LIBRARIES
UNIVERSITY OF WISCONSIN–MADISON

University of Wisconsin Catalogue. 1918-1919

[Madison, Wisconsin]: [The University], 1918-1919

https://digital.library.wisc.edu/1711.dl/WTMGUPBMKA52P9C

http://rightsstatements.org/vocab/InC/1.0/

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

728 State Street | Madison, Wisconsin 53706 | library.wisc.edu

THE

UNIVERSITY OF WISCONSIN

CATALOGUE

1918-1919

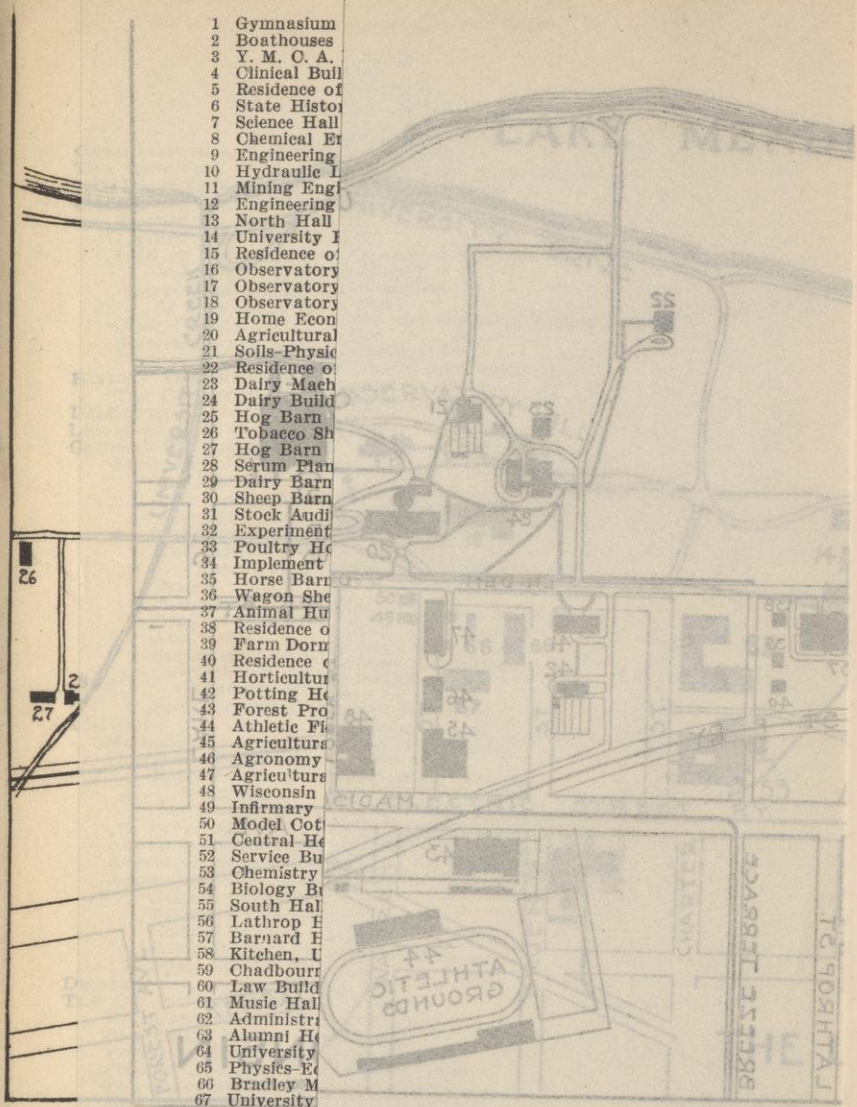
BULLETIN OF THE UNIVERSITY OF WISCONSIN
Serial No. 989; General Series No. 773

THE UNIVERSITY OF WISCONSIN CATALOGUE

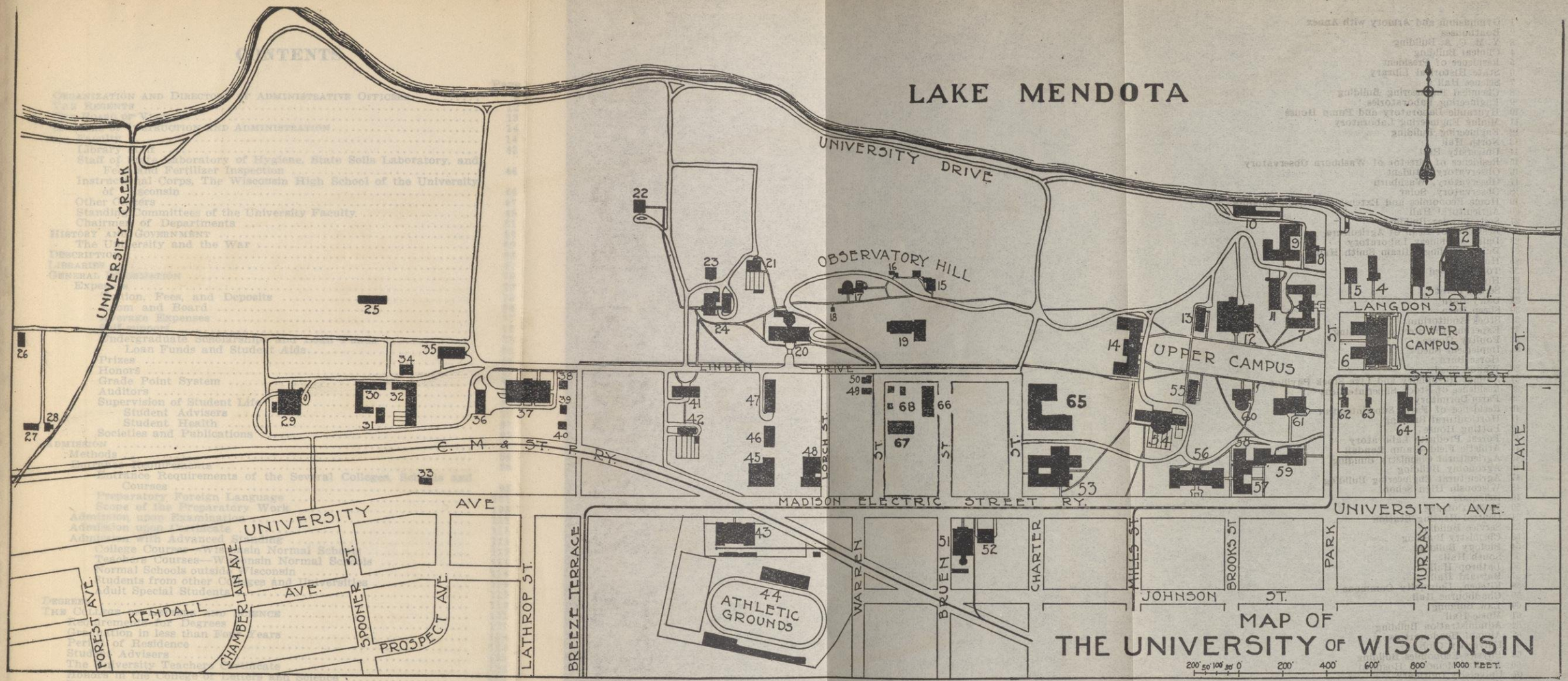
1918-19

MADISON
Published by the University
May, 1919

Issued monthly by the University of Wisconsin at Madison, Wisconsin.
Entered as second class matter, July 11, 1916, at the postoffice
at Madison, Wisconsin, under the Act of August 24, 1912.



62 Adı
45 Agı
47 Agı
20 Agı
46 Agı
63 Alu
37 Ani
44 Ath
54 Bio
57 Bar



62 Administration Building
45 Agricultural Chemistry Building
47 Agricultural Engineering Building
20 Agricultural Hall
46 Agronomy Building
63 Alumni Headquarters
37 Animal Husb. and Live Stock Pavilion
44 Athletic Field—Camp Randall
54 Biology Building
57 Barnard Hall

2 Boathouses
66 Bradley Memorial Hospital
51 Central Heating Station
59 Chadbourne Hall
8 Chemical Engineering Building
53 Chemistry Building
4 Clinical Building
29 Dairy Barn
24 Dairy Building—Hiram Smith Hall
23 Dairy Machinery Laboratory

12 Engineering Building
9 Engineering Laboratories
32 Experimental Breeding Building
19 Exten. Div. and Home Econ. Bldg.
39 Farm Dormitory
43 Forest Products Laboratory
1 Gym. and Armory with Annex
25, 27 Hog Barns
35 Horse Barn
41 Horticultural Building

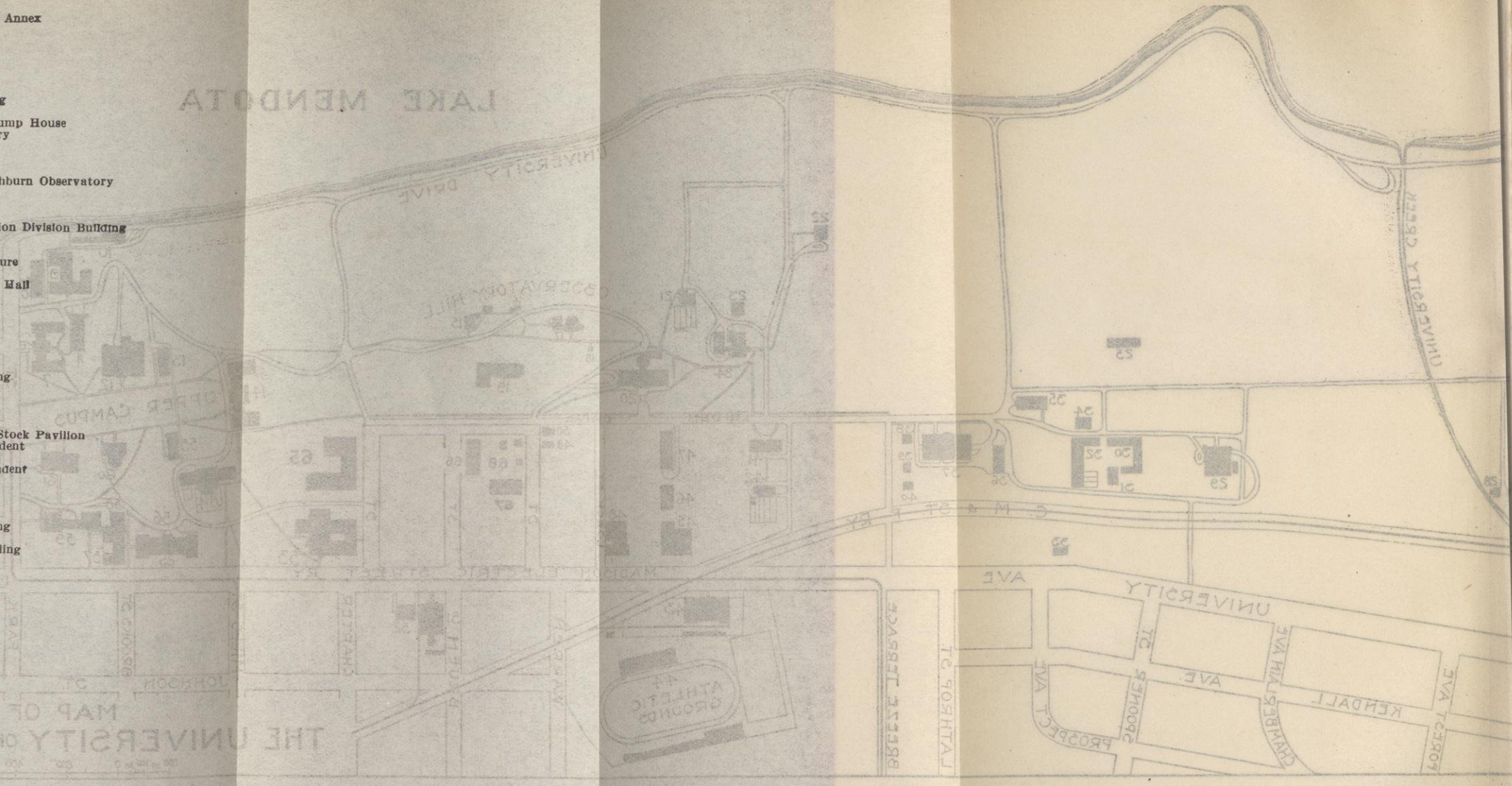
10 Hydraulic Lab. and Pump House
34 Implement Shed
49 Infirmary
58 Kitchen, University Commons
56 Lathrop Hall
60 Law Building
11 Mining Engineering Laboratory
50 Model Cottage
61 Music Hall
13 North Hall

68 Nurses' Home
18 Observatory, Solar
16 Observatory, Student
17 Observatory, Washburn
65 Physics-Economics Building
42 Potting House
33 Poultry House
22 Residence of Dean of Agriculture
40 Residence of Farm Superintendent

5 Residence of President
38 Residence of Stock Superintendent
15 Residence of Dir. Washb. Observ.
7 Science Hall
52 Service Building
28 Serum Plant
30 Sheep Barn
21 Soils-Physics Building
55 South Hall

6 State Historical Library
31 Stock Auditorium
26 Tobacco Shed
64 University Club
14 University Hall
67 University Infirmary
36 Wagon Shed
48 Wisconsin High School
3 Y. M. C. A. Building

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 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
53 Chemistry Building
54 Biology Building
55 South Hall
56 Lathrop Hall
57 Barnard Hall
58 Kitchen, University Commons
59 Chadbourne Hall
60 Law Building
61 Music Hall
62 Administration Building
63 Alumni Headquarters
64 University Club
65 Physics-Economics Building
66 Bradley Memorial Hospital
67 University Infirmary
68 Nurses' Home



CONTENTS

	Page
Organization and Directory of Administrative Officers	9
The Regents	12
The Board of Visitors	13
Officers of Instruction and Administration	14
Faculty	14
Library Staff	45
Staff of State Laboratory of Hygiene, State Soils Laboratory, and Feed and Fertilizer Inspection	46
Instructional Corps, The Wisconsin High School of the University of Wisconsin	46
Other Officers	47
Standing Committees of the University Faculty	48
Chairmen of Departments	51
History and Government	53
The University and the War	60
Description	63
Libraries	67
General Information	70
Expenses	70
Tuition, Fees, and Deposits	70
Room and Board	74
Average Expenses	77
Self-support	78
Undergraduate Scholarships and Loan Funds	79
Loan Funds and Student Aids	83
Prizes	85
Honors	87
Grade Point System	87
Auditors	88
Supervision of Student Life	88
Student Advisers	90
Student Health	91
Societies and Publications	92
Admission	96
Methods	96
Entrance Requirements	96
Entrance Requirements of the Several Colleges, Schools and Courses	98
Preparatory Foreign Language	101
Scope of the Preparatory Work	103
Admission upon Examination	111
Admission upon Certificate	111
Admission with Advanced Standing	113
College Courses—Wisconsin Normal Schools	113
Teachers Courses—Wisconsin Normal Schools	114
Normal Schools outside Wisconsin	116
Students from other Colleges and Universities	116
Adult Special Students	118
Degrees	119
The College of Letters and Science	121
Requirements for Degrees	121
Graduation in less than Four Years	133
Period of Residence	133
Student Advisers	134
The University Teachers Certificate	134
Honors in the College of Letters and Science	134
Departments of Instruction	136
Course in Chemistry	249
Course in Commerce	257
Course in Journalism	263
Course in Pharmacy	268
Library School	274
Course for the Training of Teachers	278

	Page
THE COLLEGE OF ENGINEERING	298
Requirements for Admission	298
Student Advisers	299
Equipment	300
Courses of Study and Degrees	305
Inspection Trips	307
Thesis	308
Lectures	308
Outline of Engineering Courses	310
Elective for Students in the College of Letters and Science	318
Graduation in more than one of the Engineering Courses	318
Departments of Instruction	319
THE COLLEGE OF AGRICULTURE	341
Buildings	341
Farm Lands	343
Live Stock	343
Library	343
Organizations	343
Special Facilities for Study	344
Farm Experience	344
Accredited Farm System	344
Plan of the College Activities	345
Courses of Instruction	345
Extension Courses Given at the University	347
Degrees	348
Certificates	349
Outline of the Long Course	349
Outline of the Middle Course	352
Special Adaptations of the Courses for the Preparation of Teachers of Agriculture	354
Departments of Instruction	355
Agricultural Experiment Station	375
Agricultural Extension Service	376
Farmers' Institute	376
Courses in Home Economics	377
Facilities for Instruction	377
Degree	378
Scope of the Courses in Home Economics	378
Outline for Course in Home Economics	379
Electives	381
Majors in Home Economics	382
Course for Training Vocational Teachers in Home-making	389
Minors in Home Economics	391
Educational Requirements for State Teachers Certificate	391
Thesis	392
Description of the Courses	392
THE LAW SCHOOL	396
Admission	396
Pre-legal Courses	397
Advanced Standing	397
Graduation	398
Admission to the Bar	398
Courses of Instruction	399
Required and Elective Courses	402
Procedure and Practice Courses	402
Elective Studies	403
Library	403
Fees and Expenses	404
Summer Session	404

	Page
THE MEDICAL SCHOOL	406
Admission to Advanced Standing	406
Medical Certificates	406
Degrees	406
Choice of Courses	408
Departments of Instruction	414
THE GRADUATE SCHOOL	421
Aims and Methods	421
Clubs and Societies	422
Fellowships and Scholarships	423
Admission to the Graduate School	428
Second Degrees	429
Candidacy for the Master's Degree partly *in Absentia*	432
Doctor of Philosophy	433
Degree of Doctor of Public Health	436
Graduate Circular	437
THE UNIVERSITY EXTENSION DIVISION	438
Correspondence-Study Department	439
Instruction by Lectures	455
Debating and Public Discussion	456
General Information and Welfare	458
THE SCHOOL OF MUSIC	464
Course of Study Leading to the Degree of Bachelor of Music	465
Department of Public School Music	468
Special State Certificate	470
General Course for Grade and High School Teachers	470
Public School Drawing	470
Instruction in Applied Music	471
Tuition for Theoretical Subjects in Music	474
Tuition for Private Instruction	474
DEPARTMENT OF PHYSICAL EDUCATION	477
Equipment	478
Requirements	479
Exemptions and Deferments from Physical Training	480
Medical and Physical Examinations	481
Enrollment and Assignment	481
Tournaments and Contests	482
Professional Training	483
Courses of Instruction	485
MILITARY SCIENCE AND TACTICS	489
Reserve Officers' Training Corps	490
Exempt from Drill and Recitations	491
WASHBURN OBSERVATORY	492
UNITED STATES WEATHER BUREAU OFFICE	494
FOREST PRODUCTS LABORATORY	496
Student Research Assistantships	497
Courses	498
Special Lectures	499
SUMMER SESSION	502
Duration of the Session	502
Classes of Courses	502
Terms of Admission	503
Auditors and Special Students	503
Credits for Summer Session Work	504
Fees and Registration	504
Graduate School, College of Letters and Science	505
Medical School	514
College of Engineering	514
College of Agriculture	516
CONVOCATIONS	519
PUBLIC LECTURES	520
DEGREES CONFERRED COMMENCEMENT, 1918	523

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.

1919

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	..	..
..	..	..	..	..	..	..

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	..	..	..
..	..	..	..	..	..	..

1920

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
29	..	..	..	..	..	..
..	..	..	..	..	..	..

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
..	..	..	..	..	..	..

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	..
..	..	..	..	..	..	..

CALENDAR

1918		
Sept. 30,		
Oct. 1–2	Mon.–Tu.–Wed.	Registration days.
Sept. 30, Oct. 1	Mon.–Tu.	Examinations for admission.
Oct. 3	Thursday	Lectures and recitations begin.
Oct. 5	Saturday	Special examinations for removal of conditions.
Nov. 28	Thursday	Thanksgiving Day: legal holiday.
Dec. 7	Saturday	Examinations for removal of conditions.
Dec. 16–21	Mon.–Sat.	Final examinations, first quarter.
Dec. 30, 31	Mon.–Wed.	Registration days, second quarter.
1919		
Jan. 1		
Jan. 2	Thursday	Lectures and recitations begin.
1919		
Feb. 22	Saturday	Washington's Birthday: legal holiday.
Mar. 17–22	Mon.–Sat.	Final examinations, second quarter.
Mar. 31	Monday	Registration day, third quarter.
Apr. 1	Tuesday	Lectures and recitations begin.
May 17	Saturday	Examinations for the removal of conditions.
May 30	Friday	Memorial Day: legal holiday.
June 14–20	Sat.–Fri.	Final examinations, third quarter.
June 22–25	Sun.–Wed.	Commencement week.
June 26–27	Thurs.–Fri.	Examinations for admission.

Commencement Week

June 22	Sunday	Baccalaureate Address.
June 23	Monday	Class Day Exercises.
June 24	Tuesday	Alumni Day.
June 25	Wednesday	Commencement Day.

Summer Session

June 30	Monday	Summer Session opens.
Aug. 8	Friday	Summer Session closes.

THE ACADEMIC YEAR 1919-1920

1919		
Sept. 29, 30 Oct. 1	Mon.–Tu.–Wed.	Registration days.
Sept. 29, 30	Mon.–Tu.	Examinations for admission.
Oct. 2	Thursday	Lectures and recitations begin.
*Oct. 4	Saturday	Special examinations for removal of conditions.
Nov. 27	Thursday	Thanksgiving Day: legal holiday.
Dec. 23	Tues. (5:30 p. m.)	Christmas recess begins.
Jan. 5	Mon. (8 a. m.)	Exercises resumed.
1920		
Jan. 17	Saturday	Examinations for removal of conditions.
Feb. 2–11	Mon.–Wed.	Final examinations, first semester.
Feb. 12–13	Thurs.–Fri.	Registration days.
Feb. 16	Monday	Lectures and recitations begin.
Feb. 23	Monday	Washington's Birthday: legal holiday.
April 14–20	Wed.–Tues. (inclusive)	Spring recess.
April 24	Saturday	Examinations for the removal of conditions.
May 31	Monday	Memorial Day: legal holiday.
June 12–18	Sat.–Fri.	Final examinations, second semester.
June 17–18	Thur.–Fri.	Examinations for admission.
June 20–23	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

Edward A. Birge, President—University Hall.

Educational Administration

S. H. Goodnight, Dean of Men—South Hall.
F. Louise Nardin, Dean of Women—Lathrop Hall.
M. H. Haertel, Secretary of the Faculty—University Hall.
W. D. Hiestand, Registrar—University Hall.
T. Lloyd Jones, Chairman, Committee on High School Relations—University Hall.
W. M. Smith, Librarian—Library.

Business Administration

H. J. Thorkelson, Business Manager—Administration Building.
M. E. McCaffrey, Secretary of the Regents—Administration Building.
C. W. Vaughn, Accountant—Administration Building.
G. L. Gilbert, Bursar—Administration Building.
A. H. Labisky, Purchasing Agent—Administration Building.
O. C. Gillett, University Editor—Administration Building.
G. M. Hyde, Editor of the Press Bulletin—South Hall.

The College of Letters and Science
George C. Sellery, Acting Dean—2 South Hall.
F. W. Roe, Assistant Dean—3 South Hall.

The School of Music.
C. H. Mills, Director—21 Music Hall.

The Course in Chemistry.
Louis Kahlenberg, Director—153 Chemistry Building.

THE COURSE IN COMMERCE.
W. A. Scott, Director—407 Physics-Economics Building.
THE COURSE IN JOURNALISM.
W. G. Bleyer, Director—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, Chairman—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.
J. B. Borden, Assistant Dean—105 Agricultural Hall.
THE EXPERIMENT STATION.
THE LONG COURSE IN AGRICULTURE.
THE MIDDLE COURSE IN AGRICULTURE.
THE COURSE IN HOME ECONOMICS.
Abby L. Marlatt, Director—119 Home Economics Building.
THE SHORT COURSE IN AGRICULTURE.
THE DAIRY COURSE.
THE FARMERS' INSTITUTES.

The Law School
H. S. Richards, Dean—Law Building.

The Medical School
C. R. Bardeen, Dean—Clinical Building.

The Graduate School
G. C. Comstock, Dean—157 University Hall.

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

The Summer Session
S. H. Goodnight, Director—22 South Hall.

THE REGENTS

EDWARD A. BIRGE, President of the University, *ex officio.*
CHARLES P. CARY, State Superintendent of Public Instruction, *ex officio.*

	TERM EXPIRES
State-at-Large—GILBERT E. SEAMAN, Milwaukee	1925
State-at-Large—MRS. FLORENCE G. BUCKSTAFF, Oshkosh	1923
First District—A. J. HORLICK, Racine	1925
Second District—WALTER J. KOHLER, Kohler	1924
Third District—CHARLES H. VILAS, Madison	1925
Fourth District—THEODORE M. HAMMOND, Wauwatosa	1922
Fifth District—JAMES F. TROTTMAN, Milwaukee	1921
Sixth District—MISS FRANCES G. PERKINS, Fond du Lac	1921
Seventh District—D. O. MAHONEY, Viroqua	1920
Eighth District—GRANVILLE D. JONES, Wausau	1922
Ninth District—ORLANDO E. CLARK, Appleton	1924
Tenth District—BEN F. FAAST, Eau Claire	1920
Eleventh District—A. P. NELSON, GRANTSBURG	1923

Officers of the Regents

CHARLES H. VILAS, *President.*
A. J. HORLICK, *Vice President.*
HENRY JOHNSON, *State Treasurer, ex officio Treasurer.*
H. J. THORKELSON, *Business Manager.*
M. E. MCCAFFREY, *Secretary.*
G. L. GILBERT, *Bursar.*
A. H. LABISKY, *Purchasing Agent.*

THE BOARD OF VISITORS

Appointed by Regents:	TERM EXPIRES
GEORGE P. HAMBRECHT, Madison	July 1, 1919
W. M. SPOONER, Milwaukee	July 1, 1920
JOHN E. MCCONNELL, La Crosse	July 1, 1921
MRS. CHARLES R. CARPENTER, Madison	July 1, 1922

Appointed by Alumni:	
ISRAEL SHRIMSKI, Chicago	July 1, 1919
RICHARD LLOYD-JONES, Madison	July 1, 1920
WALTER A. ROGERS, Chicago	July 1, 1921
MRS. HOWARD GREENE, Madison	July 1, 1922

Appointed by Governor:	
MRS. CHARLES M. MORRIS, Milwaukee	July 1, 1919
E. B. BELDEN, Racine	July 1, 1920
L. J. STAIR, Brodhead	July 1, 1921
W. A. TITUS, Fond du Lac	July 1, 1922

THE OFFICERS OF INSTRUCTION AND ADMINISTRATION

UNIVERSITY FACULTY

"The University Faculty shall consist of the President of the University, all deans and directors, professors, associate professors, assistant professors, acting professors, lecturers on regular appointment, the mistresses of the Women's Halls, the superintendent of agricultural institutes, Librarian and assistant librarians, and the High School Inspector." (Laws of the Regents, Chapter 111, Section 2 (2), page 137—1914 edition.)

"The faculty of each college, school, or division shall consist of the President of the University, the Dean, and all persons who give instruction in that college, school or division with the exception of student assistants, fellows, and scholars." (Laws of the Regents, Chapter 111, Section 3 (2), page 139—1914 edition.)

The number preceding the name indicates:

[1] Leave of absence to engage in war service.
[2] Leave of absence, academic year, 1918–19.
[3] Residence for part of the year, 1918–19.
[4] Leave of absence, first and second quarters, 1918–19 to engage in war service.
[5] Leave of absence, first and second quarters, 1918–19.
[6] Leave of absence, second and third quarters, 1918–19 to engage in war service.
[7] Leave of absence, second and third quarters, 1918–19.
[8] Leave of absence, first half of year, 1918–19 to engage in war service.
[9] Leave of absence, first half of year, 1918–19.
[10] Leave of absence, second half of year, 1918–19.
[11] Leave of absence, first quarter, 1918–19 to engage in war service.
[12] Leave of absence, first quarter, 1918–19.
[13] Leave of absence, second quarter, 1918–19.

BIRGE, EDWARD ASAHEL, Ph.D., Sc.D., LL.D., President of the University. *U. H.* 158. 744 Langdon

PARKINSON, JOHN BARBER, M.A., Vice President and Professor of Constitutional and International Law. *Emeritus.* 516 Wisconsin Ave.

ALEXANDER, ALEXANDER SEPTIMUS, F.H.A.S., M.D.C., Professor of Veterinary Science. *A. H.* 4A. 811 Spaight

ALLEN, CHARLES ELMER, Ph.D., Professor of Botany. *B. B.* 104. 2014 Chamberlain Ave.

ALLEN, KATHARINE, Ph.D., Assistant Professor of Latin. *U. H.* 266. 228 Langdon

ALLEN, SARA THOMAS, B.S., Mistress of Barnard Hall. Assistant Director of Commons. *Barnard.* Barnard

ANDERSON, LEWIS ALBERT, B.L., Lecturer in Economics. *Capitol.* 170 Summit Ave.

ATKIN, ERNEST GEORGE, Ph.D., Assistant Professor of Romance Languages. *U. H.* 307. 128 N. Orchard

AUST, FRANK A., M.S., Assistant Professor of Horticulture. *H. B.* 112. 2202 Commonwealth Ave.

BABCOCK, STEPHEN MOULTON, Ph.D., LL.D., D.Sc., Professor of Agricultural Chemistry. *Emeritus.* *A. C. B.* 204. 432 Lake

BARDEEN, CHARLES RUSSELL, B.A., M.D., Dean of the Medical School. Professor of Anatomy. *Clin. B.* 23 Mendota Ct.

BARTHOLOMEW, ELBERT THOMAS, Ph.D., Assistant Professor of Botany. *B. B.* 109. 316 Breese Terrace

[1] BASCOM, GEORGE ROCKWELL, B.S., Assistant Professor of Municipal and Sanitary Engineering. 1819 University Ave.

BEACH, BURR A., D.V.M., Associate Professor of Veterinary Science. *A. H.* 204. 2610 Vroman

[1] BEAN, ERNEST F., M.A., Assistant Professor of Geology. *Sc. H.* 318. College Hills

[1] BEATTY, ARTHUR, Ph.D., Assistant Professor of English.

[1] BEEBE, MURRAY CHARLES, B.S., Professor of Electrical Engineering. 150 Iota Ct.

BENKENDORF, GUSTAV HENRY WILLIAM, B.S., Assistant Professor of Dairy Husbandry. *H. S. H.* 205. 5 E. Wilson

BENNETT, EDWARD, E.E., Professor of Electrical Engineering. *Elec. Lab.* 202. 1919 Jefferson

BERGGREN, AXEL EMANUEL, M.E., Assistant Professor of Steam and Gas Engineering. *E. B.* 73. 27 W. Dayton

BEWICK, THOMAS LYMAN, Ph.M., State Leader of Boys and Girls Clubs, Agricultural Extension. *A. H.* 115A. 316 Breese Terrace

BINZEL, CORA ELLA, Assistant Professor of Home Economics. *W. H. S.* 312. 425 Sterling Pl.

BLACKMER, LEONARD E., District Representative, Wausau District, Extension Division. *Gensman Building, 217–3rd Street.* 727 Warren St., Wausau

[1] BLANTON, SMILEY, B.S., M.D., Associate Professor of Public Speaking.

BLEYER, WILLARD GROSVENOR, Ph.D., Director of the Course in Journalism. Professor of Journalism. *S. H.* 33. 423 N. Carroll

BOHSTEDT, GUSTAV, M.S., Assistant Professor of Animal Husbandry. *A. H.* 302. 1615 Summit Ave.

BORDEN, JAMES BENJAMIN, M.A., Assistant Dean, College of Agriculture. *A. H.* 108A. 1922 Adams

BOUTWELL, PAUL WINSLOW, Ph.D., Assistant Professor of Agricultural Chemistry. *A. C. B.* 117. 1522 Chandler

[1] BRADLEY, HAROLD CORNELIUS, Ph.D., Professor of Physiology.

BROWN, HENRIETTA RAYMER, B.A., Assistant Professor of Physical Education. *Lathrop.* 237 Langdon

BRUNS, FRIEDRICH, Ph.D., Assistant Professor of German. *S. H.* 24. 2330 Rowley Ave.

BULLOCK, DILLMAN S., M.Agr., Field Extension Representative in Animal Husbandry. *A. H.* 22. 1713 Hoyt

BUNTING, CHARLES HENRY, B.S., M.D., Professor of Pathology. *Sc. H.* 326. 2020 Chadbourne Ave.

[1] BURGESS, HORACE THOMAS, Ph.D., Assistant Professor of Mathematics. 812 W. Dayton

BURKE, LAURANCE CHARLES, B.L., Assistant Librarian. *Lib.* 216. 1926 Rowley Ave.

BYRNE, EUGENE HUGH, Ph.D., Assistant Professor of History. *U. H.* 210; *Lib.* 123. 240 Lake Lawn Pl.

CAIRNS, WILLIAM B., Ph.D., Associate Professor of American Literature. *U. H.* 367. 2010 Madison

CALLAN, JOHN GURNEY, B.S., Professor of Steam and Gas Engineering. *E. B.* 223. 734 E. Gorham

[1] CAMPBELL, OSCAR JAMES, Ph.D., Assistant Professor of English.

[1] CARLETON, PAUL WHITTIER, Ph.D., Assistant Professor of Chemistry.

[1] CERF, BARRY, Ph.D., Associate Professor of Romance Languages.

CHASE, WAYLAND JOHNSON, M.A., Associate Professor of History. *Lib.* 122. 141 Summit Ave.

CLARK, PAUL FRANKLIN, Ph.D., Professor of Bacteriology. *Sc. H.* 324. 2136 Van Hise Ave.

CODDINGTON, HESTER, Assistant Librarian. *Lib.* 220. 935 University Ave.

COLE, LEON JACOB, Ph.D., Professor of Genetics. *A. C. B.* 202. 1903 Rowley Ave.

COMMONS, JOHN ROGERS, LL.D., Professor of Economics. *P. E. B.* 325. 816 University Ave.

COMSTOCK, GEORGE CARY, Sc.D., LL.D., Dean of the Graduate School. Director of the Washburn Observatory. Professor of Astronomy. *U. H.* 157. Observatory Hill

[1] CONLEY, EMMA, B.A., Associate Professor of Home Economics.

CONSOLIVER, EARL LESTER, M.E., Assistant Professor of Mechanical Drawing and Machine Design. *U. E. B.* 305. 223 Clifford Ct.

COOL, CHARLES DEAN, Ph.D., Assistant Professor of Romance Languages. *U. H.* 306. 1607 Adams

[11] CORP, CHARLES IVES, M.S., Associate Professor of Hydraulic Engineering. *Hyd. Lab.* 2114 West Lawn Ave.

[1] COWPER, FREDERICK AUGUSTUS GRANT, M.A., Assistant Professor of Romance Languages.

[1] CRAWSHAW, FRED DUANE, M.E., Professor of Manual Arts.

DAVIS, JOHN JEFFERSON, B.S., M.D., Curator of the Herbarium. *B. B.* 261. 1118 W. Johnson

DAWSON, PERCY MILLARD, B.A., M.D., Assistant Professor of Physiology. *Sc. H.* 116C. 504 N. Carroll

DEAN, JOSEPH, M.D., Lecturer in Clinical Medicine. 29 E. Main

DEARHOLT, HOYT E., M.D., Chief, Bureau of Health Instruction, Extension Division. *411 Van Buren St.* 620 Hackett Ave., Milwaukee

[1] DEIHL, JOSEPH DWIGHT, B.A., Assistant Professor of German. 2137 Keyes Ave.

DELWICHE, EDMOND JOSEPH, M.S., Associate Professor of Agronomy. Ashland Branch Experiment Station. R. D. 3, Green Bay

[1] DENNIS, ALFRED LEWIS PINNEO, Ph.D., Professor of History.

DENNISTON, ROLLIN HENRY, Ph.D., Assistant Professor of Botany. *B. B.* 409. 1419 W. Washington Ave.

DIAMOND, THOMAS, Assistant Professor of Manual Arts. *U. H.* 219. 433 W. Gilman

[1] DISQUE, ROBERT CONRAD, B.L., B.S., Assistant Professor of Electrical Engineering.

DODGE, ROBERT ELKIN NEIL, M.A., Associate Professor of English. *U. H.* 365. 15 W. Gorham

[1] DOWLING, LINNAEUS WAYLAND, Ph.D., Associate Professor of Mathematics. *P. E. B.* 329. 2 Roby Road

DRAKE, FRANK I., M.D., Lecturer in Clinical Medicine. Mendota

[1] DRESDEN, ARNOLD, Ph.D., Assistant Professor of Mathematics.

DUDGEON, MATTHEW SIMPSON, Director of the Library School. Instructor in Library Administration. *Capitol.* 1816 Vilas

DUDLEY, WILLIAM HENRY, Chief, Bureau of Visual Instruction, Extension Division. *U. E. B.* 311. 444 N. Charter

DUDLEY, WILLIAM HENRY, B.A., Assistant Librarian. *Lib.* 232. 1909 Regent

[1] DYKEMA, PETER WILLIAM, M.Lit., Professor of Music.

ELLIOTT, BENJAMIN GEORGE, M.S., M.E., Associate Professor of Mechanical Engineering. *U. E. B.* 305. 221 Clifford Ct.

[1] ELSOM, JAMES CLAUDE, M.D., Assistant Professor of Physical Education.

ELWELL, FAYETTE HERBERT, B.A., C.P.A., Professor of Accounting. *P. E. B.* 418. 2025 Chadbourne Ave.

ELY, RICHARD THEODORE, Ph.D., LL.D., Professor of Economics. *P. E. B.* 308. 205 Prospect Ave.

ERNST, ADOLPHINE BIANCA, Ph.D., Assistant Professor of German. *U. E. B.* 209. 1120 W. Johnson

[1] ERNST, FREDERIC ADOLPH, M.A., Assistant Professor of Romance Languages.

EVANS, JOSEPH SPRAGUE, B.A., M.D., Professor of Clinical Medicine. *Clin. B.* 524 N. Frances

EYSTER, JOHN AUGUSTINE ENGLISH, B.S., M.D., Professor of Physiology. *Sc. H.* 114. 627 Mendota Ct.

FARRINGTON, EDWARD HOLYOKE, M.S., Professor of Dairy Husbandry. *H. S. H.* 301. 208 Lathrop

[1] FINCH, VERNOR CLIFFORD, Ph.D., Associate Professor of Geology.

FISCHER, RICHARD, Ph.D., Professor of Chemistry. *C. B.* 324. 119 E. Johnson

[1] FISH, CARL RUSSELL, Ph.D., Professor of History.

FISKE, GEORGE CONVERSE, Ph.D., Associate Professor of Latin. *U. H.* 267. 21 Mendota Court

FLETT, CLARA BAKER, M.A., Mistress of Chadbourne Hall. Chadbourne

FLINT, ALBERT STOWELL, M.A., Astronomer, Washburn Observatory. 450 N. Charter

FRED, EDWIN BRAUN, Ph.D., Associate Professor of Agricultural Bacteriology. *A. H.* 114. 627 Mendota Ct.

FROST, WILLIAM DODGE, Ph.D., Dr. P.H., Professor of Agricultural Bacteriology. *A. H.* 311. 310 N. Orchard

[1] FULCHER, GORDON SCOTT, Ph.D., Assistant Professor of Physics.

