslie, Kathleen	*Verona*
Lester, Burton Hurlburt	*Chicago, Ill.*
Leuchtenberger, Fred	*Milwaukee*
Levin, Mollie	*Chicago, Ill.*
Levis, Winden George	*Madison*
Lewis, Dan	*Danville, Ill.*
Lewis, Florence Elizabeth l s	*Madison*
Lewis, Marie E.	*Rockford, Ill.*
Lewis, Martha Rose Ettie	*Richland Center*
Lewis, Raymond l s	*Madison*
Liang, Chuan-ling l s	*Shantung, China*
Lichtfeldt, Clarence H. l s	*Milwaukee*
Lieber, Ruth Evaline	*Winnetka, Ill.*
Lieberman, Sylvia	*Independence, Mo.*
Light, Sarah Margaret	*Ottawa, Ohio*
Lightcap, Laura Alice	*Madison*
Lindem, Christian Jacob	*Minneapolis, Minn.*
Lindop, Mabel Edith	*Oak Park, Ill.*
Lindquist, A. Lillian	*Chicago, Ill.*
Lindsay, Jeannette Breed	*Marion, Ind.*
Lindsay, Russel Gilbert l s	*Milwaukee*
Lingle, Paula Elizabeth Nancy l s	*Madison*
Littig, Lawrence Victor l s	*Davenport, Iowa*

Little, Theresa	*Peshtigo*
Livingston, Edward Meakin l s, m	*Madison*
Lloyd, Edwina Turner l s	*Ravinia, Ill.*
Lockhart, Harriet Marvin	*Duluth, Minn.*
Lofgren, Esther Cecilia	*Madison*
Logan, Alvin Edison	*Columbus, Ind.*
Logan, Hilda Zell	*Columbus, Ind.*
Logue, Elmer Brewster	*Merrillan*
Loomis, John Lawrence l s, m	*Madison*
Lorentz, Irving Walter Paul	*Milwaukee*
Lorenz, Ellen l s	*Madison*
Lorscheter, John Mathias	*Ashland*
Loucks, Mildred Myrtle	*Chicago, Ill.*
Loughlin, Agnes Celestine l s	*Madison*
Lovell, William Edgeley, Jr.	*Omro*
Lowitz, Jack	*Chicago, Ill.*
Luckey, Viola Mae	*Morley, Mo.*
Ludlow, Evelyn C. l s	*Monroe*
Lynch, Agnes	*Superior*
Lyons, Helen Margaret	*Pontiac, Ill.*
Lyons, Mary Elizabeth	*Pontiac, Ill.*
McAneney, Jessie Viola	*Council Bluffs, Iowa*
McCaffrey. Arthur Laurance l s	*Madison*
McCain, Katie Lou	*Carrollton, Miss.*
McCarthy, Blanche Marie l s	*Madison*
McCarthy, Elizabeth Lucile l s	*Milwaukee*
McCaughey, Mabel Marie	*Chicago, Ill.*
McCaull, Nora Elizabeth	*Kansas City, Mo.*
McCollom, James Arthur	*East St. Louis, Ill.*
McCormick, Ethel Helen	*Madison*
McCrory, Raymond J. l s	*Milwaukee*
McCullough, Elizabeth	*Independence, Mo.*
McCullough, George Howard	*Independence, Mo.*
McDonald, Blanche Lois l s	*Beaver Dam*
McDougle, Verne Russell	*Madison*
McFarland, Edna Margaret	*Chicago, Ill.*
McFarland, Hala	*Terre Haute, Ind.*
McGinnis, Frances Elizabeth	*Chicago, Ill.*
McGlathery, Pattie	*Greenwood, Miss.*
McGlynn, Thomas Joseph	*Cazenovia*
McGraw, Othie Oma	*Bartlesville, Okla.*
McGuinness, Margaret	*Toledo, Ohio*
McHugh, Glenn Eller	*Madison*
McIntosh, Roscoe Lyle	*Edgerton*
McKay, Frances Josephine l s	*Fall River*
McKay, Frederick William l s	*Oshkosh*
McKennan, Luella Montgomery (Mrs.)	*Madison*
McKennan, Rachel l s	*Madison*
McKennan, Ruth l s	*Madison*
McKenzie, H. M. (Mrs.)	*Kenosha*
McKinney, Edith Burch	*Pittsburgh, Pa.*
McLean, Catherine C.	*Chicago, Ill.*
McMahon, Rolla James	*Kewaunee*

McNabb, Mary Clarissa	*Emporia, Kans.*
McNally, Estelle	*Duluth, Minn.*
McNaught, Clifford Fowler	*Rochester, N. Y.*
MacOwan, Jean Elizabeth	*Yorkville, Ill.*
McQuown, Norvin	*Denver, Colo.*
McSorley, Ethel M.	*Pittsburgh, Pa.*
Macdonald, Alexander	*Peoria, Ill.*
Mack, Florence Dorothy	*South Bend, Ind.*
Mackedon, Leo William l s, m	*Milwaukee*
Mackenzie, James Norman l s	*Madison*
Magenis, Alice	*Indianapolis, Ind.*
Magruder, Denton Adlai	*Westville, Ill.*
Maguire, Irene	*Chicago, Ill.*
Maher, Catherine Mary l s	*Milwaukee*
Mahler, Herbert Phillip l s	*Milwaukee*
Mailandt, Eyloe Dorothy	*Burlington, Iowa*
Mains, Seward Lincoln, Jr.	*Crete, Nebr.*
Malcolmson, Oliver Krause	*Kansas City, Mo.*
Maley, Helen Bridget	*Dunkirk, Ind.*
Mallon, Mary Josephine	*Chicago, Ill.*
March, James Herbert l s	*Warren, Ohio*
Mark, Louis	*Ironwood, Mich.*
Marks, Lillian A.	*Madison*
Marling, Robert Newcomb l s	*Madison*
Marquardt, Willard Horace	*Dayton, Ohio*
Marsh, Florence	*Wausau*
Marshall, Katherine	*Chicago, Ill.*
Marshall, Margaret	*St. Joseph, Mo.*
Marshall, Samuel Hagar l s	*Madison*
Marshall, William Hughes l s	*Madison*
Marston, Ava Pearl	*McGirr, Ill.*
Martin, Alice May	*Hartford*
Martin, Charlotte Louise	*Cape Girardeau, Mo.*
Martin, Daisy Moore	*Champaign, Ill.*
Martin, Elsie Vance	*Attica, Ind.*
Martin, Finley Furman l s	*Crown Point, Ind.*
Martin, Fred Charles	*Whitehall*
Martin, Hazel Isabelle l s	*Madison*
Martin, Ina Ruth Elizabeth	*Wausau*
Martinez, Donald Skillman	*Oak Park, Ill.*
Martinson, Margaret	*Merrill*
Marvin, Margaret Adeline	*Fox Lake*
Mason, Anna C.	*Washington, D. C.*
Mathews, Isabelle Bertram l s	*Ashland*
Matravers, Chester Harold	*Oconto*
Matzen, Herbert James l s	*Milwaukee*
Maurer, Kathryn Agnes l s	*Freeport, Ill.*
May, Geneva Irene	*Chickacha, Okla.*
Mayers, Marion Catherine l s	*Madison*
Megede, Nell Bonde	*Madison*
Meister, Ruth Phyllis l s	*Chicago, Ill.*
Meland, Norman	*Red Wing, Minn.*
Melville, Florence Ruth	*Kenosha*

Meng, Grace Elizabeth	*Indianapolis, Ind.*
Menzel, Flora Louise	*Milwaukee*
Merriam, S. Lee	*Bellingham, Wash.*
Merrill, Inez Chapman	*Pardeeville*
Merritt, Fannie	*Chicago, Ill.*
Metcalf, Alice Roberta	*Chicago, Ill.*
Metcalf, Minnie Wilson	*Chicago, Ill.*
Metz, John	*Lena, Ill.*
Metzger, Grace Esther	*Kingman, Kans.*
Meulemans, August Martin l s	*West Wrightstown*
Meyer, Evelyn Lucy	*Mt. Washington, Ohio*
Meyrick, Gordon Sumner e	*Milwaukee*
Middlekauff, Helen	*Chicago, Ill.*
Middleton, Forest Case l s	*Madison*
Midgard, Judith May	*Stoughton*
Mielenz, Irving A. l s	*Milwaukee*
Millar, Helen Rachel l s	*Lake Geneva*
Millard, Paul Vilas l s	*Antigo*
Miller, Carl l s	*Chippewa Falls*
Miller, Floy Salene	*Arcadia, Mo.*
Miller, Hazel Eola	*Pittsburgh, Pa.*
Miller, John Coventry l s	*Madison*
Miller, Louise	*Oak Park, Ill.*
Milligan, Margaret McCrae	*Pittsburgh, Pa.*
Millikin, Kathleen l s	*Hamilton, Ohio*
Milliren, Monroe B.	*Pepin*
Mills, Joseph Ralph	*Oak Park, Ill.*
Mishelow, Edward l s	*Westfield*
Mitchell, Madelaine	*Norwood, Ohio*
Moeschler, Clara Margaret	*Stevens Point*
Mohme, Erwin Theodore l s	*Kewaskum*
Moll, Arthur McKenzie l s, m	*Kenton, Mich.*
Moll, Lulu	*Grand Rapids*
Moon, Joe Nathan l s	*Rosendale*
Mooney, Marian Louise l s	*Superior*
Moore, Bess	*Baraboo*
Moore, Laura Edna	*Elgin, Ill.*
Moore, Wilna Vernon	*Hillsboro, Texas*
Morey, Gladys	*St. Louis, Mo.*
Morey, Helen Derexa	*Washington, D. C.*
Morgan, Bonnie Bessie	*Elroy*
Morgan, Frederic Evan	*St. Louis, Mo.*
Moroney, John Rodgers	*Dallas, Texas*
Moroney, William Joseph, Jr.	*Dallas, Texas*
Morris, Alida Edna	*Elizabethtown, Ind.*
Morris, Irene l s	*Oshkosh*
Morris, John Fox	*Peoria, Ill.*
Morsell, Mary Pendleton l s	*Milwaukee*
Morton, Charles Delos l s	*Chicago, Ill.*
Moser, Clara Pauline l s	*Madison*
Moser, Fred Joseph	*River Falls*
Moser, Robert	*Elmwood*
Moser, Will Charles	*River Falls*

Mowat, Jessie Catherine	*Elgin, Ill.*
Muchmore, Joy	*Sullivan, Ind.*
Mueller, Alfred Dominic l s	*Port Washington*
Mueller, Edward Julius	*Cincinnati, Ohio*
Mueller, Elsa Dora	*Cincinnati, Ohio*
Mueller, Lilla Caroline	*Indianapolis, Ind.*
Mueller, Martha Clara	*Cincinnati, Ohio*
Mullane, Alice H.	*Louisville, Ky.*
Müller, Herbert Arthur l s	*Reedsburg*
Mullica, John M.	*Ortonville, Minn.*
Mullowney, Nora l s	*Milwaukee*
Mumm, Edna Elizabeth	*Whitewater*
Murphy, Eleanor Jeanette l s	*Buffalo, N. Y.*
Murphy, Samuel Alfred l s, m	*Madison*
Murray, Grace Mildred	*Champaign, Ill.*
Murray, Hyacintha	*Madison*
Murray, Martha Ernestine Nellie	*Minocqua*
Myers, Roscoe	*Plainville, Ind.*
Naffz, Alice Camille	*Madison*
Nagel, George Conrad	*Webster Groves, Mo.*
Naidl, George Matthew l s	*Whitelaw*
Naughten, Mary Regina	*Pittsburgh, Pa.*
Nelson, Byron Christopher l s	*Madison*
Nelson, Martha Magdalene	*Chicago, Ill.*
Nelson, Ruth Blanche	*Muskegon, Mich.*
Nelson, Theodora l s	*Madison*
Nelson, Wilford Merriam l s, m	*Madison*
Neprud, Martha	*Shenandoah, Iowa*
Neubauer, Paul Frederick	*Milwaukee*
Neville, Minerva Ellen	*Kansas City, Mo.*
Newbury, Horace Charles	*Madison*
Newman, Irene Mary l s	*Madison*
Nicely, Ruth Sarah l s	*South Bend, Ind.*
Nichols, Clio Johnston l s	*Gallipolis, Ohio*
Nichols, Josephine Marie	*Dixon, Ill.*
Nix, Else Margaret l s	*Indianapolis, Ind.*
Norlin, Hilding	*Beloit*
Norman, Leonore Estelle	*Stoughton*
Norvell, Grace Rebecca	*Cape Girardeau, Mo.*
Nugent, E. Josephine	*Saskatoon, Can.*
Nuzum, William Alva l s	*Tomah*
Nyhus, Nora Christine	*Chippewa Falls*
Oberbeck, Walter Carl	*Grand Rapids, Mich.*
O'Brien, Marie Eileen l s	*Madison*
Ochoa, Alfonso Vizcaino	*Chicago, Ill.*
Ochs, Tillie Marie	*Muskegon, Mich.*
O'Connor, Clarence Wood l s	*Milwaukee*
O'Connor, John Peaslee	*Superior*
Odegard, Ethel Jannette l s	*Merrill*
Oesau, Theodore J.	*New Holstein*
Offutt, Viola	*Bethesda, Md.*
O'Hara, Marie Cecelia	*Milwaukee*
O'Hora, Raphael McNulty	*Madison*

O'Leary, Clarence	*Thorp*
Olmsted, Helen M. H. (Mrs.)	*Washington, D. C.*
Olsen, Lucille Eleanor l s	*Madison*
Olsen, Ruth Elizabeth	*Muskegon, Mich.*
Olson, Alvin Bennett	*Reedsburg*
Olson, Evelyn Mabel	*Chicago, Ill.*
O'Neil, Eleanor Catherine	*Chippewa Falls*
Opper, Clara Louise l s	*Weyauwega*
Orear, Pauline O'bob	*Kansas City, Mo.*
Osborn, Joyce	*Indianapolis, Ind.*
Osborn, Margaret Stanton	*Columbus, Ohio*
Osborne, Adele Baldwin	*Wellington, Kans.*
O'Shea, M. Vincent, Jr., l s	*Madison*
O'Shea, Regina Josephine	*Newark, N. J.*
Ostendorf, Fred Peter	*Platteville*
Otterson, Joseph Orlando	*Madison*
Outland, Clyde Warren	*Green Bay*
Overbey, Mamie (Mrs.)	*Atlanta, Ga.*
Paape, Carl Edward	*Milwaukee*
Packard, Vernon Wing l s	*Madison*
Pain, Charles Esmond, Jr., l s	*Chicago, Ill.*
Painter, Virginia Estella	*Lock Haven, Pa.*
Palin, Milburn Ravenshaw	*Grand Rapids, Mich.*
Palmer, Kate Loomis	*Fond du Lac*
Palmer, Walter Fred	*Salamanca, N. Y.*
Parent, Charles William l s	*Florence*
Park, Florence	*Lincoln, Ill.*
Parke, Vera Janet	*Madison*
Parker, Augusta	*St. Louis, Mo.*
Parker, Herbert Nichols l s	*Dixon, Ill.*
Parker, Launce Spencer	*Iron River*
Parker, Leonora	*East St. Louis, Ill.*
Parks, Clara Dell	*St. Louis, Mo.*
Partridge, Florence A., l s	*Chicago, Ill.*
Patchin, Evelyn Maud	*Spokane, Wash.*
Paulson, Walter Ernest	*Hollandale*
Paulu, Emanuel Marion	*Horicon*
Paxton, Richard Dwight	*Bay City, Mich.*
Pease, Warren Albert	*Green Bay*
Peck, Marjorie l s	*Duluth, Minn.*
Pelton, Harold Edwin Leslie l s	*Middleton*
Pember, Audrey Humphrey	*Janesville*
Pemberton, Ina Mamie	*West Plains, Mo.*
Penhallegon, Mary Genevieve l s	*Mineral Point*
Perlman, Jacob l s	*Madison*
Peter, Elsa	*Milwaukee*
Peters, Reaves Edwin	*Madison*
Petersen, James Andrew	*Algoma*
Petersen, Le Roy	*Amery*
Pett, Alma Emily l s	*Johnson Creek*
Pettibone, Vera Hartman (Mrs.)	*Bellevue, Ohio*
Pettis, James T.	*Madison*
Pettis, Jessie Agnes	*Menasha*

Pfeiffer, Grover Frederick	*Quincy, Ill.*
Phillips, Bessie	*Madison*
Phillips, Evelyn Alice	*Milwaukee*
Phillips, Harold Edward l s, m	*Madison*
Pieh, Addie Emma l s	*Madison*
Pierce, Lois	*Hudson, S. Dakota*
Pilpel, Emily Marion l s	*New York, N. Y.*
Pingry, Mabel Eunice	*Crystal Lake, Ill.*
Pitts, Joseph Samuel	*River Falls*
Plunkett, Florence Nadine	*Bartlesville, Okla.*
Pohle, Viola Elizabeth l s	*Bloomington*
Pokorny, Emily	*Madison*
Polacheck, Jean L.	*Milwaukee*
Pollard, Seth Whitely	*Lannon*
Porter, Cora Ellen	*Washington, Iowa*
Porter, Helen Luella	*Pittsburgh, Pa.*
Postel, Harold H.	*Milwaukee*
Potter, Frances Harriet	*Indianapolis, Ind.*
Prange, Elmer William l s	*St. Louis, Mo.*
Pray, Carrie Lucretia (Mrs.)	*Indianapolis, Ind.*
Preuss, Selma O.	*Milwaukee*
Pribnow, Harry Warren l s	*Madison*
Priester, Oscar Frederick	*Madison*
Pritchard, Nellie Austin	*Omaha, Nebr.*
Pritzlaff, Edward Frank l	*Milwaukee*
Probst, Fredrica Sebald	*Tulsa, Okla.*
Prochaska, Joe Frank l s	*Montfort*
Punches, Leo Solomon	*Fayette, Ohio*
Pyle, Irene Beaumont	*Muskegon, Mich.*
Quail, John Joseph l s	*Hayward*
Queeman, Ethel Angeline	*Milwaukee*
Quigley, Vernon James l s	*Antigo*
Quinn, Matthew James	*Spring Valley*
Raborn, George Pendleton	*San Marcos, Texas*
Racy, Florence Lillian	*St. Louis, Mo.*
Radford, Ruth Marie	*Oshkosh*
Radtke, Roy Arthur	*West Allis*
Ralph, Franklin Edgar	*Cuba City*
Ralston, Lucile	*Marshall, Ill.*
Ramsay, Eleanore l s	*Madison*
Ramsey, Laura	*Haziehurst, Miss.*
Ramsey, Madeline Eva	*Chicago, Ill.*
Ransley, Harry Condor	*Stanley*
Raube, Reinhold Henry	*Madison*
Rauhenstein, Eva Mary	*Buffalo, N. Y.*
Reed, Chester Arthur	*St. Cloud, Minn.*
Reed, Ida Belle Estelle	*Kansas City, Mo.*
Reed, Olive A.	*Kansas City, Mo.*
Rees, Edith Winifred	*Johnstown, Pa.*
Reeve, Laura Washburn	*Washington, D. C.*
Rehfeld, Frances Eugenia	*Milwaukee*
Reichert, J. Lester l s, m	*West Bend*
Reichert, Ramona l s	*West Bend*

Reid, Edgar Sterling	*Chesaning, Mich.*
Reindl, Helen Zephrine	*Chicago, Ill.*
Reining, Margaret Hoffman	*Pittsburgh, Pa.*
Reither, Tillie	*East St. Louis, Ill.*
Renich, Florence Caroline l s	*Woodstock, Ill.*
Rennie, Margaret	*Galveston, Texas*
Ressmeyer, Emma Bertha l s	*Madison*
Reszke, Felix Eugene	*Cincinnati, Ohio*
Reul, Myrtle Frieda	*Baraboo*
Reynolds, Gladys	*Rockford, Ill.*
Reynolds, Mildred Marguerite	*Madison*
Rheingans, William Jacob e	*Jackson*
Rhoads, Dorothy Mary	*Rock Island, Ill.*
Rice, Marion Elaine l s	*Chicago, Ill.*
Richardson, Alice May	*Evanston, Ill.*
Richardson, Helen	*Evansville*
Richer, Ruth Caroline	*Grand Rapids*
Ridley, Blanche	*Corydon, Ind.*
Riely, Genevieve	*Toledo, Ohio*
Rietow, William Howard l s	*Sheboygan*
Righter, Pearl Geneva	*Evanston, Ill.*
Rindy, E. Genevieve l s	*Madison*
Rinker, Jacob Aaron	*Eureka, Ill.*
Rinkes, Melva	*Canton, Ohio*
Ritchie, Elizabeth (Mrs.)	*Carrick, Pa.*
Ritter, George J., l s	*Madison*
Roach, Arthur Milton	*Richmond, Ind.*
Roach, Melba Clarice	*Fennimore*
Roantree, Robert Peter l s, m	*Parker, S. Dak.*
Roberts, Florence Jean l s	*Superior*
Robertson, Jennie Marie l s	*Lodi*
Robertson, Mary Estella	*Ft. Atkinson*
Robertson, Walter Kempster	*River Forest, Ill.*
Robson, William Wallace	*Madison*
Rodgers, Clarence C., l s	*Madison*
Rodgers, Thomas N.	*Madison*
Rogge, Gladys Sara	*Oshkosh*
Rohn, Grace C.	*Chicago, Ill.*
Rolfe, Jean Francis	*Hixton*
Roose, Marian	*Perrysburg, Ohio*
Rosenow, Gustav Adolph	*Menasha*
Ross, Arthur James, Jr.	*Perry, Iowa*
Rothwell, Paul T.	*Madison*
Royce, Elizabeth l s	*Madison*
Rubado, Clarence A., l s	*Madison*
Ruckweed, Martin Alonzo	*Colby*
Rudd, Ingeborg Elizabeth l s	*Kenosha*
Rudie, Neil	*Westby*
Rudolphi, Mamie E. (Mrs.)	*Madison*
Rudy, Frances Eleanor l s	*Madison*
Ruehl, Wilbur H., l s, m	*Beaver Dam*
Ruhnke, Reinhard Herman	*Milwaukee*
Rumball, Edwin Alfred	*Ithaca, N. Y.*