FULLER, JAMES GARFIELD, B.S., Associate Professor of Animal Husbandry. *A. H.* 208A. 1724 Hoyt

FULLER, WILLIAM JOHN, B.A., Assistant Professor of Civil and Structural Engineering. *U. E. B.* 308. 1910 Adams

GALPIN, CHARLES JOSIAH, M.A., Associate Professor of Agricultural Economics. *A. H.* 316. 29 E. Wilson

GARDNER, EDWARD HALL, M.A., Associate Professor of Business Administration. *P. E. B.* 422. 2018 Chamberlain Ave.

GAY, LUCY MARIA, B.L., Assistant Professor of Romance Languages. *U. H.* 304. 216 N. Pinckney

GEIB, WARREN JACOB, M.Agr., Assistant Professor of Soils. *S. B.* 314 Campbell

GELTCH, WALDEMAR, B.M., Assistant Professor of Music. *M. H.* 23. 140 Breese Terrace

GERRY, ELOISE, M.A., Lecturer in Forest Products. *S. B.* 208. 419 Sterling Pl.

GIESE, WILLIAM FREDERICK, M.A., Professor of Romance Languages. *U. H.* 307. 1717 Kendall Ave.

GILBERT, EDWARD MARTINIUS, Ph.D., Associate Professor of Botany. *B. B.* 308. 25 Spooner

GILLEN, CHARLES FREDERICK, Ph.D., Assistant Professor of Romance Languages. *U. H.* 308. 1726 Van Hise Ave.

[1] GILLIN, JOHN LEWIS, Ph.D., Professor of Sociology. *P. E. B.* 331; *U. E. B.* 204. 209 Highland Ave.

GILMAN, STEPHEN WARREN, LL.B., Professor of Business Administration. *P. E. B.* 406. 410 N. Livingston

GILMORE, EUGENE ALLEN, B.A., LL.B., Professor of Law. *L. B.* 143 Prospect Ave.

GODDARD, ARTHUR LAURENCE, B.S., Superintendent of the Machine Shops. Assistant Professor of Mechanical Practice. *M. S.* 1717 Monroe

GOODNIGHT, SCOTT HOLLAND, Ph.D., Dean of Men. Associate Professor of German. Director of the Summer Session. *S. H.* 22. 2130 West Lawn Ave.

GORDON, EDGAR BERNARD, Professor of Music. Chief, Bureau of Community Music and Secretary, Department of General Information and Welfare, Extension Division. *U. E. B.* 206. 1631 Madison

GRABER, LAURENCE FREDERICK, M.S., Associate Professor of Agronomy. *Agron. B.* 31. 421 N. Lake

GRISWOLD, JAY BROWN, Acting District Representative, Eau Claire District, Extension Division. Y. M. C. A., Eau Claire

GROVER, ARLENE, B.L., Assistant Librarian. *Lib.* 220. 1802 Monroe

GUYER, MICHAEL FREDERICK, Ph.D., Professor of Zoology. *B. B.* 253. 138 Prospect Ave.

HADLEY, FREDERICK BROWN, D.V.M., Professor of Veterinary Science. *A. H.* 203. 2120 Monroe

HAERTEL, MARTIN HENRY, Ph.D., Assistant Professor of German. Secretary of the Faculty. *U. H.* 151 College Hills

HALL, ARNOLD BENNETT, B.A., J.D., Associate Professor of Political Science. *S. H.* 27. 408 N. Henry

HALPIN, JAMES GARFIELD, B.S., Professor of Poultry Husbandry. *A. C. B.* 218. 2500 University Ave.

HART, EDWIN BRET, B.S., Professor of Agricultural Chemistry. *A. C. B.* 123. 302 Lathrop

HART, WALTER WILSON, B. A., Assistant Professor of Mathematics. *P. E. B.* 424. 202? Madison

HASTINGS, EDWIN GEORGE, M.S., Professor of Agricultural Bacteriology. *A. H.* 212. 1906 West Lawn Ave.

HATCH, KIRK LESTER, B.S., Assistant Director of Agricultural Extension. Professor of Agricultural Education. *A. H.* 104. 302 Chamberlain Ave.

[1] HENDERSON, WILSON HOGAN, District Representative, Milwaukee District, Extension Division.

[8] HENMON, VIVIAN ALLEN CHARLES, Ph.D., Professor of Education. *U. H.* 123. 16 Langdon

HENRY, WILLIAM ARNON, Sc.D., D.Agr., Professor of Agriculture. *Emeritus.*

[1] HESS, RALPH HENRY, Ph.D., Associate Professor of Economics.

HIBBARD, BENJAMIN HORACE, Ph.D., Professor of Agricultural Economics. *A. H.* 301. 2235 Hollister Ave.

HIESTAND, WILLIAM DIXON, Registrar. *U. H.* 158. 16 W. Gorham

HILLSTROM, ELLEN, Assistant Professor of Home Economics. *H. E. B.* 403. 425 Sterling Pl.

HOHLFELD, ALEXANDER RUDOLPH, Ph.D., Professor of German. *S. H.* 28. 104 Breese Terrace

[3] HOLLOWAY, JOSEPH DUBOIS, Commandant. Professor of Military Science and Tactics. *Armory* 2. 5 E. Wilson

HOOL, GEORGE ALBERT, B.S., Professor of Civil and Structural Engneering. *U. E. B.* 308. College Hills

HOPKINS, ANDREW WINKLE, B.L., Agricultural Editor. Professor of Agricultural Journalism. *A. H.* 117. College Hills

[1] HORNBECK, STANLEY KUHL, Ph.D., Associate Professor of Political Science.

HOUGHTON, HARRY GARFIELD, M.A., Assistant Professor of Public Speaking. *U. H.* 453. 408 N. Henry

HUBBARD, FRANK GAYLORD, Ph.D., Professor of English. *U. H.* 354. 2006 Monroe

HULCE, RAY STILLMAN, M.S., Associate Professor of Animal Husbandry. *A. H.* 208. 210 Bernard Ct.

HUMPHREY, CLARENCE JOHN, B.A., B.S., Lecturer in Forest Products. *S. B.* 20 Lathrop

HUMPHREY, GEORGE COLVIN, B.S., Professor of Animal Husbandry. *A. H.* 208B. 438 University Farm Pl.

HYDE, GRANT MILNOR, M.A., Assistant Professor of Journalism. Editor, University Press Bureau. *S. H.* 30 and 32. 107 Roby Road

HYLAND, PATRICK HENRY, B.S., Assistant Professor of Machine Design. *E. B.* 225. 509 Edgewood Ave.

INGERSOLL, LEONARD ROSE, Ph.D., Associate Professor of Physics. *P. E. B.* 14. 1933 West Lawn Ave.

JACKSON, REGINALD HENRY, M.D., Lecturer in Clinical Medicine. 415 N. Carroll

JAMES, JOHN AMBROSE, B.S., Associate Professor of Agricultural Education. District Supervisor of County Representatives and Emergency Food Agents. *A. H.* 104B. 2210 West Lawn Ave.

JANSKY, CYRIL METHODIUS, B.A., B.S., Associate Professor of Electrical Engineering. *U. E. B.* 310. 2117 Jefferson

JASTROW, JOSEPH, Ph.D., Professor of Psychology. *U. H.* 12. 237 Langdon

JOHNSON, AARON GUY, Ph.D., Associate Professor of Plant Pathology. *H. B.* 210. 1713 Chadbourne Ave.

JOHNSON, GERTRUDE ELIZABETH, B.A., Assistant Professor of Public Speaking. *U. H.* 403. 237 Langdon

JOHNSON, JAMES, Ph.D., Assistant Professor of Horticulture. *H. B.* 108. 1915 Regent

JONES, EDWARD RICHARD, M.S., Associate Professor of Agricultural Engineering. *Stock Pavilion* 1. 136 Breese Terrace

JONES, IRVING WILLARD, Ph.B., Assistant Professor of Music. *M. H.* 33. 2230 Van Hise Ave.

JONES, LEWIS RALPH, Ph.D., Sc. D., Professor of Plant Pathology. *H. B.* 211. 1731 Regent

JONES, THOMAS EDWARD, B.A., Professor of Physical Education. *Gym.* 1A. 140 Breese Terrace

[2] JUDAY, CHANCEY, M.A., Lecturer in Zoology. *B. B.* 460. 35 Lathrop

KAHLENBERG, LOUIS, Ph.D., Director of the Course in Chemistry. Professor of Chemistry. *C. B.* 153. 234 Lathrop

KEISTER, DONALD CORMANY, B.A., M.B.A., Assistant Professor of Business Administration. *U. E. B.* 108. 621 N. Henry

[8] KEITT, GEORGE WANAMAKER, Ph.D., Associate Professor of Plant Pathology. *H. B.* 209. 419 Sterling Pl.

[3] KELIHER, JOHN, Assistant Professor of Military Science and Tactics. *Armory* 2. 29 E. Wilson

[10] KELLER, WILLIAM JACOB, Ph.D., Assistant Professor of German. *S. H.* 28. 415 Sterling Pl.

KELLY, FREDERICK THOMAS, Ph.D., Assistant Professor of Semitic Languages and Hellenistic Greek. *U. H.* 257. 2019 Monroe

[2] KEOWN, ROBERT MCARDLE, B.S., Associate Professor of Machine Design.

KERR, ALEXANDER, M.A., Litt.D., Professor of the Greek Language and Literature. *Emeritus.* 140 Langdon

KIEKHOFER, WILLIAM HENRY, B.A., Associate Professor of Economics. *P. E. B.* 308. 624 State

[12] KIND, JOHN LOUIS, Ph.D., Associate Professor of German. *P. E. B.* 319. 414 N. Livingston

KINNE, WILLIAM SPAULDING, B.S., Associate Professor of Structural Engineering. *E. B.* 311. 2105 West Lawn Ave.

KLEINHEINZ, FRANK, Assistant Professor of Animal Husbandry. *Sheep Barn.* 412 N. Charter

KOEHLER, ARTHUR, B.S., Lecturer in Forest Products. *S. B.* 208. 1819 Adams

KOENIG, ALFRED EDWARD, Ph.D., Assistant Professor of Chemistry. *C. B.* 55. 115 S. Warren

KOMMERS, JESSE BENJAMIN, B.S., Assistant Professor of Mechanics. *E. B.* 115. 1814 Chadbourne Ave.

KOWALKE, OTTO LOUIS, Ch.E., Professor of Chemical Engineering. *C. E. B.* 103. 2012 Jefferson

KRAUSKOPF, FRANCIS CRAIG, Ph.D., Assistant Professor of Chemistry. *C. B.* 159. 1915 West Lawn Ave.

KREMERS, EDWARD, Ph.D., Sc.D., Director of the Course in Pharmacy. Professor of Pharmaceutical Chemistry. Director of the Pharmaceutical Experiment Station. *C. B.* 303. 1720 Vilas

KRUEGER, JEAN, M.S., Assistant Professor of Home Economics. *H. E. B.* 222. 444 N. Warren

LAIRD, ARTHUR GORDON, Ph.D., Associate Professor of Greek and Comparative Philology. *U. H.* 263. 130 Prospect Ave.

LANGMAS, ARTHUR SAMUEL, B.A., District Representative, Oshkosh District, Extension Division. *Burtis Bldg., 175 Main St.* 44 Madison St., Oshkosh

LARSELL, OLAF, Ph.D., Assistant Professor of Anatomy. *Sc. H.* 308. 2001 Jefferson

LARSON, GUSTUS LUDWIG, M.E., Associate Professor of Steam and Gas Engineering. *E. B.* 224. College Hills

LATHROP, HENRY BURROWES, B.A., Associate Professor of English. *U. H.* 355. 427 N. Butler

LEITH, BENJAMIN DONALD, B.S., Assistant Professor of Agronomy. *Agron. B.* 33. 2545 Harper

[1] LEITH, CHARLES KENNETH, Ph.D., Professor of Geology. *Sc. H.* 213. Moraine, Old Sauk Road

[11] LENHER, VICTOR, Ph.D., Professor of Chemistry. *C. B.* 203. 158 Summit Ave.

LEONARD, ELSIE PRESTON, B.A., Director of the Halls and Commons. Assistant Professor of Institutional Management. Chadbourne

LEONARD, WILLIAM ELLERY, Ph.D., Assistant Professor of English. *U. H.* 368. 2015 Adams

LESCOHIER, DON DIVANCE, M.A., Associate Professor of Economics. *P. E. B.* 316; *U. E. B.* 206. 2103 Madison

LESTER, CLARENCE BROWN, Department of Special Legislative Library Training. *Capitol.* 1931 Rowley

LIGHTY, WILLIAM HENRY, Ph.B., Acting Dean and Secretary, Correspondence Study Department, Extension Division. *U. E. B.* 105. R. D. 7

[1] LIPPITT, LOUISA CHRISTIANA, R.N., Assistant Professor of Physical Education.

[1] LLOYD JONES, CHESTER, Ph.D., Professor of Political Science.

LLOYD JONES, THOMAS, B.S., High School Visitor. Assistant Professor of Education. *U. H.* 120. Nakoma Road

[11] LOEVENHART, ARTHUR SOLOMON, M.S., M.D., Professor of Pharmacology and Toxicology. *Sc. H.* 106. 1717 Madison

[1] LORENZ, WILLIAM FREDERICK, M.D., Associate Professor of Psychiatry.

LOWMAN, GUY SUMNER, B.Di., M.P.E., Director of the Gymnasium. Professor of Physical Education. *Gym.* 1B. 1633 Jefferson

LUTHER, ERNEST LEONARD, B.A., B.S., Superintendent of Farmers' Institutes. State Supervisor of County Representatives, College of Agriculture. *A. H.* 115. 1933 Keyes Ave.

LYON, ALBERT EDDY, M.A., Assistant Professor of Romance Languages. *U. H.* 320. 625 Mendota Ct.

MCCAFFERY, RICHARD STANISLAUS, E.M., Professor of Mining and Metallurgy. *E. B.* 213. 10 Lathrop

McGILVARY, EVANDER BRADLEY, Ph.D., Professor of Philosophy. *U. H.* 107. 1920 Arlington Pl.

MACGREGOR, FORD HERBERT, M.A., Assistant Professor of Political Science. Chief of the Municipal Reference Bureau, Extension Division. *U. E. B.* 203. 115 Spooner

MACKINNON, ARCHIBALD RONALD, B.S., Acting District Representative, La Crosse District, Extension Division. *118 N. Fifth St.* 1116 State, La Crosse

MAHOOD, SAMUEL ARTHUR, Ph.D., Lecturer in Forest Products. *F. P. L.* 23. 1316 Drake

MANCHESTER, FREDERICK A., Ph.D., Assistant Professor of English. *U. H.* 355. 130½ Lathrop

MARCH, HERMAN WILLIAM, Ph.D., Assistant Professor of Mathematics and Physics. *P. E. B.* 11. 115 Summit Ave.

MARLATT, ABBY LILLIAN, Director of the Course in Home Economics. Professor of Home Economics. *H. E. B.* 119. 612 Howard Pl.

MARSHALL, WILLIAM STANLEY, Ph.D., Associate Professor of Entomology. *B. B.* 457. 139 E. Gilman

[1] MARTIN, LAWRENCE, Ph.D., Associate Professor of Geology.

[1] MASON, MAX, Ph.D., Professor of Mathematical Physics.

[11]MATHEWS, JOSEPH HOWARD, Ph.D., Associate Professor of Chemistry. *C. B.* 55. 128 Lathrop

MAURER, EDWARD ROSE, B.C.E., Professor of Mechanics. *E. B.* 113. 167 Prospect Ave.

[12]MEAD, DANIEL WEBSTER, C.E., Professor of Hydraulic Engineering. *E. B.* 218. 120 W. Gorham

MEAD, WARREN JUDSON, M.A., Associate Professor of Geology. *Sc. H.* 201. 922 Van Buren

MEEK, WALTER JOSEPH, Ph.D., Professor of Physiology. *Sc. H.* 123. 2015 Chadbourne Ave.

[1] MELVILLE, ANDREW HUTTON, Ph.B., Associate Professor of Business Administration. Chief, Bureau of Civic, Commercial and Community Development, Extension Division. 612 Howard Pl.

[1] MENDENHALL, CHARLES ELWOOD, Ph.D., Professor of Physics.

MICHELL, ROBERT BELL, Ph.D., Assistant Professor of Romance Languages. *U. H.* 308. 808 Oakland Ave.

[1] MIDDLETON, WILLIAM SHAINLINE, M.D., Assistant Professor of Clinical Medicine.

MILLAR, ADAM VAUSE, M.S., Assistant Professor of Drawing and Descriptive Geometry. *E. B.* 403. 1011 Grant

MILLER, ERIC REXFORD, Lecturer in Meteorology. Meteorologist, U. S. Weather Bureau. *N. H.* 84. 2125 Van Hise Ave.

MILLER, HARRY LLOYD, B.A., Assistant Professor of Education. Principal of the Wisconsin High School. *W. H. S.* 110. 419 Sterling Pl.

[2] MILLER, WILLIAM SNOW, M.D., Professor of Anatomy.

MILLS, CHARLES HENRY, Mus. D., F.R.C.O., Director of the School of Music. Professor of Music. *M. H.* 22. 2119 Jefferson

MILWARD, JAMES GARFIELD, M.S., Associate Professor of Horticulture. *H. B.* 118. 2103 Rowley Ave.

MOORE, JAMES GARFIELD, M.S., M.H., Professor of Horticulture. *H. B.* 106. 809 Grant

MOORE, RANSOM ASA, Professor of Agronomy. *Agron. B.* 28. 38 Virginia Terrace

[1] MORGAN, BAYARD QUINCY, Ph.D., Assistant Professor of German.

MORRIS, SARAH ISABELLE, M.D., Assistant Professor of Clinical Medicine. *Clin. B.* 762 Langdon

MORRISON, FRANK BARRON, B.S., Assistant Director, Agricultural Experiment Station. Associate Professor of Animal Husbandry. *A. H.* 101. 1937 Arlington Pl.

MORTIMER, GEORGE B., B.S., Assistant Professor of Agronomy. *Agron. B.* 32. 150 W. Gorham

MURRAY, REID FRED, B.S., Assistant Field Supervisor, Agricultural Extension Courses and Schools. *A. H.* 104A. 419 Sterling Pl.

MUSBACH, FRED LUDWIG, B.S., Assistant Professor of Soils. In charge of Marshfield Branch Experiment Station. *Deming Bldg.* 207 S. Maple St., Marshfield

NARDIN, FRANCES LOUISE, Ph.D., Dean of Women. Assistant Professor of English. *Lathrop.* 612 Howard Pl.

NEBEL, WALTER, Ph.D., Assistant Professor of Chemistry. *C. B.* 309. 1726 Van Hise Ave.

NEWLIN, JOHN A., B.S., Lecturer in Forest Products. *A. E. B.* 107A. 2240 Keyes Ave.

O'CONNOR, JOHN PEASLEE, Ph.B., District Representative, Superior District, Extension Division. *Board of Trade Bldg.* 429. 1907 Hammond Ave., Superior

OGG, FREDERIC AUSTIN, Ph.D., Professor of Political Science. *S. H.* 23. 1715 Kendall Ave.

OLSON, JULIUS EMIL, B.L., Professor of Scandinavian Languages and Literature. *U. H.* 60. 1909 Adams

O'NEILL, JAMES MILTON, B.A., Professor of Rhetoric and Oratory. *U. H.* 204. 2011 Chadbourne Ave.

[2] OOSTERHUIS, ALVIN CECIL, M.S., Assistant Professor of Animal Husbandry.

ORTEGA, JOAQUIN, M.A., Assistant Professor of Romance Languages. *U. H.* 321. 823 University Ave.

ORTH, HERBERT DENNY, B.S., Assistant Professor of Mechanical Drawing and Descriptive Geometry. *E. B.* 404. Oneida Place, Nakoma

O'SHEA, M. VINCENT, B.L., Professor of Education. *U. H.* 108. 140 Langdon

[6] OTIS, DANIEL HENRY, M.S., Professor of Farm Management. *A. H.* 105. 1822 Chadbourne Ave.

OTTO, MAX CHARLES, Ph.D., Associate Professor of Philosophy. *U. H.* 104. 1004 W. Washington Ave.

OVERTON, JAMES BERTRAM, Ph.D., Professor of Plant Physiology. *B. B.* 54. 512 Wisconsin Ave.

OWEN, EDWARD THOMAS, Ph.D., Professor of French and Linguistics. *Emeritus.* 624 State

[1] OWEN, RAY SPRAGUE, B.S., Assistant Professor of Topographical Engineering.

PAGE, WILLIAM HERBERT, LL.B., LL.M., S.J.D., Professor of Law. *L. B.* 35. 10 Vista Road

PARKER, FLETCHER ANDREW, Professor of Music. *Emeritus.* 14 W. Gilman

[4] PAXSON, FREDERIC LOGAN, Ph.D., Professor of History. *Lib.* 123. 629 N. Frances

PEARSE, ARTHUR SPERRY, Ph.D., Associate Professor of Zoology. *B. B.* 151. 2240 Rowley Ave.

PENDLETON, CHARLES SUTPHIN, M.A., Assistant Professor of English. *U. H.* 365; *W. H. S.* 209. 417 Sterling Pl.

PETERSON, WILLIAM HAROLD, Ph.D., Associate Professor of Agricultural Chemistry. *A. C. B.* 133. College Hills

PHILLIPS, JAMES DAVID, B.S., Assistant Dean, College of Engineering. Professor of Drawing and Descriptive Geometry. *E. B.* 303. 1925 West Lawn Ave.

PITMAN, ANNIE MARIA, Ph.D., Assistant Professor of English, Greek and Latin. *U. E. B.* 212. 414 N. Henry

PRICE, JOHN REESE, B.S., Assistant Professor of Electrical Engineering. *Elec. Lab.* 1818 Chadbourne Ave.

PYRE, JAMES FRANCIS AUGUSTINE, Ph.D., Associate Professor of English. *U. H.* 367. R. D. 7

READ, JAMES BURTON, B.A., LL.B., Assistant Professor of Business Administration. *U. E. B.* 213. 212 Vista Road

[1] REBER, LOUIS EHRHART, C.S., Sc.D., Dean of the University Extension Division. *U. E. B.* 108.

REED, FRANK OTIS, Ph.D., Assistant Professor of Romance Languages. *U. H.* 306. 1910 Jefferson

[11] RICHARDS, HARRY SANGER, Ph.B., LL.B., LL.D., Dean of the Law School. Professor of Law. *L. B.* 14 Prospect Ave.

[1] RICHARDS, JOHN ROBERTSON, B.L., Assistant Professor of Physical Education. *Gym.*

RICHTMANN, WILLIAM OSCAR, B.S., Pharmacognosist, Pharmaceutical Experiment Station. *C. B.* 459. 1721 Van Hise Ave.

RINKER, FREDERIC CASPER, M.D., Assistant Professor of Clinical Medicine. Chief, Medical Instruction, Extension Division. *Clin. B.* 762 Langdon

ROBERTS, RAY HARLAND, M.S., Assistant Professor of Horticulture. *H. B.* 103. 1532 Jefferson

ROE, FREDERICK WILLIAM, Ph.D., Assistant Dean, College of Letters and Science. Assistant Professor of English. *S. H.* 3. 2015 Van Hise Ave.

[11]ROEBUCK, JOHN RANSOM, Ph.D., Assistant Professor of Physics. *P. E. B.* 3. 2210 Hollister Ave.

[9] ROEDDER, EDWIN CARL LOTHAR CLEMENS, Ph.D., Associate Professor of German Philology. *S. H.* 25. 1614 Hoyt

ROOT, WINFRED TREXLER, Ph.D., Associate Professor of History. *Lib.* 123. 1914 Jefferson

ROSENBERRY, LOIS KIMBALL MATHEWS, Ph.D., Associate Professor of History. *Lib.* 122. 504 Wisconsin Ave.

ROSS, EDWARD ALSWORTH, Ph.D., LL.D., Professor of Sociology. *P. E. B.* 336. 1941 Arlington Pl.

RUNDELL, OLIVER SAMUEL, LL.B., Associate Professor of Law. *L. B.* 22 Prospect Ave.

RUSSELL, HARRY LUMAN, Ph.D., M.S., Dean of the College of Agriculture. Director of the Agricultural Experiment Station and of Agricultural Extension. *A. H.* 101. University Farm Pl.

[2] SABIN, FRANCES ELLIS, M.A., Assistant Professor of Latin.

SALANT, WILLIAM, B.S., M.D., Acting Professor of Physiological Chemistry. *Sc. H.* 7. 703 State

SAMMIS, JOHN LANGLEY, Ph.D., Associate Professor of Dairy Husbandry. *H. S. H.* 303A. 234 Breese Terrace

SANBORN, JOHN BELL, Ph.D., Lecturer in Law. 2115 Van Hise Ave.

SCHINDLER, LLOYD MARCUS, M.S., Assistant Professor of Agricultural Engineering. *Stock Pavilion* 101. 2220 Monroe

SCHLATTER, EDWARD BUNKER, Ph.D., Acting Assistant Professor of Romance Languages. *U. E. B.* 211. 2259 Regent

[5] SCHMIT, CELESTINE LEONTINE, Associate Professor of Home Economics. *H. E. B.* 222. 135 Langdon

SCHUETTE, HENRY AUGUST, Ph.D., Assistant Professor of Chemistry. *C. B.* 203. 508 E. Gorham

SCOTT, ALMERE LOUISE, B.A., Secretary, Department of Debating and Public Discussion, Extension Division. *U. E. B.* 104. 1619 Regent

SCOTT, WILLIAM AMASA, Ph.D., LL.D., Director of the Course in Commerce. Professor of Economics. *P. E. B.* 407. 222 Spooner

SELLERY, GEORGE CLARKE, Ph.D., Acting Dean of the College of Letters and Science. Professor of History. *Lib.* 123; *S. H.* 2. 2021 Van Hise Ave.

SEYBOLT, ROBERT FRANCIS, Ph.D., Assistant Professor of Education. *U. H.* 119. 417 Sterling Pl.

SHANKS, LEWIS PIAGET, Ph.D., Assistant Professor of Romance Languages. *U. H.* 319. 423 N. Butler

SHARP, FRANK CHAPMAN, Ph.D., Professor of Philosophy. *U. H.* 106. 659 Mendota Ct.

SHEALY, EDWARD MARVIN, B.S., Associate Professor of Steam Engineering. *U. E. B.* 307. 219 Clifford Ct.

SHERRARD, EARL CHARLES, Ph.D., Lecturer in Forest Products. *F. P. L.* 24. 218 Regent

SHOWERMAN, GRANT, Ph.D., Professor of Latin. *U. H.* 266. 410 N. Butler

SHUSTER, JOHN WESLEY, B.S., Assistant Professor of Electrical Engineering. *E. B.* 203. 102 Spooner

SKINNER, ERNEST BROWN, Ph.D., Associate Professor of Mathematics. *P. E. B.* 223. 210 Lathrop

[1] SLAUGHTER, MOSES STEPHEN, Ph.D., Professor of Latin.

SLICHTER, CHARLES SUMNER, Sc.D., Professor of Applied Mathematics. *U. H.* 253. 636 Frances

SMITH, CHARLES AUGUSTUS, M.A., Assistant Professor of History. *Lib.* 122. 1812 Ray

SMITH, CHARLES FORSTER, Ph.D., LL.D., Professor of Greek and Classical Philology. *Emeritus. U. H.* 263. 1715 Kendall Ave.

SMITH, GILBERT MORGAN, Ph.D., Assistant Professor of Botany. *B. B.* 203. 113 Spooner

SMITH, HUGH ALLISON, M.A., Professor of Romance Languages. *U. H.* 309. 15 Prospect Ave.

[1] SMITH, HOWARD LESLIE, B.A., LL.B., Jackson Professor of Law.

SMITH, LEONARD SEWELL, C.E., Professor of Topographic and Highway Engineering. *E. B.* 107. 939 University Ave.

SMITH, WALTER MCMYNN, B.A., Librarian. *Lib.* 220. 127 Langdon

SNOW, BENJAMIN WARNER, Ph.D., Professor of Physics. *P. E. B.* 119. 221 Langdon

STARCH, DANIEL, Ph.D., Associate Professor of Psychology and Education. *U. H.* 13. 203 N. Park

STEENBOCK, HARRY, Ph.D., Associate Professor of Agricultural Chemistry. *A. C. B.* 125. 2117 West Lawn Ave.

[13] STEIDTMANN, EDWARD, Ph.D., Assistant Professor of Geology. *Sc. H.* 211. 2002 Monroe

STERLING, SUSAN ADELAIDE, M.L., Assistant Professor of German, *S. H.* 25B. 109 W. Washington Ave.

STEVE, WILLIAM FREDERICK, M.A., Assistant Professor of Physics. *P. E. B.* 212. 1216 W. Johnson

[9] STEWART, HAROLD WILSON, B.S., Assistant Professor of Soils. *S. B.* 206B. 2010 Monroe

STONE, ALDEN LESCOMBE, Assistant Professor of Agronomy. *Agron. B.* 29. 2217 Rowley Ave.

STOVALL, WILLIAM DAVISON, M.D., Director and Bacteriologist of the State Laboratory of Hygiene. Associate Professor of Hygiene. *S. H.* 45. 1109 W. Johnson

SWENEHART, JOHN HENRY, B.S., Assistant Professor of Agricultural Engineering. *Stock Pavilion* 3. 220 N. Murray

TAYLOR, HENRY CHARLES, Ph.D., Professor of Agricultural Economics. *A. H.* 304. R. D. 5

TAYLOR, WARNER, M.A., Assistant Professor of English. *U. H.* 368. 219 Clifford Ct.

TEESDALE, CLYDE H., Ch.E., Lecturer in Forest Products. *F. P. L.* 12. 608 E. Gorham

TERRY, EARLE MELVIN, Ph.D., Associate Professor of Physics. *P. E. B.* 5. 1606 Madison

THORKELSON, HALSTEN JOSEPH, M.E., Business Manager. *Admin. B.* 1526 W. Washington Ave.

TIEMANN, HARRY DONALD, M.E., M.F., Lecturer in Forest Products. *F. P. L.* 14. 135 Prospect Ave.

TILTON, ASA CURRIER, Ph.D., Curator of the War Collection. *Lib.* 300. 419 Sterling Pl.

TORMEY, THOMAS WILLIAM, B.S., M.D., F.A.C.S., Lecturer in Clinical Medicine. 303 N. Carroll

TOTTINGHAM, WILLIAM EDWARD, Ph.D., Associate Professor of Agricultural Chemistry. *A. C. B.* 3. 504 N. Henry

TOWNSEND, LOWELL LESLIE, M.A., Assistant Professor of Music. *M. H.* 26. 219 Clifford Ct.

[1] TRILLING, BLANCHE MATHILDE, B.A., Director of Women's Gymnasium. Associate Professor of Physical Education.

TRUOG, EMIL, M.S., Associate Professor of Soils. *S. B.* 105. 150 W. Gorham

TURNEAURE, FREDERIC EUGENE, C.E., Dr. Eng., Dean of the College of Engineering. *E. B.* 111. 306 Breese Terrace

TWENHOFEL, WILLIAM HENRY, Ph.D., Associate Professor of Geology. *Sc. H.* 227. 1922 Jefferson

ULLSPERGER, HERMAN WENZL, B.S., Assistant Professor of Soils. In Charge of Hancock-Coddington Demonstration Stations. Sturgeon Bay

[1] URDAHL, THOMAS KLINGENBERG, Ph.D., Professor of Economics.

VAN HAGEN, LESLIE FLANDERS, B.S., Associate Professor of Railway Engineering. *E. B.* 220. 1629 Jefferson

VAN VALZAH, ROBERT, B.A., M.D., Professor of Clinical Medicine. *Clin. B.* 2024 Chadbourne Ave.

VAN VLECK, EDWARD BURR, Ph.D., LL.D., D.M. and Phys., Sc.D., Professor of Mathematics. *P. E. B.* 127. 519 N. Pinckney

VARNUM, WILLIAM HARRISON, Associate Professor of Manual Arts. *A. A. L.* 3. 419 Sterling Pl.

VAUGHAN, RICHARD ENGLISH, M.S., Assistant Professor of Plant Pathology. *H. B.* 115. 11 Spooner

VOLK, FREDERICK EUGENE, B.A., B.S., Librarian, College of Engineering. *E. B.* 109. R. D. No. 6

[1] VOSS, ERNST KARL JOHANN HEINRICH, Ph.D., Professor of Germanic Philology. *S. H.* 24. 175 Nelson Road

WAGNER, GEORGE, M.A., Assistant Professor of Zoology. *B. B.* 73. 1901 Jefferson

[11] WALSTER, HARLOW LESLIE, Ph.D., Assistant Professor of Soils. *S. B.* 101. 421 N. Lake

[8] WALTON, JAMES HENRI, Ph.D., Professor of Chemistry. *C. B.* 103. 1726 Hoyt

WARD, CLAYTON NORMAN, M.S., Assistant Professor of Hydraulic Engineering. *Hydr. Lab.* 224 N. Murray

WATSON, JAMES WEBSTER, B.S., Assistant Professor of Electrical Engineering. *E. B.* 202. 2116 Monroe

WATTS, OLIVER PATTERSON, Ph.D., Associate Professor of Chemical Engineering. *C. E. B.* 204. 114 Spooner

WEAVER, ANDREW THOMAS, M.A., Assistant Professor of Public Speaking. *U. H.* 206. 1915 Keyes Ave.

WEIR, WILBERT WALTER, M.S., Assistant Professor of Soils. *S. B.* 1112 Grant

[1] WESTERMANN, WILLIAM LINN, Ph.D., Professor of History.

WHITBECK, RAY HUGHES, B.A., Professor of Geography. *Sc. H.* 314. 108 Spooner

WHITSON, ANDREW ROBISON, B.S., Professor of Soils. *S. B.* 204. 210 Spooner

[4] WILLIAMS, FRANK ERNEST, Assistant Professor of Geology.

WILLIAMS, WILLIAM HOLME, B.A., Professor of Semitic Languages and Hellenistic Greek. *Emeritus.* 5 E. Wilson

WILSON, HARLEY FROST, M.S., Professor of Economic Entomology. *Econ. Ent. B.*, 202. 1706 Regent

WINCHELL, ALEXANDER NEWTON, Sc.D., Professor of Mineralogy and Petrology. *Sc. H.* 215. 200 Prospect Ave.

WINSLOW, CARLISLE PATTERSON, Ph.B., Director of the Forest Products Laboratory. *F. P. L.* 419 Sterling Pl.

WITHEY, MORTON OWEN, C.E., Associate Professor of Mechanics. *E. B.* 66. 1921 West Lawn Ave.

WOJTA, JOSEPH FRANK, M.S., Assistant State Leader of County Agents. Field Supervisor of Agricultural Extension Courses and Schools. *A. H.* 104C. 2259 West Lawn Ave.

WOLFENSON, LOUIS BERNARD, Ph.D., Assistant Professor of Semitic Languages and Hellenistic Greek. *U. H.* 255. 1113 W. Dayton

WOLFF, HENRY CHARLES, Ph.D., Assistant Professor of Mathematics. *U. H.* 67. 723 University Ave.

[3] WOOD, JOHN SHIRLEY, B.S., Professor of Military Science and Tactics. *Armory* 1. 5 E. Wilson

WRIGHT, WILLIAM HARMON, M.S., Assistant Professor of Agricultural Bacteriology. *A. H.* 213. 1905 West Lawn Ave.

YOUNG, KARL, Ph.D., Professor of English. *U. H.* 357. 433 N. Lake

[1] ZDANOWICZ, CASIMIR DOUGLASS, Ph.D., Assistant Professor of Romance Languages.

INSTRUCTORS AND ASSISTANTS

ALBERTZ, HUGO WILLIAM, B.S., Instructor in Agronomy. *Agron. B.* 24. 1102 West Johnson

ALDERMAN, WILLIAM E., M.A., Instructor in English. *U. H.* 366. 1918 Vilas

ALLEN, FLORENCE ELIZA, Ph.D., Instructor in Mathematics. *P. E. B.* 125. 219 Lathrop

ALTMEYER, ARTHUR J., B.A., Assistant in Economics. *P. E. B.* 325. 1820 Madison

AMERY, ELISABETH, B.S., Instructor in Home Economics. Assistant State Leader, Boys and Girls Clubs, Agricultural Extension. *A. H.* 115. 425 Sterling Pl.

AMES, WALTER RAY, Ph.M., Assistant in Education. *U. H.* 108. 1311 W. Dayton

ANDERSON, ACHSAH CORNELIA, M.A., Assistant to the Dean of Women and the Dean of Men. *Lathrop.* 18 Mendota Ct.

ANDERSON, ANNA MARIE, B.A., Instructor in Manual Arts. *W. H. S.* 213. 1011 Grant

ARON, ALBERT WILLIAM, Ph.D., Instructor in German. *S. H.* 24. 24 Lathrop

ATANASOFF, DIMITAR, M.S., Assistant in Plant Pathology. *H. B.* 206. 727 W. Dayton

ATHERTON, DONALD HOPE, E.E., B.S.M.E., Instructor in Electrical Engineering, Milwaukee District, Extension Division. *471 Van Buren St.*, Milwaukee. 253 Juneau Ave., Milwaukee

ATKINS, WILLIAM GARRETT, Assistant to Commandant. Battalion Sergeant Major, U. S. A., Retired. *Armory* 1. 1420 Chandler

[3] ATWOOD, MARION JOHN, M.A., Assistant in History. *Lib.* 123. 1011 W. Johnson

BABCOCK, RODNEY WHITTEMORE, M.A., Instructor in Mathematics. *U. H.* 67. 206 Bernard Ct.

BACHMANN, FREDA MARIE, Ph.D., Instructor in Agricultural Bacteriology. *A. H.* 312. 320 Lathrop

BAKER, GLADYS, B.J., Assistant in Agricultural Journalism. *A. H.* 116. 915 University Ave.

BALLOU, SUSAN HELEN, Ph.D., Assistant in History. *Lib.* 123. 416 N. Carroll

BALLU, CELINE AGNES, B.A., Instructor in Romance Languages. *U. H.* 318. 210 Langdon

BASCOM, LEILA, M.A., Instructor In English. *U. E. B.* 212. 419 Sterling Pl.

BEATLEY, CATHERINE BANCROFT, B.A., Instructor in English. *U. H.* 370. 446 N. Charter

[3] BEATTIE, MARGUERITE RENA, Student Assistant in Home Economics. *H. E. B.* 119. 206 N. Orchard

[3] BELLACK, WILLARD BERNHARD, Student Assistant in Mathematics. *E. B.* 309. 166 Prospect Ave.

[2] BENNETT, JAMES PERCY, Ph.D., Instructor in Botany. *B. B.* 58. 915 University Ave.