Runge, Elizabeth Agnes l s	*Milwaukee*
Ryan, Florence Veronica	*Chicago, Ill.*
Ryan, Helena Margaret	*Quincy, Ill.*
Rynkszel, Stephen Robert	*Dillon, Mont.*
Saby, Queenie Anna	*Baldwin*
Sadlier, Richard Edward l s	*Stanley*
Salentine, Joseph Henry l s	*Calhoun*
Saltzstein, Felix Cohen	*Milwaukee*
Saltzstein, Sidney Cohen	*Milwaukee*
Sarazin, Katherine Isabelle	*Superior*
Savage, Ethel	*Elkhart, Ind.*
Sawyer, Wilda Amy l s	*Menominee, Mich.*
Saxon, May	*Marion, Ind.*
Sayle, George W. l s	*Madison*
Schaaf, Irma Mae	*Woodstock, Ill.*
Schacke, Martha Alvina l s	*Reedsburg*
Schaefer, Leo H. l s	*Madison*
Schanen, Paul	*Stevens Point*
Schaub, Carl Frederick	*Marion*
Scheinfeld, Ruhamah	*Milwaukee*
Scheuber, Frank Adolph	*Livingston, Mont.*
Schilling, Ethel Florence	*Green Bay*
Schimel, Frank Raymond	*Tisch Mills*
Schleck, Leo Peter	*Madison*
Schlegel, Erna	*Westfield*
Schlimgen, Lucian George	*Madison*
Schlosser, Francis Frederick	*Eau Galle*
Schlotthauer, Gertrude Marie l s	*Madison*
Schmidt, Annetta	*Chicago, Ill.*
Schmidt, Arno John l s	*Davenport, Iowa*
Schmidt, Ernst Conrad l s	*Chicago, Ill.*
Schneider, Leone Katherine	*Cleveland, Ohio.*
Schoonover, Arthur Floyd	*Gotham*
Schraa, Nicholas Charles l s	*Madison*
Schroeder, Meta a	*Madison*
Schubert, Arthur Frank l s	*La Crosse*
Schuldt, Ella Cora	*Barron*
Schuler, Catharine Ellen l s	*Milwaukee*
Schulte, Estelle Johanna	*Homewood, Ill.*
Schultz, Magnus Petersen	*Madison*
Schustedt, S. Charlotte l s	*Madison*
Schweichler, Lothar Adolph l s, l	*Milwaukee*
Schweickhard, Ellis Keith	*Mankato, Minn.*
Scilley, Jean Irene	*Billings, Mont.*
Scofield, Ethel Catharine	*Milwaukee*
Scully, Katherine Elizabeth	*Pittsburgh, Pa.*
Seegar, Nellie S.	*Jacksonville, Ill.*
Seidlitz, Ella	*Winona, Minn.*
Seifert, Robert George	*Chicago, Ill.*
Seiter, Idah Luella	*Freeport, Ill.*
Sell, Vivian Isabelle	*Sheboygan*
Selleck, Eugene R.	*Platteville*
Sennett, Margaret Devlin l s	*Madison*

Sergeant, Jessie Aurelia	*Sheldon*
Seston, Alma Amelia	*Mazomanie*
Seward, Bertha Hedwig	*Beaver Dam*
Seymour, Whitney North l s	*Madison*
Shaver, Edna Helen	*Homewood, Pa.*
Shaw, Cornelia Elizabeth	*Zion City, Ill.*
Shea, Gertrude	*Chicago, Ill.*
Shearer, Jonathan Murray	*Minneapolis, Minn.*
Sheehan, Katharine	*Grand Rapids, Mich.*
Shepard, Helen	*Indianapolis, Ind.*
Shipek, Edward l s	*Madison*
Shorey, Inez Ann	*Oshkosh*
Short, Fred	*Madison*
Shultz, Flora	*Logansport, Ind.*
Shumate, Veneta	*Quincy, Ill.*
Shumway, Robert Burr	*Milton*
Shurtleff, Dorothy l s	*Boston, Mass.*
Sieg, Elmo Ewing	*Chillicothe, Ohio*
Siemers, Arthur William	*Madison*
Siemers, Bertha Bleck	*Madison*
Sievers, Edward George l s	*Madison*
Simenson, Oscar l s	*La Crosse*
Simmons, William Francis	*Milwaukee*
Simnicht, Louis A.	*Mellen*
Simpson, Dorothy Kathrine	*Winona, Minn.*
Sinaiko, Sohnia l s	*Madison*
Sister Mary Ellen	*Sinsinawa*
Sister Mary Gertrude	*Sinsinawa*
Sister Mary Jeannette Bodoh l s	*Fond du Lac*
Sister Mary Rosalia Mandel	*St. Louis, Mo.*
Sister Mary Samuela	*Milwaukee*
Sister Virginia Mary	*Sinsinawa*
Sister Rosemary	*Sinsinawa*
Slade, Katherine Claire	*Rockford, Ill.*
Slaker, Don Valentine e	*Janesville*
Sletteland, Oscar Bernard l s	*Pigeon Falls*
Smiley, Flora Dumont	*Lockland, Ohio*
Smith, Dorothy Paul l s	*Madison*
Smith, Edith Edna	*Salt Lake City, Utah*
Smith, Ethel Lou	*Warren, Ill.*
Smith, Floyd	*Menasha*
Smith, Frood Paul	*Dodgeville*
Smith, Harold David l s	*Platte, S. Dak.*
Smith, Harriet Ellen	*Milwaukee*
Smith, Henry Earl	*Three Forks, Mont.*
Smith, Louisa	*Fennimore*
Smith, Lynwood Herbert	*Nelm, Mo.*
Smith, Martha	*Madison*
Smith, Mary Isabella	*Arkansas City, Kans.*
Smith, Nettie May l s	*River Falls*
Smith, Russell Evarts l s	*Madison*
Smith, Wilhelmina mw	*Chicago, Ill.*
Smith, William Lester l s	*La Crosse*

Snaddon, George Hutton	*Madison*
Snaddon, Robert l s	*Madison*
Snell, Harriet l s	*Fargo, N. Dak.*
Snodgrass, Etha Cleaver l s	*Eugene, Ore.*
Snyder, Harry Evan	*Youngstown, Ohio*
Solberg, Victor	*Eau Claire*
Sorenson, Pauline Kathrine	*Sturgeon Bay*
Soukup, Mary	*Chicago, Ill.*
Spafford, Allen e	*Morrison, Ill.*
Spafford, Ruth Alice	*Morrison, Ill.*
Spandau, Merle	*Pittsburgh, Pa.*
Sparks, Lillian May	*Marshall, Mo.*
Spaulding, Benjamin Warren	*San Jose, Cal.*
Spear, Osmund	*Indianapolis, Ind.*
Speer, Bedell Hudson l s	*Madison*
Spelliscy, Sara Elizabeth	*Litchfield, Minn.*
Spencer, Ernestine E.	*River Forest, Ill.*
Sperle, Sara Ottina	*Macfarland*
Spiegel, Ralph	*Milwaukee*
Spillard, Edna Mead	*Cincinnati, Ohio*
Sproesser, William Charles l s	*Milwaukee*
Stabo, Nels Eivind l s	*Decorah, Iowa*
Stamm, Walter Albert l s	*Milwaukee*
Stander, Arthur Earl l s	*Madison*
Stang, Hartwick Martinus m	*Madison*
Stannard, Marie Eugenia	*Eau Claire*
Staples, Irene Foster l s	*Osceola*
Staples, May Foster (Mrs.)	*Osceola*
Stark, Roland	*Westville, Ill.*
Starkweather, Farre Ida l s	*Madison, Ohio*
Starner, Ethel Irene	*Boscobel*
Stebbins, Mary Ford	*Utica, N. Y.*
Steding, Elsa Susan	*Pittsburgh, Pa.*
Steeholm, Hardy l	*Racine*
Steele, Clay Evans l s	*Belmont*
Steele, Florence Irene	*Philadelphia, Pa.*
Steele, Frank Mears	*Shoales, Ind.*
Stehn, Florence Clarke (Mrs.) l s	*Madison*
Steiner, Herbert Reuben	*Stevens Point*
Steinfeldt, Gladys Louise	*West Depere*
Steinmetz, Edith M.	*Indianapolis, Ind.*
Steketee, Eugene Francis	*Grand Rapids, Mich.*
Stephan, Carl Thompson l s, m	*Chicago, Ill.*
Stephani, Ottilie Marie	*East St. Louis, Ill.*
Stephenson, Verne Lindsay	*South Bend, Ind.*
Sterk, Katherine Mary	*L'Anse, Mich.*
Stern, Seigfried Lawrence	*Montgomery, Ala.*
Stewart, Jeanne Lee	*Indianapolis, Ind.*
Stewart, Mary Lavinia (Mrs.)	*Oklahoma City, Okla.*
Stewart, Ralph Osbourn	*Homestead, Pa.*
Stewart, Robert Bruce	*Duluth, Minn.*
Stier, Leslie Guy	*Tigerton*
Stivers, Grace Helen	*Dayton, Ohio*

Stoll, Lucille Alice	*Lincoln, Ill.*
Stoll, Nettie Maurine	*Lincoln, Ill.*
Storrs, Electa North	*Ft. Thomas, Ky.*
Stothart, Paul Pope	*Milwaukee*
Strange, Curtis Arthur	*Madison*
Straughan, Cora May	*Marion, Ind.*
Strossman, Marion Rae	*Aurora, Ill.*
Struck, Louis Alfred	*Galesville*
Stubbs, Clayton Thomas	*Detroit, Mich.*
Stuckey, Arthur Ray	*Washington, Ind.*
Stutz, Tekla Eunice	*Oconto*
Suhr, Lewis Delmar l s	*Madison*
Sullivan, Mary Margaret	*Freeport, Ill.*
Sullivan, William Thomas	*Oconto*
Sutton, Cora G.	*Connersville, Ind.*
Sutton, Henry Francis	*Green Bay*
Swaim, George Earl	*Montpelier, Ind.*
Swandale, George Tupper	*Greenville, S. C.*
Swanson, Cleary Neil l s	*Marinette*
Swanton, Milo Kendell	*Madison*
Swartz, David Arden	*Mondovi*
Sweet, Ben l s	*Madison*
Sylvester, Grace D.	*Chicago, Ill.*
Tang, Ching Yie	*Shanghai, China*
Taveira, Agnhild Linea	*Rockford, Ill.*
Taylor, Alice	*St. Louis, Mo.*
Taylor, Joseph Vincent g	*Madison*
Taylor, Marvin Hunter	*Louisville, Ky.*
Taylor, Mary Carolyn	*Avalon*
Tegeler, Margaret Dorothy	*St. Louis, Mo.*
Tenney, M. Florence	*Harvard, Ill.*
Teschner, Else	*Milwaukee*
Thatcher, Frederick Robert	*Elgin, Ill.*
Thayer, Irma	*Muskegon Mich.*
Thayer, Vivian Trow g	*Mukwonago*
Theiss, Anna	*Milwaukee*
Thiele, Victoria Carolyn	*Oshkosh*
Thomas, Charlotte B.	*Winfield, Kansas*
Thomas, Edward J.	*Madison*
Thomas, Emma Louise Grant	*Philadelphia, Pa.*
Thomas, Florence	*Superior*
Thomas, Foster Keith l s	*Madison*
Thomas, George Francis	*Green Bay*
Thomas, Jane Austin l s	*Cambridge, Mass.*
Thomas, Nancy Catherine	*Dunkirk, Ind.*
Thompson, Athol Blythe	*Grand Rapids, Mich.*
Thompson, Belle Nathalie	*Baldwin*
Thompson, Frances Katherine	*Florence, Nebr.*
Thompson, Helen	*Galesburg, Ill.*
Thompson, Olive Selma	*Macfarland*
Thompson, Oscar J.	*Greenwood*
Thompson, Victor Emanuel	*Madison*
Thompson, W. Leonard	*Madison*