BENNETT, WILLIAM HOMER, Assistant and Field Organizer, Milwaukee District, Extension Division. *471 Van Buren St., Milwaukee.* 4615 Grand Ave., Wauwatosa

[3] BERGMAN, MINNIE LOUISE, Instructor in Music. *M. H.* 25. 406 N. Henry

BIRGE, ANNA GRANT, B.A., Acting Instructor in Book Selection. Library School. *Madison Free Lib.* 744 Langdon

[3] BISHOP, GEORGE HOLMAN, B.A., Assistant in Zoology. *B. B.* 459. 504 N. Carroll

BLACKMAN, ROY MARTIN, Ph.B., Instructor and Field Organizer, Superior District, Extension Division. *U. E. B.* 213. 302 Virginia Terrace

BLAIR, LAWRENCE E., Draftsman. Assistant in Mechanical Drawing, Extension Division. *U. E. B.* 306. 29 E. Dayton

BLANCHARD, WILLIAM OSCAR, Ph.M., Instructor in Geology. *Sc. H.* 313. 2610 Stevens

[3] BLANK, GEORGE A., M.S., County Representative, College of Agriculture, Washington County. *Court House.* West Bend

BLOOD, FORREST C., M.A., Instructor in Business Administration. *U. E. B.* 213. 430 Virginia Terrace

BOEING, AGNES, B.S., Instructor in Home Economics. Agricultural Extension. *H. E. B.* 223. 425 Sterling Pl.

[3] BOHNSON, VAN LORENS, M.S., Instructor in Chemistry. *C. B.* 107. 10 S. Orchard

BORSACK, KARL KASPER, B.A., Assistant in Physiology. *Sc. H.* 116. 615 N. Lake

[3] BRADY, KING, Instructor in Physical Education. *Gym.* 222 N. Brooks

BRANN, JOHN WILLIAM, M.S., Instructor in Horticulture and Plant Pathology. *H. B.* 115. 1530 University Ave.

BRECKEY, ERICK T., Instructor in Mechanical Practice. *M. S.* 5. 215 N. Patterson

[3] BRESNAHAN, GEORGE THOMAS, B.A., Assistant to Chairman and Instructor, Department of Physical Education. *Gym.* 148 W. Gilman

BRIGGS, GEORGE MCSPADDEN, B.S., County Representative, College of Agriculture, Burnett County. Grantsburg

[2] BROWN, RALPH V., B.S., County Representative, College of Agriculture, Clark County. Neillsville

BROWNELL, MARY ALICE, Instructor in Physical Education. *Lathrop.* 237 Langdon

BRUBAKER, VERNON EVERETT, B.S., County Representative, College of Agriculture, Bayfield County. 313 E. Fourth St., Washburn

BRUNSELL, HENDRICH ALDIN, Instructor in Carpentry. *M. S.* 13. 712 W. Dayton

[3] BUELL, MARY VAN RENSSELAER, M.A., Assistant in Home Economics. *H. E. B.* 323. 115 Ely Pl.

BUREAU, PAULE, B.A., Assistant in Romance Languages. *U. H.* 305. Chadbourne

BURHOP, CLARA HIGGINS, B.S., Assistant in Home Economics. *H. E. B.* 115. 1228 W. Washington Ave.

[3] BUTLER, LEE WRIGHT, B.A., Assistant in Physics. *P. E. B.* 221. 342 W. Mifflin

[3] CALDWELL, DONALD ALAN, B.S., Assistant in Agricultural Economics. *A. H.* 307. 111 N. Orchard

CALDWELL, HELEN HUBBERT, Ph.D., Assistant in Education. *U. H.* 11. 703 State

CAMPBELL, LUCILLE ELEANOR, B.M., Instructor in Music. *M. H.* 40. 25 Mendota Ct.

CARDON, LEOPOLD, B.L., Instructor in Romance Languages. *U. H.* 319. 105 W. Doty

CARNCROSS, ELMER AENEAS, M.S., County Representative, College of Agriculture, Brown County. *Court House.* 911 Lawe Street, Green Bay

CARNS, MARIE LOUISE, B.A., Instructor in Physical Education. *Lathrop.* 415 Sterling Pl.

CARR, MARJORIE, B.A., Assistant in Americanization. *P. E. B.* 316. 415 Sterling Pl.

CHASE, RUTH W., B.A., Assistant in Zoology. *B. B.* 257. 141 Summit Ave.

CHEETHAM, HAROLD COWAN, Student Assistant in Chemistry. *C. B.* 105. 620 N. Lake

CHIPMAN, WILLARD ALONZO, Student Assistant in Anatomy. *Sc. H.* 307. 609 N. Lake

[3] CHISHOLM, WALTER, Instructor in Pattern Making. *M. S.* 2109 Chamberlain Ave.

CLEVENGER, CLINTON B., M.S., Assistant in Soils and Agricultural Bacteriology. Assistant in Chemistry, first quarter. *S. B.* 103. 1636 Adams

CLUGSTON, PHIL R., B.A., Instructor in English. *U. H.* 361. 307 N. Murray

COERPER, FLORENCE MAUD, M.S., Instructor in Plant Pathology. *H. B.* 202. 425 Sterling Pl.

COLE, ADRIAN H., Ph.B., County Representative, College of Agriculture, Lincoln County. *Court House.* 315 Park St., Merrill

[3] COLE, ARCH EVAN, B.A., Assistant in Zoology. *B. B.* 458. 1910 Madison

COLEMAN, WILLIAM HAROLD, M.A., Instructor in English. *U. H.* 366. 1155 Edgewood Ave.

[3] COMSTOCK, MARY EVERETT, M.A., Instructor in Romance Languages. *U. H.* 207. Observatory Hill

CONRAD, ELISABETH, M.A., Instructor in Romance Languages. *U. H.* 207. 268 Langdon

[3] COOK, GUY SHIMER, B.A., Assistant in Physics. *P. E. B.* 221. 1621 Jefferson

COWLES, MAY LOUISE, M.S., Instructor in Home Economics. *H. E. B.* 323. 450 N. Charter

COX, ALONZO BETTIS, M.A., Research Assistant for Northern Wisconsin Investigation. *P. E. B.* 330. 1102 W. Johnson

COYNER, JAMES MCKEE, B.S., County Representative, College of Agriculture, Portage County. *Court House.* 442 Strongs Ave., Stevens Point

CRANE, ALICE WHITTAKER, B.A., Instructor in Music. *M. H.* 34. 612 Howard Pl.

CROTHERS, HAROLD MARION, E.E., Instructor in Electrical Engineering. *Elec. Lab.* 203. 1809 Ray

CUFF, RAYMOND LEE, B.S., County Representative, College of Agriculture, Barron County. *Court House.* Barron

CULLINAN, JOSEPHINE MARIE, B.S., Instructor in Home Economics. *H. E. B.* 323. 404 State

CURL, HOWARD, B.A., M.D., Instructor in Clinical Medicine. *Clin. B.* 1220 W. Dayton

[1] DABNEY, WILLIAM LYLE, Instructor in Mechanical Practice.

DAUBNER, NEAL FREDERICK, Instructor in Drawing and Descriptive Geometry. *E. B.* 405. 943 E. Gorham

[3] DAVIES, GEORGE W., County Representative, College of Agriculture, Grant County. *Court House.* N. Madison St., Lancaster

DAVIS, MARGUERITE, B.S., Instructor in Home Economics. *H. E. B.* 219. 1118 W. Johnson

DERTHICK, WILBUR M., Chief Organizer and Instructor of Field Organizers, Extension Division. *U. E. B.* 305. 313 N. Charter

DODGE, HELEN JOSEPHINE, B.S., Instructor in Home Economics. *H. E. B.* 222; *W. H. S.* 314. 425 Sterling Pl.

DOOLEY, MABEL, M.A., Instructor in English. *U. H.* 353. 27 Lathrop

DORMEYER, WILLIAM GEORGE, B.A., Assistant to the Dean, College of Agriculture. *A. H.* 101. 901 University Ave.

[1] DRANE, ROBERT, M.D., Instructor in Clinical Medicine.

DRIVER, CAMILLES OGDEN, Student Assistant in Bacteriology. *Sc. H.* 413. 225 W. Gilman

DUFFEE, FLOYD WALDO, B.S., Instructor in Agricultural Engineering. *Stock Pavilion* 101. 202 Prospect Ave.

DUNCAN, ROBERT BURNS, Assistant Secretary, Department of Instruction by Lectures, Extension Division. *U. E. B.* 208. 1023 Clymer Pl.

EASTMAN, IRENE BELLE, B.M., Instructor in Music. *M. H.* 32. 419 Sterling Pl.

EBERLE, GEORGE JACQUIN, B.A., Instructor in Economics. *P. E. B.* 319. 2250 Keyes Ave.

EIMER, EDNA, B.A., Assistant in English. *U. H.* 364. 108 Spooner

[3] ELDRIDGE, JOHN ADAMS, B.A., Instructor in Physics. *P. E. B.* 118. 1315 Spring

ELLINGSON, EMIL OSCAR, Ph.D., Instructor in Chemistry. *C. B.* 103. 1314 St. James Ct.

ESCABI, JOSE, Instructor in Anatomy. *Sc. H.* 410. 1017 Spring

[3] ETTER, ROLLAND ROBERT, B.S., Assistant in Chemistry. *C. B.* 105. 150 Langdon

FABIN, MADELINE CHARLOTTE, Instructor in Romance Languages. *U. H.* 318. 644 N. Frances

FAHLBERG, ERNEST DAVID, B.S., Instructor in Chemical Engineering. *C. E. B.* 111. Oneida Place, Nakoma

FINNEY, JOHN HENRY VANCE, B.S., Instructor in Steam and Gas Engineering. *E. B.* 72. 2010 Madison

[3] FISCHER, WILLIAM H., Instructor in the Machine Shops. *M. S.* 202 N. Brooks

FISHER, RAY DECOUDRES, M.A., Assistant in English. *U. H.* 361. 411 Hawthorne Pl.

[3] FITE, ALEXANDER GREEN, M.A., Assistant in Romance Languages. *U. H.* 209. 630 N. Lake

FLUKE, CHARLES LEWIS, M.S., Instructor in Economic Entomology. *Econ. Ent. B.* 207. 1204 W. Dayton

FRAZIER, MILDRED LUCILE, Student Assistant in Physics. *P. E. B.* 222. 407 W. Washington Ave.

GALWEY, CHARLES, B.A., Instructor in Romance Languages. *U. H.* 321. 1113 University Ave.

GANGSTAD, IDA MARIE, B.A., Library Assistant, Department of Debating and Public Discussion, Extension Division. *U. E. B.* 6. 613 N. Frances

GASSAWAY, MARY ELEANOR, B.L., Assistant in Romance Languages. *U. H.* 208. 644 N. Frances

GEORGE, VINCENT COLUMBUS, B.S., Instructor in Mechanical Engineering. *U. E. B.* 303. 14 Breese Terrace

[3] GIBSON, JOHN CURRIE, Student Assistant in Commerce. *P. E. B.* 412. 762 Langdon

GILLETT, ORSON CLARKE, B.A., University Editor. *Admin. B.* 1717 Hoyt

GLICKSMAN, HARRY, LL.B., Ph.D., Instructor in English. *U. H.* 361. 2114 Vilas

GORROW, EDWARD MILTON, Assistant and Field Organizer, Oshkosh District, Extension Division. *175 Main Street, Oshkosh.* 780 Superior Street, Appleton

GOUGH, JAMES ARTHUR, Student Assistant in Anatomy. *Sc. H.* 410. 620 N. Lake

GRAUL, EDWARD JOHN, M.S., Chemist, State Soils Laboratory. *S. B.* 205. 8 Lathrop

GRAY, HAZEL MARIE, M.S., Assistant in Clinical Medicine. *Clin. B.* 13. 425 Sterling Pl.

GRAY, JEANNE MACLEAN, B.A., Instructor in Physical Education. *Lathrop.* 415 Sterling Pl.

GREEN, WALTER ELMER, Student Assistant in Pharmacology and Toxicology. *Sc. H.* 108. 609 N. Lake

GREENLEAF, CHARLES HUNT, M.A., Instructor in Romance Languages. *U. H.* 320. 1907 Monroe

GREENLEAF, JEANNE HARANEL, B.L., Instructor in Romance Languages. *U. H.* 304. 1907 Monroe

GREENSLADE, GROVER RAWLE, M.S., M.A., Instructor in Physics. *P. E. B.* 5. 428 N. Charter

GRISWOLD, MABEL ELIZABETH, B.A., Assistant in the Library School. *Madison Free Lib.* 1158 Sherman Ave.

GROSS, ERWIN GEORGE, B.S., Assistant in Agricultural Chemistry. *A. C. B.* 117. 129 S. Hancock

[3] GUGLER, MILTON CLARENCE, B.A., Assistant in Botany. *B. B.* 202. 215 Orchard

[3] GUNDERSON, HELEN LOUISE, B.M., Instructor in Music. *M. H.* 24. 315 N. Mills

GUNDERSON, OSCAR, B.S., County Representative, College of Agriculture. Vilas County. Eagle River

HAAKE, ALFRED PAUL, M.A., Instructor in Economics. *P. E. B.* 423. 1164 Emerald

[3] HAAS, ALBERT RICHARD CARL, Ph.D., Assistant in Agricultural Bacteriology. *A. H.* 114. 315 N. Lake

[3] HALES, GUY S., B.S., County Representative, College of Agriculture, Ozaukee County. *Court House.* Port Washington

[3] HALL, KATHERINE, B.A., Assistant in English. *U. H.* 364. 137 Langdon

[3] HALVERSON, DONALD LITTLEJOHN, B.A., Instructor in Romance Languages. *U. H.* 308. 145 Iota Ct.

HANSEN, ALLEN OSCAR, M.A., Assistant in Education. *U. H.* 119. 705 W. Johnson

HARKNESS, STANLEY BATES, B.A., Instructor in English. *U. H.* 354. 610 Langdon

HARRIS, ROY THEODORE, Supervisor in charge of Dairy Tests. *A. H.* 202B. 2215 Keyes Ave.

HATLEBERG, CLARENCE NELS BUGGE, Student Assistant in Physiology. *Sc. H.* 7. 429 Hawthorne Pl.

HAYS, FLORENCE CATHERINE, Assistant and Librarian, Municipal Reference Bureau, Extension Division. *U. E. B.* 203. 417 Sterling Pl.

HAZELTINE, MARY EMOGENE, Preceptor of the Library School. Instructor in Bibliography. *Madison Free Lib.* 523 N. Carroll

H'DOUBLER, MARGARET NEWELL, B.A., Instructor in Physical Education. *Lathrop.* 237 Langdon

HEAN, CLARENCE SCOTT, B.A., Librarian, College of Agriculture. *A. H. Lib.* 2017 Kendall Ave.

HELIE, FERNANDE MARIE LOUISE, B.L., Assistant in Romance Languages. *U. H.* 208. Chadbourne

HENNING, ERWIN LLOYD, M.S., Assistant in Soils. *S. B.* 105. 545 S. Warren

HENSEY, IRENE ANNETTE, Student Assistant in Accounting. *P. E. B.* 412. 438 University Farm Pl.

[3] HERTZLER, JOYCE ORAMEL, B.A., Assistant in Economics. *P. E. B.* 319. 146 W. Johnson

HEWSON, MARY ANN, M.A., Assistant Director of Halls and Commons. Instructor in Institutional Management. Chadbourne

HICKEY, PHILIP JOHN, B.S., Assistant in Chemistry. *C. B.* 107. 617 State

[3] HINDMAN, HARRY HINGSTON, Assistant in Physical Education. *Gym.* 1E. 135 N. Charter

HINTZMAN, WILLIAM FREDERICK, B.A., Assistant in Bureau of Civic, Commercial and Community Development, Extension Division. *U. E. B.* 204. 1301 W. Washington Ave.

[3] HOAG, EMILY FLORENCE, M.A., Assistant in Agricultural Economics. *A. H.* 316. 508 N. Frances

HOLLANDER, LEE M., Ph.D., Instructor in German and Scandinavian Languages. *S. H.* 24. 202 Forest

HOLT, HARRIETTE GRACE, M.A., Instructor in Mathematics, Extension Division. Assistant in Mathematics, College of Letters and Science. *U. E. B.* 309. 14 Prospect Ave.

HOMER, PHILLIP MARVIN, Instructor in Drawing and Descriptive Geometry. *E. B.* 405. 451 W. Wilson

[3] HOOVER, WILLIAM H., M.A., Instructor in Physics. *P. E. B.* 220. 1203 W. Dayton

HOPPERT, MARTIN JOHN, B.S., County Representative, College of Agriculture, Sheboygan County. *Court House.* R. D. No. 4, Sheboygan

HOYER, GEORGE HENRY CHRISTIAN, Student Assistant in Pharmacology. *Sc. H.* 111. 609 N. Lake

HOYT, EDITH EVANS, M.A., Instructor in Education. *U. E. B.* 211. 24 Lathrop

[3] HUBBARD, DOROTHY ROWE, B.A., Assistant in Physics. *P. E. B.* 222. 2006 Monroe

HULL, CLARK LEONARD, Ph.D., Instructor in Psychology. *U. H.* 18. 605 State

[3] IBSEN, HEMAN LAURITZ, Ph.D., Assistant in Zoology. *B. B.* 455. 132 Lathrop

INGALLS, GEORGE ROSS, Ph.B., County Representative, College of Agriculture, Eau Claire County. *Training School, R. D. 6.* Oxford Ave., Eau Claire

INGERSOLL, JULIA DAY, B.A., Assistant in Romance Languages. *U. H.* 305. 644 N. Frances

[3] IRWIN, GEORGE PRYOR, Instructor in Business Administration. *U. E. B.* 213. 32 E. Mifflin

JACKLIN, HAROLD MADISON, B.S., Instructor in Mechanical Engineering, Oshkosh District, Extension Division. 263 Merritt St., Oshkosh

JANSKY, CYRIL MOREAU, JR., B.A., Assistant in Physics. *P. E. B.* 40. 2117 Jefferson

[3] JENKINS, JAMES FRANCIS, M.A., Instructor in Romance Languages. *U. H.* 209. 627 Mendota Ct.

JENSEN, EVELYN HARRIETT, B.S., Instructor in Home Economics. *U. E. B.* 214. 312 Breese Terrace

[3] JEROME, HARRY, Ph.D., Instructor in Economics. *P. E. B.* 317. 930 Clymer Pl.

JOHNSON, ISABELLE CHARLOTTE, B.A., Artist in Anatomy. *Sc. H.* 306. 1311 Morris

JOHNSON, OREN N., Assistant in Poultry Husbandry. *Poultry B.* 1809 University Ave.

JONES, HOWARD MURRAY, Assistant in English. *U. H.* 363. 1822 Chadbourne Ave.

[3] JONES, JOSEPHINE, M.G., Instructor in Music. *M. H.* 25. 415 Sterling Pl.

JONES, SARAH VAN HOOSEN, M.S., Assistant in Genetics. *A. C. B.* 202. 219 Lathrop

JUDAY, WESLEY DENVER, B.S., County Representative, College of Agriculture, Oneida County. *Court House.* 709 Margaret Street, Rhinelander

JULLIEN, ANDREE PAULE JEANNE, Assistant in Romance Languages. *U. H.* 208. 644 N. Frances

JUVE, OSCAR A., B.A., Instructor in Agricultural Economics. *A. H.* 308. 1109 W. Washington Ave.

KARTAK, FRANZ AUGUST, E.E., Director of Standards Laboratory. Instructor in Electrical Engineering. *Elec. Lab.* 203. 1415 W. Washington Ave.

KEEBLER, IRVIN WALLACE, Student Assistant in Chemistry. *C. B.* 105. 1020 W. Dayton

KELLER, GRACE HARRIS, M.A., Assistant to Dean of Women. *Lathrop.* 415 Sterling Pl.

KELSEY, RACHEL MARJORIE, M.L., Instructor in English. *U. H.* 364. 450 N. Charter

KELSO, LESLIE ERSKIN ALLAN, B.S., Instructor in Electrical Engineering. *Elec. Lab.* 205. 2126 Rowley Ave.

KENT, HAZEL EVA, B.S., Assistant in Agricultural Chemistry. *A. C. B.* 5. 419 N. Murray

KENT, MAURICE ALLEN, B.A., Instructor in Physical Education. *Gym.* 480 N. Baldwin

KIRCH, LOUIS ADOLF, B.S., Instructor in Topographic and Highway Engineering. *E. B.* 53. 708 W. Dayton

KLINKA, JOHN SIMANDL, County Representative, College of Agriculture, Polk County. Balsam Lake

KLOFANDA, ROYAL, D.V.M., Assistant in Agricultural Extension. *Court House.* Chilton

KNAPLUND, PAUL, M.A., Instructor in History. *Lib.* 122. 229 W. Gilman

[3] KNOERR, RUDOLPH ROBERT, Student Assistant in Mathematics. *U. H.* 254. 420 N. Charter

KOLB, ROLAND A., B.S., County Representative, College of Agriculture, Taylor County. Medford

[3] KOSCHMANN, ALBERT HERBERT, Student Assistant in Geology. 1039 University Ave.

KRAEMER, ELMER OTTO, B.S., Assistant in Chemistry. *C. B.* 59. 135 N. Charter

KRUEGER, LEONARD BAYLISS, M.A., Instructor in Economics. *P. E. B.* 313. 1028 Clymer Pl.

[3] KUNEY, BERNICE DONNELLY, Assistant in English. *U. H.* 353. 27 Lathrop

[3] LACEY, JAMES JEROME, County Representative, College of Agriculture, Green Lake County. *Court House.* Green Lake

LANGE, ERNEST OTTO, B.S., Instructor in Electrical Engineering. *M. S.* 205. 1001 Regent

LANGENHAN, HENRY AUGUST, Ph.D., Instructor in Pharmacy. *C. B.* 353. 1821 West Lawn Ave.

[3] LAWSON, STUART CONDIT, B.S., Instructor in Mining Engineering. *Mining Lab.* 1011 Edgewood Ave.

LEACH, ALBERT EDGAR, Student Assistant in Pathology. *Sc. H.* 412. 525 State

LEE, ROBERT GUY, Field Man, Co-operative Work with State Printers and Publishers. *U. E. B.* 105. 1708 Regent

LINDEN, GABRIEL ERIC, Instructor in Physical Education. *Gym.* 420 N. Charter

[3] LINDSTROM, ERNEST W., Ph.D., Instructor in Genetics. *A. C. B.* 201. 1903 Rowley Ave.

LIVERMORE, JOSEPH DOW, B.S., Instructor in Drawing and Descriptive Geometry. *E. B.* 405. 1314 Rutledge

LOFT, GENIVERA EDMUNDS, M.A., Instructor in Geology. *Sc. H.* 310. 2609 Stevens

MCCLINTOCK, HELEN ELIZABETH, M.A., Assistant in Romance Languages. *U. H.* 305. 446 N. Charter

MCCUTCHEON, LEONA, M.A., Assistant in the Department of Debating and Public Discussion, Extension Division. *U. E. B.* 104. 1824 Vilas

MCKEE, MARY ROSE, B.A., Instructor in Physical Education. *Lathrop.* 223 Clifford Ct.

MACLEAN, JAMES DONALD, M.E., Instructor in Machine Design. *E. B.* 227. 610 Lake

[3] MCMAHON, ANDREW MERRITT, M.S., Instructor in Physics. *P. E. B.* 128. 1636 Adams

MCMURRY, KARL FRANKLIN, M.A., Instructor in Business Administration. *P. E. B.* 417. 1609 Monroe

MADISON, BETSEY, B.S., Instructor in Home Economics. *H. E. B.* 115. 1311 Morris

[3] MALZAHN, WALTER ERNEST, Student Assistant in Commerce. *P. E. B.* 412. 148 W. Gilman

MANNING, HAZEL, M.S., Instructor in Home Economics. *H. E. B.* 323. 205 N. Pinckney

*MARTINI, JOHN WILLIAM, Student Assistant in Bacteriology. *Sc. H.* 422. 431 N. Lake

MENDUM, SAMUEL WEIS, M.S., Assistant in Agricultural Economics. *P. E. B.* 417; *A. H.* 307. 1039 University Ave.

MERRILL, JULIA WRIGHT, B.L.S., Instructor in the Library School. *Madison Free Lib.* 349 Lakewood

MILLER, GLENN EVELYN, B.A., Assistant in Economics. *P. E. B.* 308. 434 Sterling Pl.

MILLER, MAUDE, M.A., Instructor in Plant Pathology. *H. B.* 206. 1624 Madison

MILLER, SIDNEY LINCOLN, M.A., Instructor in Economics. *P. E. B.* 314; *U. E. B.* 213. 813 Clymer Pl.

MONTGOMERY, JOHN ARTHUR, M.S., Instructor in Chemistry. *C. B.* 59. 10 S. Orchard

MOORE, JOHN HENRY, B.S., Instructor in Business Administration, Oshkosh and La Crosse Districts, Extension Division. *U. E. B.* 213. 215 N. Blount

MOORE, MERTON, B.S., County Representative, College of Agriculture, Shawano County. *County Agricultural Bldg.* Shawano

MULLIN, THOMAS BARTLETT, M.S., Instructor in Topographic and Highway Engineering. *E. B.* 104. 525 State

NAGLER, ELLEN TORELLE, M.A., Acting Recorder, Correspondence Study Department, Extension Division. *U. E. B.* 107. 1632 Jefferson

[3] NEGLEY, NOEL ARDIS, M.S., Instructor in Animal Husbandry. *A. H.* 202. 312 Prospect Ave.

NICHOLS, NELL BEAUBIEN, M.S., Assistant in Agricultural Journalism. *A. H.* 118. 301 N. Lake

[8] NORTON, HARRIETTE CORNELIA, Assistant Director of Halls and Commons. Chadbourne

[3] NOURSE, MARY AUGUSTA, Ph.B., Assistant in History. *Lib.* 122. 422 N. Murray

OLDHAM, LESLIE LATHAM, B.S., County Representative, College of Agriculture, Walworth County. *Court House.* East Court Street, Elkhorn

OLSON, THOMAS M., B.S., County Representative, College of Agriculture, St. Croix County. *Court House.* Hudson

PAINE, GEORGE PORTER, Ph.D., Instructor in Mathematics. *U. H.* 67. 2202 Fox Ave.

PARKER, FRANK WILSON, B.S., Assistant in Chemistry. *C. B.* 105. Soils Building

*Died December 10, 1918.

PARMLEY, HERMANN JOSEPH, Ph.B., Assistant in English. *U. H.* 370. 721 W. Dayton

PAYTON, MARTIN, Instructor in Foundry Practice. *M. S.* 345 W. Washington Ave.

PERLMAN, SELIG, Ph.D., Instructor in Economics. *P. E. B.* 315. 437 W. Washington Ave.

PETERS, CHARLES F., Assistant in Forge Practice. *M. S.* 406 N. Murray

PETERSEN, MAX HEINRICH, M.A., Instructor in Physics. *P. E. B.* 221. 1621 Jefferson

[3] PETERSON, DORIS CARTER, B.M., Instructor in Music. *M. H.* 24. 612 Howard Pl.

[3] PFLUEGER, LUTHER APPEL, M.A., Assistant in Romance Languages. *U. H.* 209. 925 W. Johnson

PHELPS, MARION EVELINE, M.A., Instructor in Physics. *P. E. B.* 222. 419 Sterling Pl.

PIERLE, CHESTER ARTHUR, M.S., Instructor in Chemistry. *C. B.* 256. 811 W. Dayton

POTTER, GEORGE FREDERICK, M.S., Instructor in Horticulture. *H. B.* 107. R. D. 7

POWELL, CHARLES HEALY, B.A., Assistant and Field Organizer, Extension Division, Milwaukee District. *471 Van Buren St.* 1307—28th St., Milwaukee

[3] PUJOS, JEANNE HELENE, B.L., Assistant in Romance Languages. *U. H.* 318. 644 N. Frances

QUICK, ARMAND JAMES, B.S., Assistant in Chemistry. *C. B.* 105. 1124 W. Johnson

[3] RAHMLOW, HENRY J., B.S., County Representative, College of Agriculture, Price County. *Sperry Bldg.* Phillips

RANEY, WILLIAM FRANCIS, B.A., Instructor in Romance Languages. *U. H.* 308. 229 W. Gilman

[3] RAYMOND, RUTH, B.S., Instructor in Home Economics. *H. E. B.* 219. 625 Mendota Ct.

REID, DOROTHY EMMA, B.A., Assistant in Physiology. *Sc. H.* 123. 1011 Edgewood Ave.

RICHARDS, GRIFFITH, B.S., County Representative, College of Agriculture, Kenosha County. *Court House.* 1015 Sheridan Road, Kenosha

[3] RICKETT, HAROLD WILLIAM, B.A., Assistant in Botany. *B. B.* 206. 625 Mendota Ct.

[3] RITTER, GEORGE J., Ph.M., Instructor in Chemistry. *C. B.* 107. 708 W. Dayton

ROBBINS, GEORGE HIRAM, M.D., Instructor in Clinical Medicine. *Clin. B.* 209 N. Brooks

ROBBINS, LEON HENRY, County Representative, College of Agriculture, Jackson County. 605 Monroe St., Black River Falls

ROBERTS, DOROTHY, B.S., Instructor in Home Economics. *H. E. B.* 115. 444 N. Warren

ROBERTS, MORRIS, M.A., Instructor in English. *U. H.* 370. 1717 Kendall Ave.

[3] ROGAN, WILLIAM JAMES, County Representative, College of Agriculture, Juneau County. *Court House,* Mauston. Juneau Ave., Mauston

RONZONE, ETHEL, M.A., Assistant in Physiology. *Sc. H.* 116B. 1713 Hoyt

ROSS, LESLIE TRUESDALE, M.A., Assistant in Romance Languages. *U. H.* 305. 644 N. Frances

SANDERS, MAMIE AMELIA, B.A., Assistant in the Department of Debating and Public Discussion, Extension Division. *U. E. B.* 8. 1312 Spaight

[3] SARGENT, FORREST HERBERT, B.S., County Representative, College of Agriculture, Price County. *Sperry Bldg.* 336 Lake Street, Phillips

SAUVE, EDMUND C., B.S., Instructor in Agricultural Engineering. *Stock Pavilion* 102. 121 S. Hamilton

SCALLON, BRIGHIDIN TRUMBLE, B.A., Assistant in Romance Languages. *U. H.* 305. 425 Sterling Pl.

SCALLON, MARGARET, M.A., Instructor in English. *U. H.* 353. 425 Sterling Pl.

SCHLATTER, FRED E., Ph.B., Instructor in Physical Education. *Gym.* 120 N. Orchard

SCHLOMOVITZ, BENJAMIN HERMAN, M.S., M.D., Instructor in Physiology. *Sc. H.* 38. 1162 Emerald

SCHMIDT, JOHN HENRY, B.Ch.E., M.S., Instructor in Chemistry. *C. B.* 317. 433 W. Gilman

[3] SCHMUTZER, ANTON WENCEL, B.S., County Representative, College of Agriculture, Forest County. Crandon

[3] SCHRAGE, CHARLES THAYER, Student Assistant in Physics. *P. E. B.* 17. 145 Iota Ct.

[3] SCHRENK, WALTER THEODORE, B.S., Instructor in Chemistry. *C. B.* 209. 617 State

SCHUBERT, MARGUERITE BARBARA, B.A., Assistant in English. *U. H.* 353. 323 N. Blair

SCHUMANN, ROBERT NICKOLAS, Instructor in Forge Practice. *M. S.* 1109 W. Dayton

[3] SCUTT, AMY GWENDOLYN, B.A., Assistant in Economics. *P. E. B.* 308. 935 University Ave.

[3] SELL, GUSTAV ADOLPH, B.S., County Representative, College of Agriculture, Winnebago County. *Court House.* 335 Bowen St., Oshkosh

SEVRINGHAUS, ELMER L., M.A., Assistant in Physiology. *Sc. H.* 7. 805 Grant

[3] SHANNON, FRANK JOHN, B.A., Assistant in History. *Lib.* 122. 354 W. Mifflin

[3] SHAW, GEORGE ROBERT, M.A., Instructor in Chemistry. *C. B.* 209. 1609 Chadbourne Ave.

[3] SHERR, JOE ROBERT, Student Assistant in Physics. *P. E. B.* 17. 145 Iota Ct.

SHIMPA, JOSEPH FRANK, Student Assistant in Physiology. *Sc. H.* 7. 404 N. Frances

SMALL, CLARE HEBARD, B.A., Instructor in Physical Education. *Lathrop.* 415 Sterling Pl.

SMITH, DAVID WILLIAM, B.S., Assistant in Agricultural Chemistry. *A. C. B.* 103. 625 N. Henry

SMITH, ELIZABETH ANITA, Ph.D., Instructor in Zoology. *B. B.* 255. 417 Sterling Pl.

SMITH, WILLARD MALLALIEN, B.A., Assistant in English. *U. H.* 361. 202 Prospect Ave.

SNYDER, ANDREW JOSEPH, M.S., Instructor in Chemistry. *C. B.* 209. 226 N. Brooks

SOMMER, HUGO HENRY, B.S., Assistant in Agricultural Chemistry. Assistant in Chemistry, first quarter. *A. C. B.* 117. 820 W. Johnson

SONNENBURG, WILLARD ALONZO MICHAEL, Student Assistant in Anatomy. *Sc. H.* 410. 609 N. Lake

SPRAGUE, FRANK ARTHUR, B.A., Assistant in Romance Languages. *U. H.* 321. 218 N. Murray

STALLARD, JOHN EARL, B.S., County Representative, College of Agriculture, Waukesha County. 609 Greenfield Avenue, Waukesha

STEARNS, RACHEL ELIZABETH, Student Assistant in Manual Arts. *A. A. L.* 3. 17 N. Broom

STEIL, WILLIAM NICHOLAS, Ph.D., Instructor in Botany. *B. B.* 302. 1806 Chadbourne Ave.

[3] STEINAUER, JOSEPH CHRISTIAN, Instructor in Physical Education. *Gym.* 1046 E. Gorham

[3] STERN, EMIL FRED, Student Assistant in Machine Design. *E. B.* 227. 207 W. Washington Ave.

STILLMAN, GLADYS SARAH, Ph.B., Instructor in Home Economics. *H. E. B.* 223. 425 Sterling Pl.

STRANG, LOUISE LUQUEER, B.A., Instructor in Home Economics. *H. E. B.* 403. 419 Sterling Pl.

STUART, GRAHAM HENRY, M.A., Assistant in Political Science. *S. H.* 23. 642 State

SUMNER, WILLIAM ALLISON, B.S., Instructor in Agricultural Journalism. *A. H.* 116. 815 W. Johnson

[3] SUTTON, ROBERT MAGE, Student Assistant in Physiological Chemistry. *Sc. H.* 7. 622 Mendota Ct.

SWENSON, SWEYN WARREN, M.A., Assistant in Political Science. *S. H.* 23. 222 N. Bassett

SWINNEY, EDWARD EARLE, B.A., Mus.B., Instructor in Music. *M. H.* 27. 202 Prospect Ave.

SWOBODA, FRANK GEORGE, B.S., County Representative, College of Agriculture, Langlade County. 317—5th Avenue, Antigo

SZLUPAS, KEISTUTIS GEORGE, B.S., Instructor in Physics. *P. E. B.* 221. 1108 W. Johnson

TAYLOR, BESSIE LILLIS, Student Assistant in Physics. *P. E. B.* 222. 1019 University Ave.

TEHON, MARY BRUNER, M.A., Assistant in Latin. *U. H.* 267. 421 Sterling Pl.

[1] THIESSEN, FRANK CARLTON, B.S., Instructor in Civil and Structural Engineering.

THWAITES, FREDRIK TURVILLE, M.A., Curator of the Geological Museum. *Sc. H.* 223. R. D. 4

TIFFANY, ESTHER ALLISON, M.A., Instructor in English. *U. H.* 370. 419 Sterling Pl.

TRAUTMANN, WILLIAM JOHN, Ph.M., Instructor in Chemistry. *C. B.* 108. 1212 W. Washington Ave.

TRUMPF, MARY AYER, B.A., Assistant in Physical Education. *Lathrop.* 624 W. Washington Ave.

TURVILL, HELEN, B.A., Instructor in Cataloging and Classification, Library School. *Madison Free Lib.* Turvillwood, R. D. 4

VAIL, HARRY E., Instructor in Physical Education. *Gym.* 1E. 312 W. Washington Ave.

[3] VALENTINE, HOWARD DE WITT, M.S., Instructor in Chemical Engineering. *C. E. B.* 104. 642 State

[3] VAUGHAN, FRANCIS HAROLD, B.A., Assistant in Physical Education. *Gym.* 123 W. Gorham

[3] VAUGHAN, ELOISE S., M.A., Instructor in Home Economics. *H. E. B.* 223. 11 N. Spooner

[3] VEATCH, WILLIAM HOMER, B.A., Assistant in Public Speaking. *U. H.* 206. 509 Lake

WAKEMAN, HATTIE JOSEPHINE, Technician, Department of Zoology. *B. B.* 156. 1814 Ray

WAKEMAN, NELLIE ANTOINETTE, Ph.D., Instructor in Pharmacy. *C. B.* 356. 1814 Ray

WALES, JULIA GRACE, M.A., Instructor in English. *U. H.* 353. 137 Langdon

[3] WALKER, JOHN CHARLES, Ph.D., Instructor in Plant Pathology. *H. B.* 206. 1530 University Ave.

WALZ, JOHN MARTIN, B.S., County Representative, College of Agriculture, Douglas County. 1811 Winter St., Superior

[3] WARNER, CHARLES LAW, B.S., Assistant in Chemistry. *C. B.* 105. 509 N. Lake

[3] WARREN, GLENN BARTON, Student Assistant in Mathematics. *E. B.* 309. 166 Prospect Ave.

[3] WEAVER, WARREN, C.E., Instructor in Mathematics. *P. E. B.* 223. 17 W. Gilman

[3] WEBER, CARL JOSEPH, Student Assistant in Physiology. *Sc. H.* 111. 609 N. Lake

[3] WEBER, JOSEPH ALOYS, B.S., Instructor and Field Organizer, Superior District, Extension Division. *Board of Trade Bldg.* 1522 Hughitt Ave., Superior

WELLES, JESSIE, Instructor in Library School. *Madison Free Lib.* 350 W. Washington Ave.

[3] WENGEL, EDITH, B.S., Assistant in Home Economics. *H. E. B.* 323. 29 W. Doty

WERTZ, GUY C., Instructor and Field Organizer, Extension Division. *U. E. B.* 205. 204 Bernard Ct.

WEST, CALVIN PARKER, County Representative, College of Agriculture, Sawyer County. *Court House.* Hayward

[3] WEST, ROBERT WILLIAM, B.A., Assistant in Public Speaking. *U. H.* 453. 670 State

WHITE, CLEVELAND JAMES, B.A., Assistant in Anatomy. *Sc. H.* 307. 609 N. Lake

WHYTE, FLORA HEPBURN, B.A., Reviser, Library School. *Madison Free Lib.* 523 N. Carroll

[3] WICKHEM, JOHN DUNNE, B.A., LL.B., Instructor in Law. *L. B.* 638 State

WILLSON, ELIZABETH, Ph.D., Instructor in English. *U. H.* 363. 425 Sterling Pl.

WILSON, AGNES E., Instructor in Civilian Relief. 306 N. Lake

WILSON, DELLA FORD, B.S., Instructor in Manual Arts. *A. A. L.* 6. 612 Howard Pl.

WISE, CLARENCE REUBEN, B.A., Instructor in Chemistry. *C. B.* 106. 617 State

WOOD, FRANCES MCKAY, B.A., Assistant in Mathematics. *U. E. B.* 309. 1028 Clymer Pl.