Thorud, Madeline	*Chicago, Ill.*
Threinen, Bert Anthony l s	*Kenosha*
Tiemann, Harry August	*Flint, Mich.*
Tillman, Arthur George l s	*Madison*
Tillotson, Ruth Amelia l s	*Madison*
Tingley, Ethel Fay	*Terre Haute, Ind.*
Todd, James Smith	*Cincinnati, Ohio*
Toerne, Oscar von l s	*Madison*
Tomlinson, Ruth Muriel	*Ashland*
Tooley, Leland Keith	*Chicago, Ill.*
Topp, Bertha Marie	*Cincinnati, Ohio*
Torgerson, Theodore L. l s	*Ontario*
Town, George Galloway l s	*Madison*
Treat, Isabel Glenn	*Indianapolis, Ind.*
Tredwell, Lillie l s	*Chicago, Ill.*
Tree, Orville Le Roy l s	*South Wayne*
Treff, Simon Ludwig	*Manawa*
Trilling, Blanche M.	*Madison*
Troutman, Oliver	*Mt. Pleasant, Mich.*
Trueblood, Basil Carl	*Salem, Ind.*
Truitt, John William l s, m	*Naperville, Ill.*
Tufts, Millard	*Sturgeon Bay*
Tugendreich, Beulah Esta	*Manistee, Mich.*
Turner, Alice l s	*Port Washington*
Turner, Etta	*Winona, Miss.*
Turner, Wells Eugene	*Wausau*
Tye, William Leo l s	*Chicago, Ill.*
Uhr, Adolph	*San Antonio, Texas*
Vail, Samuel Crane	*Evanston, Ill.*
Valentine, Frances Chidester (Mrs.)	*Toledo, Ohio*
Van Arsdale, Helen Seeson	*Racine*
Van Arsdale, Maurice William l s	*Madison*
Van Camp, Helen	*Mooseheart, Ill.*
Van Dalsem, Newton	*Neenah*
Van Den Berg, William John l s m	*Madison*
Vanderbie, Chauncey L. l s	*Platteville*
Van Steenberg, Nina	*Lansing, Ill.*
Vaughan, Harold Frank	*Milwaukee*
Vaughn, Madge	*Des Moines, Iowa*
Venable, Mary S. (Mrs.)	*Huntington, W. Va.*
Vergeront, Marie Edna l s	*Madison*
Vick, Anna Margaret	*Madison*
Vik, Esther Josephine	*La Crosse*
Voke, Cora	*Columbus, Ohio*
Waddell, John Frank l s	*Evansville*
Wahl, John J.	*Milwaukee*
Wahle, George Henry g m	*Marshfield*
Waite, Jay Davies l s	*Madison*
Walden, Viola Emilie (Mrs.)	*Madison*
Waldrip, Enid Lamora	*Attica, Ind.*
Walker, Belle McMurry (Mrs.)	*Lawrenceburg, Ky.*
Walker, Robert Arlo	*Madison*
Wall, John Irving l s	*Antigo*

Walthall, Robert McBride	*Fort Worth, Texas*
Walther, Max Edwin	*Medford*
Wamsley, Jennie	*Cedar Springs, Mich.*
Ward, Gladys Frances	*Mondovi*
Wark, Elizabeth Frances	*Kansas City, Mo.*
Warne, Ralph Caldwell	*Chicago, Ill.*
Warner, Mary Vivian	*Chicago, Ill.*
Warner, Nellie l s	*Madison*
Watson, Robert Harvey	*Maryville, Mo.*
Wattawa, Esther l s	*Madison*
Wayman, Florence Alwilda	*Pittsburgh, Pa.*
Webb, Maude Larne	*Ft. Atkinson*
Webster, Zella Elizabeth	*Spring Valley*
Wedel, Sylvia Carmen l s	*St. Louis, Mo.*
Weeks, Anne Marie	*Racine*
Weese, Donald Ouray	*Huntington, Ind.*
Wehle, Mary Liddell (Mrs.)	*Louisville, Ky.*
Weilepp, Laura Elizabeth	*Decatur, Ill.*
Weiscopf, Edna Miriam	*Milwaukee*
Weisse, Harvey Jennings	*Sheboygan Falls*
Weisse, Henry Charles	*Sheboygan Falls*
Weldon, Charles William Temple l s	*Milwaukee*
Welke, Ernest Gottlieb l s, m	*Madison*
Weller, Charles Grafton l s, m	*Madison*
Wells, Alberta May l s	*Denver, Colo.*
Wells, Estella Lucetta	*Madison*
Welty, Stella Katherine	*Cleveland, Ohio*
Wengler, Harold l s	*Madison*
Werner, Elsie Anna	*Saybrook, Ill.*
Wertheimer, Mildred Salz	*Kaukauna*
Wessel, Iona Johene l s	*Madison*
Westcott, May Kendall l s	*Baltimore, Md.*
Whaley, Regina Estelle	*Benton*
Whedon, Frances Eliza	*Chicago, Ill.*
Wheeler, Harold Parker m u	*Milwaukee*
Wheeler, Warren Gregg l s	*Wauwatosa*
Whinfield, Harold Widdington	*Sheboygan*
Whipple, Charlotte Elizabeth	*Waukegan, Ill.*
Whipple, Marthena l s	*Waterloo*
White, Alice Harris (Mrs.)	*Louisville, Ky.*
White, Cecil Electa	*Monroe*
White, Charles Ross	*Hillsboro*
White, Marcus Dee l s, m	*Madison*
Whiteford, Winnifred Anne	*Beardstown, Ill.*
Whitney, Beryl Esther	*Blanchardville*
Whitney, Katharine Townsend l s	*Madison*
Whittet, James Lowell l s	*Edgerton*
Wiehl, Dorothy Gerard l s	*St. Joseph, Mo.*
Wilbert, Gustave Carl l	*Thiensville*
Wilcox, Alfred C.	*Bangor, Mich.*
Wileden, Arthur Fred	*Templeton*
Wiley, Myra Rowland	*Arcadia*
Wilkinson, Wardell	*Chicago, Ill.*

Willett, Edna Marion	*Madison*
Williams, Anna	*Sioux City, Iowa*
Williams, Arthur Raymond	*Wild Rose*
Williams, Ida Caroline	*Madison*
Williams, Myron Charles l s	*Madison*
Williams, Ray Evan	*Madison*
Wilson, Allene l s	*Cape Girardeau, Mo.*
Wilson, Della	*Indianapolis, Ind.*
Wilson, Noble	*Bargersville, Ind.*
Wilson, William Balfour l s	*Belleville*
Winship, Amy Davis (Mrs.)	*Madison*
Winter, Albert Henry	*Topeka, Kans.*
Wise, Merton Barber	*Rothschild*
Witthuhn, Elmer William l s	*Appleton*
Wochos, Louis Henry	*Wausaukee*
Wolcott, Roger Gilbert	*Madison*
Wolfard, Effie Jeannette	*Richmond, Ind.*
Wolfers, Robert Charles l s	*Hopkins, Mo.*
Wolff, Marie Borchardt l s	*Madison*
Wong, Marvin Yet Hsen	*Shanghai, China*
Woo, Yui	*Swatow, China*
Wood, Beatrix Lenore l s	*Hancock*
Wood, Meta Aileen l s	*Fulton, Mo.*
Wood, Ralph Hereld l s	*Hancock*
Woodbury, Frederick Ralls	*East Chicago, Ind.*
Woods, Ruth	*Laredo, Mo.*
Woodworth, Douglas Harmon l s	*Sparta*
Wright, Cornelia l s	*Winona, Minn.*
Wright, Emma Dean	*Frankton, Ind.*
Wu, Wei Yoh	*Hunan, China*
Wyman, Grace	*Madison*
Wynn, Mary	*Indianapolis, Ind.*
Yang, Tsao Shing	*Shanghai, China*
Yocum, William Kerns	*Glen Moore, Pa.*
York, Pansy Celia	*Superior*
Youmans, Henry A. l s, m	*Mukwonago*
Young, Annie May l s	*Atlanta, Ga.*
Young, Arthur Tatarian	*Chicago, Ill.*
Young, Jacob Adelbert	*Colby*
Young, Jeannette Peters	*Pittsburgh, Pa.*
Young, John Henry, Jr., l s	*Eau Claire*
Young, William Monroe, Jr., l s	*Lake Beulah*
Zanger, Carl Emil	*Chicago, Ill.*
Zeidler, Florence Caroline	*Madison*
Zeisler, Emma Louise	*La Crosse*
Zeitler, Ella Johanna	*Luxemburg*
Ziegenhagen, Frederick W.	*West Allis*
Zillmann, Harold Allen	*Thorp*
Zimmerman, Albert John	*Menomonie*
Zimmerman, Theresa Elizabeth	*Peshtigo*
Zimmermann, Hilda Ernestine	*Milwaukee*
Zimmers, Peter Jeremiah	*Manitowoc*

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Music

Anderson, Margaret m u	*Madison*
Andrews, Lilly M.	*Baraboo*
Arthur, Cetelle Maude	*Madison*
Ayer, Mary L. m u	*Verona*
Baker, Hazel Eleanor	*Woodstock, Ill.*
Beecher, Alice Dorothy m u	*Madison*
Bent, Myrtle Wylie (Mrs.)	*Oshkosh*
Bischoff, Lenora Lee m u	*Madison*
Booth, Zoe	*Hillsboro, Mo.*
Bretscher, Elsie	*Muskegon, Mich.*
Campbell, Lucille Eleanor m u	*Madison*
Carpenter, Helen Louise	*Muskegon, Mich.*
Challman, Hester Matilda	*Galesburg, Ill.*
Cooper, Ferne I.	*Bloomington*
Ellwood, Vera Brown	*Muskegon, Mich.*
Enright, Agnes Elizabeth	*Troy Center*
Fauerbach, Clara Vierling l s	*Madison*
Gallagher, Ruth Anna	*Pittsburgh, Pa.*
Glynn, Maude Elizabeth m u	*Superior*
Goddard, Grace	*Madison*
Grignon, Camilla	*Kenosha*
Hamilton, Harriett (Mrs.)	*Two Rivers*
Harker, Myra Susan l s	*Madison*
Hathaway, Eva May	*Duluth, Minn.*
Heintz, Maude Ellen	*Plankinton, S. Dak.*
Hessman, M. Lena	*Madison*
Hoppin, Ruth Estelle	*Ashland*
Howard, Vera Winifred	*Mondovi*
Humphreys, Harry Christopher	*Madison*
Jacobson, Nellie Rose	*Burlington*
Jedele, Ruth N.	*Dexter, Mich.*
Jones, Helen Truran	*Shullsburg*
Jones, Jessamine Barbara	*Madison*
Knoll, Marie Alma	*Milwaukee*
Knoll, Eleanore	*Milwaukee*
Koefod, Laila Virginia	*Granite Falls, Minn.*
Kremers, Elsa l s	*Madison*
Lampert, Florence May	*Lena, Ill.*
Levitan, Ethel m u	*Madison*
Lloyd, Elizabeth	*Mankato, Minn.*
Lund, Bertha Theressa	*Mt. Horeb*
McAneney, Maude Ethel	*Council Bluffs, Iowa*
McGaw, Anna Elizabeth	*Pittsburgh, Pa.*
Mayer, Hildagarde H. m u	*Jefferson*
More, Grace Van Dyke	*Wellington, Kans.*
Myers, Ethel Bernice	*Quincy, Ill.*
Oltman, Myrtle Mable	*West Salem*
Ord, Gladys	*Auburn, Nebr.*
Osbon, Bert Paul	*Manila, P. I.*
O'Toole, Irene Marie	*Chicago, Ill.*

Palmer, Mabel	*Madison*
Piper, Helen Elizabeth m u	*Madison*
Pontius, Claudia Eva	*Pittsburgh, Pa.*
Porter, Hazel E.	*Portage*
Prahl, Adelaide Louise	*Milwaukee*
Preston, Charlotte Elizabeth	*Brodhead*
Provin, Nina Sloan	*Jamestown, N. Y.*
Sanderson, Pearl Evangeline	*Milwaukee*
Saris, Helen Katherine	*Beloit*
Schalk, Ella Martha	*Berlin*
Seston, Verna	*Mazomamie*
Sewell, Emily Mae	*Janesville*
Siebecker, Flora Josephine l s	*Madison*
Skelton, Agnes Cecelia m u	*Madison*
Stark, Anna Lydia m u	*Madison*
Stephenson, Ruth	*Cincinnati, Ohio*
Sweet, Minnie Lueders (Mrs.)	*Madison*
Thollehaug, Lola Lusk (Mrs.)	*St. Thomas, N. Dak.*
Thomas, Oka	*Kansas City, Mo.*
Trissler, Georgiana Gwendoline	*Middletown, Ohio*
True, Lloyd Otho	*Madison*
Vickers, Raymond Dettloff	*Niagara Falls, N. Y.*
Ward, Golden Adella	*Mondovi*
Weed, Ora L.	*Pittsburgh, Pa.*

College of Engineering

Adams, Thomas Edward l s	*Madison*
Alaniva, John William	*Madison*
Albers, Walter Leland e	*Prairie du Sac*
Bash, Francis Edwin	*Madison*
Bechmann, Wilhelm Ernst Karle	*Madison*
Bendfelt, Herbert Albert e	*Madison*
Bennett, Joseph Gardner e	*Madison*
Berteling, Charles Meill	*South Bend, Ind.*
Bond, Aubrey H. e	*Madison*
Borgers, William Benjamin	*Chicago, Ill.*
Brandt, Ellis R. e	*Edgerton*
Breuer, Orval William e	*Manitowoc*
Buchholz, Rudolph O.	*Lemmon, S. Dak.*
Buck, Howard e	*Madison*
Buckeridge, Charles Rex	*Beloit*
Burns, John Leo	*Prescott*
Burzynski, Larry Edward e	*Milwaukee*
Camlin, Harold Andrew e	*Madison*
Camlin, William J. e	*Madison*
Carlson, Thorwald A. e	*East Helena, Mont.*
Carus, Gustave Krueger	*La Salle, Ill.*
Case, Percival Fuller e	*Racine*
Casey, Thomas B.	*Chicago, Ill.*
*Chapin, Huber Alva	*Madison* —74

*Died July 1916.

Clegg, William Gifford	*Webster Groves, Mo.*
Collar, George Creighton e	*Phillips*
Connolly, John Mack e	*Milwaukee*
Conrad, Charles Smedley	*Sycamore, Ill.*
Cooper, Clarence Edward e	*Ashland*
Cox, George Bryan	*Columbia, Mo.*
Craig, Johnston Gwin	*Kirkwood, Mo.*
Crumb, Fred Wells	*Milton*
Dresen, Joseph Ignatius Herman e	*Madison*
Eby, Samuel Hilary	*Baltimore, Md.*
Edwards, Seren Harold	*Madison*
Engstrom, Leslie G.	*Rockwell City, Iowa*
Evans, Wilfred e	*Madison*
Fanta, Erwin Krainik e	*Manitowoc*
Farley, John Leverett e	*River Falls*
Flatman, George James e	*Madison*
Fleckenstein, Clemens Thomas e	*Marshfield*
Foeste, Arthur Bruno e	*Sheboygan*
Fratt, Charles Diller, Jr. e	*Madison*
Funsett, Harlow Gurmee	*Deerfield*
Gamble, Raleigh W.	*Madison*
Gaul, Emil Otto	*Muskegon, Mich.*
Gerhardt, Fred Peter e	*Milwaukee*
Gill, Terence Alister e	*Chicago, Ill.*
Gloger, William Hugo e	*Watertown*
Goldammer, Charles James e	*Elkhart Lake*
Goldfein, Irving	*New York, N. Y.*
Gould, Edwin Fish e	*Superior*
Gould, Stephen Grover e	*Superior*
Gribble, Stephen Charles e	*Linden*
Grubb, Walter Frank e	*Madison*
Gumprecht, Henry Herman e	*Rice Lake*
Hagen, Oscar Edwin e	*Stoughton*
Hallock, Niel Carey e	*Madison*
Harries, Harry George	*Milwaukee*
Hasenpflug, John Leroy e	*Geneva, Ohio*
Henderson, Burnie Oliver e	*Madison*
Henkel, Carl Albert William	*Mason City, Iowa*
Hilton, Earl e	*Madison*
Hirshheimer, Harry West e	*La Crosse*
Hodgson, Herbert E.	*Bisbee, Ariz.*
Holmes, Harold Frederick	*Trempealeau*
Hook, Harmon Porter l s	*Oak Park, Ill.*
Houghland, Glen Sanford	*Madison*
Hymer, Howard Golden e	*Lancaster*
Jackson, George Stephenson e	*Depere*
Jenkins, Walter L.	*De Kalb, Ill.*
Johnson, Gordon Gasmann e	*Amherst*
Johnson, Robert Colton e	*Madison*
Kalvelage, Clem e	*Milwaukee*
Kielsmeier, Edward Henry e	*Milwaukee*
Kirch, Louis Adolph e	*Madison*
Kitzman, Walter Leslie e	*Eau Claire*

Kreuz, Louis G. e	*Menominee, Mich.*
Kurz, Louis David e	*Appleton*
Lane, Richard Kelvin e	*Dodgeville*
Lee, Ping-fun	*Canton, China*
Liang, Wen Paul e	*Hongkong, China*
Lohr, Freeman Doolittle	*Orange City, Iowa*
Lord, Herbert Overton e	*Oconto*
Lundberg, Gustaf Moritz e	*Superior*
Lyman, Alfred Tileston e	*Evanston, Ill.*
McAdams, Frank Clarence e	*Madison*
McAteer, James Robert	*Madison*
McCauley, Edwin Douglas	*Highland Park, Ill.*
McCreary, Arthur Garfield	*Beloit*
McHugh, Keith Stratton e	*Madison*
Mackey, Walter Curridan e	*Madison*
Main, Howard H.	*Rockford, Ill.*
Mansfield, Robert Dustin e	*Williston, N. Dak.*
Mead, Harold Washburn e	*Madison*
Meisekothen, Edwin Edward e	*Madison*
Meiselwitz, Adolph William e	*Kiel*
Mendelsohn, Isador William e	*Madison*
Merrill, John Franklin l s	*Madison*
Meyers, Paul Duncan e	*Milwaukee*
Miller, Edmund e	*Milwaukee*
Miller, George Paul e	*Madison*
Miller, Ivan Chesbrough e	*Terre Haute, Ind.*
Moore, George Thomas e	*Madison*
Moss, Charles Wallace e	*Mattoon*
Moulton, Frank Stillman e	*Madison*
Mueller, Harold Paul	*Milwaukee*
Nathan, Walter Solomon e	*Milwaukee*
Norris, Charles Brazer e	*Milwaukee*
Oakley, Burks	*Quincy, Ill.*
Peterson, Arthur Frederick e	*Madison*
Pieh, Roy John l s	*Madison*
Pinney, Arthur Joseph e	*West Depere*
Poe, Charles R. e	*Madison*
Powers, Martin Aloysius e	*Fond du Lac*
Preiser, Godfrey Kreuse	*Milwaukee*
Prescott, Don Southard	*Menominee, Mich.*
Prince, Earl Samuel e	*Downer's Grove, Ill.*
Pritchard, Owen J. e	*Fond du Lac*
Proetz, Charles	*St. Louis, Mo.*
Rankel, Fred Anthony e	*Milwaukee*
Reece, Robert Howell	*Evanston, Ill.*
Reinhardt, Joseph Albert e	*Madison*
Richardson, Glenn Carrol e	*Madison*
Rinker, Roy Lewis	*Cadillac, Mich.*
Ryan, James Joseph	*Memphis, Tenn.*
Scheinfeld, Emmanuel	*Milwaukee*
Schmidt, Clarence Walter e	*Brillion*
Schroeder, Alfred George e	*Madison*
Schustedt, Frederick Nathaniel e	*Madison*