[3] WOODWORTH, CLYDE MELVIN, M.S., Instructor in Genetics. *A. C. B.* 202. 132 Lathrop

WRIGHT, ANDREW HAMILTON, M.S., Instructor in Agronomy. *Agron. B.* 202 Prospect Ave.

WRIGHT, HERBERT BEACH, Student Assistant in Bacteriology. *Sc. H.* 413. 620 N. Lake

WRIGHT, MORRIS HARRY, B.S., County Representative, College of Agriculture, Ashland County. *Court House.* 617 W. Seventh Street, Ashland

YATES, WILLIAM EDWARD, B.M., Instructor in Music. *M. H.* 3. 152 W. Gorham

YORK, MIRA ELIZABETH, Assistant, Bureau of Visual Instruction, Extension Division. *U. E. B.* 311. 446 N. Charter

ZEASMAN, OTTO REINHART, B.S., Instructor in Agricultural Engineering. *Stock Pavilion* 2. 2220 Keyes Ave.

LIBRARY STAFF

SMITH, WALTER MCMYNN, B.A., Librarian. *Lib.* 220. 127 Langdon

BURKE, LAWRENCE CHARLES, B.L., Assistant Librarian. *Lib.* 216. 1926 Rowley Ave.

CODDINGTON, HESTER, Assistant Librarian. *Lib.* 220. 935 University Ave.

DUDLEY, WILLIAM HENRY, B.A., Assistant Librarian. *Lib.* 232. 1909 Regent

VOLK, FREDERICK EUGENE, B.A., B.S., Librarian, College of Engineering. *E. B.* 109. R. D. 6

BREITENSTEIN, LILLIAN, B.A., Library Assistant. *Lib.* 220. 1328 Rutledge

BRIGGS, SOPHIE M., B.L., Librarian, Law Library. *L. B.* 134 W. Gorham

DAVIDSON, FLORA NEIL, B.L., Library Assistant. *Lib.* 216. 1812 W. Lawn Ave.

ELLSWORTH, DELLA, Assistant Librarian, Law Library. *L. B.* 919 University Ave.

GANGSTAD, IDA MARIE, B.A., Library Assistant, Department of Debating and Public Discussion, Extension Division. *U. E. B.* 6. 613 N. Frances

HARLOFF, ROSE, B.A., Library Assistant. *Lib.* 220. 217 N. Murray

HAYS, FLORENCE CATHERINE, Assistant and Librarian, Municipal Reference Bureau, Extension Division. *U. E. B.* 203. 417 Sterling Pl.

MINER, RUTH PAULINE, B.A., Library Assistant. *Lib.* 220. 217 S. Hamilton

MINER, SARAH HELEN, Library Assistant. *Lib.* 220. 1113 University Ave.

POPE, MINNIE HENRIETTA, B.A., Library Assistant, Department of Debating and Public Discussion, Extension Division. *U. E. B.* 6. 853 E. Johnson

PYRE, AMELIA FRANCE, B.L., Library Assistant. *Lib.* 220. R. D. 7

REINKING, ERNA CAROLINA, B.A., Library Assistant. *Lib.* 216. 435 N. Park

SANFORD, DELIA CLARA, B.L.S., Library Assistant. *Lib.* 220. 412 N. Frances

SHERWOOD, CLARA MARIE, B.A., Library Assistant. *Lib.* 216. 530 W. Washington Ave.

STAFF OF STATE LABORATORY OF HYGIENE, STATE SOILS LABORATORY, AND FEED AND FERTILIZER INSPECTION

CASS, CHARLES ALFRED, Technical Assistant, State Laboratory of Hygiene. *S. H.* 46. 227 State

DORWARD, ELSIE ESTELLE, B.A., Chemist and Assistant Bacteriologist, State Laboratory of Hygiene. *S. H.* 44. 124 Breese Terrace

GEIB, WARREN JACOB, M.Agr., Assistant Professor of Soils. *S. B.* 314 Campbell

HARRIS, ROY THEODORE, Supervisor in charge of Dairy Tests. *A. H.* 202B. 2215 Keyes Ave.

SCHEID, EMERALD AMELIA, B.S., Assistant Bacteriologist, State Laboratory of Hygiene. *S. H.* 44. 525 W. Washington Ave.

STOVALL, WILLIAM DAVISON, M.D., Director and Bacteriologist, State Laboratory of Hygiene. Associate Professor of Hygiene. *S. H.* 45. 1109 W. Johnson

TULLY, EDWARD JOSEPH, B.S., Chemist and Field Sanitarian, State Laboratory of Hygiene. *S. H.* 44. 1314 Spring

INSTRUCTIONAL CORPS, THE WISCONSIN HIGH SCHOOL OF THE UNIVERSITY OF WISCONSIN

MILLER, HARRY LLOYD, B.A., Assistant Professor of Education. Principal of Wisconsin High School. *W. H. S.* 110. 419 Irving Pl.

BROOKINS, JULIA LOUISE CLARKE, M.A., Teacher of English. *W. H. S.* 210. 415 N. Park

BURR, FRANCES E., B.L., Teacher of German. *W. H. S.* 214 S. Henry

CHASE, FRANCES HOPKINSON, Teacher of French. *W. H. S.* 644 N. Frances

COATES, CHARLES PENNEY, LL.B., Teacher of Manual Arts. *W. H. S.* 315 N. Murray

DAVIS, IRA CLEVELAND, B.A., Teacher of Physics. *W. H. S.* 305. 1810 Kendall Ave.

EWING, LAURA L., M.A., Teacher of Latin. *W. H. S.* 206. 124 Breese Terrace

FAGAN, RIAH BELLE, M.A., Teacher of Latin and English. *W. H. S.* 415 Sterling Pl.

JOHNSON, LAURA BUTLER, M.A., Teacher of French and Spanish. *W. H. S.* 115. 111 E. Gorham

KELL, HERMAN FREDERIC, Teacher of Mathematics. *W. H. S.* 207. 701 W. Johnson

OWEN, RHODA ESTHER, B.A., Teacher of History. *W. H. S.* 109. 612 Howard Pl.

REID, MARY ELIZABETH, B.A., Teacher of Agriculture. *W. H. S.* 309. 1011 Edgewood Ave.

SKINNER, MARGARET MERON, B.A., Teacher of English. *W. H. S.* 208. 134 W. Gorham

VOSS, AURIE HEDRICK, Teacher of Mathematics. *W. H. S.* 175 Nelson Road

OTHER OFFICERS

THORKELSON, HALSTEN JOSEPH, M.E., Business Manager. *Adm. B.* 1526 W. Washington Ave.

MCCAFFREY, MAURICE ERVE, Secretary of the Regents. *Adm. B.* 1808 Jefferson

HIESTAND, WILLIAM DIXON, University Registrar. *U. H.* 158. 16 W. Gorham

GALLISTEL, ALBERT F., Superintendent of Construction. *Adm. B.* 218 Lakeside

MCCONNELL, ALBERT WILSON, Superintendent of Buildings and Grounds. *Service B.* 424 N. Charter

NOVOTNY, JOHN JOSEPH, Chief Operating Engineer. *Central Heating Station.* 1525 Adams

GILBERT, GLENN LYON, Bursar. *Adm. B.* 1636 Adams

LEONARD, ELSIE PRESTON, B.A., Director of Halls and Commons. Assistant Professor of Institutional Management. Chadbourne

HYDE, GRANT MILNOR, M.A., Editor, University Press Bulletin. Assistant Professor of Journalism. *S. H.* 32 and 39. 415 N. Park

LABISKY, ARTHUR H., Purchasing Agent. *Adm. B.* 1438 W. Washington Ave.

STANDING COMMITTEES OF THE UNIVERSITY FACULTY*

Administrative—The President, deans and secretary of the faculty.

Appeals—Professor Hubbard, chairman; the deans and advisers of students concerned, *ex officio;* Professors Pearce, Gilmore, Bennett, Whitson; Dean Goodnight in cases relating to men; and Dean Nardin in cases relating to women.

Cardinal Advisory—Professor Hyde, chairman; Mr. McMurry and Mr. Sumner.

†*Catalogue*—Professor Haertel, chairman; Professors Galpin and Millar.

†*Convocations*—Dean Goodnight, chairman; Professors Hall and Hopkins; Owen L. Scott and Mavis Chubb.

Discipline—Professor Ogg, chairman; the deans, *ex officio*, regarding students in their respective colleges: Professors Callan, Dowling, Wagner, Twenhofel; Dean Nardin in cases relating to women; Dean Goodnight in cases relating to men.

†*Editors of the University of Wisconsin Studies:*

Chairman: Professor Lathrop.

Secretary: The University Editor, *ex officio.*

Editor for Language and Literature: Professor Young.

Editor for Science: Professor Marshall.

Editor for Social Science: Professor Byrne.

High School Relations—Professor Thomas Lloyd Jones, chairman; Professors Borden, Chase, Fiske, Gillen, Haertel, Pendleton, Phillips, Skinner, and Whitbeck.

†*Freshman*—Chairman of freshman advisers in each college, *ex officio;* Professor Roe, chairman; Professors Borden and Phillips.

Graduate School—Dean Comstock, chairman; Professors L. R. Jones, Kahlenberg, Sellery, Ely, and Young.

---

* The President is, *ex officio*, a member of all standing committees.
† The Secretary of the Faculty is, *ex officio*, a member of each administrative committee.

Honorary Degrees—Professor Van Vleck, chairman; the deans *ex officio;* Professors L. R. Jones, McGilvary, and Scott.

†*Lectures*—Professor Jastrow, chairman; Professors O'Neill, Overton, Root, Showerman, and Van Hagan.

Library—President Birge, Professor W. M. Smith, *ex officio;* (Elected) Professors Callan, Dowling, Hubbard, McGilvary, Sellery, H. A. Smith, Wagner.

†*Loans and Undergraduate Scholarships*—Professor Olson, chairman; Professors Dowling, Fred, Reed, Shuster, Sterling, and Mrs. Flett.

Nominations—(Elected) Professors Cole, Phillips and Sharp.

†*Public Functions*—Professor Olson, chairman; Professors Fuller, Hyde, Kowalke and Withey.

Regent Faculty Conference—The President of the University *ex officio;* Regents: Buckstaff, Cary, Hammond, Jones, Mahoney, Nelson, Vilas; Faculty: C. E. Allen, Bardeen, Commons, Gilmore, Greenslade, Ingersoll, L. R. Jones, Kowalke, Laird, Millar, Nardin, Sharp, Turneaure, Van Vleck.

†*Rooms and Time Tables*—Professor Haertel, chairman; Professors Benkendorf, Denniston, Kiekhofer, W. S. Kinne, Krauskopf, March, Mills, Starch, Steidtmann, Terry, and Mrs. Keller.

Research—President Birge and Dean Comstock *ex officio;* Professor Slichter, chairman; Professors Callan, Commons, Ingersoll, and E. B. Hart.

Student Life and Interests—Dean Goodnight, chairman; Dean Nardin, assistant chairman.

Athletics: Professor Pyre, chairman; Professor T. E. Jones, secretary; Professor Thorkelson, business manager; Professors Bunting and Kowalke; Miss Brown, in cases relating to women; E. J. McEachron, alumni member; King Woodward, student member.

Living Conditions and Hygiene: Professor Hastings, chairman; Professors Clark, Lowman, Mrs. Keller, and Dr. Morris.

Musical Organizations: Professor Mills, chairman; Professor I. W. Jones and Mr. Swinney.

Oratory and Dramatics: Professor O'Neill, chairman; Professors Byrne and Gertrude Johnson.

Publications: Professor Bleyer, chairman; Professors Gardner and W. Taylor (censor).

Society, Fraternities, and Politics: Professor C. E. Allen, chairman; Professors Otto and Root.

Training of Teachers—Professor Henmon, chairman; Dean Birge, acting chairman, Professors Cool, Fiske, Gilbert, W. W. Hart, James, Lenher, Manchester, Marlatt, H. L. Miller, O'Shea, Sellery, and Sharp.

University—(Elected) Professors Maurer, Meek, Scott, Van Vleck, Whitson.

War—President Birge, chairman; Dean Comstock, vice chairman; Professors Callan, Ely, Haertel, Kiekhofer, Marlatt, Morrison, Root, Scott, Sellery, Sharp, Slichter, Thorkelson.

SUB-COMMITTEES:

Credits and Permits—Professor Sellery, chairman; Professor Laird, executive secretary; Dean Comstock, and for cases arising in each college a representative of such college, either the dean or some person designated by him.

Lectures—Professor Root, chairman.

Records and Documents—Professor Ely, chairman; Professors Sellery and W. M. Smith.

Woman's Work—Professor Marlatt, chairman; Dean Nardin.

CHAIRMEN OF DEPARTMENTS

College of Letters and Science

Anatomy,	Professor Bardeen.
Astronomy,	Professor Comstock.
Botany,	Professor C. E. Allen.
Chemistry,	Professor Kahlenberg.
Classics,	Professor Slaughter.
Economics,	Professor Ely.
Education	Professor Henmon.
English,	Professor Young.
Geology,	Professor C. K. Leith.
German,	Professor Hohlfeld.
History,	Professor Sellery.
Journalism,	Professor Bleyer.
Manual Arts,	Assistant Professor Varnum.
Mathematics,	Professor Slichter.
Music,	Professor Mills.
Pathology,	Professor Bunting.
Pharmacology,	Professor Loevenhart.
Pharmacy,	Professor Kremers.
Philosophy,	Professor McGilvary.
Physical Education,	Assistant Professor T. E. Jones.
Physics,	Professor Snow.
Physiology,	Professor Eyster.
*Political Science,	Professor Ogg.
Public Speaking,	Professor O'Neill.
Romance Languages,	Professor H. A. Smith.
Scandinavian Languages,	Professor Olson.
Semitic Languages and Hellenistic Greek,	Assistant Professor Wolfenson.
Zoology,	Professor Guyer.

*Acting for the year 1918–19.

College of Engineering

Chemical Engineering,	Professor Kowalke.
Drawing,	Professor Phillips.
Electrical Engineering,	Professor Beebe.
Engineering Shops,	Assistant Professor Goddard.
Forestry and Wood Technology,	Lecturer Tiemann.
Hydraulic and Sanitary Engineering.	Professor D. W. Mead.
Machine Design,	Assistant Professor Hyland.
Mechanics,	Professor Maurer.
Mining and Metallurgy	Professor McCaffery.
Railway Engineering,	Associate Professor Van Hagan.
Steam and Gas Engineering,	Professor Callan.
Structural Engineering,	Associate Professor Kinne.
Topographic and Geodetic Engineering,	Professor L. S. Smith.

College of Agriculture

Agricultural Bacteriology	Professor Hastings.
Agricultural Chemistry.	Professor Hart.
Agricultural Economics,	Professor Taylor.
Agricultural Education,	Professor Hatch.
Agricultural Engineering,	Associate Professor E. R. Jones.
Agricultural Journalism,	Professor Hopkins.
Agronomy,	Professor R. A. Moore.
Animal Husbandry,	Professor Humphrey.
Dairy Husbandry,	Professor Farrington.
Economic Entomology,	Professor Wilson.
Experimental Breeding,	Professor Cole.
Home Economics,	Professor Marlatt.
Horticulture,	Professor J. G. Moore.
Plant Pathology,	Professor L. R. Jones.
Poultry Husbandry,	Professor Halpin.
Soils,	Professor Whitson.
Veterinary Science,	Associate Professor Hadley.

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 of 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 places 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 com-

pensate 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 coeducation 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 occupied until his death on November 19, 1918. The material progress of the institution continued under his administration. The College of Agriculture became an important teaching college, as well as an institution of research. A course in home economics was created; the first two years of a medical course were given. Courses in journalism, in chemistry, for training of teachers, were established, while the older similar School of Commerce, now denominated a Course, continued 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 President Van Hise, the tendency of the University to accentuate professional equipment rather than a liberal culture suffered no abatement. At the same time, the work of the departments of the humane arts and the pure sciences constituted the largest single part of the activity of the University, and the opportunity and the ideal of liberal culture were maintained with energy.

In January, 1919, Edward A. Birge, who had been Dean of the College of Letters and Science since 1891, was elected to succeed President Van Hise.

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, investiga-

tion, 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.

The more important gifts that have come to the University are from Dane County for the purchase of lands for the University farm; from the late Governor C. C. Washburn for the founding of Washburn Observatory; from the late Judge Mortimer M. Jackson for the establishment of the Mortimer M. Jackson Professorship of Law; from the late Dr. C. K. Adams and Mrs. Adams for the foundation of fellowships; and from Mrs. Fannie P. Lewis for the foundation of scholarships for women. On August 27, 1908, the entire estate of Colonel William F. Vilas 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 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. In 1911, friends of the University created the Carl Schurz Me-

morial Foundation, with a fund of $30,000 given in trust to the Regents of the University.

The late J. Stephens Tripp, of Prairie du Sac, made the University residuary legatee of his estate of approximately $400,000. The bequest is chargeable with certain annuities, and like that of Colonel Vilas, will not become available for a number of years. Its freedom from limitations or restrictions of any kind marks it 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.

THE UNIVERSITY AND THE WAR

The war made a deep impress upon the life of the University. In such a national crisis an institution of higher

learning manifests its ideals mainly through the response of those who have received its training and imbibed its spirit. The University fostered the ability and encouraged the desire of its faculty, alumni, and students to be of directly active use to their country, an ability and a desire which have been abundantly manifested. For the alumni it could do little directly, but it has carefully preserved the record of their service as a memorial to the future. To the members of the faculty called to war work, it granted leave of absence on generous terms. The total of faculty, alumni, and students in active military service was upwards of 5,000 men.

The first step toward putting the University itself on a war footing, taken even before the actual declaration of war, was the organization of a course of intensive training for officers. With the aid of members of the faculty the military department prepared 450 men, to whom with few exceptions were awarded commissions after training at Fort Sheridan. For more permanent work there was established a unit of the Reserve Officers' Training Corps, organized under the direction of the Federal Government.

This work of obvious and immediate necessity was speedily followed by the organization of other courses, either at the suggestion of a War Committee appointed for the express purpose of discovering all possible methods of service, or on the initiative of the various departments concerned. Technical courses were given in the work of the Quartermaster's Department, in telegraphy, the theory of aeroplanes, the theory and practice of gas engines, navigation, and the like. The orientation of life to the problems, national and international, of the war and the world after the war were discussed in such courses as that on War Philosophy, the seminary on War Organization, and the seminary on the Diplomacy of the War, while hardly a course in the University failed to reflect the new conditions under which all were existing.

In September, 1918, the University became a unit in the Students' Army Training Corps and about 80 per cent of the men students were in uniform. The school year was changed to the quarter basis and until November 11 the institution was in large measure an adjunct of the army and navy. In December the members of the S. A. T. C. were mustered out of

service and with the beginning of the second quarter the institution began to get back to a normal basis.

The war has linked the University and the community more closely than ever before. A series of twenty war pamphlets by members of the faculty were distributed; members of the teaching staff lectured on similar questions all over the state; but perhaps the most notable work was done in arousing public appreciation of the food problem. Students were allowed to leave early in the spring of 1917 for farm work, while receiving full university credit. Those also who spent their summers in productive industry were given recognition, and it is estimated that fully half of them did so. The College of Agriculture, and particularly the Department of Home Economics, gave untiring and fruitful service in disseminating information to the public. In this field, the work of former President Van Hise may be mentioned as typical. He gathered and systemized, as the outlines for a course of lectures suitable for higher educational institutions, the information relative to the conservation and regulation of food and fuel in the United States. This course was published under federal auspices and widely utilized for the purpose for which it was intended.

As the conditions of modern war required, the University assumed still more definite tasks. The Research Committee of the University promptly informed the National Council of Defense of the resources of the institution in the fields of applied science; and these resources were speedily called into requisition. Important problems in all the fields of warfare, marine, aerial, and terrestrial, were assigned to the University, and notable success was achieved in some of the investigations undertaken. Nearly all the members of the faculty cooperated with national boards in making efficient the contributions of their own specialty and it may be said that in advance of any summons practically all the members of the faculty sought a place in which their expert equipment might be of value and that most of them found such a place.

Wisconsin has also played an important part in the peace negotiations. Several members of the faculty worked on the preliminary plans prepared by this government and a number were selected as members of the American "peace party" which went to Paris.

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 closes 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 city from the capitol. Until recently the main buildings of the various colleges and professional schools 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 is now a group of buildings, such as the

* See map following title page.

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 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 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 women'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 football and baseball grounds, a running track, tennis courts, and archery grounds. A modern concrete stadium, a new football field, and a fieldhouse for women were completed in the fall of 1917.

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 farsighted 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 animal 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 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 the 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 581,000 and the number of pamphlets exceeds 308,000.

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, economics, 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 263,000 volumes and 53,000 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 70. 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 28,500 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 17,500 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 208,000 volumes and 215,000 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 64,000 volumes.

The Legislative Reference Library in the Capitol numbers 40,000 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 41,000 volumes.

GENERAL INFORMATION

EXPENSES

Tuition, Fees, and Deposits[1]

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

	Nonresident Tuition	Incidental Fee
COLLEGE OF LETTERS AND SCIENCE, AGRICULTURE (Long and Middle Courses), and ENGINEERING; LAW, MEDICAL, and GRADUATE SCHOOLS; and SCHOOL OF MUSIC,[3] *per semester*	$62.00	$15.00*
Library deposit required of all students upon entrance, $1.00. See p. 68.		
COLLEGE OF AGRICULTURE		
Short Course, three terms, *per term*	16.07	2.17
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
Auditors pay the same fees as regular students.		
LIBRARY SCHOOL, resident tuition, $25 *per semester*[4]	50.00	
WISCONSIN HIGH SCHOOL,[5] *per quarter*		
6th and 5th classes, resident tuition, $6.00	15.00	
4th, 3rd, 2nd, and 1st classes, tuition, $8.00	15.00	

* This includes a medical fee of $3.00.

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

[2] Provisions for remission of nonresident tuition in certain cases are given under Wisconsin Legislative Scholarships," p. 79. Loans may also be made to needy students. See pp. 83–85.

[3] Members of other colleges of the University may take general courses in music without charge. Persons taking special courses pay special fees. See School of Music.

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

[5] Four quarters of twelve weeks each constitute the complete year. At present (1919) the high school is in regular session but three quarters, but probably will have a six weeks' summer term.

Laboratory Charges

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

COLLEGE OF LETTERS AND SCIENCE

	Fee	Deposit
Botany—		
Per laboratory credit	$1.00	....
Key and breakage deposit, per course	....	$.50–1.00
Except 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—material used.		
Economics—Accounting—materials used.		
Geology—		
1, 2, 3, 4, each	1.00	....
6, 7, 108, each	4.00	....
8, 114b, 140, each	2.00	....
121	1.00	....
133	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	....
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, 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
105 (2 credits, $2.00) 4 credits	3.50	.50

COLLEGE OF AGRICULTURE		
For laboratory credit	$1.00	....
Breakage deposit, per course	....	$3.00
Short Course, per term	2.33	2.00
Dairy Course, winter, per course	10.00	2.00
Summer, per course	5.00	2.00
COLLEGE OF ENGINEERING		
Assaying (Mining 121) per laboratory credit	5.00	....
Other courses, per laboratory credit	2.00	....
Laboratory theses, per course	5.00	....
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	5.00	....
Pathology and Med. Bacteriology—per lab. credit	2.50	....
Breakage deposit	....	1.50
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, see p. 73	$1.00
Men's gymnasium locker fee, including laundry, semester, see p. 74	1.25
Women's gymnasium costume, see p. 74	6.00
Women's gymnasium locker fee, including laundry, semester	1.25
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.)

Partial Fees and Refunds

Students entering after half a semester or term has elapsed pay half the prescribed tuition and fees.

The Bursar, upon 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.

Gymnasium Practice and Military Drill

Freshmen and sophomores in the Colleges of Letters and Science, and Agriculture and the Four-year Course in Pharmacy are required to take gymnastic exercises and military drill. Engineering freshmen and sophomores take drill; engineering freshmen take gymnastics. 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 should be purchased in the fall in Madison. The cost in 1918 was $6.00. 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 for women, accommodating 266 students (for details see below) and in three cooperative houses accommodating 32 women. 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 uni-

versity buildings range from $2.50 to $5.50 a week. A few double rooms can be secured for $2.00 a week, per student, but the more desirable ones rent at $2.50 to $3.50 per student.

Dining rooms are maintained in Chadbourne and Barnard Halls and the University operates a public cafeteria in Lathrop Hall. In private boarding houses and cafeterias board ranges from $5.50 to $6.50 a week.

The Dean of Men and the Dean of Women issue Rooming and Boarding House Directories, copies of which may be had on application. See pp. 88–89.

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.

Women occupying these buildings are under the immediate charge of the Mistresses of the halls, and are expected to conform cheerfully 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.

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. A few rooms in Barnard Hall (fifth floor) may be had for $75.

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 $189 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 will not be received until after April 1. These should be made to the Bursar of the University and the student must state the class into which she will enter. A deposit of $10 must accompany the application.

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 withdraw before September 1 unless willing to accept any room available at the later assignment, or forfeit the deposit if the room is not taken. Applicants should 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.

---

* This includes the time from the beginning of classes in September to the last day of examinations in June, exclusive of the Christmas and spring recesses.

The 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 the Saturday before the first registration day.

Average School Year Expenses

It is difficult to give definite figures regarding expenses for the school year but the average is probably not less than $550. This would not include non-resident tuition or any laboratory charges.

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

Incidental Fee, year	$30.00	to	$30.00
Locker Fee, freshmen and sophomores	2.50	"	2.50
Women's gymnasium suit	6.00	"	6.00
Books and stationery	25.00	"	50.00
Room Rent	75.00	"	160.00
Board	200.00	"	240.00
Laundry	20.00	"	40.00
Incidental Expenses	50.00	"	150.00
*Nonresident Tuition	124.00	"	124.00

Laboratory charges, depending on courses, see pp. 71–72.

These figures estimate the cost to the *average* student; many students spend more or less. The Student Employment Bureau

* Provisions for remission of nonresident tuition in certain cases are given under "Wisconsin Legislative Scholarships," p. 79.

advises students earning their own way to come with at least $200 capital. (See also Self-Support, below.)

Engineering students must be prepared to meet an expenditure of about $70 for laboratory fees, drawing instruments, textbooks, and military uniform, at the beginning of the freshman year. For the second semester these expenses will not exceed $10. For subsequent years the fees for textbooks will be from $15 to $20 per semester.

Law students should provide themselves with the textbooks and books of selected cases designated in the program of instruction. The books required for the first year will cost about $35 and for the last two years, about $65.

Short Course and Dairy students' expenses will be from $125 to $150 for the course, including room, board, washing and books.

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	5.00	"	40.00
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 Bureau is principally called upon to furnish stenographers, typists, clerks, waiters, dishwashers, janitors, and choremen. Owing to the numerous

† Summer session fees are not remitted, either to residents or nonresidents, but students who withdraw before the close of the session are entitled to a refund, see p. 73.

requests for places, the Bureau cannot promise positions to students in advance.

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 office of the Dean of Women, Lathrop 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 36.16 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, or any student whose parents have been bona fide residents of this state for one year next preceding the beginning of any semester for which such student enters the university, shall be entitled to exemption from fees for tuition, but not from incidental fees 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, except as above provided, shall not be exempt from the payment of the tuition fees until he shall have attended the University for four academic years; but if he shall have attended the University for one academic year and the next three years shall have been spent as a resident of this state; or if he shall have attended the University for two academic years and the next two years shall have been spent as a resident of this state; or if he shall have attended the University for three academic years and the next year shall have been spent as a resident of this state, he shall be entitled to exemption from payment of the tuition fees upon reentering the University. * * * The regents of the University may remit either in whole or in part tuition, but not incidental fees, to a number of needy and worthy nonresident students, not exceeding 8 per cent of the number of nonresident stu-

* These scholarships are available for graduates as well as undergraduates.

dents registered in the preceding year, upon the basis of merit, to be shown by suitable tests, examinations or scholastic records and continued high standards of scholastic attainment."

Wisconsin Scholarships

The Board of Regents has appropriated the sum of $5,000 for undergraduate scholarships to be known as the Wisconsin Scholarships, beginning with the second quarter of the current year. There are available 50 scholarships of $75 each and 50 of $25 each. Beginning with the academic year 1919–20 there will annually be 50 scholarships of $100 each.

Applicants for the Wisconsin Scholarships must be first year students who can register as residents of Wisconsin; who are in need of financial assistance and who have shown worth and ability. The awarding of these scholarships is entrusted to the regular faculty committee on scholarships to whom application should be made.

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.*

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

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

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.*

Applied Economics

In 1918 the National Society for Broader Education established in one college or university in each state an annual scholarship of $100, to be known as the National Society for Broader Education Scholarship in Applied Economics, and Wisconsin has been chosen as the representative for this state. The appointee is a senior, appointed by the faculty on the

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

recommendation of the chairman of the Department of Economics.

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.*

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.

South American Scholarships

The Regents have made available to South American students two scholarships of $150 each.***

Association of Collegiate Alumnae Scholarship

In May, 1917, the Madison branch of the Association of Collegiate Alumnae made available a scholarship of $100 for a university girl, preferably one who has finished her junior year.*

---

* For information address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.
** For information address College of Agriculture, The University of Wisconsin, Madison, Wisconsin.
*** Address Secretary, Board of Regents, The University of Wisconsin, Madison, Wisconsin.
† Address Chairman, Department of English, The University of Wisconsin, Madison, Wisconsin.

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.*

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.*

---

* Address Chairman, Committee on Loans and Scholarships, The University of Wisconsin, Madison, Wisconsin.

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

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 per cent, after maturity.**

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.*

---

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

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

** For information address Professor J. B. Borden, Assistant Dean, College of Agriculture, Madison, Wisconsin.

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. Three per cent interest is to be charged, with six per cent 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 per cent;
4. Administration to be in the hands of the general university loan committee.*

Archibald W. Case Loan Fund

In 1916, J. F. Case established the Archibald W. Case Loan Fund for engineering students in memory of his son. The fund now amounts to $1,000 and will be increased to $5,000 by the addition of $500 annually.**

Lewis Prize

In 1865 Governor James T. Lewis gave $100 and in 1866 another $100 to constitute a fund the income of which was to purchase an annual scholarship medal. In 1873, with the consent of the donor, is was decided to use the income as a

---

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

** Address Dean, College of Engineering, The University of Wisconsin, Madison, Wisconsin.

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, which now amounts to about $600, is to be paid from the general account of the University. The prize is awarded to that member of the freshman class taking full work and regularly enrolled in a freshman course in English who shall write the best theme, under conditions determined by a committee of the instructors in English 1 and English 12.

In 1917–18 the prize was awarded to Marion C. Felix, *Ibsen and the Younger Generation.*

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 1910–11 and again in 1911–12, Anna M. Vilas gave $125 for medals for intercollegiate debating and oratory. In June, 1912, 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 1917–18 medals were awarded to L. J. Burlingame, R. M. Heckman, Joseph B. Beach, Harold M. Groves, Sargent P. Wilder and John C. Warner.

The prizes for essays were awarded: 1st prize to Marjorie Kinnan, *Emile Verhaeren*; 2nd prize to Johan J. Smertenko, *Paul Verlaine.*

Prize of the Wisconsin Menorah Society

In December, 1911, Julius Rosenwald offered the University $100 annually, 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 typewritten 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 in the hands of the committee by May 1.

In 1917–18 the prize was awarded to Johan J. Smertenko for an essay on *The American Sh' Tadlan and the American Jewish Congress.*

HONORS

Special honors will be awarded at graduation to such students as have prepared theses of exceptional excellence, to which they have devoted an amount of time above that required for graduation at least equivalent to two hours per week for one year. For medals awarded for exceptional theses, see page 93.

Sophomore and senior honors are awarded in the College of Letters and Science. See page 134.

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 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 credits 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.

AUDITORS

Students may enter classes as auditors subject to the approval of the adviser and of the instructor whose class is visited. Auditors are under no obligation of regular attendance, preparation, recitation or examination, and receive no credit toward graduation. Grant of the privilege is entirely optional with instructors.

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 systems, the regulations concerning social life, public exhibitions, eligibility for student activities, admission into fraternities, and information concerning student self-government. The Dean of Men 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 p. 75), 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 University, 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.

Miss Louise Nardin, 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.

The Student Senate of 17 members, by charter, 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 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. 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 also published.

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

Student Advisers

Upon entering the College of Letters and Science, the College of Engineering, or 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 sudents in obtaining the greatest individual profit from their university courses. There are no student advisers in the Law School.

Professor C. D. Cool acts as special adviser for foreign students.

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 undergo a careful medical examination to determine their fitness for 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 rquired 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 re-

* 762 Langdon Street, Telephone, University 306.

ported 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.

A modern and completely equipped infirmary is maintained by the University for the care of students requiring medical and surgical treatment and for the isolation of those suffering from communicable diseases. Cases requiring special methods of study and treatment are cared for by the University Medical Staff in the Mary Cornelia Bradley Memorial Hospital.

SOCIETIES AND PUBLICATIONS

Literary, Forensic, Dramatic and Musical Societies

The men's literary societies are: Athena, organized in 1850; Hesperia, organized in 1854; Philomathia, organized in 1866; and the Agricultural Literary Society.

These societies are interested principally in debating; the first three maintain a Joint Debate League, which arranges an annual public debate between two of the three societies. This Joint Debate has been a feature of the University for nearly fifty years, and interest in it has kept alive men's debating societies long after such organizations have passed away in most universities.

The women have two literary societies: Castalia, organized in the early years of the University, and Pythia, organized in 1902. Most of their time is devoted to more general literary pursuits and less exclusively to debating.

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. From time to time, additional intercollegiate debates, chiefly

with neighboring state universities, are arranged. Wisconsin regularly competes in the annual contest of the Northern Oratorical League composed of the Universities of Chicago, Iowa, Michigan, Minnesota, Northwestern, and Wisconsin and Oberlin College. In recent years, a Wisconsin representative has been entered in the Hamilton Club Oratorical Contest at Chicago, where representatives of other large universities of the middle west are met.

Positions on university debating teams and the privilege of representing the University in intercollegiate oratorical contests are won in open competition, any undergraduate in good standing being eligible.

Of the four dramatic clubs of the University, the Haresfoot Club and the Edwin Booth Dramatic Club, both men's organizations, present annually an original musical comedy and at least one legitimate drama, respectively. The Red Domino Club and the Twelfth Night Club, the women's organizations, besides giving annual public performances of both original and standard plays, practice privately through the year.

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.

Research, Professional and Honorary Societies

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 organization 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 *Nora Samlag*; the Romance Language Club; the Pharmaceutical Society; the Classical Club; the Physics Journal Club; the Biological Club; and the Chemical Club. In other departments, where no such organization has been effected, like results are reached by means of the various seminaries. In the technical colleges and courses 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 University Press club, the Scoops and Cubs Clubs, Agri-ink, the Geology Club, the Grafters' Club, the Advertising 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; Chi Gamma Pi, civil engineering; and Scabbard and Blade, military science.

Social and Religious Organizations

The social life of the undergraduate finds expression in more than 100 fraternities, societies, clubs and class organizations. The Wisconsin 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 University of Wisconsin Studies are published bimonthly at Madison, and contain original papers by persons connected with the University. More detailed information regarding these and other publications may be obtained on application to the Librarian.

The General series of the Bulletin of the University of Wisconsin 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 if funds are available, 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 High School Relations.

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 Wisconsin Literary Magazine, The Wisconsin Engineer, the Wisconsin Country Magazine, and Commerce, all published monthly; and the Badger, the junior class annual. The Alumni Association publishes the Wisconsin Alumni Magazine.

ADMISSION

METHODS

Undergraduate students are admitted:

1. Upon examination at the University. (See p. 111.)
2. Upon certificate. (See pp. 111–113.)
3. Upon evidence of their standing in other institutions of higher learning. (See pp. 113–118.)
4. As adult special students. (See p. 118.)

Students may enter at the opening of either semester or at the beginning of the summer session. There are advantages in beginning work at the latter time. The student becomes acquainted with university methods of instruction, and his experience and the advice of his instructors will help him in planning his work for the regular session. For courses offered, see Summer Session.

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. 73.)

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.[1] Two laboratory periods in any science or vocational study are considered 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.

Beginning with the academic year 1920–21, fifteen units will be required for admission. For the academic year 1919–20,

[1] A "unit" is not to be confused with a "credit," the University measurement of work (See definition of credit on p. 121).

fourteen units will be accepted. 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 two units in one foreign language before one unit in another language may be credited. But in exceptional cases one unit in a single foreign language may be offered as an "optional subject."

I. The following units are required of all:

English .....3 or 2 units
(At least three units of English are recommended for all. Beginning with the academic year 1920–21, three units of English will be required of all students who do not offer two units of one foreign language.)

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 units required under I and II, a sufficient number of units to make a total of fifteen, (fourteen in 1919–20) must be offered from Groups A and B, except that not more than 4 units may be offered from Group B.

GROUP A

English	1–2	**Mathematics**	
Foreign Language		Adv. Algebra	½
French	1–4	Solid Geometry	½
German	1–4	Trigonometry	½
Greek	1–3		
Hebrew	1–2	**Science**	
Latin	1–4	Botany	½–1
Norse	1–2	Biology	1
Spanish	1–4	Chemistry	1
		General Science	½–1
History and Civics		Geography	½–1
History	1–4	Physics	1
Civics	½–1	Physiology	½
Economics	½	Zoology	½–1

GROUP B

Agriculture	1–4	Domestic Art	1–2
Bookkeeping	1	Drawing, Art and Design	1–4
Commercial Law	½	Mechanical Drawing	1–4
Commercial Arithmetic	½	Shop Work	1–2
Commercial Geography	½	Shop Work and Drawing	1–4
Shorthand	1–1½	Music	1
Typewriting	½	Optional	½–1
Domestic Science	1–2		

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 Foreign Language units are offered, units of English, History, Science, or Mathematics should replace them.

Entrance Requirements of the Several Colleges, Schools and Courses

COLLEGE OF LETTERS AND SCIENCE.

Four units* under I, two units under II, and nine (eight in 1919–20) units under III, will admit to the following:**

1. *Bachelor of Arts courses* (General Course, Course in Commerce and Course in Journalism). Foreign language graduation requirements are stated on p. 125.

---

* Five units if no foreign language is offered.

** Since foreign language requirements for graduation for the several degrees may be satisfied in part by foreign language offered for entrance, references are made to the complete statements of those requirements. See also p. 101.

2. *Bachelor of Science courses* (Course in Chemistry, Medical Science Course, and Four-year Course in Pharmacy). See index for Foreign language graduation requirements.

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. 128.
4. *Course leading to the degree of Ph. B. (Course for Normal School Graduates).* Requires graduation from a state normal school. (See further p. 131.)
5. *Course leading to the degree of Bachelor of Music.* Same as B. A. courses above. (See Index.)
6. *Two-year Course for Supervisor of Music Certificate.* No foreign language required. (See Index.)

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. For entrance requirements beginning with the academic year 1920–21, see p. 271.

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

See also Library School p. 275.

COLLEGE OF AGRICULTURE.

Four units* under I, two units under II, and nine (eight in 1919–20) units under III, will admit to the following:

1. *Bachelor of Science courses* (Long Course, Course in Home Economics, and Four-year Vocational Course for the

* Five units if no foreign language is offered.

training of teachers in Home Economics.) See Index for Foreign language requirements.

2. *Graduate in Agriculture* (Middle Course). No foreign language required.
3. *Graduate in Home Economics* (Two-Year Course for Training Vocational Teachers in Home Making.) No foreign language required.

Short Course. Students must be at least 16 years of age and have a good common school education. No entrance examinations are required.

Dairy Course—(Winter). Same as for Short Course except candidates must have had at least 6 months' experience in a creamery or cheese factory before entering. (Summer and Special.) No previous experience required.

Farmers' and Women's Weeks. No examinations are required. Candidates for the Farmers' Course must be at least 25 years of age.

COLLEGE OF ENGINEERING.

English .....2 units
Algebra .....1½ units
Geometry, Plane 1 year, Solid ½ year.....1½ units
Foreign Language .....2 units

and additional units to total 15 (14 in 1919–20) from III, excluding Domestic Science.

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.

Students who enter with less than two units of foreign language will be required to take eight extra credits in foreign language, English, or history before graduation (160 credits in all).

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 nine (eight in 1919–20) units under III, provided entrants are at least 21 years of age. (See also Law School.)

LIBRARY SCHOOL. See p. 274.

* Five units if no foreign language is offered.

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 English, German, French or Latin. Elementary Latin and a reading knowledge of French or German are required. (See also Medical School.)

Preparatory Foreign Language*

A. A preparatory course including *no foreign language* allows entrance and 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:
   a. Four-year (Long) Course.
   b. Two-year (Middle) Course.
   c. Two-year Course for Training Vocational Teachers in Home Making.

It allows 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. 125.)
   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 Index.)
4. College of Engineering.

Note: Eight extra credits in foreign language, English or history will be required for graduation (160 credits in all). (See p. 299.)

5. College of Agriculture, Home Economics Course, subject to a graduation requirement of 16 credits in French or German. (See Index.)

---

* See footnote on p. 98.

B. A course including *two units* in one foreign language* admits as above (A), and allows 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. 125.
   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 Engineering.
3. College of Agriculture, Home Economics Course.

Note: Eight credits (one year) of French or German is required, provided the entrance language is French or German, or 16 if the entrance language is other than French or German. (For further requirements, see Index.)

C. A course including *three units* in one foreign language* admits as above (B), and allows entrance in:

1. 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. 125.
   b. All B. S. courses, subject to additional foreign language graduation credits. (See references under A, 3, b.)
2. College of Agriculture, Home Economics Course.

Note: Eight credits (one year) of French or German is required regardless of entrance foreign language, or 16 if the entrance language is other than French or German. (For further requirements, see Index.)

D. A course including *four or more units* of foreign language* admits as above (C), and allows 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. 125.
   b. All B. S. courses, as above C, 1, b.

---

* For definition of unit see p. 96.

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. Candidates for admission must present two units in English, one in composition, and one in the reading and study of English classics. These two units correspond to the work of the first two years of the standard high school course, in which half of the time is devoted to theme-writing and instruction in composition, and half to the detailed study of a number of English classics. At least three units in English are recommended, 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 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.

THE TWO UNITS REQUIRED OF ALL

Composition and Rhetoric. 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 entrant is examined as to his ability to express himself in clear, correct, idiomatic English. The test consists in writing several essays on familiar subjects, in which the student 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 these respects. A more detailed statement of the requirements for admission to the Freshman English course is given in University Bulletin, High School Series, No. 13. Students deficient in English composition must make up such deficiency in one year or be

dropped from the University. The University provides a course for such students. See English A, p. 173.

Reading and Study of English Classics. The two units required in English 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 primary aim of the study of these selections should 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.

Units in Addition to the Two Required of All

History of English and American Literature. 1 unit. In addition to the required units in English one unit in the history of English literature or in the history of English and American literature may be presented. The greater part of the time should be devoted to the reading of selections from representative authors of each period. In the study of the history of literature, which should occupy not more than one-quarter of the time, emphasis should be placed on general movements and tendencies 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 American literature, selections from the following: 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, which include 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' *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. The one required unit 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. 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.

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. 3 units. (1) Grammar and elementary book; (2) Xenophon's *Anabasis*, four books; Greek composition; (3) Homer's *Iliad*, six books, or an equivalent amount of the *Odyssey;* Greek composition.

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

1 unit. (1) above.

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.
1 unit. (1) 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 credits will be given for high school Latin.

GERMAN. 1 unit. (1) Correct pronunciation; (2) Grammar equivalent to Manfred's *Ein praktischer Anfang* (23 lessons), Spanhoofd's *Elementarbuch* (24 lessons), or Bacon's *New German Grammar* (50 lessons); (3) About 50 pages of easy prose; (4) Ability to translate from German into English and vice versa, and to answer simple German questions in German.

2 units. (1) Fluent pronunciation; (2) Elementary grammar completed; (3) About 75 of the more usual strong verbs; (4) 200 pages of reading, chiefly modern prose, but including simple poems and possibly a short play. (5) See (4) above.*

3 units. The work for 2 units, and (1) Further grammar and syntax study; (2) At least 200 pages of prose and verse, partly as outside reading reported on for content only; (3) Constant oral and written practice.*

4 units. The work for 3 units, and (1) At least 400 pages of standard literature in prose and verse partly as outside reading as above; (2) Increasing attention to literary appreciation and biographical and historical background. (3) Ability to understand ordinary modern German texts, to write simple topics relating to them and to converse on them in German; (4) To follow recitations conducted in German.*

---

*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.)

FRENCH. 1 unit. (1) The elements of grammar as found in the first part of usual French grammars; (2) About 100 pages of simple French—emphasis on correct pronunciation.

2 units. The work for one unit, and (1) A review of the grammar covering all the most common irregular verbs; (2) 200 pages of simple French.

3 units. The work for 2 units, and (1) At least 400 pages of French chosen from nineteenth century classics; (2) Considerable work in oral and written composition.

4 units. In addition to the work for 3 units, one year of high school work including: (1) At least 500 pages of classic and modern French literature; (2) Ability to write a short French composition and to show 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.

SPANISH. 1 unit. (1) The elements of grammar; (2) 100 pages of easy Spanish—emphasis on correct pronunciation.

2 units. (1) Correct pronunciation: (2) Ability to translate freely simple Spanish texts; (3) An accurate knowledge of the grammatical principles of the language, and of its regular verbs; (4) About 300 pages of text.

The work in grammar should be approximately that found in any standard Spanish grammar. The student should be taught the Castilian pronunciation.

3 units. The work for 2 units, and (1) At least 400 pages of Spanish chosen from nineteenth century authors; (2) Considerable work in oral and written composition.

4 units. The work for 3 units, and one year of high school work including: (1) At least 400 pages of modern Spanish literature; (2) Ability to write a Spanish composition and to show 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.**

NORSE. 1 unit. (1) Grammar and exercises equivalent to Holvik's *Beginners' Book in Norse*, or Michelet's *First Year Norse:* (2) 100 pages of text of the grade of Björnson's *En glad Gut.*

2 units. The work for one unit, and (1) A review of the grammar; (2) 200 pages of prose and verse, equivalent in grade to Holvik's *Second Book in Norse* and Ibsen's *Terje Viken.*

HEBREW. 1 unit. (1) Correct pronunciation and principles of Hebrew phonetics; (2) Grammar, the equivalent of Harper's Elements of Hebrew as prescribed in Harper's *Introductory Hebrew Method and Manual*, first 25 lessons (through the regular verb); (3) reading of the first four chapters of Genesis or an equivalent amount of simple historical prose; (4) translation of simple English sentences into Hebrew.

2 units. (1) Beside the foregoing, the completion of the Elementary Hebrew Grammar covering the irregular verbs and nouns with suffixes (completion of Harper's *Method and Manual*); (2) the reading of about 50 pages of simple Hebrew prose; (3) ability to translate into Hebrew ordinary English prose, and to read at sight historical Hebrew like the narrative portions of Judges or Samuel, when new words are given.

Fine and Applied Arts

Owing to the present state of development of fine and applied arts, music and the vocational subjects in the high school curriculum, requirements in these subjects 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.

Commercial Work. Bookkeeping, 1; Stenography and Typewriting, 1 or 2; Commercial Arithmetic, ½; Commercial Law, ½; Commercial Geography, ½.

Drawing, Art and Design. 1–4 units. Art to include freehand drawing, light and shade, color rendering and perspective, 1 or 2; principles of design including applications in line form and color, 1 or 2; crafts with correlated design, 1 or 1½.

Domestic Arts. Textiles and Clothing, 1 or 2.

Domestic Science. Food Study, 1 or 2.

Manual Arts. Mechanical Drawing, 1–4; Shop Work, 1–2; Freehand Drawing and Design, 1–2; Mechanical Drawing and Shop, 1–4.

Music. Courses in Music which the High Schools credit toward graduation will be accepted after approval by the Committee on Accredited Schools, 1 unit.

ADMISSION UPON EXAMINATION

The University offers two admission examinations, one in June and one in September. For dates, see Calendar, p. 8. All candidates must be present at 9 o'clock on the first day of examination. No special examinations are given. Students who are in doubt as to their qualifications should present themselves in June.

Candidates for admission may divide the subjects and take the examinations in two trials; but a failure to pass all the subjects in two trials will necessitate a complete re-examination. For the character of the entrance examinations, see pp. 103–111.

ADMISSION UPON CERTIFICATE

Graduates of accredited high schools* may enter the University without examination, on the presentation of a certificate showing the satisfactory completion of the fifteen (fourteen in 1919–20) required units, *and containing the recommendation of the principal.* Forms prepared by the University must be used,

---

* Any high school or academy in the state whose course of instruction covers the branches required 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.

Any high school or academy with a complete four-year course whose course of instruction does not include foreign language may

and may be obtained from the Registrar. *These certificates should be sent to the University before August 1.*

Principals of accredited schools are requested to note the statement regarding the examination of freshmen in English (see p. 103), and also the statement regarding the additional requirement and examination in algebra for admission to the College of Engineering (see p. 298).

Graduates of four-year non-accredited schools in Wisconsin will be admitted without examination, on probation, upon recommendation of the principal, where the graduate in his high school course has satisfied 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 above, 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

---

be admitted to the accredited list under the conditions stated above, provided its course of instruction covers fifteen (fourteen in 1919–20) units in the subjects accepted for admission to the University.

The University desires to keep 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. 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 obtained from the Registrar.

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 *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 course for which credit is desired be approved by the chairman of the department; and (4) the student passes 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 offered 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 degree 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. 121–124).

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 131 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 to the advantage neither 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.

While, therefore, the minimum number of credits to be obtained *in residence* for a degree still remains at 30 (see p. 133), students who desire to enter as undergraduates are strongly advised to do so not later than the beginning of the junior year. Students who apply for credit in excess of two years must expect to have their records closely scrutinized. The minimum requirement for graduation for a four-year course in the College of Letters and Science is 45 credits. This will ordinarily mean attendance for one and one-half years or one year and two summer sessions at this University.

By arrangement with Beloit College, Lawrence College, Ripon College, Carroll College, Milwaukee Downer College, the National Teachers' Seminary of Milwaukee, (provided the candidate majors in German), Marquette University, St. Clara College, and Milton 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 or who have completed their preparatory mathematics in the Extension Division of the University and present a certificate therefrom, duly approved by the chairman of the Department of Mathematics. The privilege of admission on the adult basis is not granted in the Law School, but see Index.

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 after successful completion of the prescribed courses of study and compliance 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 course may receive the baccalaureate degree of any other course by completing the additional studies required in that course. Two baccalaureate degrees cannot be 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 requirements for the bachelor's degrees are 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 Public Health is granted in course to graduates of approved medical colleges for graduate work done here. 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 and schools.

THE COLLEGE OF LETTERS AND SCIENCE

G. C. SELLERY, Acting 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 Requirements in the General Courses leading to Degrees of 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. It is assigned to one hour of recitation or lecture per week for one semester (together with the accompanying study). 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. 87, for details.) In addition men are required to take 2 hours per week of physical training during the first two years, carrying a total of 4 credits. They are also required to take military work during the first two years to an amount not exceeding three

hours per week, or 84 hours during each year; this work gives a total of 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, carrying in all, 8 credits. The total requirements for classroom work, military drill, and physical training are, therefore, 128 credits.

Each student is required to take class 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 and laboratory 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 these 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. 124.

2. Major Study and Thesis

Major Study.—At the beginning of the sophomore or the junior year every candidate for these degrees will select his major subject in one department of 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) may 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 must be approved by the student's adviser and filed with the chairman of the department in which the candidate is taking his major. It must represent some phase of the student's work in the major study and must be of a scholarly character. It is to be typewritten and bound according to specifications furnished by the Librarian of the University; and before it is accepted it must 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 must 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. 125 and 128) is elective, but there shall not be taken in any one department more than 40 credits, including required work, 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 Engineering, the College of Agriculture (including the Course in Home Economics), the Law School, or Library School, studies in an amount not exceeding the equivalent of 20 credits. The conditions under which these studies may be taken are as follows:

1. Before electing studies in other colleges or schools the candidate must have completed the work of the freshman and sophomore years of the College of Letters and Science, including those studies which come normally in the freshman and sophomore years at Wisconsin.

2. Studies in other colleges may be elected only by students who are to spend at least two full years in attendance at the University before receiving the bachelor's degree. Hence they may not be elected by students from other institutions who enter the University with more than half the credits required for graduation 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 (*e. g.*, 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 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 in 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 holiday in the first semester of the student's freshman year.

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; mathe-

* 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.

matics, 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 courses of five credits per semester for two semesters, with laboratory work, or field work in geology.

d. Major study, thesis, and electives. See statement p. 122.

Studies of the Freshman Year

In this year one study alone 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 should continue this preparatory language during the freshman year.

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

English 1, Greek 5a, 5b, 7, 10, and 11, Latin B, A, and 6, German 1a to 3, and 14, French 1, 2, 10, 11, 13, 14, and 15, Mathematics 1, 2, 3 or 4, 7, 8, and 51, 52, Biology 1, Botany 2, Zoology 1b, Chemistry 1, Physics 1, and 1Sc, Geology 2 and 4,

Astronomy 1, History 1, 5, and 10, Drawing 1, 2 (Freehand or Mechanical), Journalism 1 (no credit). Only the five credit courses in science can be counted toward the science required for graduation.

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

b. Science and mathematics. A total of 20 credits to be taken in year courses. (*E. g.*, 6 credits in mathematics and 14 in science, or 10 credits in mathematics and 10 in science, or 20 in mathematics, or 20 in science, etc.)

c. Two of the following groups:
1. Philosophy or mathematics, 10 credits in one of the two. 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 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 (other combinations are feasible).

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 the freshman year. In the latter case the student will need to offer 10 credits in philosophy or in 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 in 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 p. 271.)

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 p. 251.)

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 courses a and 1 on p. 168, and those numbered above 100 on pp. 168–69 of the catalogue. Departmental teachers courses in the several departments may *not* be elected in fulfillment of these requirements in 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. An exception to this requirement is 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

* 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.

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. 122.)

The required work in the course, including a minimum of 20 credits in the major study, amounts to at least 48 credits. The student may not take courses that total more than 16 credits for the first semester, and he is under the same rules regarding number of credits as the student in the B. A. course. (See p. 121.) It is expected that the normal school graduate will give special attention to preparation for teaching some one branch of instruction, and he should choose his electives so as to attain this end. He must on entering select work in 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 in 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 physical training are not required of normal school graduates.

A student who completes the course for normal school graduates may secure the University Teacher's Certificate by fulfilling the requirements stated on page 282.

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 this 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 the 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 regular session 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 expect 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 before selecting his studies.

Period of Residence

Candidates for the bachelor's degree who enter with advanced standing must be in residence at the University at least two semesters, or their equivalent in summer sessions, and must secure at least 30 credits in residence. Such candidates must obtain from the University at least 45 credits toward graduation; of which, therefore, not more than 15 may be secured by correspondence courses. In most cases students should expect to be in residence three semesters or two semesters and two summer sessions.

Students must not expect to take the advanced 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 elect them.

The University Teachers Certificate

In accordance with the statutes of Wisconsin, certificates are issued to all graduates of a regular collegiate course who complete the course in pedagogical instruction prescribed by the University. This certificate, when presented to the State Superintendent, entitles the holder to receive a license to teach in any public school in Wisconsin for one year, renewable for a second year after one year of successful experience. Graduates who present satisfactory evidence of good moral character and of 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 teacher's certificate, see page 280.

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) completed in residence. A student securing 135 grade points* during these two years is awarded *Sopho-*

* See "Grade Point System," page 87.

more 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 of work (not less than 60 credits) completed in residence after finishing 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 are granted for an exceptionally fine or original thesis, without consideration of the student's record in other work.

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

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.

During the academic year 1918–19, as a war measure, the work of the University was conducted on the quarter basis. The time tables of the year furnish accurate information concerning the courses given each quarter and the number of quarter credits carried by each.

ANATOMY

PROFESSORS BARDEEN (chairman), MILLER; ASSISTANT PROFESSOR LARSELL; INSTRUCTOR ESCABI; ASSISTANTS CHIPMAN, GRUGH, SONNENBURG, WHITE; ARTIST AND TECHNICIAN JOHNSON.

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

For Undergraduates and Graduates

110. Histology and Organology. I; 4 cr.
115. Mammalian Embryology. I or II; 2 cr.
120. Anatomy for students of physical education. II; 6 cr.
121. Human Anatomy. Yr. I; 6–8 cr: II; 4–6 cr.
122. Topographical Anatomy. I or 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. In lieu of this work a course in navigation was given in the academic year 1918–19 and may be repeated if desired.

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.

For Undergraduates and Graduates

113. 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.

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

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, Genetics, 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; Associate Professor Gilbert; Assistant Professors Bartholomew, Denniston, Smith; Curator Davis; Instructors Bennett, Steil; Assistants Gugler, Martin, Rickett.

Fellows Miss Brown, Miss Schacke.

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, Mr. Smith, and staff.

2. Advanced General Botany. II; 5 cr. A continuation of course 1 for those who wish a year course in general botany. Accepted as part of a teacher's minor or, with course 1, in satisfaction of the requirement of a year of natural science. Prerequisite; course 1 or its equivalent. Mr. Gilbert 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 groups and their relationships. Prerequisite: course 1 or its equivalent. Mr. Smith.

104. Morphology of Fungi. 1; 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.

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

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

---

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

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.

130. Identification and Classification of Seed Plants. II; 4 cr. The floral structures of types of seed plants, with especial attention to those of economic importance. Practice in the use of a systematic key. Mr. Denniston.

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 and staff.

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

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

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. (Omitted in 1918–19.)

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

For other courses dealing with evolution and heredity, see Courses 6 and 107 in the Department of Zoology, and 1, 101, and 105 in the Department of Genetics.

For Graduates

214. Seminary in General Botany. Yr. Mr. Allen.

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

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

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

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

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

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

CHEMISTRY

PROFESSORS FISCHER, KAHLENBERG (chairman), KREMERS, LENHER, MATHEWS, WALTON; ASSISTANT PROFESSORS CARLETON,* KOENIG, KRAUSKOPF, NEBEL, SCHUETTE; INSTRUCTORS ELLINGSON, LANGENHAN, MONTGOMERY, PIERLÉ, RITTER, SCHMIDT, SNYDER, TRAUTMANN, WAKEMAN, WISE; ASSISTANTS CHEETHAM, CLEVENGER, HICKEY, KEEBLER, KRAEMER, PARKER, QUICK.

FELLOW, MR. R. KREMERS.

During the first quarter of the academic year 1918–19, the following people from the College of Agriculture assisted with the S. A. T. C. work in this department: Associate Professors Peterson, Sammis; Assistant Professor Boutwell; Assistants Clevenger, Gross, Parker, Sommer.

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 en-

† On leave of absence, 1918–19.

gineering. Mr. Kahlenberg, Mr. Walton, Mr. Krauskopf, and staff.

90. 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. Carleton, and staff.

11Ag. Quantitative Analysis. 1; 2½ cr. For agricultural students. Mr. Carleton and staff.

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

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. Prerequisites: courses 1, 11 and 17. Mr. Kremers, Miss Wakeman.

27. Organic Pharmaceutical Chemistry. II; 5 cr. Prerequisite: course 20. Required of students in pharmacy. Mr. Kremers, Miss Wakeman.

30. Physical Chemistry. I; 3 cr. For chemical engineering students. Mr. Mathews.

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. Miss Wakeman.

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.

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. Prerequisite; Chemistry 11 and Chemistry 120. Mr. Schuette.

120. Organic Chemistry. 2 cr. class; 1 to 3 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 Carbohydrates. I; 2 to 5 cr. 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. Mr. Fischer.

130. Physical Chemistry. Yr.; 5 cr. Prerequisite: Chemistry 1. Mr. Mathews.

131. Electrochemistry. II; 2 or more cr. Mr. Mathews.

132. Thermal Chemistry. I; cr. to be arranged. Mr. Mathews.

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

135. Chemistry of Solutions. II; 2 to 5 cr. Mr. Kahlenberg.

136. Relation of Physical Chemistry to other Sciences. II; 2 cr. Mr. Kahlenberg.

137. Colloids. II; 2 to 5 cr. Mr. Mathews.

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

For Graduates

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

224. Advanced Organic Chemistry. General Survey: 1 lecture and 1 conference. Hours to be arranged. Mr. Kremers.

234. Chemical Equilibrium. I; 1 cr. 1918–19: The phase rule; 1919–20: Chemical dynamics. Mr. Walton.

235. Advanced Physical Chemistry. Hours to be arranged. Mr. Kahlenberg, 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 1918–19.) 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 1919–20.) Mr. Lenher.

CLASSICS

Emeritus PROFESSORS KERR and SMITH; PROFESSORS SHOWERMAN,† SLAUGHTER (chairman); ASSOCIATE PROFESSORS FISKE, LAIRD; ASSISTANT PROFESSORS ALLEN, SABIN; ASSISTANT TEHON.
ADAMS FELLOW, MR. HALEY,* and MISS GRANT.**
UNIVERSITY FELLOWS, MR. BRYAN and MISS TITCHENER.
SCHOLAR, MISS WILES.

The courses in Classics are divided into three groups:

I. Introductory courses (1–20) are for undergraduates and may not be counted for advanced degrees in Classics. Greek 1 and Latin 1 count toward the bachelor's degree and the language requirements in the University, but will not be accepted as part of a major in Greek or Latin.

II. 105–127 are open to students who have completed Greek 20 or Latin 7, or an equivalent, and may be counted toward the master's degree. Latin 107 is required of all students who desire the University Teachers Certificate in Latin.

III. 220–233 are for graduate students, but are not open to those who have completed less than 20 semester hours of undergraduate Greek or Latin.

Greek or Latin Major

The requirements for a major in Greek or Latin are twenty-four credits as a minimum, not including Greek 1 or Latin 1. Greek 20, 105, and 106, to the extent of six credits, may be counted toward a Latin major. At least six credits in addition to the thesis should be chosen from courses 105 to 127, but no specific requirement of courses is made. (See pages 289–90 for requirements for Teachers Certificate.)

---

*Resigned, Sept. 1918, to enter the Army.
**Appointed, Oct. 1918.
* On leave of absence, 1918–19.

GREEK

LANGUAGE AND LITERATURE

For Undergraduates

1a. Elementary Greek. I and II; 4 cr. Elements and *Anabasis*. Mr. Laird.

7. Second Year Greek. 3 cr. *Anabasis* and Homer. Miss Titchener.

10. Third Year Greek. Yr.; 3 cr. Homer's *Odyssey* V–XII, Plato's *Apology*, Herodotus VIII. Mr. Laird.

11. Prose Composition and Sight-Reading. Yr.; 2 cr. Mr. Laird.

20. Fourth Year Greek. Yr.; 3 cr. Demosthenes' *Philippics*, Thucydides VII, Euripides, two or more plays. Prerequisite: course 10 or equivalent. Mr. Fiske.

For Undergraduates and Graduates

105. Greek Lyric Poets. Yr.; 3 cr. Includes Theocritus and selections from the Anthology. Mr. Showerman.

106. Greek Dramatic Poets. Yr.; 3 cr. Aeschylus, Sophocles, Aristophanes. (Given 1919–20.) Mr. Showerman.

107. Greek Historians. Yr.; 2 cr. Particular emphasis on Thucydides. (Given in 1919–20.) Mr. Laird.

108. Plato. Yr.; 2 cr. The Republic. Mr. Laird.

109. Greek Orators. Yr.; 2 cr. Mr. Laird.

In courses 107, 108 and 109 the emphasis is placed on accuracy of interpretation.

110. Advanced Composition. Yr.; 1 cr. Mr. Laird.

112. Classical Life and Letters. (See Latin 112.)

113. Classical Drama in English. I; 3 cr. A knowledge of Greek is not required. (See Comparative Literature 3.) (Given 1919–20.) Mr. Showerman.

122. Classical Art. II; 3 cr. (See Fine Arts 1.) Mr. Showerman.

125. Greek Civilization. I; 2 cr. (See History 125.) Mr. Westermann.

For Graduates

220. Greek Grammar. I; 2 cr. Sounds and forms. Mr. Laird.

221. Greek Syntax. II; 2 cr. Cases and moods. Mr. Laird.

222. Greek Inscriptions. Yr.; 2 cr. Mr. Laird.

227. Greek Religion. I; 2 cr. (Given 1919–20.) Mr. Fiske.

230. Greek Seminary. Yr.; 2 cr. In 1919–20, the subject will be Thucydides. Mr. Laird.

LATIN

For Undergraduates

1. Elementary Latin. Yr.; 5 cr. The elements of Latin and Caesar's *Berum Gallicum*, Bks. I–III. Mrs. Tehon, Mr. Bryan.

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.* Mr. Fiske, Mr. Showerman.

7. Horace, Catullus, and Martial. Yr.; 3 cr. Mr. Slaughter.

9. Pliny's Letters and Tacitus' Agricola. II; 2 cr. Emphasis upon the life of the period. Miss Allen.

10. Classical Mythology. I; 1 or 2 cr. Assigned readings in English. Lectures with lantern slides. Latin not essential. Miss Allen.

For Undergraduates and Graduates

107. Prose Composition. Yr.; 2 cr., if an additional elective hour of lectures on syntax is taken. (Given 1919–20.) Mr. Fiske.

108. Cicero's Letters and Orations. I; 3 cr. Emphasis on the personality of Cicero. Mr. Slaughter.

109. Roman Drama. II; 3 cr. Plautus, Terence, and Seneca. Mr. Slaughter.

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. Classical Life and Letters. II; 1, 2 or 3 cr. Lectures with lantern slides. Greek and 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. II; 3 cr. (See Fine Arts 1.)

123. Roman Monuments. II; 2 cr. Lectures with lantern slides. Latin not essential. Mr. Showerman.

127. Hellenistic-Roman Civilization. II; 2 cr. (See History 127.) Mr. Westermann.

For Graduates

225. Latin Grammar. I; 2 cr. The sounds and forms of the Latin language. (Given 1919–20.) Mr. Laird.

226. Latin Syntax. II; 2 cr. Illustrative of the historical method. (Given 1919–20.) Mr. Laird.

227. Roman Religion. II; 2 cr. (Given 1919–20.) Mr. Fiske.

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

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

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

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

233. Latin Seminary. Yr.; 2 cr. In 1919–20 the subject will be Virgil. Mr. Slaughter.

COMPARATIVE LITERATURE

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

The courses in comparative literature are designed to meet two main needs: (1) That of undergraduates who have not the command of foreign languages necessary to the fundamental study of international types, movements or relations in literature, but who may wish to secure a general understanding of some of the more important of these; and (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 inter-relations. 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 comparative 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. II; 3 cr. Mr. Slaughter.

3. Ancient Classical Drama. I; 3 cr. The Greek and Roman dramatists; their influence on the modern drama. In translation. Mr. Showerman.

7. Contemporary Drama. Yr.; 2 cr. Foreign plays in translation. Mr. Pyre.

8. The Contemporary Novel. Yr.; 2 cr. Foreign novels in translation. Mr. Campbell.

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

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. Mr. Dodge.

138. Shakespere in Germany. Yr.; 2 cr. Shakespere's influence on German literature during the eighteenth century and on the Romantic School. Counts for the German major. Alternates with course 242. 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. Mr. Roedder.

For Graduates

242. The Literary Relations of England and Germany in the Eighteenth Century. Yr.; 2 cr. Alternates with course 138. Mr. Kind.

244. The Medieval Drama. Yr.; 2 cr. First semester liturgical drama; second semester, English. Mr. Young.

248. Medieval Literature. Its beginnings in Europe with special reference to the influence of the French and Provençal literatures. Mr. Reed.

250. The Renaissance in Romance Countries. Yr.; 2 cr. First semester, Italian; second semester, French. Mr. Cerf.

252. Medieval French Drama. Yr.; 2 cr. Origins; relation to the early religious plays of other countries. Mr. Smith.

254. French Romanticism in its International Relations. Yr.; 2 cr. Mr. Cerf.

ECONOMICS

PROFESSORS COMMONS, ELWELL, ELY (chairman), GILLIN,* GILMAN, HIBBARD, ROSS, SCOTT, TAYLOR; ASSOCIATE PROFESSORS GALPIN, GARDNER, HESS, KIEKHOFER (executive secretary), LESCOHIER; LECTURER ANDERSON; INSTRUCTORS EBERLE, HAAKE, JEROME, KRUEGER, MCKAY, MCMURRY, MILLER, (S. L.), PERLMAN; ASSISTANTS ALTMEYER, HERTZLER, MILLER, (G).

FELLOWS, AULT, CARPENTER.

SCHOLAR, SHARP.

During the first quarter of the present academic year, Professor Wolff of the Department of Mathematics assisted with the S. A. T. C. work in this department.

Organization

The Department of Economics offers instruction in the thirteen groups of courses listed below. For the encouragement and supervision of graduate and research work there has been organized the Division of Economics, including the four groups, economics, agricultural economics, commercial economics, and sociology.

Aims

The work of the Department of Economics has the following distinct but related aims:

1. To provide instruction in economics and sociology for undergraduates in all the colleges of the University. Emphasis is placed upon the cultural importance, professional value, and citizenship use of these studies. Economics and sociology as aids to the intelligent discharge of one's duties as an American citizen receive particular attention.

2. To provide advanced work for graduate students working for higher degrees.

3. To assist and encourage the development of economic research studies.

4. To provide special professional training for business pursuits, industrial service, social service, and the public service.

---

* On leave of absence, 1918–1919.

Requirements for an Undergraduate Major

Students majoring in the Department of Economics may take their major in either economics or sociology. Twenty-eight credits, selected from the courses offered by the department, are required for a major in economics and thirty-one in sociology. A maximum of forty credits may be counted toward graduation. Courses below marked by an asterisk may be taken in addition to these forty credits.

Economics. For a major in economics, the twenty-eight credits required must include the following:

8 credits in 1a and 1b (Elements of Economics)
3 credits in 130a (Statistics)
4 credits for the thesis and a minimum of
13 additional credits.

This minimum of thirteen additional credits must be in related courses to be selected in conference with the major adviser, and shall not include any of the courses listed in Group III (Accounting) and Group IV (Business Administration and Commercial Law), and not more than two courses from Group XI (Sociology).

The thesis may be written in any one of the fields designated in groups II–X; usually a minimum of two related courses in the field selected is required as a background for the thesis.

Sociology. For a major in sociology the thirty-one credits required must include the following:

4 credits in 1a (Elements of Economics)
3 credits in 130a (Statistics)
16 credits selected from Group XI (Sociology)
4 credits for the thesis
4 additional credits in economics.

These additional credits are to be selected in conference with the major adviser.

Course in Commerce. In place of majors as above defined, students in the Course in Commerce elect groups of courses arranged with a view to preparing them for the vocation they expect to enter. These groups are described on pages 260–62 of this catalogue and in the special Bulletin of the Course in Commerce.

Requirements for the Master's Degree

The attention of graduate students is called to the general requirements of the Graduate School as set forth under Graduate School. (See Index.) Within the Division of Economics the master's degree may be taken in any one of the four groups included in it: (1) Economics, (2) Agricultural Economics, (3) Commercial Economics, and (4) Sociology.

All candidates for the master's degree must have adequate undergraduate training, and must present from the graduate courses offered by this Division as a minimum a number of credits equal to one-half of the total graduate credits offered in support of the candidacy for the master's degree. The credits to be offered must be selected in conference with the major professor.

Requirements for the Doctor's Degree

The attention of graduate students contemplating working for a doctor's degree is called to the general requirements of the Graduate School as set forth under Graduate School. (See Index.) Within the Division of Economics the doctor's degree may be taken in any one of the four groups included in it: (1) Economics, (2) Agricultural Economics, (3) Commercial Economics, and (4) Sociology. Students may, if they wish, elect one of these groups as a major and another as a minor, and need in that case offer no minor outside of the Division of Economics, although they are advised to offer either a first or second minor in some related department.

MAJOR. Candidates for the degree of doctor of philosophy, who major in the Division of Economics, are all expected to give evidence of the following:

1. Familiarity with the nature and development of economic or social institutions.
2. Knowledge of the principles of economics.
3. Knowledge of the history of economic thought.
4. Familiarity with statistical methods.
5. Intensive knowledge of the special field selected as the major, i. e., economics, agricultural economics, commercial economics, or sociology. In the special field selected candidates will be expected to be familiar with the literature of the subject and the methods of research.

6. Ability to prosecute research as shown in the production of a thesis in the special field selected for the major.

First Minor. Candidates for the degree of doctor of philosophy who wish to offer a first minor in the Division of Economics may present the general work required for a major as enumerated under points 1, 2, 3, and 4 above, or the work of one of the special fields enumerated in point 5.

Second Minor. Candidates for the degree of doctor of philosophy who wish to offer a second minor in the Division of Economics must present a minimum of six credits of related graduate work. A special written examination will be given on the work offered for the second minor.

Economics and Special Professional Courses

Course in Commerce.—The importance of professionally trained men and women for business has long since been recognized in the establishment of the Course in Commerce. The present course dates back to 1900. It is a course formally established by the University, its work extending over four years. Its curriculum consists in large part of courses offered by the Department of Economics. All inquiries should be addressed to Professor W. A. Scott, Director of the Course in Commerce. (See pages 257–62 of this catalogue and the special Bulletin of the Course in Commerce.)

Employment Management and Industrial Service.—The Department of Economics, in cooperation with the Industrial Commission of Wisconsin, has arranged a sequence of courses preparing for the profession of employment management with corporations, or for such positions as factory inspector with state and federal departments of labor, or as employment agents in the state and federal employment service.

Arrangements have been made with manufacturing establishments having successful labor departments, by which students serve an apprenticeship in order to get practical experience and to try out their personality and fitness in dealing with working people, foremen, superintendents, and employers.

In the sophomore year, students take the course in the Elements of Economics and in the junior and senior years they elect

courses in Labor Problems, Labor Legislation, American Labor History, and Labor History and Socialism.

Along with these courses the Department of Economics furnishes statistical work which is essential to employment management, a course in Factory and Office Administration, courses in Social Psychology and General Sociology, and courses in Americanization of the workers, an activity which employers have been widely undertaking since the beginning of the war.

The Department of Physical Education furnishes courses in first aid in accidents and sickness; the Department of Medical Bacteriology furnishes courses in industrial and public hygiene.

The Engineering College, through Professor Goddard, gives a number of hours each week to practice work in the machine shops and foundries of the University. This acquaints the student with machinery, safety appliances and the qualifications necessary in workers for the different classes of work and other essential practical problems of employment management and service. The College of Engineering also furnishes the course in City Planning and Housing of Wage Earners by Professor Leonard Smith.

The Home Economics Department has courses on House Management and Housing the Worker.

The Department of Psychology offers an introductory course in Psychology and additional courses on Foundations for Applied Psychology.

In the Education Department the courses on Vocational Education and Guidance enable the student to take part in the important new work of employers in training and educating their employees to the various occupations. In this connection the Director of Vocational Education of the State Board of Industrial Education assists in the conduct of the course.

Vocational conferences are held with the Industrial Commission, at which employment managers and service workers from various establishments, along with the deputies of the Commission, describe the practical work of the profession. The Industrial Commission also gives practical work in safety and sanitation, in handling child labor permits, and in reports and statistics required of employers, covering accidents, compensation, wages, etc.

The Department of Economics recommends that all who plan

to take this course make their elections in the sophomore year in the course in Elements of Economics, in order that they may take the three years' course and may get the shop practice during the summer vacations following the sophomore and junior years.

A suggested sequence of courses for students is as follows:

Sophomore Year.

Elements of Economics, Economics 1a and 1b.
First Aid, Physical Education 16.

Junior Year.

Labor Legislation or Labor Problems, Economics 123 or 122.
Labor History or Socialism, Economics 145 or 146.
Statistical Method, Economics 130a.
Evolution of Industrial Society, Economics 120.
Social Psychology, Economics 139.
Industrial and Public Hygiene, Pathology 102.
House Management, Home Economics 1a and 1b.
Introduction to Psychology, or Foundations of Applied Psychology, Philosophy 1 or 102.

Senior Year.

Labor Problems or Labor Legislation, Economics 122 or 123.
Socialism or Labor History, Economics 146 or 145.
Economic Statistics, Economics 130b.
General Sociology, Economics 140.
Factory and Office Administration, Economics 11.
City Planning and Housing of Wage Earners, City Planning 101 and 102.
Vocational Education and Guidance, Manual Arts 113.

The vocational conferences with the Industrial Commission are held weekly throughout the year.

Inquiries concerning employment management and industrial service should be addressed to Professor John R. Commons.

Social Service.—Graduates of the university who have majored in sociology are now charity visitors, child-welfare workers, agents of home-finding societies, Y. M. C. A. and Y. W. C. A. secretaries, anti-tuberculosis workers, executives of charity organization societies, probation officers, social-center secretaries,

recreation supervisors, social-settlement wardens, investigators for public and private bureaus, and heads of institutions.

In view of the fact that the present training agencies cannot meet the new demands made on the force of social workers by the conditions arising out of the war, the opportunities before college graduates trained for social work are greater than ever before. Accordingly a sequence of courses in sociology, economics, and certain other university subjects has been worked out with a view to fitting students for social service. Prof. J. L. Gillin will have charge of these students and all inquiries should be addressed to him.

Public Service.—Since the establishment of the Department of Economics in 1892 much attention has been given to the training of men and women for the public service. Scores of former students are today occupying important positions in the state and federal governments. Steps are now being taken with the cooperation of other departments of the university and the state government to work out sequences of courses that will furnish the thorough professional training needed for the public service. Since most of our present political problems are economic in nature, the Department of Economics has a primary responsibility in training men and women for government work. It is expected that the studies now being made of the needs of the government and the available resources of the University will be completed in time to announce sequences of courses preparatory for the public service for the academic year 1919–1920.

Agricultural Economics.—The work in agricultural economics has been established as a department in the College of Agriculture. The courses listed below in Group II also carry regular credit in the College of Letters and Science. The Department prepares its students for positions as teachers and research workers in the field of agricultural economics, for positions in agricultural marketing, and for practical work as farm managers. Inquiries may be directed to Professor B. H. Hibbard.

Description of Courses

Courses 1–100 are open to undergraduates and carry no graduate credit.