Searight, Hamilton Folts e	*Austin, Texas*
Seybold, Lawrence Frederick e	*Forest Jct.*
Shaw, Harold Nichols e	*Milwaukee*
Sizer, Frank Milton	*Madison*
Slichter, Louis B. e	*Madison*
Smith, Philip Harold e	*Oconto*
Smith, Robert Evans e	*Milwaukee*
Stahl, Charles Henry	*Delafield, N. Dak.*
Stearns, Harry Carpenter	*Racine*
Steffins, David Burton	*Spring Valley, Minn.*
Steinle, Clinton Rolland e	*Madison*
Stilwell, J. Gerald	*Gwinn, Mich.*
Stites, Luke Sells	*Kirkwood, Mo.*
Striegl, Albert Rollin	*Edgerton*
Strong, Albert J.	*Gainesville, Fla.*
Stuart, Charles Whitman	*Madison*
Suhm, Clarence Falk e	*Milwaukee*
Sutherland, Thomas George	*Chicago, Ill.*
Svitavsky, Robert Ingersoll e	*Racine*
Thompson, Lee	*Madison*
Thumser, Robert Charles	*St. Louis, Mo.*
Torgeson, Oscar Winfield e	*So. Madison*
Townsend, John Banes e	*St. Joseph, Mo.*
Trantin, Ernest e	*Madison*
Tyrrell, Donald William e	*Lake Geneva*
Utegaard, Thomas e	*Madison*
Van Ermen, Louis e	*Green Bay*
Vigneron, Eugene M. e	*Chicago, Ill.*
Wadsworth, Randolph Lincoln e	*Ft. Thomas, Ky.*
Wahle, Walter Edwin e	*Davenport, Iowa*
Walden, George Ballard	*Franklin, Ind.*
Waldron, Russell Eli	*Madison*
Warren, T. Cary	*Louisville, Ky.*
Wertheim, Ferd Eliel e	*Madison*
Whipple, Newton D. e	*Madison*
White, Robert Bruce e	*Wilmette, Ill.*
Will, Robert James	*Waukesha*
Wright, David Samuel	*Spring Green*
Yates, De Witt Edward e	*Chippewa Falls*
Yoxall, Peter	*Ansonia, Conn.* —170

College of Agriculture

Albertz, Hugo William a	*Watertown*
Anderson, Esther Harriet a	*Cambridge, Ill.*
Anderson, Harold	*Toledo, Ohio*
Anderson, Hilding Edward a	*N. Crandon*
Anderson, Lela Bateman	*Enterprise, Miss.*
Anderson, Lorena Grace	*Rock Island, Ill.*
Backstrom, Frances Mable	*Kansas City, Mo.*
Bailey, Nellie	*Fennimore*
Bailie, Arthur Ray a	*Lancaster*

Banks, David Francis	*Raines, Tenn.*
Banks, George Heartsill	*Villisca, Iowa*
Barbour, Ethel Holmes	*East Troy*
Barkow, Clara H.	*Embarrass*
Basherov, Samuel	*Madison*
Belden, John Ellsworth a	*Racine*
Belden, Stanley Raymond a	*Racine*
Benecke, Ernst Herman Albert	*Milwaukee*
Bensend, Louis Adolph	*Madison*
Beyer, Sylva l s	*Rutherford, N. J.*
Biery, Edward Andrew	*Wheeling, W. Va.*
Blatchford, Percival John a	*Madison*
Bloecher, Raymond Frances	*Wittenberg*
Bollenbeck, Ida Kathryn a	*Madison*
Bolt, Minnie	*Bismarck, N. Dak.*
Bowstead, John Edelston a	*Milwaukee*
Bressler, Sadie Lebo (Mrs.)	*Austin, Texas*
Brown, Allan C. l s	*Almond*
Browne, Katherine Warren a	*Waupaca*
Brundage, Dorothy a	*Grand Rapids, Mich.*
Bull, Leota Irene a	*Beloit*
Burgess, Milo David	*Maiden Rock*
Burwell, Edward Langworthy, Jr. a	*Madison*
Butcher, Gertrude Marie	*Greencastle, Ind.*
Byrd, Florence Elizabeth	*Ladoga, Ind.*
Byse, Gage Bird	*Wautoma*
Cameron, John Edwin	*Iowa City, Iowa*
Cappell, Edmund Peter	*Cincinnati, Ohio*
Carlin, Etta Maude	*Pittsburgh, Pa.*
Carter, Leona Fern	*Lewistown, Ill.*
Christensen, Wiggo Christian	*Hudson*
Clark, William Noble	*East Lansing, Mich.*
Coapman, Verne E.	*Madison*
Colville, Clarence Leroy a	*Madison*
Conway, Catherine	*Eau Claire*
Cooley, Margaret Hamilton a	*Jamaica, N. Y.*
Cox, Joseph Frank	*East Lansing, Mich.*
Craig, Beulah	*Maysville, Mo.*
Cramer, Herbert Lyle a	*Madison*
Crothers, Donald H. a	*Madison*
Cummings, John Holbrook a	*Madison*
Dana, Marie	*Antigo*
Davis, Deane G. a	*Duluth, Minn.*
Davis, Lynn Alton	*Spring Valley, Minn.*
Donlan, Nan	*Madison, Ind.*
Dopkins, Clyde De Forrest	*River Falls*
Doran, Myron John	*Chicago, Ill.*
Dorsey, Louise Lydia a	*Anchorage, Ky.*
Downing, John Fonda, Jr. a	*Louisville, Ky.*
Drew, Floyd R. a	*McAlester, Okla.*
Drews, Jacob Guy	*Manitowoc*
Dyer, Porter Smith a	*De Soto*
Eckert, Helen Elizabeth a	*Webster Groves, Mo.*

Edwards, Dorothy	*Tallula, Ill.*
Eisenhardt, Carrie	*St. Louis, Mo.*
Engle, Robert Henry	*Champaign, Ill.*
Englesby, Ebenezer Torrey	*Manhattan, Kans.*
Etheridge, Jesse Irving g	*Madison*
Fang, Sze Voo	*Tali, China*
Fidlar, Orville F.	*Vincennes, Ind.*
Field, Albert Martin a	*Madison*
Field, Clarence Arthur	*Mt. Horeb*
Fisher, Carl Victor	*Great Falls, Mont.*
Fisher, Eleanor	*Milwaukee*
Forslund, Esther Malvina	*Ironwood, Mich.*
Fütterer, Wolfram Alexander a	*Chicago, Ill.*
Gahagan, John Martin	*Mitton Jct.*
Gates, Philip Wilde	*Madison*
Geimer, Max P.	*Madison*
Geis, Ruth Ida	*Massillon, Ohio*
Gibson, Percival De Witt a	*Madison*
Gift, Lyle Henry	*Peoria, Ill.*
Godwin, Edith Gertrude	*Grand Rapids, Mich.*
Greenleaf, Harriet	*Riverside, Ill.*
Gundersen, Borge Carl a	*La Crosse*
Hambleton, James Isaac l s	*Galloway, Ohio*
Hammer, Lloyd Allen a	*Madison*
Hanley, Flora (Mrs.)	*Hudson*
Hanson, Julian	*Sturgeon Bay*
Hay, Ellsworth a	*Beloit*
Helland, Randolph Olaf	*Madison*
Hembre, Julius Ole	*Greenwood*
Hendrickson, Clarence Irving a	*Argyle*
Hesser, Hazel Stuart	*Pittsburgh, Pa.*
Hill, George O'Neil a	*Rosendale*
Hodgson, Alice Elizabeth	*Mazomanie*
Hopkinson, A. Elizabeth	*Philadelphia, Pa.*
Hosford, Robert McGowen	*Hudson*
Humphrey, Martha Estelle a	*Madison*
Hutchinson, Justina C.	*Cambridge, Ill.*
Huston, Harold Herbert	*Seattle, Wash.*
Hyland, True	*Stoughton*
Jacka, Warren Stanway	*Mineral Point*
Jackson, Charles Arthur g	*South Bend, Ind.*
Jobse, Myrtle Elvira a	*Milwaukee*
Johnson, Albert Randolph a	*East Orange, N. J.*
Johnson, Oluf Elmer	*Westby*
Johnson, Violet	*Superior*
Jones, Edward Cary	*Dyke, Va.*
Jones, Margaret Elizabeth	*Waupun*
Jungkunz, William Kunz a	*Freeport, Ill.*
Kasten, Albert William a	*Madison*
Keating, Fred E. a	*Ogdensburg*
Kehl, Dora Barbara (Mrs.)	*Madison*
Kennedy, Marguerite M.	*Sheepshead Bay, N. Y.*
Kephart, Margaret	*Ithaca, N. Y.*

Klein, Carrie Angeline	*Madison*
Kleiner, Ida Louise	*Eau Claire*
Knipfel, Herbert McKinley	*Hammond*
Kralovec, Arthur James a	*Chicago, Ill.*
Kuenning, LeRoy George	*Cook, Nebr.*
Lacy, David Robert a	*Madison*
Laing, Dorothy	*Berlin*
Landauer, Daisy	*Atlanta, Ga.*
Lau, Zau-ding	*Shanghai, China*
Lauphit, Tse	*Nanchang, China*
LeFeber, Alice Marie	*West Allis*
Leukel, Robert W.	*Waunakee*
Lewis, Beulah Hammond (Mrs.)	*La Crosse*
Lillie, Myrtle	*Wausau*
Livingston, William Francis	*Robinson, Ill.*
Lobdell, Harrison	*Chicago, Ill.*
Lonsdorf, Arthur Joseph	*Manitowoc*
Lothe, Ada Belinda	*Stoughton*
Lottes, Marie Kathryn a	*Madison*
McAdams, Arthur James a	*Mukwonago*
MacArthur, Hugh a	*Madison*
McCullough, Joseph Frank	*Madison*
McGillivray, Joseph Emmett	*Chippewa Falls*
MacGilvra, Ralph Alexander	*Baraboo*
McGuinis, James Luther	*Corvallis, Ore.*
McLean, Donald	*Meridian, Idaho*
McNary, Carrie Murray	*Toledo, Ohio*
McNulty, Sadie A. a	*Spring Green*
Madden, Bernard Eugene	*Sawyer*
Manley, Vera Ined	*Ladysmith*
Marquardt, Julius Charles a	*La Crosse*
Marshall, Richard Hughes a	*Madison*
Maurer, Mae	*Arcadia*
Meyer, William Frederic a	*Milwaukee*
Moore, George William a	*Burke*
Morris, Lulu	*Dodgeville*
Morrissey, Nellie Ethel a	*Bloomington*
Morse, Marian Sarah	*Pine River*
Moser, Marguerite Helen	*Elgin, Ill.*
Murphy, Maria Catherine Cecelia	*Staunton, Va.*
Naber, Louise	*Wabash, Ind.*
Neal, Hazel Beatrice	*Terre Haute, Ind.*
Nerdrum, Ruth l s	*Milwaukee*
Noble, Harrison Robert a	*Manitowoc*
Nott, Edson Lowell	*Byron, Ill.*
Nutter, Parks Adair	*Martinsville, Ind.*
Nyhus, Paul Odin	*Chippewa Falls*
Oakey, Madeleine Nina	*Madison*
O'Connell, William Francis	*Roberts*
O'Connor, Vernon William	*Renville, Minn.*
Olsen, Helen Carolyn	*Muskegon, Mich.*
Olsen, Sarah Marion	*Muskegon, Mich.*
O'Malley, Frances M. a	*Madison*

Ormond, Roy Bazanquith l s	*Brookfield*
Ostrander, Ralph Lester	*Madison*
Paddack, Claire	*Wyoming, Ohio*
Patton, Stella Trout	*Madison*
Penniman, Josephine Marea	*Fort Scott, Kans.*
Peterson, Christine	*Grand Rapids, Mich.*
Pettis, Charles Semple a	*Maaison*
Porter, Ella Mae	*River Forest, Ill.*
Priewe, Elmer Clarence a	*Orangeville, Ill.*
Raymundo, Mariano Bartolome a	*Morong, Rizal, P. I.*
Reich, Benjamin Oscar	*Manitowoc*
Robbins, Mary Elizabeth	*Terre Haute, Ind.*
Roberts, Harlow Pliny a	*Madison*
Robinson, Carl Louis	*Tripoli*
Ross, Gale L.	*Schofield*
Rubert, William Frederick l s	*Madison*
Rude, Dora M.	*Edmond*
Sands, Bessie Marguerite	*Ladysmith*
Safer, Adella	*Helena, Mont.*
Saul, Willis a	*Depere*
Schafer, Raymond Walter	*Jewell, Kans.*
Schwartz, Rudolph Alfred	*Milwaukee*
Scott, J. Cornelius Chapman a	*Darlington, S. C.*
Seiler, Bonnie	*Auburn, Ind.*
Sell, Gustav Adolph	*Madison*
Sell, Mariana Theresa a	*Madison*
Sergeant, Marshall William a	*Madison*
Settle, Edward J. a	*Madison*
Sheffer, Lafayette Milo a	*Madison*
Sieker, Oscar John	*Elkhart Lake*
Sister Mary Evangeline	*Madison*
Sister Mary Raphael Hildebrandt	*St. Louis, Mo.*
Six, Marjorie	*Logansport, Ind.*
Smith, Dudley Chase a	*Normal, Ill.*
Smith, Muriel Frances	*Romeo, Mich.*
Speerstra, Ruth a	*Whitehall*
Sprecher, Florence Mildred a	*Madison*
Stehn, Richard John a	*Chicago, Ill.*
Steele, Lindsay Edward	*Northfield, Minn.*
Supple, Winifred May	*Deerfield, Ill.*
Swanson, Hildegard Amelia	*Ironwood, Mich.*
Sweet, Joseph Burton	*Manhattan, Kans.*
Tai, Fang-lan	*Shasi, China*
Tatum, Stephen Burchett	*Glendale, Ariz.*
Taylor, Margaret Lincoln	*Lancaster*
Tennis, Gilbert Theodore a	*Stanley*
Thatcher, Mattie Elizabeth	*Brookfield*
Thomas, Helen Beck	*Tekamah, Nebr.*
Thompson, Faith	*Huntington, Ind.*
Thompson, John Abbott a	*Madison*
Thomson, Robert Richard	*Jeffersonton, Ky.*
Thornby, Mary Youmans	*Madison*
Tolman, Blanche Stevens a	*Chicago, Ill.*

Towler, James A.	*Madison*	
Trestrail, Marjorie Elizabeth	*Eau Claire*	
Trickey, Dorothy May a	*Berlin*	
Trojahn, Albert August	*Laona*	
Tyler, Marion Esther	*Glidden*	
Utman, Mary Isabelle	*Hudson*	
Vennus, Elizabeth Mary a	*Menasha*	
Walsh, Helen a	*Beloit*	
Walters, Eugene Cantell	*Albany, Ga.*	
Walton, Charles William a	*Scales Mound, Ill.*	
Wanzer, Howard Stanley a	*Chicago, Ill.*	
Wason, Faith Louise	*Lowell, Ind.*	
Wengel, Edith Magdalene a	*Madison*	
Wenner, Dorothy	*Indianapolis, Ind.*	
Wertz, Virgil Roe a	*Madison*	
White, Morris Densmore a	*Superior*	
Williams, Guy P. a	*Madison*	
Woelfel, George Henry	*Chilton*	
Wood, Kate	*Auxvasse, Mo.*	
Woodcock, Adelaide Tracy	*Spencer, Iowa*	
Works, Mildred Emma	*Madison*	
Young, Annie Little	*Kansas City, Mo.*	
Young, Mary McMahon	*Pittsburgh, Pa.*	
Zuehlke, Ulrich a	*Milwaukee*	—245

Law School

Allman, Major Fisher l	*Crown Point, Ind.*
Anderson, Morgan McDonald, B. A. l	*Milwaukee*
Ary, Lester Clyde, B. A.	*Sioux City, Iowa*
Bernstein, Charles R.	*Cleveland, Ohio*
Bouchard, Adelbert George, B. A.	*Munising, Mich.*
Briggs, Henry Russell l s	*Madison*
Brunner, Marie Angelina (Mrs.) l	*Madison*
Brunner, Stephen Walter l	*Madison*
Caradine, Mahlon Humphrey l s, l	*Madison*
Clemens, Albert Harrison, B. A.	*Rochester, Minn.*
Cohn, Samuel Cecil	*Milwaukee*
Conant, Rellis Gilbert	*Hancock*
Cunningham, Sterling R.	*Bismarck, Ill.*
Curtis, Joseph C., B. S.	*New Lisbon*
Eberlein, Arthur Herman	*Wausau*
Featherstone, John Douglas, LL. B.	*Greenwood, S. C.*
Fischer, Robert Harrison	*Two Rivers*
Flanagan, Arthur Eugene l	*Lannon*
Frawley, James Robert, B. A. l	*Eau Claire*
Glassner, William, B. A. g l	*Milwaukee*
Godfrey, Alfred Lawrence, B. A. l	*Whitewater*
Gullickson, Gerhardt Oscar, B. A. l	*Madison*
Haberla, Howard Paul	*Milwaukee*
Harrington, Richard	*Oshkosh*
Hoffman, Ernest Louis l	*Thiensville*

Hydle, Lars Larson, B. A.	*Bowbells, N. Dak.*
Jolley, Albert Rembrandt l	*Whitewater*
Kenney, Delbert James	*West Bend*
Kloeb, Frank Le Blond	*Celina, Ohio*
Kumm, Davis Wallace, Ph. B.	*Madison*
Lanham, Morton Ward, B. S.	*Grafton, W. Va.*
Lee, Francis Knute, B. A.	*Elroy*
Lee, John Samuel, M. A.	*Forest City, Pa.*
Liebel, Russell Brooks	*Milwaukee*
Loftsgordon, Henry l	*Madison*
Love, James Lyle, LL. B.	*York, S. C.*
McGaughey, Guy E., B. A. l	*Lawrenceville, Ill.*
Mahuran, Stuart	*Hazellon, Iowa*
Marriott, Francis Marion, B. S.	*Delaware, Ohio*
Monk, Robert William l	*Neiltsville*
Morris, Stanley Clarence, B. A.	*Wallace, W. Va.*
Murphy, John William l	*Platteville*
Napiecinski, Peter Anthony l	*Two Rivers*
Nau, John Harold, B. A.	*Columbus, Ohio*
Nelson, Carroll F. E.	*Minneapolis, Minn.*
North, Reynolds Bacon l	*Madison*
Oksanen, Otto William, B. A.	*Brule*
Park, Lyman Barnes l	*Stevens Point*
Poirot, Severine Andrew	*Belleville, Ill.*
Pomeroy, Herbert Stuart, B. A. l	*Madison*
Pors, Charles Miller, B. A. l	*Marshfield*
Potter, Louis Richard l	*Madison*
Pottinger, Earl Henry l	*Madison*
Raeder, Lester William l	*Cedarburg*
Rafter, Joseph Leo, B. A.	*Scranton, Pa.*
Ramsdell, Bailey Edwin, B. A. l	*Madison*
Reddy, Walter Francis	*Madison*
Refsell, Oscar Norton, M. A.	*Wallingford, Iowa*
Roberts, Royal Arlington, B. A.	*Madison*
Schlueter, Walter Henry, Pd. B.	*Jackson, Mo.*
Smith, Emmett Patrick	*Madison*
Smith, Leon Logan, B. A.	*Sheboygan*
Stolts, Victor Merlin	*Madison*
Strehlow, Robert Reinholdt, LL. B.	*Madison*
Swancutt, Ivan Leroy	*Viola*
Thiele, Arthur Albert, B. A.	*Green Bay*
Torphy, Thomas Emmet	*Milwaukee*
Werba, Marcus Arthur l	*Milwaukee*
White, Irvin Arnold, B. a. l	*Antigo*
Whyte, Malcolm K., B. A. l	*Madison*
Wickhem, John Dunne, B. A.	*Beloit*
Wileberscheid, Jacob Charles l	*Valders*
Woods, Harlie Dalton, M. A.	*Abilene, Texas*
Young, Carl Fred, B. A. l	*Madison* —74

STATISTICAL SUMMARIES

GRADUATES

		1916
Number of first degrees granted, 1854-1916	12,172	711
Present Courses:		
Courses leading to the degree of Bachelor of Arts, 1904-1916	3,671	359
(Included in the above is the Course in Commerce, 1904-1916, 427; 1916, 48; and the Course in Journalism, 1914-1916, 34; 1916, 15.)		
Course for Normal School Graduates, Ph. B., 1898-1916	488	25
Chemistry Course, B. S., 1909-1916	80	18
Medical Science Course, B. S., 1909-1916	125	25
Pharmacy Course, B. S., 1895-1916	55	2
Pharmacy Course, Ph. G., 1884-1916	330	8
School of Music, M. G., 1898-1916	134	2
Course for Supervisors of Music, 1910-1916	57*	18*
Course in Agriculture, B. S., 1878-1916	623	100
Home Economics Course, B. S., 1909-1916	155	42
Course in Agriculture (Middle Course,) Ag. G., 1910-1916	114*	20*
Law Course, LL. B., 1869-1916	2,030	31
Civil Engineering Course, B. S., 1873-1916	637	32
Mechanical Engineering Course, B. S., 1876-1916	435	19
Electrical Engineering Course, B. S., 1892-1916	559	29
Chemical Engineering Course, B. S., 1903-1916	94	15
Mining Engineering Course, B. S., 1910-1916	30	2
Courses discontinued:		
Ancient Classical Course, B. A., 1854-1903	470	
Modern Classical Course, B. L., 1876-1903	548	
English Course, B. L., 1887-1903	459	1
Civic Historical Course, B. L., 1893-1903	383	
General Science Course, B. S., 1886-1903	722	
Geology, B. S., 1914	1	

* Not included in totals.

		1916
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	93	1
Higher degrees on examination, 1875-1916	1,994	226
Master, 1879-1916	1,354	167
Engineer, 1879-1916	319	25
(Included in the above is the Advanced Course in Engineering, 1910-1916, 78; 1916, 11.)		
Doctor of Public Health, 1912-1915	2	
Doctor of Philosophy, 1892-1916	319	34

DEGREES

Number of first degrees granted, 1854-1916		12,172
Bachelor of Arts, 1854-1916	4,141	
Bachelor of Philosophy, 1898-1916	488	
Bachelor of Letters, 1876-1903	1,398	
Bachelor of Science, 1873-1916	3,610	
Bachelor of Metallurgical Engineering, 1876-1896	16	
Bachelor of Laws, 1869-1916	2,030	
Graduate in Music, 1896-1916	134	
Graduate in Pharmacy, 1884-1916	330	
Graduate in Agriculture (Middle Course,) 1910-1916	114*	
Normal Course, 1865-1868	25	
Course for Supervisors of Music, 1910-1916	57*	
Higher degrees on examination, 1875-1916		1,994
Master, 1879-1916	1,354	
Engineer, 1879-1916	319	
Doctor of Public Health, 1912-1915	2	
Doctor of Philosophy, 1892-1916	319	
Grand Total of first and higher degrees granted, 1854-1916		14,166

* Not included in totals.