Courses 101–199 are open to both graduates and undergraduates.

Courses 200–299 are open only to graduates.

I. GENERAL ECONOMICS

1a. Elements of Economics. I or II; 4 cr. Modern industrial society and economic principles. Mr. Kiekhofer, Mr. Ault, Mr. Eberle, Mr. Haake, Mr. Hertzler, Mr. Jerome, Mr. Kind, Mr. Krueger, Mr. McKay, Mr. Miller.

1b. Elements of Economics. I or II; 4 cr. Economic problems and economic policies. Prerequisite: Economics 1a. Mr. Kiekhofer, Mr. Haake, Mr. Krueger, Mr. McKay, Mr. Miller.

101. Advanced Economics. I; 2 cr. Prerequisite: Economics 1a. Mr. Kiekhofer.

120. Evolution of Industrial Society. II; 2 cr. Prerequisite: Economics 1a. Mr. Ely, Mr. Perlman.

[1] **200. The Classical Economists.** I; 3 cr; II; 1 cr. Economic environment and doctrine of the mercantilists, physiocrats, Adam Smith, David Ricardo, and John Stuart Mill. Prerequisites: Economics 1a and 1b or equivalent. (Given 1919–1920.) Mr. Scott.

[1] **201. Critics of the Classical Economists.** I; 3 cr; II; 1 cr. Economic environment and doctrines of the nationalists, the older historical school, the optimists, and the scientific socialists. Prerequisites: Economics 1a and 1b or equivalent. (Given 1920–21.) Mr. Scott.

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

[2] **210. Value and Valuation—Legal Theories.** Yr.; 2 cr. (Given 1919–20.) Mr. Commons.

[2] **211. Value and Valuation—Economic Theories.** Yr.; 2 cr. (Given 1920–21.) Mr. Commons.

---

[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.

[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 1922–23.) Mr. Ely.

[3] **221. Landed Property and the Rent of Land—Distribution of Wealth.** II; 3 cr. (Given 1920–21.) Mr. Ely.

[3] **222. Custom and Competition—Distribution of Wealth.** II; 3 cr. (Given 1921–22.) 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 1919–20.) Mr. Ely.

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.

II. AGRICULTURAL ECONOMICS

25. Rural Life. II; 2 cr. A study of the country life movement and of the social problems of farm and village. Mr. Galpin.

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

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 Problems. Yr.; 2 cr. Research course. Mr. Ely, Mr. Taylor, Mr. Hibbard, Mr. Galpin, Mr. Lescohier.

227. Economic History of Agriculture. II; 2 cr. A study of historical changes and geographical differences in methods of farming. Mr. Hibbard.

---

[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.

III. ACCOUNTING

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

181. Theory and Practice of Accounting. I; 2 cr. Prerequisite: Economics 8a, 8b. Mr. Elwell, Mr. McMurry.

182. Cost Accounting. II; 2 cr. Prerequisite: Economics 181. Mr. Elwell, Mr. McMurry.

183. Advanced Accounting Problems. I; 2 cr. Prerequisite: Economics 181. Mr. Elwell.

184. Auditing. II; 2 cr. Prerequisite: Economics 181. Mr. Elwell.

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

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

IV. BUSINESS ADMINISTRATION AND COMMERCIAL LAW

***11. Factory and Office Administration.** I; 2 cr. Plant location and structure, and the organization and management of industrial forces. Prerequisite: junior standing. Mr. Haake.

***12. Buying and Credits.** II; 2 cr. In two parts: the principles of organization and procedure of buying, and of credits and collections. Prerequisite: Economics 11. Mr. Haake.

***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. Mr. Gardner.

***14. Sales Administration.** II; 2 cr. Organization of sales departments and technique of selling. Prerequisite: Economics 13. Mr. Gardner.

****15. Retail Advertising.** I; 2 cr. A study of principles,

---

* 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.

and practice in writing advertisements. Prerequisites: Philosophy 119 and English 4. Mr. Gardner.

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

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

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

109a. Commercial Law (Elements). I; 4 cr. Prerequisite: senior standing or consent of instructor. Mr. Gilman.

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

V. ECONOMIC POLICIES AND ADMINISTRATION

125. International Commercial Policies. II; 3 cr. International economic rivalry; protectionism and free trade, economic penetration of markets; growth of combinations for export trade; state subsidies of foreign trade; merchant shipping; commercial treaties; colonies and dependencies; internationalization of strategic centers; economic aspects of the League of Free Nations. Prerequisite: Economics 1a. Mr. Kiekhofer.

155. Government Control of Industry and Commerce. II; 3 cr. Decline of the laissez-faire policy and extension of government control; legislation and administrative agencies for the exercise of government control; principles and problems of government control in war and peace. Prerequisite: Economics 1a. Mr. Kiekhofer.

VI. INSURANCE

121. Industrial Insurance. I; 2 cr. Prerequisite: Economics 1a.

138. Insurance Economics. II; 3 cr. This course should precede Mathematics 124. Prerequisite: Economics 1a. Mr. Anderson.

* 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 majoring in advertising.

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

VII. LABOR

122. Labor Problems. I; 3 cr. Prerequisites: Economics 1a and 1b or equivalents. Given in alternate years with Economics 123. (Given 1919–20.) Mr. Commons.

123. Labor Legislation. I; 3 cr. Prerequisites: Economics 1a and 1b or equivalents. Given in alternate years with Economics 122. (Given 1918–19.) Mr. Commons, Mr. Altmeyer.

145. American Labor History. II; 3 cr. Prerequisites: Economics 1a and 1b or equivalents. Given in alternate years with Economics 146. (Given 1918–19.) Mr. Commons, Mr. Altmeyer.

146. Labor History and Socialism. II; 3 cr. Prerequisites: Economics 1a and 1b or equivalents. Given in alternate years with Economics 145. (Given 1919–20.) Mr. Commons.

265. Seminary in Labor and Industry—Labor and Reconstruction. Yr.; 2 cr. Mr. Commons, Mr. Lescohier, Mr. Altmeyer.

VIII. MONEY, BANKING AND FINANCE

5. Money and Banking. I or II; 3 cr. Prerequisite: Economics 1a. Mr. Scott, Mr. Haake, Mr. Jerome.

133. Financial History of the United States. II; 3 cr. Prerequisite: Economics 5. Given in alternate years with Economics 134. (Given 1918–19.) 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: Economics 5. Given in alternate years with Economics 133. (Given 1919–20.) Mr. Scott.

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

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

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

IX. PUBLIC FINANCE

3. Elements of Public Finance. I; 3 cr. Prerequisite: Economics 1a. Mr. Jerome.

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: Economics 1a. Mr. Jerome.

257. Seminary in Taxation. Yr.; 2 cr. Prerequisite: training in public finance. Mr. Jerome.

X. PUBLIC UTILITIES

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

142b. Public Utilities. II; 2 cr. Contemporary problems of regulation. Emphasis upon valuation and sphere of public authority. Prerequisite: Economics 142a. Mr. Hess, Mr. Eberle.

135. Railway Transportation. I or II; 3 cr. Prerequisite: Economics 1a. Mr. Eberle, Mr. Miller.

136. Railway Problems. I or II; 3 cr. Prerequisite: Economics 135. Mr. Eberle, Mr. Miller.

XI. SOCIOLOGY

2. Social Evolution. I; 1 or 2 cr. The stages in development from tribal to modern society. May be taken by seniors for 2 cr., others, 1 cr. Illustrated. Mr. Ross.

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

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

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.

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: Economics 1a or senior standing. Mr. Ross.

119. Leadership in a Democracy. I; 2 cr. Prerequisite: Economics 1a. Mr. Ely, Mr. Perlman.

148. Social Movements in Russia. I; 2 cr. Prerequisite: Economics 1a. Mr. Perlman.

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

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

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

170. Americanization. I; 3 cr. A study of the racial composition of American people, of immigration and its effects, of political, economic and social problems arising from population mixture; methods of Americanization. Prerequisite: junior standing. Mr. Lescohier.

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

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 1920–21.) Mr. Ross.

262. Seminary on the American Family. I; 2 cr. (Given 1918–19.) Mr. Ross.

260. Seminary on the Demography and Sociology of Cities. I; 2 cr. (Given 1919–20.) Mr. Ross.

261. Research Seminary. II; 2 cr. The field of investigation selected for 1919 is Centers of Resistance to Americanization. Mr. Ross.

Students majoring in sociology may include in the list of courses accepted for a major in sociology: Economics 25, Rural Life (See Group II. Agricultural Economics). City Planning 101, 102, and 103 are recommended but must be taken in addition to work required in this department.

XII. STATISTICS

130a. Statistical Method. I or II; 3 cr. Laboratory course, adapted to needs of statisticians and investigators in all fields. Prerequisite: Economics 1a. Mr. Hess, Mr. Krueger.

130b. Economic Statistics. II; 3 cr. Lectures on application of statistical method to economic questions with laboratory research problem. Prerequisite: Economics 130a. Mr. Hess, Mr. Krueger.

131. Prices and Cost of Living. II; 3 cr. Price movements and contributing causes. The effects of price changes upon social and economic conditions. Prerequisite: Economics 1a. Mr. Hess.

XIII. SENIOR THESIS SEMINARIES

100. Senior Thesis Seminaries.

A. Labor and Reconstruction. Mr. Commons, Mr. Lescohier, Mr. Altmeyer.
B. War Financiering. Mr. Scott.
C. Government Ownership vs. Government Regulation of Railways in the United States. Mr. Eberle.
D. Recent Progress of American Women. Mr. Ross.
E. Problems in Advertising and Marketing. Mr. Gardner.
F. Corporate Finance and Investments. Mr. Gilman.
G. Accounting Problems. Mr. Elwell.

EDUCATION

PROFESSORS HENMON (chairman), O'SHEA; ASSOCIATE PROFESSOR STARCH; ASSISTANT PROFESSORS MILLER, T. LLOYD JONES, SEYBOLT; INSTRUCTORS CALDWELL, HOYT; ASSISTANTS AMES, HANSEN.

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. Courses 6, 11 and 41 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, including the 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 shown in the courses taken during this first summer session. (2) Candidates who have not already satisfactorily completed courses in psychology and education, equivalent to the existing requirements for the University Teachers Certificate, will be required to devote at least four summer sessions, together with *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 the 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 which is 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 p. 287.

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. (Omitted 1918–19.)

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. (Omitted 1918–19.)

105. Municipal School Systems. II; 2 or 3 cr. Prerequisites: Education 1 or 6, and one other elementary course in education. (Omitted 1918–19.)

108. High School Organization. II; 2 cr. Development of the American high school. Problems of reorganization of secondary education, curriculum building, teaching, and supervision. Aims and processes represented in the major high school subjects. The cosmopolitan high school considered as a social organization designed to meet the requirements of democracy. Universal secondary education for our adolescent population. Mr. Miller.

110. Administration and Supervision of Education. II; 2 or 3 cr. Prerequisites: Any two elementary courses in education. (Omitted 1918–19.)

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. I or 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. Prerequisite: Any two elementary courses in education. (Omitted 1918–19.) 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. (Omitted 1918–19.)

145. Educational Measurements. I; 2 cr. Prerequisites: Education 41 and 142, or equivalents. Mr. Starch.

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. (Omitted 1918–19.)

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. (Omitted 1918–19.)

233. Supervision of Instruction. I; 2 or 3 cr. Open only to those with practical teaching experience. (Omitted 1918–19.)

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. (Omitted 1918–19.)

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. (Omitted 1918–19.)

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

249. Seminary in the History of Education. Yr.; 1 or 2 cr. Prerequisites: Education 102 or 103, or equivalents. Mr. Seybolt.

ENGLISH

Professors Hubbard, Young (chairman); Associate Professors Cairns, Dodge, Gardner, Lathrop, Pyre; Assistant Professors Beatty,* Campbell,* Leonard, Manchester, Nardin, Pendleton, Roe, Taylor; Instructors Alderman, Beatley, Clugston, Coleman, Dooley, Glicksman, Harkness, Kelsey, Roberts, Scallon, Tiffany, Wales, Willson; Assistants Eimer, Fisher, Hall, Kuney, Parmley, Schubert, Smith.

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

* On leave of absence 1918–19.

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 these ends, directly or indirectly, but some are especially 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 adequate 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).

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 chairman 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. 287.

Library Work

Students who take the joint course arranged at the University and 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 twenty credits (exclusive of the thesis and course 1). 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 credits 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 the chairman, Department of English.

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.

RHETORIC AND COMPOSITION

For Undergraduates

A. English Composition. For students who have failed to pass the test prescribed on page 103. Three hours a week; no undergraduate credit. Miss Scallon 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 College 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 Eng-

lish 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, by seniors preparing to teach the subject, and by students who have taken one semester of English 2. 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. (Omitted 1918–19.) 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. (Omitted 1918–19.) 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. (Omitted 1918–19.) 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 1918–19.)

9. Technical Composition. II; 3 cr. The composition of

technical papers. Elective for juniors and seniors in Engineering who have had English 1b. (Omitted 1918–19.)

For Graduates

217. The Teaching of Freshman English. II; 2 cr. (Omitted 1918–19.)

ENGLISH LANGUAGE AND LITERATURE

For Undergraduates

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

7CL. Contemporary Drama. Yr.; 2 cr. Tendencies in European drama. Foreign plays in translation. (Omitted 1918–19.) Mr. Pyre.

8CL. The Contemporary Novel. Yr.; 2 cr. Recent developments in the European novel. Foreign novels in translation. (Omitted 1918–19.) Mr. Campbell.

25. The English Language. I; 3 cr. The development of the English language. Open to sophomores, juniors, and seniors. (Omitted 1918–19.) 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. Leonard, Mr. Pyre (chairman of conference), Mr. Roe, Mr. Young, and staff.

31. Chaucer. II; 3 cr. Mr. Leonard.

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. (Omitted 1918–19.) 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. Manchester.

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. Manchester.

36. Elizabethan Drama. Yr.; 3 cr. The English drama from the beginning to the year 1642. (Omitted 1918–19.) Mr. Pyre.

38. Prose Style. Yr.; 2 cr. English prose from Dryden to the present day. (Omitted 1918–19.) Mr. Taylor.

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

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

48. The Literary Aspects of the English Bible. I; 3 cr. (Omitted 1918–19.) Mr. Lathrop.

50a. The Teaching of English. I; 2 cr. The work of 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. Ruskin and Morris. II; 2 cr. Mr. Roe.

For Undergraduates and Graduates

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

120a. Anglo-Saxon. I; 3 cr. Mr. Leonard.

120b. Middle English. II; 3 cr. A continuation of course 120a. Mr. Leonard.

121. Anglo-Saxon Poetry. I; 3 cr. Especial attention is given to the lyric and epic poems least affected by Christianity. (Omitted 1918–19.)

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

123. Modern English Grammar. I; 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. Pyre.

141. Tennyson. II; 2 cr. (Omitted 1918–19.) Mr. Beatty.

142. Versification. II; 2 cr. (Omitted 1918–19.) Mr. Pyre.

143. English Essayists. II; 2 cr. From Bacon to the present day. (Omitted 1918–19.) Mr. Taylor.

144. Wordsworth. II; 3 cr. (Omitted 1918–19.) Mr. Beatty.

145. Browning. I; 2 cr. (Omitted 1918–19.) Mr. Pyre.

146Cl. The Ballad. I; 2 cr. English and Scottish popular ballads; analogues in popular ballad and tale. (Omitted 1918–19.) Mr. Beatty.

149. Poe and Whitman. II; 3 cr. Mr. Cairns.

153. Philosophy in the English Poets. Yr.; 2 cr. From Wordsworth to Meredith. (Omitted 1918–19.) Mr. Leonard.

156. Literary Criticism. II; 2 cr. From Samuel Johnson to Matthew Arnold. (Omitted 1918–19.) Mr. Lathrop.

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

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

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

160. The Sixteenth Century. I; 3 cr. Non-dramatic literature in poetry and prose from Sir Thomas More to Bacon. (Omitted 1918–19.) Mr. Dodge.

161. Rhetoric. II; 2 or 3 cr. The history of the subject; modern theory. (Omitted 1918–19.) Mr. Lathrop.

For Graduates

224. English Philology Seminary. Yr.; 2 cr. Subject for 1917–18, Piers Plowman. (Omitted 1918–19.) Mr. Hubbard.

231. Introductory Seminary in English Literature. Yr.; 2 cr. Subject for 1917–18, Browning. Mr. Hubbard. Subject for 1918–19, Arnold and Newman. Mr. Hubbard.

232. Introductory Seminary in English Literature. Yr.; 2 cr. (Omitted 1918–19.)

244. Seminary in English Literature. Yr.; 2 cr. Subject for 1917–18, Chaucer. Mr. Young. Subject for 1918–19, Mediaeval Drama. Mr. Young.

247. Seminary in American Literature. Yr.; 2 cr. Subject for 1917–18, Emerson (first semester), Whitman (second semester). (Omitted 1918–19.) Mr. Cairns.

FINE ARTS

PROFESSOR SHOWERMAN.

1. The Fine Arts. II; 3 cr. (Given in 1918–19, and 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.
See Index, for Forest Products Laboratory.

GEOLOGY

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

During the first quarter of the academic year 1918–19, the following people outside the department assisted with the S. A. T. C. work in this department: Professors Kowalke, McCaffery; Associate Professor E. R. Jones; Assistant Professors Aust, J. Johnson, Schindler; Instructors Juve, Potter, Sumner; Librarian Hean.

Course 1, General Geology, is the introductory course for students in geology as distinguished from physiography and

* On leave of absence, 1918–19.

geography for which course 4 is the introductory course. Students whose preparation does not include either physics or chemistry may enter course 1 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.

Short courses in geology and mineralogy (2, 9 and 7) are offered without prerequisites to students not intending to take further work in these subjects. Students who take these courses will be allowed to enter advanced courses only by special arrangements.

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 approved courses listed under geology, meteorology, political science, agricultural economics, soils, geography, history, and topographic engineering.

The requirements in geography in connection with the University Course for the Training of Teachers are stated on page 293.

GENERAL GEOLOGY

For Undergraduates

1. General Geology. Yr.; 5 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 or course 2, without prerequisites, second semester. Mr. Twenhofel.

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

9. Engineering Geology. I; 3 cr. A course in elementary geology for students in engineering, required of juniors in civil engineering. Mr. Mead.

11. Geological Field Methods. II; 3 cr. Instruction and practice in flat and topographic mapping, use of plane table

and other simple instruments employed in geological field work. Mr. Thwaites.

For Undergraduates and Graduates

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

125. Field Work for Advanced Students. II; 3 cr. One to 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. Special summer field courses are offered from time to time by Prof. Twenhofel and others. Credit to be determined. See also Course 131 in Physiography.

134. Regional Geology. I; 3 cr. (Given 1918–19 and alternate years.) Mr. Twenhofel.

135. History of the Development of Geology. I; 2 cr. Prerequisite: course 1 or 4. (Given 1918–19 and alternate years.) Mr. Twenhofel.

PHYSICAL GEOLOGY

For Undergraduates and Graduates

111. Geology of Mineral Resources. II; 3 cr. (Given 1919–20 and alternate years.) Excursions are taken to iron, copper, lead, and zinc districts. (See also 140.) Prerequisites: Chemistry 1, Geology 6 or 7, and Geology 1. Mr. Leith, Mr. Mead.

113. Economic Aspects of Geology. I; 5 cr. (Given 1919–20 and alternate years.) A general survey of the various uses of geology by man, covering among other topics the relation of geology to international trade problems, to domestic problems of supply and distribution, to conservation of mineral resources, to valuation of mineral deposits and to questions of taxation of mineral resources. Prerequisite: 1 or 4. Mr. Leith.

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 1920–21 and in alternate years.) Mr. Leith, Mr. Mead.

117. Principles of Pre-Cambrian Geology. II; 2 cr. Alternates with course 118. (Omitted 1918–19). 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 1919–20 and in alternate years.) Mr. Leith, Mr. Mead.

123. Oil Geology. II; 2 cr. Prerequisite: Geology 1. (Given 1919–20 and in alternate years.) Mr. Leith, Mr. Mead.

128. Lake Superior Iron Ore Exploration. II; 2 cr. Applied geology. Prerequisites: Descriptive Geometry and course 114, 117, or 118. (Given 1919–20 and in alternate years.) Mr. Mead.

133. Sedimentation. II; 5 cr. (Given 1919–20 and alternate years.) Mr. Twenhofel.

140. Economic Geology Laboratory. II; 2 cr. Quantitative study of the processes of ore deposits to be taken with course 111. Mr. Mead.

141. Metamorphic Laboratory. Yr.; 2 cr. Quantitative study of metamorphism, to be taken with course 115. Mr. Mead.

STRATIGRAPHY AND PALEONTOLOGY

For Undergraduates and Graduates

112. Historical Geology and Stratigraphy. I; 5 cr. The larger facts of the earth's history and the principles involved in their interpretation. Fossils are studied as indices of time and geography. (Given 1919–20 and alternate years.) Prerequisites: Geology 1 and 121. Mr. Twenhofel. See also Course 134, Regional Geology.

121. Paleontology. II; 5 cr. The structure, classification and evolution of extinct organisms. (Given 1918–19 and alternate years.) Mr. Twenhofel.

MINERALOGY AND PETROLOGY

For Undergraduates

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

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

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

For Undergraduates and Graduates

108. Petrology. Yr.; 5 cr. The theory of the polarizing microscope, microscopic study of the important minerals and rocks. Prerequisite: course 6 or 7. Mr. Winchell.

119. Petrology of Lake Superior Rocks. Yr.; 3 cr. Prerequisite: course 108. (Given 1918–19 and in alternate years.) Mr. Winchell.

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

124. Economic Mineralogy. II; 2 cr. The mineral resources of the world, their distribution, use and conservation. Mr. Winchell.

129. Petrogeny. Yr.; 1 to 3 cr. Phenomena of magmas; the origin of derived rocks. Prerequisite: course 108. (Given 1919–20 and in alternate years.) Mr. Winchell.

PHYSIOGRAPHY AND GEOGRAPHY

For Undergraduates

3. Labaratory Course in Geography. Yr.; 2 cr. Part of Geology 4. Prerequisite: Geology 1, 4, or 5C. Mr. Williams, Miss Loft and assistants.

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. Whitbeck 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, Mr. Finch, Mr. Williams and staff.

For Undergraduates and Graduates

101. Geography of Europe. I; 3 cr. Mr. Whitbeck.

102. Geography of South America. II; 2 cr. Mr. Whitbeck. (Mr. Blanchard in 1918–19.)

103. Geography of North America. I; 3 cr. (Given in 1918–19 and in alternate years.) Mr. Williams. (Miss Loft in 1918–19.)

104. Geography of Wisconsin. II; 3 cr. Mr. Williams.

105. Overseas Commerce. I; 3 cr. A survey of the ocean trade and transportation of the world, with emphasis on the underlying geographic and economic factors; world trade regions and their entrepôts; ocean routes; ships and their cargoes; ship management; the organization of ocean transportation. Prerequisite: course 4 or 5C. Mr. Finch.

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

107. Influence of Geography on American History. I; 3 cr. Mr. Williams.

109. Advanced Physiography. Yr.; 2 cr. Origin of land forms, with particular emphasis on the work of rivers. Prerequisite: Geology 1, 4, or 5C. (Not given in 1918–19.)

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. Miss Loft.

112. Human Evolution and Migrations. II; 2 cr. The ascent of man, the differentiation of races and racial migrations. Mr. Twenhofel and Mr. Whitbeck.

122. Geographic Research. Individual problems with any selected instructor. Time and credit subject to arrangement.

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

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

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. Whitbeck or Mr. Williams. (Not given in 1918 or 1919.)

132. Geographical Seminary. Yr.; 2 cr. Mr. Whitbeck.

GERMAN

PROFESSORS HOHLFELD (chairman), VOSS;* ASSOCIATE PROFESSORS GOODNIGHT, KIND,† ROEDDER;** ASSISTANT PROFESSORS BRUNS, DEIHL,†† ERNST, HAERTEL, KELLER,§ MORGAN,†† STERLING; INSTRUCTORS ARON, HOLLANDER.

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. The prerequisites are stated in connection with each course. Freshmen with four years of high school German are not allowed to enter any of these elementary courses. They are eligible to the advanced practice courses and the literary courses in Group A, and can thus elect two, three or four hour programs in German. 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 are intended for specific practical ends, definitely stated in each case. None of these courses is required of students wishing to study German chiefly for its literature.

---

* On leave of absence, second and third quarters, 1918–19.
** On leave of absence, first semester, 1918–19.
† Absent on leave from the German department during the year 1918–19.
†† On leave of absence, academic year, 1918–19.
§ Leave of absence, second half of year, 1918–19.

III. The literary courses are of very different degrees of advancement, those from 241 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. Generally, about twelve credits in these two groups combined 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 155, and from 263 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, 151, and 152, all of which are so conducted as to be of direct benefit to properly qualified seniors.

Major in German*

Students electing German as their major study are required to offer, in addition to the thesis, a total of at least twenty-four credits in advance of course 2b, or an equivalent. Not less than six of these credits should represent class work in advance of course 100. Candidates preparing to teach German as their major subject are required to take the following courses: 10 or 112, 90a and 90b, 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

* 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.

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, with German as their minor, will be required to complete courses 10 or 112, 90a, and at least four credits in Group B, or 130 or 131.

ELEMENTARY COURSES

For Undergraduates

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

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

2a. Third Semester German. I or II; 4 cr. Modern prose; grammar review. Prerequisite: course 1b, or two years of high school German. Mr. Voss, Mr. Roedder, Mr. Bruns, Miss Sterling.

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. Mr. Bruns, Miss Sterling.

ADVANCED PRACTICE COURSES

For Undergraduates

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

3C. Commercial German. Yr.; 2 cr. For students in the Course in Commerce. Prerequisite: course 2b or equivalent. Mr. Aron.

11. Journalistic German. Yr.; 1 cr. (2 hrs.) Prerequisite: course 2b or equivalent. (Omitted 1918–19.) Mr. Haertel.

---

* See footnote on preceding page.

16. Modern Prose. Yr.; 2 cr. Rapid reading in history, criticism, economics, or similar fields. Suitable in preparation for the language examination for the doctor's degree. Prerequisite: course 2b, or an equivalent. (Omitted 1918–19).

40. Elementary Conversation. Yr.; 1 cr. (2 hrs.) Class practice, with work at home not to exceed one hour per week. Prerequisite: course 2b or equivalent. Mr. Keller.

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, Mr. Keller.

10. Composition and Conversation. Yr.; 2 cr. Prerequisite: four credits in advance of course 2b. Mr. Roedder, Mr. Keller.

90a. Teachers Course for Majors. I; 2 cr. Methods. For seniors and graduates. Mr. Aron.

90b. Teachers Course for Majors. II; 2 cr. Phonetics. For seniors and graduates. Mr. Aron.

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. (Omitted 1918–19.) Mr. Bruns.

LECTURE COURSES

29. Survey of German Painting and Sculpture of the Nineteenth Century. II; 1 or 2 cr. (2 hrs.) Illustrated lectures. Not open to freshmen. Knowledge of German not required. Miss Sterling.

30. Germany and its Institutions. II; 1 or 2 cr. (2 hrs.) Lectures (partly illustrated). (Omitted 1918–19.) Mr. Haertel.

Courses 29 and 30 are given in English and do not require a knowledge of German. They do not count toward the minimum requirement for a major, nor toward the language requirement, unless taken for two credits, with outside reading in German.

GERMAN LITERATURE

For Undergraduates

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.

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

15. Classical and Modern Writers. Yr.; 3 cr. Not open to students who have had course 3. (Omitted 1918–19.)

17. Modern German Drama and Novel. Yr.; 3 cr. A rapid reading course. (Omitted 1918–19.)

20. Schiller. Yr.; 2 cr. Introductory study of his life; *Die Braut von Messina, Wallenstein.* Miss Sterling.

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

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

GROUP B

These courses are open to students who have had at least four 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 1918–19.) Miss Sterling.

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

23. Goethe. Yr.; 2 cr. (Omitted 1918–19.) Mr. Voss.

26. Modern Fiction. Yr.; 3 cr. Keller, Storm, Meyer, Raabe. (Omitted 1918–19.) Mr. Goodnight.

28. Grillparzer. I; 2 cr. **Kleist.** II; 2 cr. (Omitted 1918–19.) Mr. Kind.

Course 21 is given in English, the others largely in German.

100. Thesis Course. Yr.; 2 cr. Mr. Burns.

For Undergraduates and Graduates

130. Goethe's Faust. Yr.; 3 cr. Both parts of *Faust*, selected lyrics, letters, and life. Alternates with course 131. (Given 1918–19.) Mr. Hohlfeld.

131. Survey of German Literature. Alternates with course 130. (Given 1919–20.) Mr. Hohlfeld.

134. Lyric Poetry of the Nineteenth Century. Yr.; 2 cr. Alternates with course 241. (Omitted 1918–19.) Mr. Bruns.

135. The Novel of the Nineteenth Century. Yr.; 2 cr. (Omitted 1918–19.) Mr. Goodnight.

136. Popular German Literature. Yr.; 2 cr. First semester, *Volkslied, Märchenliteratur,* and *Volksbücher;* second semester, modern dialect literature. Alternates with course 137. (Omitted 1918–19.) Mr. Roedder.

137. Schiller. Yr.; 2 cr. Dramatic works, philosophical writings, and correspondence. Alternates with course 136. (Omitted 1918–19.) Mr. Roedder.

138CL. Shakspere in Germany. Yr.; 2 cr. Alternates with course 242CL. (Omitted 1918–19.) Mr. Kind.

141CL. Principles and Practice of Translating. II; 1 or 2 cr. For students with advanced training in German, French, or Italian. (Omitted 1918–19.) Mr. Morgan.

Courses 138CL and 141CL are given in English, the others in German.

For Graduates

241. The Romantic Movement in Germany. Yr.; 2 cr. Alternates with course 134. (Given 1918–19.) Mr. Bruns.

242CL. The Literary Relations of England and Germany in the Eighteenth Century. Yr.; 2 cr. Alternates with course 138CL. (Omitted 1918–19.) Mr. Kind.

247. Pro-seminary in German Literature. Yr.; 2 or 3 cr. The seminary work proper (twice a week) is taken in alternate years from:

A. The seventeenth and first half of the eighteenth century. (Given in part, 1918–19.)

B. Klopstock, Wieland, Lessing, Herder. (Given 1919–20.)

Once a week, lectures on bibliography (first semester), and on methods of the study of literature (second semester). 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 1919–20.)

B. First semester, Goethe; second semester, Goethe's *Faust*. (Given 1918–19.)

C. The German drama of the nineteenth century. (Given 1917–18.) Mr. Hohlfeld.

Course 242CL is given in English, the others are given in German.

GERMAN PHILOLOGY

Mr. Voss is in general charge of courses 150–155, 263–270.

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. Mr. Voss.

A. First semester, Walther von der Vogelweide; second semester, *Kudrun* and *Dietrichepen*. (Given 1917–18.)

B. First semester, Hartmann von Aue; second semester, Meier Helmbrecht. (Omitted 1918–19.)

154. Gothic. I; 2 cr. (Omitted 1918–19.) Mr. Roedder.

155. Old High German. II; 2 cr. (Omitted 1918–19.) Mr. Roedder.

For phonetics see above, course 90b.
Courses 150 and 151 are given partly in German and partly in English, and the others in German.

For Graduates

263. Pre-Germanic Grammar. Yr.; 2 cr. First semester, Germanic phonology; second semester, Germanic morphology and syntax. Given in alternate years. (Omitted 1918–19.) Mr. Aron.

264. Modern and Middle Low German. Yr.; 1 cr. *Reinke de Vos* and Fritz Reuter's prose writings. Alternates with course 265. (Omitted 1918–19.) Mr. Voss.

265. Language and Literature of the Sixteenth Century. Yr.; 1 cr. History and development of the Modern High German literary language. Alternates with course 264. (Omitted 1919–20.) Mr. Voss.

270. Philological Seminary. Yr.; 2 cr. The fields of investigation form a cycle of three years:

A. Gottfried von Strassburg. (Given 1918–19).

B. Wolfram von Eschenbach. (Given 1917–18).

C. Hartmann von Aue. (Given 1919–20.) Mr. Voss.

Courses 263–270 are given in German.

HISTORY

PROFESSORS DENNIS,* FISH,* PAXSON, SELLERY (chairman), WESTERMANN;* ASSOCIATE PROFESSORS CHASE, ROOT, ROSENBERRY; ASSISTANT PROFESSORS BYRNE, SMITH; INSTRUCTOR KNAPLUND; ASSISTANTS ATWOOD, BALLOU, JONES, NOURSE, SHANNON.

FELLOWS: MR. BRANDT, MISS SHINE.

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 freshmen courses for full credit (three credits each semester) since each contains introductory training for which credit ought not to be given twice; but if they have had or are taking one of these courses for full credit, another may be taken 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 90 and 91 are primarily for students who expect to teach history in a secondary school. 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 263 are open only to graduate students.

---

* On leave of absence, 1918–19.

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.

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 programs from advanced courses in history or related subjects. Other candidates for the master's degree in history will be required to concentrate their work more fully, or exclusively, upon history. Every candidate for this degree is expected to have had, as undergraduate or graduate, at least one advanced course in European and one in American history.

The Doctor's Degree in History

Candidates for the doctor's degree with major in history are required, *inter alia*, to possess a general knowledge of a broad field of history (ancient history, medieval history, modern history, English history, or American history) and an intimate knowledge of some more limited field, and to submit a scholarly dissertation within the limited field. The other requirements for the degree are given in the Graduate School Circular.

For Undergraduates

INTRODUCTORY COURSES OPEN TO FRESHMEN

Freshmen are permitted to choose two of the introductory courses 1, 5 or 6, and 10, for five credits, 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 of the barbarian invasions. Mr. Westermann, Mr. Knaplund, and staff.

1. 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.

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. Omitted first quarter 1918–19.) Mr. Dennis, Mr. Smith, and staff.

6. English History. Yr.; 2 or 3 cr. A survey of the history of England with emphasis on social and economic conditions. Mr. Byrne and staff.

INTRODUCTORY COURSES NOT OPEN TO FRESHMEN

2. Modern European History. Yr.; 3 cr. From the close of the fifteenth century to the present day. May be elected by semesters. (Omitted 1918–19.) Mr. Knaplund.

39a, 39b. Europe, 1815–1918. Yr.; 3 cr. Emphasis upon international relations and the expansion of Europe. May be elected by semesters. Mr. Knaplund.

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 or three credits. Mr. Fish, Mrs. Rosenberry.

For Undergraduates and Graduates

90. 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.

91. Supplementary Reading for Teachers of History. II; 2 cr. Required for the teachers minor; elective for the teachers major. Mr. Chase.

ANCIENT AND MEDIEVAL HISTORY

125. Greek Civilization and its Expansion. I; 2 cr. (Omitted 1918–19.) Mr. Westermann.

127. Hellenistic-Roman Civilization. II; 2 cr. (Omitted 1918–19.) Mr. Westermann.

126. The Roman Empire. II; 2 cr. The Empire from the death of Julius Caesar to the era of Diocletian. (Omitted 1918–19.) Mr. Westermann.

123. The Roman Empire in the East. II; 2 cr. The eastern portion of the Empire from the founding of Constantinople to its capture by the Turks. (Omitted 1918–19.) Mr. Westermann.

129. Greek and Roman Institutions. I; 2 cr. To the end of the Roman Republic. (Omitted 1918–19.) 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. (Omitted 1918–19.) 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

138. The French Revolution and the Napoleonic Empire, 1789–1815. I; 3 cr. (Omitted 1918–19.) Mr. ——

139. The Nineteenth Century. II; 3 cr. (Omitted 1918–19.) Mr. ——

140. The Reformation. II; 3 cr. The Protestant Revolt and the Catholic Reformation. Mr. Sellery.

148. Expansion of Europe Since the Fifteenth Century. Yr.; cr. to be arranged. (Omitted 1918–19.) Mr. Dennis.

142. England Under the Tudors and Stuarts. Yr.; 2 cr. (Omitted 1918–19.) Mr. Dennis.

136. The British Empire, 1688–1815. I; 2 cr. (Omitted 1918–19.) Mr. Dennis.

143. The British Empire since 1815. Yr.; 2 cr. (Omitted 1918–19.) Mr. Dennis.

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. Byrne.

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. (Omitted 1918–19.) 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 1918–19.) Mr. Fish.

114. History of the South. Yr.; 3 cr. May be elected by semesters. (Not open to sophomores.) (Omitted 1918–19.) Mrs. Rosenberry.

111. History of the West, 1763–1890. Yr.; 2 or 3 cr. May be elected by semesters. Mr. Paxson, Mrs. Rosenberry.

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. (Omitted 1918–19.) Mr. Fish.

115. Diplomatic History of the United States. Yr.; 2 cr. (Omitted 1918–19.) Mr. Fish.

120. History of American War Diplomacy, 1783–1916. II; 3 cr. (Omitted 1918–19.) Mr. Fish.

117. Constitutional History of the United States, 1750–1850. Yr.; 2 cr. May be elected by semesters. (Omitted 1918–19.) Mr. Root.

118. Civil War and Reconstruction. I; 3 cr. (Omitted 1918–19.) Mr. Fish.

124. Recent History of the United States, 1873–1917. Yr.; 2 or 3 cr. May be elected by semesters. (Omitted first and second quarters, 1918–19.) Mr. Paxson.

121. Studies in Colonial History. Yr.; 2 cr. (Omitted 1918–19.) Mr. Root.

128. The United States in the Great War (1917–19). Yr.; 3 cr. The participation of the United States in the European War, in its diplomatic, political, economic, and military aspects. Three lectures and one conference; readings, and topic. (Omitted first and second quarters 1918–19.) Mr. Paxson.

For Graduates

252. Historical Method. Yr.; 2 cr. Graduate students in their first year are expected to take this course. (Omitted 1918–19.) Mr. Sellery, Mr. Fish.

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 1918–19.) 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 1918–19.) Mr. Slaughter, Mr. Westermann.

256. Seminary in Medieval History. Yr.; 2 cr. Problems in the civilization of the thirteenth century. A knowledge of Latin, French, and German is required. (Omitted 1918–19.) Mr. Sellery.

259. Seminary in History of the British Empire. Yr.; 2 cr. Modern economic and political history. (Omitted 1918–19.) Mr. Dennis.

261. Seminary in American History. Yr.; 2 cr. A study of the factors underlying some limited period of American history. (Omitted 1918–19.) Mr. Fish.

262. Seminary in American History. Yr.; 2 cr. The Hayes–Garfield–Arthur administrations. (Omitted 1918–19.) Mr. Paxson.

263. Seminary in American History. Yr.; 2 cr. Research problems for graduate students working in the field of American history. (Omitted first quarter 1918–19.) Mr. Root.

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.

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.

220. Greek Grammar. I; 3 cr. Sounds and forms. Mr. Laird.

225. Latin Grammar. I; 3 cr. Sounds and forms. (Given in 1919–20.) Mr. Laird.

230. Advanced Sanskrit. Yr.; 1 cr. Mr. Laird.

JOURNALISM

Professor Bleyer (chairman); Assistant Professor Hyde.