FACULTY

President and Deans	10
Professors	93
Associate Professors	56
Assistant Professors	147
Lecturers (giving part time)	25
Instructors	226
Assistants (mainly half time, but a few more than half time, and a considerable number less than half time)	169
Student Assistants (small part of time)	25
Total	751

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, 1916–17: Professors, 2; Associate Professors, 2; Assistant Professors, 4.

There are seven emeritus professors not included in the above summary.

STUDENTS

	Men	Women	Total
GRADUATE SCHOOL—			
Fellows	31	8	39
Scholars	19	7	26
Other Graduate Students	291	94	385
	341	109	450
(Not carried to totals because included in lists below.)			
COLLEGE OF LETTERS AND SCIENCE—			
Graduate Students	224	89	313
Seniors	357	263	620
Juniors	423	328	751
Sophomores	414	282	696
Freshmen	576	357	933
Adult Specials, Fourth Year	3	2	5
Adult Specials, Third Year	8	3	11
Adult Specials, Second Year	15	11	26
Adult Specials, First Year	36	26	62
	2,056	1,361	3,417

	Men	Women	Total
Enrollment by Courses:			
Course in Commerce:			
Seniors	101	4	105
Juniors	135	2	137
Sophomores	152	0	152
Freshmen	235	14	249
Adult Specials	14	0	14
	637	20	657
Course for Normal School Graduates:			
Seniors	14	13	27
Juniors	17	23	40
	31	36	67
Course in Journalism:			
Seniors	7	3	10
Juniors	11	6	17
Sophomores	18	11	29
Freshmen	25	21	46
Adult Specials	5	1	6
	66	42	108
Course in Pharmacy:			
Four Year Course:			
Seniors	1	0	1
Juniors	0	0	0
Sophomores	3	1	4
Freshmen	1	1	2
Adult Specials	1	0	1
Two Year Course:			
Second Year	9	3	12
First Year	25	4	29
	40	9	49
Course in Chemistry:			
Seniors	22	2	24
Juniors	30	2	32
Sophomores	27	5	32
Freshmen	21	1	22
Adult Specials	2	0	2
	102	10	112
Course without Foreign Language Requirement:			
Seniors	2	0	2
Juniors	6	0	6
Sophomores	7	4	11
Freshmen	15	11	26
Adult Specials	1	0	1
	31	15	46

	Men	Women	Total
Course for Training of Teachers:			
Graduate Students	3	7	10
Seniors	42	129	171
Juniors	20	101	121
	65	237	302

(Two senior men are in both the Teachers Training Course and the Course in Commerce; six senior men, five senior women and four junior women are in both the Teachers Training Course and the Course for Normal School Graduates; three junior men are in both the Teachers Training Course and the Course without Foreign Language Requirement.)

Letters and Science Students not in special courses:			
Graduate Students	221	82	303
Seniors	176	117	293
Juniors	207	198	405
Sophomores	198	258	456
Freshmen	254	305	559
Adult Specials	39	41	80
	1,095	1,001	2,096
COLLEGE OF ENGINEERING—			
Graduate Students	16	0	16
Seniors	135	0	135
Juniors	118	0	118
Sophomores	139	0	139
Freshmen	238	0	238
Adult Specials, Fourth Year	2	0	2
Adult Specials, Third Year	3	0	3
Adult Specials, Second Year	2	0	2
Adult Specials, First Year	4	0	4
	657	0	657
Enrollment by Courses:			
Civil Engineering Course:			
Seniors	28	0	28
Juniors	23	0	23
Sophomores	26	0	26
	77	0	77
Mechanical Engineering Course:			
Seniors	34	0	34
Juniors	30	0	30
Sophomores	41	0	41
Adult Specials	2	0	2
	107	0	107

	Men	Women	Total	
Electrical Engineering Course:				
Seniors	45	0	45	
Juniors	40	0	40	
Sophomores	51	0	51	
Adult Specials	3	0	3	
	139	0	139	
Chemical Engineering Course:				
Seniors	24	0	24	
Juniors	22	0	22	
Sophomores	16	0	16	
Adult Specials	1	0	1	
	63	0	63	
Mining Engineering Course:				
Seniors	4	0	4	
Juniors	3	0	3	
Sophomores	5	0	5	
Adult Specials	1	0	1	
	13	0	13	
College of Agriculture—				
Graduate Students	101	20	121	
Seniors	109	44	153	
Juniors	122	86	208	
Sophomores	148	73	221	
Freshmen	124	74	198	
Adult Specials, Fourth Year	4	0	4	
Adult Specials, Third Year	5	2	7	
Adult Specials, Second Year	2	1	3	
Adult Specials, First Year	10	4	14	
		625	304	929
Enrollment by Courses:				
Long Course:				
Seniors	109	1	110	
Juniors	122	1	123	
Sophomores	99	1	100	
Freshmen	76	2	78	
Adult Specials	16	1	17	
	422	6	428	
Middle Course:				
Second Year	49	1	50	
First Year	48	1	49	
Adult Specials	5	0	5	
	102	2	104	

	Men	Women	Total	
Course in Home Economics:				
Seniors	0	43	43	
Juniors	0	85	85	
Sophomores	0	71	71	
Freshmen	0	71	71	
Adult Specials	0	6	6	
	0	276	276	
Course for Training of Teachers (included above):				
Seniors	33	33	66	
Juniors	26	62	88	
Second Year, Middle Course	5	0	5	
Adult Specials	1	0	1	
	65	95	160	
LAW SCHOOL—				
Third Year	45	0	45	
Second Year	46	0	46	
First Year	46	0	46	
Students in Letters and Science electing law studies	21	0	21	
Unclassified Students	31	1	32	
		189	1	190
MEDICAL SCHOOL—				
Second Year	52	1	53	
First Year	71	8	79	
Course in Public Health	1	0	1	
		124	9	133
SCHOOL OF MUSIC—				
Four Year Course:				
Seniors	0	2	2	
Juniors	0	7	7	
Sophomores	3	9	12	
Freshmen	0	18	18	
Adult Specials	0	2	2	
Supervisors' Course:				
Second Year	0	21	21	
First Year	1	25	26	
Adult Specials	1	5	6	
Unclassified Students	2	12	14	
		7	101	108
Course for Training of Teachers (included above):				
Juniors	0	3	3	
Sophomores	0	2	2	
Freshmen	0	1	1	
Second Year, Supervisors' Course	0	17	17	
First Year, Supervisors' Course	0	18	18	

	Men	Women	Total	
Adult Specials, Supervisors' Course	0	3	3	
	0	44	44	
Students in other colleges electing music—159.				
WISCONSIN LIBRARY SCHOOL—				
Library Course	0	31	31	
Joint Course	0	6	6	
	0	37		37
TOTAL	3,658	1,813		5,471
Deducting twice enumerated	141	12		153
NET TOTAL, REGULAR YEAR	3,517	1,801		5,318
The item of 153 students twice enumerated occurs because of double classification in two colleges as follows:				
Letters and Science and Medicine	117	6	123	
Letters and Science and Law	24	0	24	
Letters and Science and Wisconsin Library School	0	6	6	
	141	12	153	
SUMMER SESSION OF 1916—				
College of Letters and Science:				
Graduate Students	399	459	858	
Undergraduates and Teachers	680	901	1,581	
College of Engineering:				
Graduate Students	19	0	19	
Undergraduates	170	0	170	
College of Agriculture:				
Graduate Students	76	31	107	
Undergraduates	137	108	245	
Law School	73	1	74	
School of Music	4	70	74	
(Students in other colleges electing music—70.)				
	1,558	1,570	3,128	
Deducting students in attendance during the regular year	547	254	801	
	1,011	1,316		2,327
ADDITIONAL ENROLLMENT, COLLEGE OF AGRICULTURE—				
Short Course in Agriculture:				
Second Year	120	2	122	
First Year	195	1	196	
	315	3	318	

	Men	Women	Total
Dairy Course	158	0	158
	473	3	476
GRAND TOTAL, EXCLUDING EXTENSION STUDENTS	5,001	3,120	8,121
EXTENSION DIVISION (EXTRA-MURAL COLLEGE)—			
Correspondence-Study Department			9,537

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, 1916, 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	3,445	1,661	5,106
Illinois	372	375	747
Indiana	138	153	291
Ohio	107	127	234
Iowa	105	115	220
Missouri	67	146	213
Michigan	96	78	174
Minnesota	71	53	124
Pennsylvania	35	55	90
New York	46	37	83
South Dakota	49	28	77
Kansas	33	43	76
Montana	28	23	51
Kentucky	27	21	48
Nebraska	23	25	48
Texas	34	11	45
North Dakota	30	12	42
New Jersey	19	11	30
District of Columbia	12	16	28
Massachusetts	13	12	25
Colorado	7	16	23
Mississippi	10	11	21
Washington	15	6	21
Tennessee	13	6	19
Oklahoma	12	6	18
West Virginia	14	4	18
Idaho	12	5	17
Maryland	10	7	17
California	8	5	13
Oregon	7	6	13
South Carolina	13	0	13
Georgia	3	9	12
Virginia	11	1	12
Arkansas	5	5	10

	Men	Women	Total
Alabama	6	3	9
Louisiana	6	3	8
Connecticut	7	1	9
Florida	6	2	8
New Mexico	4	3	7
North Carolina	6	0	6
Maine	3	2	5
New Hampshire	3	1	4
Vermont	3	1	4
Wyoming	2	2	4
Rhode Island	2	1	3
Utah	1	2	3
Arizona	2	0	2
Nevada	0	1	1
China	36	0	36
Canada	5	4	9
Philippine Islands	3	0	3
Australia	1	1	2
Chile	2	0	2
Hawaiian Islands	2	0	2
Japan	2	0	2
Norway	0	2	2
Alaska	0	1	1
Argentina	1	0	1
Austria	1	0	1
Belgium	0	1	1
England	1	0	1
India	1	0	1
Java	1	0	1
Peru	1	0	1
Porto Rico	1	0	1
Spain	1	0	1
Uruguay	1	0	1
Total for entire year	5,001	3,120	8,121
Students registered for regular year, 1916–17:			
Resident	2,580	1,229	3,809
Nonresident	937	572	1,509
Total	3,517	1,801	5,318
Students registered in Summer Session of 1916 and not during the regular year:			
Resident	459	432	891
Nonresident	552	884	1,436
Total	1,011	1,316	2,327
Additional Enrollment, College of Agriculture:			
Resident	406	0	406
Nonresident	67	3	70
Total	473	3	476

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