The courses in journalism are designed to give the student instruction and practice in newspaper writing and editing, in some kinds of magazine writing, and in advertising, as well as to present present-day problems of journalism in the light of their origin and development. They have been arranged to meet the needs of students in the four-year Course in Journalism (see Index), as well as other students in the Colleges of Letters and Science, Agriculture, and Engineering who desire training in journalistic writing.

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.

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, illustrat-

ing, sketching, and artistic printing. A course in French journalism is offered by the Romance Language Department. The psychology of advertising is the subject of a course in the Department of Philosophy, and courses in retail advertising, in commercial correspondence, in national advertising campaigns, and in the writing of advertising booklets are offered in the business administration section of the Department of Economics. Classes in agricultural journalism and advertising in the College of Agriculture are open to students of journalism and advertising.

A series of special lectures by editors and writers in active service is given annually for the students in journalism classes.

Major in Journalism

For an undergraduate major in journalism are required, in addition to a thesis, not less than 24 credits, in which may be included, besides courses in the Department of Journalism, the Law of the Press (Political Science 128), Retail Advertising (Economics 15), French Journalism (French 18), and Agricultural Journalism. The courses in journalism required for an undergraduate major are Newspaper Reporting (Journalism (2), 6 credits; Editing (Journalism 3), 6 credits; History and Principles of Journalism (Journalism 110), 6 credits; and either Editorial Writing (Journalism 104), 4 credits, or Special Feature and Magazine Writing (Journalism 105), 4 credits.

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 Library of the State Historical Society, which occupies the same building as the University Library, contains one of the largest collections of bound files of American newspapers and magazines in this country and furnishes unusual opportunities for an historical study of English and American journalism from earliest times to the present. The master's degree is granted in journalism. Uni-

versity graduate scholarships are open annually to students in journalism.

For Undergraduates

1. General Survey of Journalism. Yr.; no cr.; 1 hr. a week. 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.; 3 cr. Prerequisite: Journalism 2 or equivalent practical experience. Mr. Hyde.

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

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

15. Retail Advertising (Economics 15). I; 2 cr. For seniors. Mr. Gardner.

16. Advertising Campaigns. II; 2 cr. For seniors who are specializing in advertising. Mr. Gardner.

18. French Journalism (French 18). Yr.; 2 cr., 1 in French, 1 in journalism. Prerequisite: French 1a and 1b or equivalent. Mr. Cardon.

50–51. Freehand Drawing and Illustration (Manual Arts 50 or 51). I or II; 3 cr. Special attention given to journalism students who desire 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. Not open to sophomores. Mr. Bleyer.

110. History and Principles of Journalism. Yr.; 3 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.

128. The Law of the Press (Political Science 128). II; 2 cr. Mr. Rundell.

AGRICULTURAL JOURNALISM

1. Agricultural Journalism. I; 2 cr. Mr. Sumner.

4. Agricultural Advertising. II; 2 cr. Mr. Sumner.

MANUAL ARTS

PROFESSORS CRAWSHAW* (chairman), PHILLIPS; ASSOCIATE PROFESSOR VARNUM (acting chairman); ASSISTANT PROFESSOR GODDARD; INSTRUCTORS ANDERSON, COATES, DIAMOND, WILSON; ASSISTANT STEARNS.

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 directed teaching.

The Applied Arts Laboratory is conveniently equipped for lower grade construction work, design, and applied design in

* On leave of absence, 1918–19.

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.

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

***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.

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.

***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.

---

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

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.

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

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. Schmidt, Mr. Breckey.

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 90 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 90 desirable. Miss Wilson.

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. 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. Yr.; 3 cr. Design standards. Proportions, enrichment and color systems applicable to all materials. Lectures and laboratory practice. Special problems for students who intend to teach drawing and design in elementary or secondary schools. The first semester includes the larger problems of design applicable to the industrial arts. The second emphasizes surface enrichment such as borders, patterns, posters. Prerequisite: credit or registration in courses 1 and 50 or their equivalents. Mr. Varnum, Miss Wilson.

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

* For related course see Mining and Metallurgy 126.

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.

90. 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.

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. Diamond.

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. Diamond.

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.

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. Diamond and staff.

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

MATHEMATICS

Professor Slichter (chairman), Van Vleck; Associate Professors Dowling, Skinner; Assistant Professors Burgess, Dresden, Hart, March, Wolff; Instructors Allen, Babcock, Paine, Simpson, Weaver; Assistants Bellack, Holt, Knoerr, Warren.

During the first quarter of the current year, the following men from other departments assisted with the S. A. T. C.

work in this department: Professors Bennett, Comstock; Associate Professor Laird, Assistant Professors Kommers, Wolfenson; Instructors Crothers, Hull, Kelso, Woodworth.

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

A. Courses 1 to 11 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 algebra for entrance.

B. Courses 111 to 125 are designed for students who desire to continue mathematical study and who have completed the prerequisite courses in group A.

C. Courses 220 to 268 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 291.

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. Van Vleck, Mr. Skinner, Mr. Dowling, Mr. Hart, Miss Allen, Mr. Moore, Mr. Paine, Mr. Simpson, Mr. Weaver.

2. Trigonometry. I or II; 3 cr. Plane trigonometry and logarithms. Prerequisite to all other courses except 1, 7, 8, and 124. Mr. Skinner, Mr. Dowling, Mr. Hart, Miss Allen, Mr. Dresden, Mr. Simpson, Mr. Weaver.

2A. Trigonometry for Students of Navigation. I; 2 cr. Brief course emphasizing computation and use of tables. Mr. Comstock, Mr. Dowling and Mr. Skinner.

3. Analytic Geometry. I or 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. Skinner.

4. Analytic Geometry. Yr.; 2 cr. Prerequisite: course 2. Mr. Van Vleck.

5. Calculus. Yr.; 3 cr. Students who intend to specialize in mathematics or who desire calculus for applications in science are advised to take course 5 in the sophomore year. Course 3 or 4 must be taken simultaneously by students who have not had analytic geometry. Mr. Dowling, Mr. Skinner.

6. Determinants and Analytic Geometry of Three Dimensions. I; 3 cr. Prerequisite: course 3 or 4. Mr. Dowling.

7. Commercial Algebra. I or II; 4 cr. Required of students in the Course in Commerce. Mr. Skinner, Miss Allen, Mr. Hart, Mr. Weaver.

8. Solid Geometry. I; 3 cr.

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. 1918–1919. 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. Miss Holt, Mr. Bellack, Mr. Knoerr, Mr. Paine, Mr. Warren.

51. Elementary Mathematical Analysis. I or II; 5 cr. Required of freshmen in Engineering. Mr. March, Mr. Wolff, Mr. Hart, Mr. Babcock, Mr. Paine, Mr. Knoerr, Mr. Bellack, Mr. Warren.

52. Elementary Mathematical Analysis. I or II; 5 cr. A continuation of 51. Required of freshmen in Engineering. Mr. March, Mr. Babcock, Mr. Paine, Mr. Wolff, Mr. Hart, Mr. Bellack, Mr. Knoerr, Mr. Warren.

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. Babcock, Mr. Paine.

55. Calculus. I or II: 4 cr. Continuation of 54; for all courses. Elementary work in differential equations. Required of sophomores in Engineering. Mr. Slichter, Mr. Wolff, Mr. March, Mr. Paine, Mr. Babcock.

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. Wolff, Mr. March, Miss Holt.

For Undergraduates and Graduates

Course 5 is prerequisite to all courses in this group except 115, 124, and 125.

111. Advanced Calculus. I; 3 cr. Mr. Skinner.

112. Differential Equations. II; 3 cr. With applications to geometry and mechanics. Primarily a working course for students in mathematics and physics. Mr. Van Vleck.

113. Theoretical Mechanics. Yr.; 3 cr. May be taken by those who have had analytic geometry and calculus. Mr. Slichter.

114. Modern Analytic Geometry. II; 3 cr. In alternate years.

115. Projective Geometry. Yr.; 2 cr. Synthetic treatment. Mr. Dowling.

117. Vector Analysis. II; 3 cr. Applications to physics and geometry. (Omitted 1918–19.) 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 1918–19.) Mr. Skinner.

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. Skinner.

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.

220. Theory of Analytic Functions. Yr.; 3 cr. In alternate years. Mr. Van Vleck.

221. Theory of Functions of a Real Variable. Yr.; 3 cr. In alternate years. Critical study of infinitesimal analysis. (Omitted 1918–19.) Mr. Van Vleck.

241. Elliptic Functions. Yr.; 2 cr. In alternate years. (Omitted 1918–19.) Mr. Dowling.

243. Modern Theory of Differential Equations. Yr.; 3 cr. (Omitted 1918–19.) Mr. Van Vleck.

244. Higher Geometry. Yr.; 2 cr. In alternate years. (Omitted 1918–19.) Mr. Dowling.

246. Finite Groups. Yr.; 3 cr. (Omitted 1918–19.) Mr. Skinner.

250. Theoretical Hydrodynamics. Yr.; 2 cr. (Omitted 1918–19.) Mr. Slichter.

251. Theory of Attractions. Yr.; 2 cr. Mr. Slichter.

263. Higher Algebra. I; 3 cr. (Omitted 1918–19.) Mr. Skinner.

265. Harmonic Analysis. Yr.; 3 cr. (Omitted 1918–19.) Mr. March.

266. Theory of Numbers. Yr.; 3 cr. (Omitted 1918–19.) Mr. Skinner.

268. Partial Differential Equations. Yr.; 3 cr. Introductory course. 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; 3 cr. Mr. Miller.

2. Climate and Man. II; 3 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 and Economics 130a, or equivalents. Mr. Miller.

MUSIC

Emeritus Professor Parker; Professors Mills (chairman), Dykema; Assistant Professors Townsend, Geltch, Jones; Instructors Eastman, Crane, Campbell, Gunderson, Jones, Swinney, Yates.

The courses in music, except courses 1 and 71, 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 1 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.

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.

THEORY AND PRACTICE

For Undergraduates

1. Harmony. Yr.; 3 cr. Miss Eastman, Miss Campbell.

11. Harmony. Yr.; 3 cr. Prerequisite: course 1. Mr. Mills, Miss Eastman, Miss Gunderson.

21. Counterpoint. Yr.; 2 cr. Prerequisite: course 11. Mr. Mills, Miss Eastman.

31. History. Yr.; 2 cr. Lectures on the development of the art. Mr. Mills, Miss Eastman.

41. Methods. Public School Music, first year. Yr.; 3 cr. Miss Crane.

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

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

45. Public School Music. Yr.; 2 cr. For grade and high school teachers. (Omitted 1918–19.)

51. Methods. Public School Music, second year. Yr.; 2 cr. Mr. Jones.

52. Practice. Public School Music, second year. Yr.; 2 cr. Mr. Jones.

55. Methods and Practice. Public School Music, third year. 2 cr. Mr. Jones.

61. Appreciation of Music. (Omitted 1918–19.)

65. Appreciation of Music. Yr.; 1 cr. Lectures with practical illustrations; open to student body. Mr. Mills.

71. Sight Singing and Ear Training. Yr.; 1 cr. Miss Crane.

75. Sight Singing and Ear Training. Yr.; 1 cr. Mr. Swinney, Mr. Jones.

76. Orchestra. Yr.; 1 cr. Prerequisite: the ability to play some instrument. Mr. Yates.

77. Choral Music. Yr.; ½ cr. Mr. Jones.

78. Community Music. I; 2 cr. (Omitted 1918–19.)

79. Selection and Interpretation of Music Material. Yr.; 2 cr. Mr. Townsend.

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

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

82. Voice. Yr.; cr. to be arranged. Miss Jones, Mr. Swinney.

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

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

85. Ensemble. Yr.; 2 cr. Mr. Geltch, Miss Gunderson, Miss Jones.

86. Ensemble. Yr.; 2 cr. Mr. Geltch, Miss Gunderson, Miss Jones.

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. Geltch, Mr. Yates.

90. Instrumentation. I or II; 2 cr. A continuation and development of course 89. Mr. Yates.

100. Thesis. Yr.; 2 cr.

For Undergraduates and Graduates

102. Harmony. Yr.; cr. to be arranged. Prerequisite: course 11. Mr. Mills.

112. Counterpoint. Yr.; cr. to be arranged. Prerequisite: course 21. 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

PROFESSORS BUNTING (chairman), CLARK; ASSISTANTS LEACH, MARTINI, DRIVER, WRIGHT.

For full description of courses in Pathology, see announcement under Medical School.

For Undergraduates and Graduates

101. General and Special Pathology. I; 5 cr.

102. Medical Bacteriology. I; 5 cr.

103. Experimental Pathology. II; 4 cr.

104. Immunity. II; 4 cr. Prerequisite: course 102.

106. Oncology. II; 2 cr. Prerequisite: course 101.

107. Sanitary Bacteriology. 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); ASSISTANTS GREEN, HOYER.

For full description of courses in pharmacology and toxicology, see announcement under Medical School.

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

102. General Toxicology. II; 1 cr. Laboratory. Mr. Loevenhart.

104. General Pharmacology. I; 3 cr. Lectures. Mr. Loevenhart.

105. General Pharmacology. I; 2 cr. Laboratory. Mr. Loevenhart, Mr. Green, Mr. Hoyer.

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. I; 3 cr. Mr. Langenhan.

22. Elementary Prescription Practice. I or II; 1 cr. For premedical students. 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. Alternates with Pharmacy 50. Mr. Kremers and special lecturers.

50. History of Pharmacy. Yr.; 1 cr. Alternates with Pharmacy 40. Mr. Kremers, Miss Wakeman.

Thesis. Yr.; 2 cr.

For Undergraduates and Graduates

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

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

For Graduates

230. Advanced Pharmaceutical Technology. To be arranged. Mr. Kremers.

250. 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 Professors Otto, Starch; Instructor Hull.

The student is at liberty to begin his work in philosophy with any of the courses designated as for undergraduates. But beginners who desire to take three hours of work throughout the year in the department, whether they wish to continue with the subject or not, will ordinarily find it most profitable to select course 1 or 31 in the first semester, and either 11, 21, 32, or 41 in the second semester.

The requirements for an undergraduate major in philosophy are a minimum of twenty-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. Hull, Mrs. Caldwell.

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.

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

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

22. Philosophies of War. II; 2 cr. (Omitted 1919–20.) Mr. McGilvary.

23. Six English Philosophical Poets—Langland, Spenser, Milton, Shelley, Swinburne, Walt Whitman. I and II; 3 cr. (Omitted 1919–20.)

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. McGilvary.

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; the ethics of war; 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 course is 41 a prerequisite.

44. History of Morality. I; 2 or 3 cr. Primitive and ancient moral practices and ideals. (Omitted 1919–20.) 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.

62. Psychology of War and Peace. II; 2 cr. Mr. Jastrow.

For Undergraduates and Graduates

102. Foundations of Applied Psychology. II; 2 cr. Mr. Jastrow.

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. (Omitted 1918–19.) Mr. Jastrow.

107. Abnormal Psychology. I; 2 cr. Mr. Jastrow.

108. Psychology of the Emotions. II; 2 cr. (Omitted 1918–19.) Mr. Jastrow.

109. Racial Psychology. II; 2 cr. The psychology of groups in natural and artificial circumstances. Mr. Jastrow.

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

111. Psychology of Language. II; 2 cr. (Omitted 1918–19.) Mr. Jastrow.

115. Vocational Psychology. I; 2 cr. Mr. Starch, Mr. Hull.

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.

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

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

139. American Philosophy. II; 2 cr. Special reference to Jonathan Edwards, Ralph Waldo Emerson, and William James. Prerequisite: 3 cr. in philosophy. Mr. Otto.

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 JONES (chairman); ASSOCIATE PROFESSOR LOWMAN, Director of Professional Course, Associate Professor Trilling, Director of Women's Gymnasium; ASSISTANT PROFESSORS BROWN, ELSOM, LIPPITT, RICHARDS; INSTRUCTORS BRESNAHAN, BROWNELL, CARNS, GRAY, H'DOUBLER, LINDEN, MCKEE, SCHLATTER, SMALL, VAIL; ASSISTANTS AYER, VAUGHN.

For further information see Department of Physical Education, page.

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 subjects 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, 68, 107, 55, 114; courses 21–50 (at least four credits) and thesis (4 credits), a total of 32 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, 80, and 21–50, but 40 credits is the maximum allowed toward graduation.

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 and 67, 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, 80 and 21–50, but the total number secured shall not exceed 20. 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. Yr.; 2 cr. Mr. Lowman, Miss Carns.

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 certificates.

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 certificates.

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

56. Kinesiology. I; 2 cr. Prerequisites: course 20 and Anatomy 121. Miss McKee.

107. Physiology of Exercise (Physiology 116.) I; 3 cr. Prerequisites: course 56 and Physiology 105 or 115 (see Department of physical Education. Mr. Eyster, Mr. Dawson, Mr. Meek.

55. History and Principles of Physical Education. II; 3 cr. Prerequisites: Zoology 1a and 1b, Physiology 1 and 2 or 105 or 115, and Philosophy 1. Mr. Elsom.

59. Nature, Function and Organization of Play. II; 3 cr. Prerequisite: Philosophy 1. Mr. Lowman.

114. Medical Examination. 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.

67. Principles of Teaching and Adaptation. I; 3 cr. The psychology of leadership, coaching, etc. The principles of selection, and adaptation of motor activities to individuals and groups, differentiated by sex and age. Prerequisites: courses 20 and 59 or 55 and for the second semester 56 and 107. Miss Trilling.

68. Organization and Administration of Physical Education. II; 2 cr. Prerequisites: courses 20, 55, 59, and 67. Mr. Lowman.

71. Scouting and other Adolescent Organizations. Theory and Practice. II; 2 cr. Prerequisites: Philosophy 1 and Physical Education 59, or 3 cr. in education or sociology. Mr. Elsom.

80. Community Recreation. II; 2 cr. Custom in recreation, social changes and the new attitude; the needs of different

classes of people, methods of arousing and maintaining community interest in general forms of recreation; types of activities; games and plays suitable for social purposes. For teachers and leaders in recreation to meet the demand for forms of social and community recreational activities. Prerequisites: Physical Education 59, or three credits in education or sociology. Mr. Elsom.

PHYSICS

PROFESSORS MASON, MENDENHALL, SNOW (chairman); ASSOCIATE PROFESSORS INGERSOLL, TERRY; ASSISTANT PROFESSORS FULCHER, ROEBUCK, STEVE; INSTRUCTORS ELDRIDGE, GREENSLADE, HOOVER, MCMAHON, PETERSEN, PHELPS, SZLUPAS; ASSISTANTS BUTLER, COOK, HUBBARD, JANSKY.

In order to adapt the instruction in physics to students of different degrees of preparation, the introductory course is given in two sections. Course 1 is planned for all who take the study as a general informational course, while Course 1Sc is designed for those who prefer a more fundamental treatment with applications, and who have had or are taking the mathematics of the freshman year. Following these general courses, seven other elementary courses are given for all who desire a further knowledge of the subjects treated in courses 1 and 1Sc, and for those who are preparing to teach. Courses 108–120 are more advanced in nature and lead to courses 210–220, which are strictly graduate in character, and are arranged for 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. Ingersoll and staff, Mr. Steve, Mr. Petersen, Miss Phelps, Mr. Szlupas, Miss Hubbard.

1Sc. General Physics. Yr.; 5 cr. Lectures, recitations, and laboratory are fully co-ordinated. 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. Roebuck, Mr. Fulcher, Mr. Ingersoll and staff.

2. Light and Heat. I; 3 cr. Intended to follow courses 1 or 1Sc, and leads to course 117. Mr. Mendenhall.

3. Laboratory in Light and Heat. I; 2 cr. Designed to accompany course 2. Mr. Mendenhall, Mr. Petersen.

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. Elementary scientific treatment, including laboratory practice. Mr. Roebuck.

90. 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, Mr. Roebuck.

ENGINEERING COURSES

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

51. Mechanics, Sound, and Light. II; 5 cr. Mr. Roebuck, Mr. Ingersoll and staff.

52. Heat, Electricity, and Magnetism. II; 5 cr. Mr. Terry, Mr. Ingersoll and staff.

53. Mechanics, Electricity, and Magnetism. I; 3 cr. Required of sophomores in electrical engineering. Mr. Terry.

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

55. Advanced Electricity and Magnetism. I; 3 cr. Required of juniors in electrical engineering. Mr. Terry and Mr. Greenslade.

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

AGRICULTURAL COURSES

61. Mechanics and Heat, Electricity and Magnetism. Yr.; 3 cr. Prerequisite: Mathematics 71. Mr. Steve, Mr. Ingersoll and staff.

65. General Physics. Yr.; 3 cr. Required of sophomores in home economics. Mr. Snow, Mr. Steve, Mr. Ingersoll and staff.

For Undergraduates and Graduates

108. Elements of Radio-telegraphy. I; 3 cr. Lectures and laboratory practice. Prerequisites: Physics 1 or equivalent. Mr. Terry, Mr. Jansky.

109. Radio-telephony. II; 3 cr. Prerequisite: 108 or equivalent. Mr. Terry.

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 5 or 55. 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. Yr.; 3 cr. For those beginning graduate study. 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. 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. Mr. Mason.

216. The Electromagnetic Theory of Light. Yr.; 3 cr. 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.

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

Professors Eyster (chairman), Bradley, Meek; Assistant Professor Dawson; Instructor Schlomovitz; Assistants Sevringhaus, Borsack, Reid, Ronzone, Sutton, Shimpa, Hatelberg.

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.

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.

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. Borsack, Miss Reid.

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. Sevringhaus.

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.

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. Schlomovitz.

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.

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. Dawson, Miss Reid, Miss Ronzone.

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, Mr. Meek.

210. Advanced Laboratory Course in Physiological Chemistry. Corresponds to course 208.

POLITICAL SCIENCE

Emeritus Professor Parkinson; Professors Lloyd Jones (chairman), Ogg (acting chairman); Associate Professors Hall, Hornbeck; Instructor Stuart; Lecturers Dudgeon, McCarthy, MacGregor; Assistant Swenson.

Scholar, Mr. Weeks.

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 intended 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, junior and senior years. Courses 1, 2, 7, 13, 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 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. (Omitted 1918–19.)

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 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. (Omitted 1918–19.)

29. Teachers Course. II; 2 cr. (Omitted 1918–19.)

32. Contemporary Political Topics. II; 2 cr. Designed for students preparing for journalism. (Omitted 1918–19.)

For Undergraduates and Graduates

108. Administrative Problems. II; 2 cr. (Omitted 1918–19.)

109. Roman Law. I; 3 cr. A knowledge of Latin is not required. (Omitted 1918–19.)

111. Jurisprudence. II; 3 cr. Open to students who have had an elementary course in law. (Omitted 1918–19.)

112. American Constitutional Law. II; 3 cr. Mr. Hall.

114. Municipal Functions. II; 3 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. (Omitted 1918–19.)

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. I; 3 cr. Historical and descriptive. Mr. Ogg.

118. International Law. I or II; 3 cr. A general survey of the legal relations between states in times of peace and of war. Mr. Page.

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. (Omitted 1918–19.)

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. (Omitted 1918–19.)

121. Colonial Politics. II; 3 cr. An historical and comparative survey. Mr. Ogg.

122. American Party Government. I; 3 cr. (Omitted 1918–19.)

124. British Self-governing Colonies. I; 3 cr. Mr. Ogg.

125. Modern Imperialism. II; 3 cr. Mr. Ogg.

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 1918–19.) Mr. Hall.

131. Latin-American Institutions. II; 2 cr. A comparative study of the constitutional and administrative systems of the Latin-American republics. (Omitted 1918–19.)

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. (Omitted 1918–19.)

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; in-

ternational economic and social solidarity; nationalism and cosmopolitanism; projects for peace and organization. (Omitted 1918–19.)

138. Contemporary International Relations. I; 2 cr. (Omitted 1918–19.)

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. Ogg.

For Graduates

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

202. Administrative Law II. II; 2 cr. 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*. Prerequisites: courses 7, 112. (Omitted 1918–19.) Mr. Hall.

204. Administrative Law IV. II; 2 cr. Municipal corporations. Beale's *Cases*. Prerequisites: courses 7, 112. (Omitted 1918–19.) 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. (Omitted 1918–19.)

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

255. Seminary in the Diplomacy of the Great War. II; 2 cr. Mr. Ogg.

256. Philosophy of the State. II; 2 cr. A critical study of contemporary political thought and terminology. (Omitted 1918–19.)

258. Seminary in Administration. II; 2 cr. Prerequisites: courses 116, 117.

260. Seminary in International Law and Politics. Yr.; 2 cr.

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); ASSOCIATE PROFESSOR BLANTON; ASSISTANT PROFESSORS HOUGHTON, JOHNSON, WEAVER; ASSISTANTS O'MALLEY, VEATCH, WEST.

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. Three courses only are open to beginners—3a, 7, and 12a.

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, 19; for oratory, 7, 13, 105; for debate 3a, 7, 8, 11.

Courses 3a, 3b, 11 and 105 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, including 3a and either 190a or 190b.

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

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 and staff.

3a. Argumentation. I and II; 3 cr. 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.

7. Elements of Public Speaking. I and II; 3 cr. Textbook, daily practice in speaking. Attention to voice, pronunciation, gesture, general effectiveness. Open to all students except freshmen. Mr. Houghton Mr. Weaver, Mr. West.

8. Extempore Speaking. II; 2 cr. Preparation and delivery. Prerequisite: courses 3a and 7. Mr. Houghton, Mr. Weaver.

11. Debating. II; 2 cr. Continuation of 3a. Oral argument. Practical work in analysis, evidence, brief drawing, and debating. Prerequisite: courses 3a and 7. Mr. O'Neill.

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, Mr. Veatch.

12b. Continuation of 12a. II; 3 cr. Prerequisite: course 12a. Miss Johnson, Mr. Veatch.

13. Formal Oratory. II; 2 cr. Open only to those who receive the previous assent of the instructor. Prerequisite: course 8 or 11 or 105. Mr. O'Neill.

16a. Interpretative Reading. I; 2 cr. Review of 12a and 12b. Study and presentation of various forms of standard literature. Prerequisite: course 12b, or permission of instructor. Miss Johnson.

16b. Continuation of 16a. II; 2 cr. Prerequisite: course 16a. Miss Johnson.

17. Dramatic Personation. II; 2 cr. Designed for those who show marked dramatic ability, and who wish to specialize in dramatic platform work. Prerequisite: course 16b and permission of instructor. (Omitted 1918–19.) Miss Johnson.

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

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. (Omitted 1918–19.) 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. (Omitted 1918–19.) Mr. Blanton.

For Undergraduates and Graduates

105. Speech Composition. I; 3 cr. Textbooks, lectures, models, preparation of original speeches of various types. Prerequisite: course 3a or 8 or one year in English composition after freshman year. Mr. O'Neill.

125. Advanced Correction of Speech Defects. II; 3 cr. Mr. Blanton. (Omitted 1918–19.) Mr. Blanton.

141. Psychology of Reading and Speaking. I; 3 cr. (Omitted 1918–19.) Mr. Weaver.

190a. Seminary in Teachers Problems. I; 2 cr. Open only to graduates and undergraduate majors and minors in public speaking in their senior year. Mr. Weaver and staff.

190b. Seminary in Teachers Problems. II; 2 cr. Open only to graduates and undergraduate majors and minors in public speaking in their senior year. Mr. Weaver and staff.

For Graduates

201. Seminary in Voice and Speech. Yr.; 2 hrs. Mr. Blanton. (Omitted 1918–19.)

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

ROMANCE LANGUAGES

Emeritus Professor Owen; Professors Giese, Showerman, Smith (chairman), Associate Professor Cerf; Assistant Professors Atkin, Cool, Ernst, Gay, Gillin, Lyon, Michell, Ortega, Reed, Schlatter, Shanks, Zdanowicz; Instructors Ballu, Cardon, Chase, Comstock, Conrad, Fabin, Galwey, Greenleaf, C. H., Greenleaf, J. H., Halverson, Johnson, Raney; Assistants Bureau, Fite, Gassaway, Hélie, Ingersoll, Jullien, McClintock, Pflueger, Pujos, Ross, Scallon, Sprague.

Fellows, Miss Turnbull, Miss Tilden.

Scholars, Miss Ketcham, Miss Langer.

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 as the first literature course. Other literature courses open to them are 123, 136, and 137. Suitable courses which may be taken in addition to the above, or alone, are 16, 20, 124, and 127.

Students with less than three years of college French should consult the instructor before entering 122, 125, 126, 128, 131, 132, 133, or 139. These are intended primarily for students who have already taken one course above French 19.

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

Students are allowed to major in French or Spanish. An undergraduate major is not offered in Italian. In French the student must take at least 24 hours in advance of first year French; in Spanish twenty-two credits in advance of first year Spanish.

A student taking a second Romance language does not count it as a part of his major, nor is it counted in the maximum forty hours allowed in one subject.

Students expecting to teach French as a major must take a minimum of twenty hours in advance of second year French. They are required to take the following French courses: 90a, 90b, four credits in composition or conversation, and at least six credits in French literature.

Students expecting to teach Spanish as a major must take a minimum of twenty-two credits in advance of Spanish 1. They are required to take 90a and at least two credits in composition or conversation.

Minor

For a teaching minor in French there is required a minimum of twelve hours in advance of second year French. At least two credits in composition or conversation and at least three credits in some general course of French literature must be taken.

For a minor in Spanish ten credits in advance of second year Spanish are required. At least two credits in composition or conversation must be included.

Clubs

Students are selected from classes beyond French 10 and offered the privilege of joining conversational clubs which meet every Wednesday evening. These clubs are charged with the production of French plays, the casts of which are chosen from their members.

A similar organization exists for students in Spanish, meeting fortnightly on Tuesday evenings.

French House

A French House intended especially for intensive training in speaking French is maintained by the Department of Romance Languages. It is open to women students for room and board. Both men and women rooming outside the house may take their meals there. French young women reside in the house to aid in conversation, and they, with regular instructors, preside at the tables. The language of the house is French. This house is also the headquarters for the various French clubs. Students desiring to reserve places for either the summer session or the regular term should apply well in advance to the Department of Romance Languages.

FRENCH

I. LANGUAGE

For Undergraduates

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

1b. Second Semester French. I or II; 4 cr. Prerequisite: one semester of college French or its equivalent. Mr. Atkin and staff.

2. Elementary French. Yr.; 4 cr. For students who have had four years of Latin or German. Miss Gay.

10. Second Year French. Yr.; 3 cr. Prerequisite: one year of college or two years of high school French. Mr. Michell and staff.

To secure four or five credits French 10 should be combined with French 13, 14, 15 or 16.

12. Third Semester French. II; 4 cr. Prerequisite: French 1b. Mr. Michell and staff.

13. Rapid Sight-reading. Yr.; 1 cr. Except by special permission to be taken only with some other French course. Mr. Gillen, Miss Comstock.

14. French Composition. Yr.; 1 cr. Supplementary to French 10 or 11; and except by special permission, to be taken only with some other French course. Mr. Atkin.

15. French Conversation. Yr.; 1 cr. Except by special permission, to be taken only with some other French course. Mr. Giese and staff.

16. Conversation and Reading. Yr.; 1 or 2 cr. Prerequisite: French 15 or its equvalent. Miss Conrad, Miss Fabin, Mrs. Greenleaf.

18. French Journalism. Yr.; 1 cr. in French and 1 cr. in journalism. For students in Course in Journalism who have had French 1b or its equivalent. Mr. Cardon.

20. Advanced Reading. Yr.; 2 cr. Continuation of French 11. Mr. Shanks.

90a. Theory and Practice of Teaching of French and Spanish. I; 2 cr. Mr. Smith, Miss Johnson.

90b. Teachers Course. Phonetics. II; 2 cr. French pronunciation. Elementary phonetics with special attention to needs of teachers. Mrs. Greenleaf.

6C. Elementary French. Yr.; 4 cr. For students in commerce. Mr. Raney.

17C. Second Year French. Yr.; 3 cr. For students in commerce. Mr. Raney.

29C. Third Year French. Yr.; 2 cr. For students in commerce. Mr. Raney.

30C. Fourth Year French. Yr.; 2 cr. For students in commerce. Mr. Raney.

For Undergraduates and Graduates

124. Composition and Conversation. Yr.; 2 cr. Conducted in French. Based on nineteenth century prose authors. Miss Gay, Miss Fabin.

127. Advanced Conversation. Yr.; 2 cr. Open to students who have had two or more years of French, upon consultation with instructor. Mrs. Greanleaf, Miss Fabin.

II. LITERATURE

For Undergraduates

21. Elementary Survey. Yr.; 3 cr. Seventeenth, eighteenth, and nineteenth centuries. Class reading and lectures. Four sections. Mr. Giese, Mr. Atkin, Mr. Michell.

50CL. Masterpieces of Romance Literature in Translation. Yr.; 2 cr. Mr. Schlatter. See Comparative Literature 50.

For Undergraduates and Graduates

122. French Literature of the Nineteenth Century. Yr.; 2 cr. Conducted mainly in French. Mr. Giese.

123. Modern French Drama. Yr.; 3 cr. Beginning with the Romantic movement. Class reading and lectures. Mr. Smith.

125. Contemporary French Literature. Yr.; 3 cr. Novel and drama. Conducted in French. Mr. Cardon.

126. French Poetry. II; 3 cr. From the sixteenth century to the present day. Follows French 133. Conducted in French. (Omitted 1919–20.) Mr. Cardon.

128. French Prose Writers of the Seventeenth Century. II; 3 cr. (Omitted 1919–20.) Mr. Atkin.

131. General Survey of French Literature. Yr.; 3 cr. Mr. Reed.

132. French Literature of the Eighteenth Century. II; 3 cr. Mr. Michell.

133. Victor Hugo. I; 3 cr. Dramas, novels, poems. Followed by French 126. Conducted in French. (Omitted 1919–20.) Mr. Cardon.

136. The French Novel. I; 3 cr. (Omitted 1919–20.) Mr. Shanks.

137. Molière. II; 3 cr. (Omitted 1919–20.) Mrs. Greenleaf.

138. Survey of French Drama from the Renaissance to the Romantic School. I; 3 cr. Mr. Smith.

139. French Drama of the Seventeenth Century. I; 3 cr. Mr. Zdanowicz.

100. Thesis Course. Yr.; 2 cr. Open only to seniors and graduates. Mr. Giese.

For Graduates

I. LANGUAGE

240. Old French. Yr.; 2 hours. An introductory course. Miss Gay.

244. Old Provençal. Yr.; 2 hours. Language and literature of the troubadours. Mr. Reed.

249. Chrétien de Troyes. Yr.; 2 hours. Prerequisite: French 240 or its equivalent. (Omitted 1919–20.) Miss Gay.

II. LITERATURE

242. Old French Epic Poetry. Yr.; 2 cr. (Omitted 1919–20.) Mr. Smith.

243. Seminary in Old French Literature. Yr.; 2 cr. A general survey of the Brittany Cycle; *Tristan*, Marie de France, and the Arthurian Romances, including only cursory treatment of Chrétien de Troyes. (Omitted 1919–20.) Mr. Smith.

246. Seminary in Old French. Yr.; 2 cr. French paleography with practice from manuscripts based upon the critical text of *Godefroi de Bouillon*. (Omitted 1919–20.) Mr. Smith.

247. Rabelais and Montaigne. Yr.; 2 cr. Miss Gay.

248CL. Medieval Literature. Yr.; 2 cr. Beginning of the influence of the French and Provençal literatures. Mr. Reed.

250CL. The Renaissance in Romance Countries. Yr.; 2 cr. Mr. Cerf. See Comparative Literature 250.

252CL. Seminary in Ancient French Drama. Yr.; 2 cr. Religious and secular drama from the origins to the middle of the sixteenth century. Mr. Smith.

253. Seminary in French Literature. Yr.; 2 cr. Classicism. Mr. Giese.

254. Seminary in French Literature. Yr.; 2 cr. Romanticism. (Omitted 1919–20.) Mr. Cerf.

ITALIAN

I. LANGUAGE

For Undergraduates and Graduates

1. Elementary Italian. Yr.; 3 cr. Mr. Showerman.

105. Italian Conversation. Yr.; 2 cr. Open to students who have had some work in Italian. (Omitted 1919–20.) Mr. Schlatter.

II. LITERATURE

For Undergraduates and Graduates

102. Italian Literature. Yr.; 3 cr. Mr. Michell.

160. Dante. Yr.; 3 cr. The *Divine Comedy*. Mr. Michell.

PORTUGUESE

271. Portuguese Language and Literature. II; 2 cr. 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. Reed and staff.

10. Third Semester Spanish. II; 4 cr. Prerequisite: Spanish 1b or its equivalent. Mr. Cool and staff.

12. Second Year Spanish. Yr.; 3 cr. Prerequisite: Spanish 1b or its equivalent. Mr. Cool and staff.

15. Elementary Conversation. Yr.; 1 cr. Supplementary to Spanish 12 or 17C. To be taken only in connection with some other Spanish course, except by consent of the instructor. 3 sections. Mr. Ortega, Mr. Galway.

16. Composition and Conversation. Yr.; 2 cr. Prerequisite: Spanish 15 or its equivalent. To be taken only in connection with some other Spanish course, except by consent of the instructor. 2 sections. Mr. Lyon, Mr. Ortega.

11. Spanish Life and Literature. Yr.; 2 cr. A lecture and reading course conducted in Spanish. Prerequisite: Spanish 12 or 17C or equivalent. Mr. Cool.

17C. Second Year Commerce. Yr.; 4 cr. Open to other than commerce students only by special permission. Mr. Cool and staff.

27C. Third Year Commerce. Commercial letter writing. Yr.; 2 cr. Mr. Cool.

28C. Fourth Year Commerce. Yr.; 2 cr. Mr. Cool.

II. LITERATURE

For Undergraduates and Graduates

102. Spanish Contemporary Novel and Drama. Yr.; 3 cr. Conducted mainly in Spanish. Prerequisite: two years of Spanish, except by permission of the instructor. Mr. Ortega.

103. Spanish Lyric Poetry. II; 3 cr. From the origins up to the present time. Conducted mainly in Spanish. Prerequisite: two years of Spanish, except by permission of the instructor. Mr. Ortega.

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 17C or equivalent. Mr. Cool.

For Graduates

270. General Survey. Yr.; 2 cr. From the origins to the death of Calderón. Mr. Reed.

VULGAR LATIN

272. Origins of the Lingua Vulgaris. Yr.; 2 cr. (Omitted 1919–20.) Mr. Reed.

273. Romance Philology. Yr.; 2 cr. The differentiation of the *Lingua Vulgaris* into Spanish, Provençal, and Italian. Mr. Reed.

SCANDINAVIAN LANGUAGES

PROFESSOR OLSON (chairman); INSTRUCTOR HOLLANDER.

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 Litterturhistorie* and Prestgard's *Norske Kvad*.

61. Swedish Literature. Yr.; 2 cr. Tegner's *Frithiofs Saga*, Runeberg's *Fänrik Stals Sägnerr*, Warburg's *Svensk Litteraturhistoria*. 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 former was 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. Wegeland, 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).

Fellow, Mr. Anderson.

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 (biblical and post-biblical).

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 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. Foreign Language*). Courses in Hellenistic Greek in advance of the first-year may be substituted for other foreign languages 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 in this department, however, will not be counted as a part of the 40 credits allowed as a maximum in any one department; and the amount of work required will be subject to increase and variation, depending upon the progress and needs of the individual student.

GENERAL COURSES, 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 Maccabean 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. Lectures and assigned readings. Content of the literature of the Bible, Mishnah, Talmud, and Rabbinic literature. Relation of Old and New Testaments to other Hebrew and Jewish literature. Mr. Wolfenson.

LINGUISTIC COURSES

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 additional work assigned by the instructor, may be given graduate credit.

7. Hebrew 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. The general facts of historical and practical syntax. 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. Comparative grammar and lexicography of Semitics introduced. 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. Anderson.

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 1918–19. 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; Instructor Smith; Assistants Bishop, Chase, Cole, Ibsen.

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, 102, 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.

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.

For other courses in heredity see 107; botany 156; genetics 101.

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.

21. Ornithology. II; 2 cr. Mr. Wagner.

90. The Teaching of Zoology. II; 2 cr. Mr. Pearse.

100. Thesis Course. For undergraduates.

For Undergraduates and Graduates

102. 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 3, Chemistry 1. (Omitted 1918–19.)

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. 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, foodstuffs, and the materials that enter into clothing, buildings, and other structures. Both the raw materials and the finished products need careful inspection, and in many cases the various steps in the processes of modern manufacture require the guidance of a chemist.

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. During the war women amply demonstrated their ability as chemists in the industries and

have in this way no doubt created a permanent demand for their services in chemical lines.

Requirements for Admission

See pp. 96ff.

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 will 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 lan-

guages may satisfy the graduation requirement 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 credits and an equal number of grade points are required for graduation. As the work outlined is necessarily difficult in character, students will often find it advantageous to absolve a part of the required studies during one or more summer sessions.

During the freshman year the work carried by the student amounts to fifteen credits per semester, while during the last three years of the course an average of about seventeen credits per semester must be obtained.

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.

Courses of Study

All Courses

Freshman Year

	Both Semesters Credits		Credits
Chemistry 1	5	English	3
Mathematics 1*	3		—
German or French	4	Total	15

* Mathematics 2, 3 cr. takes the place of Mathematics 1 second semester.

General Course

Sophomore Year

First Semester	Credits	Second Semester	Credits
Chemistry 11	5	Chemistry 11	5
German or French	4	German or French	4
Physics 1Sc	5	Physics 1Sc	5
Mathematics 5 or Geology 7	3	Mathematics 3 or 5, or Bacteriology 1*	3
Total	17	Total	17

Junior Year

Both Semesters

Chemistry 120	5	Electives†	3 to 7
Chemistry 130	5		
German or French	4	Total	17 or 18

Senior Year

First Semester		Second Semester	
Thesis	2	Thesis	2
Chemistry 113	1	Chemistry 107	1
Chemistry 114	1	Chemistry, elective	5
Chemistry 119	3	Assaying 121	2
Chemistry 107	1	Electives	7
Electives	9		
Total	17	Total	17

* Drawing 1 or 2, 3 cr. may be substituted for the Mathematics of the second semester.

† Students who took Mathematics 5 in sophomore year must take Geology 7, 3 cr. in first semester and Bacteriology 1, 3 cr. in second semester which leaves 1 hr. each semester for an elective.

Course for Industrial Chemist.

Sophomore Year

First Semester	Credits	Second Semester	Credits
Chemistry 11	5	Chemistry 11	5
German or French	4	German or French	4
Physics 1Sc	5	Physics 1Sc	5
Mathematics 5 or Geology 7	3	Mathematics 5* or Bacteriology 1	3
Total	17	Total	17

Junior Year

Both Semesters

Chemistry 120	5	Chemical Engineering 111 (II)	2
Chemistry 130	5		
German or French	4	Total	18
Chemical Engineering 12a (I) or (II)	2		

Senior Year

First Semester		Second Semester	
Thesis	2	Thesis	2
Chemistry 113	1	Assaying 121	2
Chemistry 119	3	Chemical Engineering 111	2
Chemical Engineering 15	2	Bacteriology 1	3
Chemistry 107	1	Chemistry 107	1
Chemical Engineering 114a	4	Electives	7
Electives	4		
Total	17	Total	17

* Drawing 1 or 2, 3 cr. may be substituted for Mathematics 3 or 5.

Course for Agricultural Chemist

Sophomore Year

Both Semesters

	Credits		Credits
Chemistry 11	4	Physics 1Sc	5
German or French	4		
Biology 1	5	Total	18

Junior Year

First Semester		Second Semester	
Chemistry 120	5	Chemistry 120	5
German or French	4	German or French	4
Electives	8	Agricultural Chemistry 1	5
		Agricultural Bacteriology 1	3
Total	17	Total	17

Senior Year

Thesis	2	Soils 1	5
Chemistry 130	5	Thesis	2
Agricultural Chemistry (electives)	5	Agricultural Chemistry (electives)	3
Electives	5	Chemistry 130	5
		Electives	2
Total	17	Total	17

Course for Soil Chemist

Sophomore Year

Chemistry 11	5	Chemistry 11	5
German or French	4	Soils 1	5
Physics 1Sc	5	Physics 1Sc	5
Geology 7	3	Electives	2
Total	17	Total	17

Junior Year

First Semester	Credits	Second Semester	Credits
German or French	4	German or French	4
Chemistry 120	5	Chemistry 120	5
Soil Analysis 121	5	Bacteriology 1	3
Electives	3	Electives	5
Total	17	Total	17

Senior Year

Thesis	2	Thesis	2
Chemistry 130	5	Soils (electives)	2 to 5
Chemistry 107	1	Agricultural Chemistry (electives)	5
Geology 1	5	Chemistry 130	5
Electives	4	Chemistry 107	1
Total	17	Total	17

Course for Physiological Chemist

Sophomore Year

Same as for Agricultural Chemist.

Junior Year

First Semester		Second Semester	
German or French	4	German or French	4
Chemistry 120	5	Chemistry 120	5
Physiology 1	3	Chemistry 130	5
Chemistry 130	5	Physiological Chemistry 104	4
Total	17	Total	18

Senior Year

First Semester	Credits	Second Semester	Credits
Thesis	2	Bacteriology 1	5
Physiological Chemistry 117	4	Physiological Chemistry 120	1
Toxicology 101, 102	2	Botany 111	3
Physiological Chemistry 100	2	Chemistry 156	5
Electives	7	Thesis	2
		Electives	1
Total	17	Total	17

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

German or French	4	German or French	4
Chemistry 120	5	Chemistry 120	5
Botany 110	3	Botany 133	3
Chemistry 119	3	Chemistry 146	5
Electives	2		
Total	17	Total	17

Senior Year

Thesis	2	Thesis	2
Chemistry 113	1	Toxicology 101	1
Chemistry 114	1	Toxicology 102	1
Chemistry 130	5	Chemistry 107	1
Chemistry 107	1	Chemistry 130	5
Electives	7	Physiological Chemistry 104	4
		Electives	3
Total	17	Total	17

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

See p. 67.

Charges and Fees

See pp. 70ff.

COURSE IN COMMERCE

W. A. Scott, Director, Professor of Economics.

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 pp. 96ff.)

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, 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. 259. Without special permission of the Dean no student may take courses aggregating fewer than 14 credits per se-

mester. 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. 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 economics, 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, advertising and marketing, transportation and public utilities, general secretarial work, commercial secretarial work, 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 opportunities 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

First Semester	Credits	Second Semester	Credits
Physical Geography (Geology 5c)	3	Economic Geography (Geology 5c)	3
Foreign Language	4	Foreign Language	4
English 1a	3	English 1b	3
Mathematics 1	3	Mathematics 7	3
History 6	3	History 6	3
Total	16	Total	16

Sophomore Year

First Semester	Credits	Second Semester	Credits
Commercial Correspondence	2	Foreign Language	4
Foreign Language	4	Natural Science	5
Natural Science	5	Money and Banking	3
Elementary Economics	4	Elements of Accounting	2
Elements of Accounting	2	Free Elective	3
Total	17	Total	17

Junior Year

	Credits		Credits
Transportation	3	Business Administration	2
Theory and Practice of Accounting	2	Foreign Language	0 or 4
Business Administration	2	Elective Group	5
Foreign Language	0 or 4	Free Electives	6 or 10
Elective Group	5		
Free Electives	0 or 4		
Total	17	Total	17

Senior Year

	Credits		Credits
Commercial Law	4	Commercial Law	4
Elective Group	5	Elective Group	5
Free Electives	7	Free Electives	7
Total	16	Total	16

ELECTIVE GROUPS*

Banking and Finance

Financial History of the U. S., 3; Money Markets, 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.

---

* 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.

Advertising and Marketing

Buying and Credits, 2; Marketing Methods, 2; Sales Administration, 2; Statistics, 3; Factory and Office Administration, 2; Psychological Principles of Advertising, 2; Retail Advertising, 2; Advertising Campaigns, 2; 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.

General Secretary

Factory and Office Administration, 2; Buying and Credits or Marketing Methods or Sales Administration or Corporation Finance, 2 or 3; Advanced Commercial Correspondence, 2; Retail Advertising, 2; Statistics, 3; Publicity and Printing, 2 or 3; Stenography and Typewriting*; 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.

---

* Unless instruction in these subjects is provided by the University, students will be expected to procure it outside.

Real Estate

Marketing Methods, 2; Sales Administration, 2; Advertising Campaigns, 2; Retail Advertising, 2; Commercial Statistics, 3; 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 less, 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 above, 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, Director, Professor of Journalism.

Purpose and Plan of the Course

The studies included in the Course in Journalism are of two 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 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.

The technical work includes courses in reporting, editing, the writing of special feature and magazine articles, editorial writing, the country newspaper, the history and principles of journalism, and the technique of printing. Courses are offered in the psychological principles of advertising, the methods of retail advertising, national advertising campaigns, and the writing of advertising booklets. Representative French newspapers are studied in special courses for journalism students, given by the Romance Language Department. Courses in cartooning and in drawing for illustrations are offered by the Department of Manual Arts.

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, 1919–20," which may be had on application to the Director.

Advertising

Students can secure special training in preparation for advertising positions by combining courses in journalism with those in advertising. The normal arrangement of these courses during the four years is as follows: Freshman year, General Survey of Journalism (Journalism 1); Sophomore year, Reporting and Correspondence (Journalism 2), Psychology of Advertising (Philosophy 19); Junior year, Editing (Journalism 3); Special Feature Writing (Journalism 105), and Commercial Correspondence (English 4); Senior year, History and Principles of Journalism (Journalism 110), the Writing of Advertising Booklets (English 11), Retail Advertising (Economics 15), Advertising Campaigns (16), and the Law of the Press (Political Science 128).

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 in 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.

Agricultural Journalism

Courses in agriculture and agricultural journalism given in the College of Agriculture can be combined with those in the Course in Journalism by students who desire special training in preparation for positions on farm journals.

The normal arrangement of courses in journalism for students in the Colleges of Letters and Science and Agriculture

who are preparing for agricultural journalism is as follows: Freshman year, General Survey of Journalism (Journalism 1); Sophomore year, Reporting and Correspondence (Journalism 2); Junior year, Editing (Journalism 3), and Special Feature and Magazine Writing (Journalism 105); Senior year, Principles of Journalism (Journalism 110), Editorial Writing (Journalism 104), Agricultural Journalism 1 and 4, Advertising (Economics 15 and 16), The Law of the Press (Political Science 128).

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 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 adjoining the laboratory is 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 three 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 an evening 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, and

the *Badger*, the university annual edited and published by the members of the junior class, both 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; the *Wisconsin Country Magazine*, a monthly edited and managed by the agricultural students; and the *Commerce Magazine*, a quarterly 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 pp. 96ff.)

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.

The requirement for graduation from the Course in Journalism is 120 credits, the number required for the degree of bachelor of arts in the College of Letters and Science. (See p. 121.)

The degree of Bachelor of Arts, Course in Journalism, is granted to students who complete the four-year course.

Arrangement of Courses

The Course in Journalism consists of both required and elective courses. 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, economics, 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 number in parentheses is 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; Psychology of Advertising (19), 2, II; Introduction to the Study of Literature (32), 3; General Survey of English Literature (30), 3; History of the United States (4), 3; Elements of Economics (1), 4, I, II; Elements of Money and Banking (5), 3; 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; Commercial Correspondence (English 4) 2, II; Law of the Press (Political Science 128), 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; Statistics (130), 3, I; Problems of Taxation (124), 2, II; History of New England (113), 3, II; Psychology (1), 3, I; Ethics (41), 3, II; Introduction to Philosophy (21), 3, II; Logic (11), 2, II.

Senior Year

Editorial Writing (Journalism 104), 2; History and Principles of Journalism (Journalism 110), 3; The Country Newspaper (Journalism 7), 2, I; Retail Advertising (Economics 15); Thesis, 2; History of the West (111), 3; Nineteenth Century Europe (139), 3, II; Diplomatic History of the United States (115), 2; Recent History of the United States, (124), 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; Municipal Functions (114), 2, II; Municipal Government in Europe and the United States (115), 3, II; Contemporary International Politics (19), I; Social, Political, and Business Ethics (42), 2; Philosophic Thought in Nineteenth Century English Literature (153), 2, II; History of Modern Philosophy (32), 3, 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 studies other than those outlined above, e. g., 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 French and German, 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 pre-

pare 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 Chemistry Building. On the third floor, they consist of a dispensary, a laboratory for analytical purposes, and a laboratory for general pharmaceutical chemistry; on the fourth floor, of 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 p. 65.

Libraries

See p. 67.

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.

Wisconsin Pharmaceutical Research Fund

Recognizing the ever growing importance of research to the science and art of pharmacy, the Pharmaceutical Alumni of the

University have established a fund, known as the Wisconsin Pharmaceutical Research Fund of the University of Wisconsin. The first contributions to the fund, amounting to $1,000, were presented in June, 1917, and accepted by the Regents in the name of the University. Half of the income of this fund is devoted directly to pharmaceutical research while the remainder goes to augment the principal.

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 Admisson.

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 degrees upon candidates who have a baccalaureate degree.

Fees and Expenses

The tuition and laboratory fees and an estimate of expenses for board and lodging are given on previous pages. (See pp. 70ff.)

Outline of Two Year Course

First Year

First Semester	Credits	Second Semester	Credits
Botany 1	5	Botany 130	4
Botany 35	1	Chemistry 1	5
Chemistry 1	5	Chemistry 11	2½
Pharmacy 1	3	Chemistry 17	2½
Pharmacy 20	3	Pharmacy 1	3
Pharmacy 40	1	Pharmacy 40	1
Total	18	Total	18

Second Year

First Semester		Second Semester	
Chemistry 20	4	Chemistry 27	5
Chemistry 26	4	Chemistry 40	3
Chemistry 40	3	Botany 111	3
Botany 110	3	Botany 32	2
Botany 32	2	Pharmacy 30	4
Pharmacy 121	2	Chemistry 45	1
Pharmacy 50	1	Pharmacy 50	1
Thesis	2	Thesis	2
Total	21	Total	21

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, 17 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, 27 and 40; 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.

Pharmaceutical Experiment Station

In accordance with an act passed by the legislature in 1913, a Pharmaceutical Experiment Station has been established in connection with the Department of Pharmacy. The object of the Station, as outlined by the law establishing it, is two-fold:

(1) To cooperate with the Bureau of Plant Industry of the Department of Agriculture in the maintenance of the northern station for the cultivation of medicinal plants and to disseminate such information as may lead to the proper cultivation of medicinal plants and the production of high grade vegetable drugs in this state; and

(2) To serve the public at large by cooperation with both pharmacists and physicians in securing for the sick the best medicines that pharmaceutical science and art can provide, and further by cooperation with the State Board of Pharmacy, the

State Board of Health, and the Dairy and Food Commission, to bring about these results.

The staff of the Experiment Station is made up of members of the faculty of the Department of Pharmacy. In addition, a pharmacognosist and a government expert, the latter supplied by the Bureau of Plant Industry, devote their entire time to the work of the station. A garden of about forty acres for the scientific cultivation of medicinal plants and a laboratory for the investigation of problems connected with the preparation and testing of crude drugs, pharmaceutical preparations and chemicals are maintained.

Reports on the work of the Experiment Station are published from time to time and distributed to persons interested. For copies of these reports application should be made to the Director.

Fritzsche Brothers Fellowship

Through the generosity of the Fritzsche Brothers of New York City the Experiment Station has enjoyed a fellowship of $500 for the academic years 1917–18 and 1918–19. This fellowship is devoted to the investigation of problems growing out of the cultivation of the Monardas.

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 in two ways:

(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 20 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 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 li-

brary 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 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

See pp. 70ff.

Course of Study and Credits

First Semester	Credits	Second Semester	Credits
Cataloguing	5	Reference	2
Classification	3	Library Economy	2
Reference	2	Subject Bibliography	3
Evaluation and Selection of Books	2	Evaluation and Selection of Books	2
Trade Bibliography and Bookbuying and Ordering	1	Children's Literature	1
Loan Administration	1	Administration	1
Library Economy	1	Documents	1
		Field Practice	3
Total	15	Total	15

The thesis for joint course students will be under the direction of the university department in which the student chooses his 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, 20 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 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 li-

brary 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. Beginning with the school year 1919–20, 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 school's quarters in the Madison Free Library building. It is a year course carrying two credits each semester 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 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.

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 major subject, a major subject and one minor subject, or a major subject and two minor subjects.

To fulfill the requirements of preparation for teaching 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. 285ff, 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. 285ff, 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 health and physical 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 Depart-

* Except for normal school graduates; see the following notes 3, 4, and 6.

ment 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, 108, 110, 112, 113, 144, 145.

(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, and a total of one hundred and twenty-eight credits for graduation.

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.

(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. Agricultural 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. 285, Home Economics, p. 289).

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. Information concerning the provisions of the law may be obtained 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 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 Train-

ing 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 education, and upon presenting credit in the following special work: psychology (Philosophy 1), three cr., Education 1, 6, 11, or 41, two cr., Educational Practice A, two cr., Agricultural Education 1, four cr., teachers courses in the College of Agriculture but not in the major department, (Agronomy 140, Animal Husbandry 128, and Dairy Husbandry 110), four cr.

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 for 2 cr., Agricultural Education 90, Agronomy 140 and Animal Husbandry 128, and who meet elective requirements from the

following group of subjects 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: Agronomy 120, 3 cr.; Agricultural Engineering 2, 3 cr.; Economic Entomology 101, 3 cr.; Veterinary Science 3, 2 cr.; Horticulture 3, 3 cr.; Poultry 2, 2 cr.; Soils 2, 3 cr.; Veterinary Science 2, 2 cr.; Agricultural Economics 10, 3 cr.

Departmental Teachers Course. Agricultural Education 90, 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 90. 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

Major. A minimum of twenty-four selected credits exclusive of thesis.

Departmental Teachers Course. The Department of Economics does not offer a regular departmental teachers course, but will accept a teachers course in a related subject, such as history.

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. 279–84.

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, 90a, 90b, 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; 90a, and an ad-

vanced composition course in the sophomore or junior year, (2, 3a and 3b, 5, or 6); and one of the following groups: (a) 34 and 35; (b) 36 or 137; (c) 40.

Departmental Teachers Courses. English 90a. The Teaching of English. I; 2 cr. Mr. Pendleton.

English 90b. The Teaching of English. II; 2 cr. Mr. Pendleton.

French

See under Romance Languages.

Geology

See under Physiography and Geography.

German

Major. A minimum of twenty-four credits in advance of course 2b. In addition to the thesis, these twenty-four credits must include courses 10 or 112, 90a, 90b, 130 or 131, 150 and 151. For the maximum number of credits that may be elected, see p. 185.

Minor. Courses 10 or 112, 90a, and at least four credits in literature from courses 21 to 28, 130 or 131.

Departmental Teachers Courses. German 90a. The Teaching of German. Methods. For seniors and graduates. I; 2 cr. Mr. Aron.

German 90b. The Teaching of German. Phonetics. For seniors and graduates. II; 2 cr. Mr. Aron.

Students who are preparing to teach German as their major or minor subject and have done a considerable amount of work elsewhere, or who 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.

Government

See under Political Science.

Greek

Major. A minimum of twenty-two semester hours (not including courses 5a, 5b, and 7), in addition to the thesis.

Minor. A minimum of courses 10, 11 and 20.

Departmental Teachers Course. The Department of Greek does not offer a regular departmental teachers course. Latin 116 is recommended to candidates who desire to teach Greek.

History

Major. A minimum of thirty credits, of which at least sixteen must be in advanced courses and thesis, and in addition course 90a.

Minor. A minimum of sixteen credits in addition to course 90b. These sixteen credits must include at least four in advanced courses.

Departmental Teachers Courses. History 90a. The Teaching of History. I or II; 2 cr. Mr. Chase.

History 90b. Supplementary Reading for High School Teachers of History. II; 2 cr. Mr. Chase.

Home Economics

Major. In the general major, the food major, the textile major, or the vocational major (the long course) the minimum requirements in home economics subjects taken during the junior and senior years are twenty-six, four of which represent thesis credit. The special courses vary with the major, but not more than forty strictly home economics credits may be counted toward the 120 credits required for graduation. During the sophomore year three credits in psychology (Philosophy 1) should be taken, and during the junior and senior years seven credits in education, of which two may be in departmental teachers courses. For those preparing to teach in high schools and vocational schools Education A should be elected. A minimum of ten credits of professional work, including psychology (Philosophy 1), is required for the University Teachers Certificate in home economics.

Minor. A minimum of fifteen to twenty credits. A minor may be taken in foods, textiles, or housing problems.

(1) A teaching minor in food must include the teachers course, in addition to Home Economics 1a, 3, 4, and such other related courses as to make fifteen to twenty credits in strictly home economics subjects.

(2) A teaching minor in textiles must include the teachers course, Home Economics 2, 5, 50, 11, and other courses in home economics to complete twenty credits. A non-teaching minor may include the teachers course.

(3) The housing minor is offered to students majoring in sociology in order that those intending to do social settlement work, or social welfare work, will have a broad foundation knowledge of the fundamental problems in housing. Home Economics 1a, 1b, 70, 74, and 123 are included in the minor. Bacteriology 4 and Physics 1 are prerequisites.

Departmental Teachers Courses. Home Economics 121. The Teaching of Home Economics in High Schools. Prerequisite: A major or minor in home economics. 2 cr. Miss Binzel, Miss Dodge.

Home Economics 92. Organization of Courses in Sewing and Textiles. 2 cr. May be taken for additional credit beyond the minimum required for the Teachers Certificate. Miss Dodge.

Home Economics 124. Vocational Education. History and Methods. 2 cr. Miss Schmit, Miss Madison.

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 Turvill, Miss Merrill, Miss Birge, and other members of the instructional staff of the Library School.

See detailed statement, page 274, and also statement on page 172.

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 90, 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 90, and either 15, 70 or 71, or selected substitutes.

Departmental Teachers Course. Manual Arts 90. 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 90b is open to those who offer mathematics as a major, and is recommended as a desirable course for the junior year; (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 90a is required of all who offer mathematics as their principal minor; course 90b is open to such students and is recommended as a desirable course for the

junior year; (c) a knowledge of solid geometry obtained in the secondary school or elsewhere.

Departmental Teachers Courses. Mathematics 90a. The Teaching of Mathematics. I; 2 cr. Mr. Hart.

Mathematics 90b. 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, provided (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. Starch, Mr. Hull. II; 3 cr. Mr. Starch.

Physical Education

(See also p. 217.)

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), 55, 56, 59, 63, 68, 90, 107, 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 16, 80, 21–50 and 107.

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 Course. 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, 90 (three credits), and 21–50 (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, 21–50, 55 and 80. Prerequisites are zoology or chemistry, Physiology 1 and Philosophy 1, and elementary education at least three credits.

Departmental Teachers Course. Physical Education 90. Principles of Teaching and Adaptation. II; 3 cr.

Physics

Major. A minimum of twenty credits in approved courses.

Minor. A minimum of ten credits in approved courses.

Departmental Teachers Course. Physics 90. 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 Geography including course 110a.

Minor. A minimum of twelve credits in approved courses in the Department of Geography including course 110a.

Departmental Teachers Course. Geology 90a. The Teaching of Physical Geography. I; 2 cr. Mr. Whitbeck.

Geology 90b. 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 Science

Major. A minimum of twenty-one credits, in addition to the thesis, in approved courses, and including course 90.

Minor. A minimum of sitxeen credits in approved courses.

Departmental Teachers Course. Political Science 90. The Teaching of Government. II; 2 cr. Mr. Hall.

Public Speaking

Major. A minimum of twenty credits in addition to thesis and courses 90a and 90b.

Minor. A minimum of sixteen credits in approved courses.

Departmental Teachers Courses. Public Speaking 90a. Teachers Problems in Reading and Dramatics. (Open only to graduates and senior major and minor students in public speaking). I; 2 cr. Mr. Weaver and staff.

Public Speaking 90b. Teachers Problems in Speech-Making and Debate. (Open only to graduates and senior major and minor students in public speaking). II; 2 cr. Mr. Weaver and staff.

Romance Languages

FRENCH

Major. A minimum of twenty credits in advance of second-year French. The following courses are required: Course 90a, 90b, four credits in composition or conversation, and at least six credits in French literature.

Minor. A minimum of twelve credits in advance of second year French. At least two credits in composition or conversation and at least three credits in some general course in French literature must be taken.

SPANISH

Major. A minimum of twenty-two credits in advance of Spanish 1. The following courses are required: Course 90b and at least two credits in composition or conversation.

Minor. A minimum of ten credits in advance of second-year Spanish. At least two credits in composition or conversation must be included.

Departmental Teachers Courses. French 90a. Pronunciation and Phonetics. I; 2 cr. Mrs. Greenleaf.

French and Spanish 90b. Theory and Practice of Teaching. II; 2 cr. Mr. Smith, Miss Johnson.

Spanish

See under Romance Languages.

Zoology

Major. A minimum of twenty credits from the following courses: Zoology 1a, 1b, 11, 9, 19, 102, 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 90. 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.

Training of Teachers Fellowships

See Undergraduate School.

Industrial Scholarships

For the purpose of encouraging advanced study and special professional preparation for teaching in industrial vocational schools, the Regents have established four Industrial Scholarships to be awarded to senior or graduate students in the University of Wisconsin. Each scholarship has an annual value of two hundred dollars. 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.

Further details concerning these scholarships may be obtained from the Chairman of the Department of Manual Arts.

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 the Chairman of the Department of Manual Arts. (Not held 1918–1919.)

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 candidates for the bachelor of arts degree, must present a minimum of six university credits in education, and a total of one hundred and twenty-eight credits for graduation.

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. Those who desire to elect foreign language are given an opportunity to secure a reading knowledge of professional German, French, and Spanish literature. Special attention is given to the subject of English composition.

Requirements for Admission to the Courses Leading to the B. S. Degree

See pp. 96ff.

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 essen-

The College of Engineering Circular, giving detailed information concerning the College, may be obtained upon application to the Registrar of the University.

tial 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 wih 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.

Foreign Language

Students who enter with less than two years of foreign language will be required to complete eight extra credits in foreign language, English or history (a total of 160 credits) before graduation.

Students who offer two or more years of foreign language for entrance will not be required to take additional foreign language in the University, but this subject may be taken as an elective in any one of the engineering courses.

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

See pp. 70ff.

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 to the Physics Building, 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 67. 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 Laboratories are equipped for technical gas and fuel examinations, the equipment comprising all standard forms of analytical apparatus, gas and fuel calorimeters. Steam stills, rectifying 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 Laboratory equipment may be classified under the headings: Dynamo, Photometric, Electric Standards, High Tension, Telephonic, Radio, and General Research Equipment.

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 adjoins the hydraulic laboratory, provides 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 connected 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 automobile 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, baseline apparatus, including a new "invar" tape, current meters, transits, compasses, levels, plane tables, 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, chonograph, sidereal and mean-

time 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, and a standard impact machine for testing the cementing power 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, recording thermometers, Boehme hammer, complete one-thousand-pound Riehlé and Fairbanks testing machines, etc.

The Forest Products Laboratory is conducted in co-operation 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 under Forest Products Laboratory. (See Index.) Its complete-

ness makes it possible to approximate commercial conditions much more closely than is done in the ordinary ladoratory work.

The investigative work of the laboratory includes the following fields: (1) Timber Physics, (2) Timber Tests, (3) Wood Preservation, (4) Wood Distillation, (5) Wood Pulp, (6) Chemistry of Wood, (7) Lumbering, and (8) Glues, Veneers and Plywood.

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.

War Department Courses

In the fall of 1918 the College of Engineering, in order to meet the needs of the War Department, offered two-year courses in Civil, Mechanical, Electrical, Chemical and Mining Engineering. The signing of the armistice led to the discontinuance of these courses at the end of the first quarter. Outlines of the courses may be found in the Engineering Bulletin.

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 a satisfactory thesis.

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.

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 make a week's visit to Milwaukee, Chicago, and points near by in the autumn of the senior year.

Mining engineers spend a considerable portion of two summer vacations in underground work in the different mining regions, and a very detailed report is submitted of their observation of conditions, methods, and operations in the district visited.

In metallurgy the students inspect the metallurgy works around Chicago, the trip lasting a week.

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 Lectures

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 year 1917–1918:

October 4, 1917.
Clyde B. Pyle, acting manager of erection of the McClintic-Marshall Company, Pittsburg, Pa.
"The Scioteville Bridge."

November 15, 1917.
Laurence H. Hart, consulting engineer of Buffalo.
"The New York State Barge Canal."

March 6, 1918.
Professor Duff A. Abrams, in charge of the Structural Materials Research Laboratory at Lewis Institute, Chicago.
"Recent Discoveries in Regard to Proportioning Concrete."

March 14, 1918.
Clare H. Hall, vice-president of the Patton Paint Company, Milwaukee.
"The Painting of Interior Walls and its Effect upon Lighting."

March 21, 1918.
Captain G. E. Schulz of the Ordnance Department, N. A.
"Scientific Management in Store Keeping."

April 23, 1918.
A. H. Krom, secretary of the American Association of Engineers, Chicago.
"The Work of the American Association of Engineers in Advancing the Position of the Engineer."

May 9, 1918.
Walter J. Parsons, Wis. '00, resident engineer for the H. Koppers Company, Pittsburg.
"The Erection of the Hell Gate Bridge."

May 21, 1918.
Arthur E. Van Hagan, Wis. '06, — '10, traffic engineer for the Michigan State Telephone Company, Detroit, Michigan.
"Equipping Camp Custer with a Telephone System."

OUTLINE OF ENGINEERING COURSES

CIVIL ENGINEERING COURSE

Leading to the B. S. Degree

Freshman Year

First Semester	Credits	Second Semester	Credits
Mathematics 51	5	Mathematics 52	5
Drawing 1	3	Drawing 2	3
Chemistry 2	3	Chemistry 2	3
English 1a	3	English 1b	3
Top. Engr. 1	2	Top. Engr. 2	2
Physical Education	1	Physical Education	1
Military Science	1	Military Science	1
Freshman Lectures	0	Freshman Lectures	0
Total	18	Total	18

Sophomore Year

First Semester	Credits	Second Semester	Credits
Mathematics 54	4	Mathematics 55	4
Physics 51	5	Physics 52	5
Drawing 3	3	Mechanics 1, 2	5
Top. Engr. 3	3	Top. Engr. 104	3
Ry. Engr. 1	2	Military Science	1
Military Science	1		
Total	18	Total	18

Topographical Engineering (Summer work), four weeks.

Junior Year

First Semester	Credits	Second Semester	Credits
Mechanics 3	5	Mechanics 52	2
Mechanics 51	2	Hyd. Engr. 110	2
Hyd. Engr. 2	4	Ry. Engr. 2	2
Ry. Engineering 2	3	Structural Engr. 2	4
Geology 9	3	Steam & Gas Engr. 7	2
Roads & Pavements 102	2	Economics 1a	4
Engr. Seminary	1	Engr. Seminary	1
		Elective	3
Total	20	Total	20

Railway Engineering (Summer work), two weeks.

Senior Year

First Semester	Credits	Second Semester	Credits
Structural Engr. 3	3	Engr. Contracts	2
Structural Engr. 105	3	Structural Engr. 4	2
Steam & Gas Engr. 127	2	Elect Engr. 149-150	4
Hyd. Engr. 111	3	Ry. Engr. 111	1
Engr. Seminary	1	Engr. Seminary	1
Thesis	1	Thesis	2 to 4
Elective	7	Elective	8 to 6
Total	20	Total	20

Requirements Concerning Elective Studies

At the beginning of the junior year, the student must elect to pursue one of the following groups of studies:

STRUCTURAL OPTION

Junior Year

		Credits	Semester
Mining Engr. 124	Metallurgy of Iron and Steel	2	I or II

Senior Year

Structural Engr. 3	Bridge Design, additional	1	I
Structural Engr. 107	Higher Structures	2	I
Structural Engr. 4	Bridge Design, additional	1	II
Structural Engr. 111	Reinforced Concrete Design	2	II
Structural Engr. 108	Secondary Stresses, or		
Mechanics 106	Advanced Mechanics	2	II

Mechanics 108

Additional Suggested Electives

Structural Engr. 106, 109, 112

RAILWAY OPTION

Ten credits to be elected from the following group:

		Credits	Semester
Ry. Engr. 103	Maintenance of Way	2	II
Ry. Engr. 105	Economics of Railway Engineering	2	I
Ry. Engr. 107	Advanced Design	2	I or II
Ry. Engr. 108	Signaling	2	II
Ry. Engr. 112	Valuations	2	II
Elect. Engr. 129	Electric Railways	2	II
Min. Engr. 101	Excavation and Tunneling	3	I
Economics 135	Railway Transportation	3	I or II
Economics 136	Railway Rate and Traffic Problems	3	I or II

HYDRAULIC OPTION

Hyd. & San. Engr. 102	Hyd. Machinery Testing	2	I
Hyd. & San. Engr. 104	Water Power Engr.	3	I
Sanitary Engr. 105	Hyd. Machinery	2	II
Sanitary Engr. 112	Sewerage, Drainage & Irrigation	3	II
Sanitary Engr. 113a and 113b	Hyd. Design	4	I or II

MUNICIPAL OPTION

The following courses are required:

Junior Year

		Credits	Semester
City Planning 101	City Planning	2	I
Hygiene 108	Sanitary Bacteriology	4	II

Senior Year

		Credits	Semester
Hydraulic & Sanitary Engr. 112	Sewerage, Drainage, Irrigation	3	II

HIGHWAY OPTION

		Credits	Semester
Highway Engr. 103	Seminary	3	II
Highway Engr. 104	Laboratory	3	II
Struct. Engr. 112	Highway Bridges	2	II
Chem. Engr. 121	Lab. on Bitumens	2	II
City Planning 101	Lay-out of Street Systems	2	I

GENERAL OPTION

All electives are free, excepting that not more than half can be taken in the department providing special optional groups.

MECHANICAL ENGINEERING COURSE

Leading to the B. S. Degree

Freshman Year

First Semester	Credits	Second Semester	Credits
Mathematics 51	5	Mathematics 52	5
Drawing 1	3	Drawing 2	3
Chemistry 2	3	Chemistry 2	3
English 1a	3	English 1b	3
Shopwork 1, 2, 3	2	Shopwork 4, 5	2
Physical Education	1	Physical Education	1
Military Science	1	Military Science	1
Freshman Lectures	0	Freshman Lectures	0
Total	18	Total	18

Sophomore Year

First Semester	Credits	Second Semester	Credits
Mathematics 54	4	Mathematics 55	4
Physics 51	5	Physics 52	5
Machine Design 1	4	Drawing 3	3
Shopwork 6, 13	3	Machine Design 2	1
Military Science	1	Mechanics 1, 2	5
		Military Science	1
Total	17	Total	19

The equivalent of four credits for industrial practice. See Shopwork, Course 10.

Junior Year

First Semester	Credits	Second Semester	Credits
Mechanics 3	5	Steam & Gas 22	2
Mechanics 53	2	Steam & Gas 2	4
Steam & Gas 1	4	Hydraulic Engr. 1	3
Machine Design 3	4	Machine Design 4	4
Machine Design 11	1	Machine Design 12	1
Shopwork 7	2	Electrical Engr. 144	3
*Electives	3	*Electives	3
Total	21	Total	20

Senior Year

First Semester	Credits	Second Semester	Credits
Steam & Gas 105	2	Steam & Gas 106	2
Steam and Gas 23	2	Comm. Mech. Engr. 102	2
Comm. Mech. Engr. 101	3	Steam & Gas 124	1
Elect. Engr. 103	3	Elect. Engr. 132	2
Elect. Engr. 130	2	Shopwork 8, 9	2
Shopwork 12	1	Machine Design 109	2
Electives	7	Thesis & Electives	8
Total	20	Total	19

* It is recommended that these electives be on subjects not closely related to technical engineering work.

Must include Water Power, 3 credits, first semester, or Hydraulic Machinery, 2 credits.

ELECTRICAL ENGINEERING COURSE

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 51	5	Mathematics 52	5
English 1a	3	English 1b	3
Drawing 1	3	Drawing 2	3
Shopwork 1, 2, 3	2	Shop 4, 5	2
Chemistry 2	3	Chemistry 2	3
Physical Education	1	Physical Education	1
Military Drill	1	Military Science	1
Freshman Lectures	0	Freshman Lectures	0
Total	18	Total	18

Four weeks of approved summer experience in an engineering or industrial organization.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 54	4	Mathematics 55	4
Physics 53	3	Physics 54a	3
Drawing 3	3	Machine Design 1	4
Economics 1a	4	Elect. Engr. 140a, 140b	5
Top. Engr. 108	3	Shopwork 6	2
Military Science	1	Military Science	1
Total	18	Total	19

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Mechanics, 1, 2	5	Mechanics 3	5
Physics 55	3	Physics 56	3
‡Steam & Gas 3a	3	‡Steam & Gas 3b	3
Electrical Engr. 141	4	Steam & Gas 28	2
Electrical Engr. 102	2	Electrical Engr. 143a	3
Hydraulic Engr. 1	3	Electrical Engr. 112a	2
		Elective	2
Total	20	Total	20

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Mechanics 53	2	*Contracts 1	2
Machine Design 5	3	Thesis	5
Electrical Engr. 125	2	Electives	12
Electrical Engr. 143b	4		
Electrical Engr 112b	2		
Electives	7		
Total	20	Total	19

* Commercial Law or Commercial Mechanical Engineering may be substituted.
‡ Students may substitute Steam & Gas 1 and 2 required for mechanical engineers and count the additional two credits as elective.

ELECTIVES

Of the 21 elective credits, 13 are free electives and 8 must be selected from the following group of electrical applications:

First Semester	Credits
EE 127—Central Stations and Industrial Applications...	3
EE 122—Electric Testing	2
EE 116—Electric Circuits	3
EE 104—Dynamo Design	2
EE 135—Telephony	2
Chem. E 4—Applied Electro-chemistry	3
Second Semester	
EE 129—Electric Railways	2
EE 137—Power Distribution and Insulation.....	3
EE 133—Illumination and Photometry.....	2
EE 118—Electric Amplifiers and Oscillators.....	3

CHEMICAL ENGINEERING COURSE
Leading to the B. S. Degree

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 51	5	Mathematics 52	5
Drawing 1	3	Drawing 2	3
Chemistry 2	3	Chemistry 2	3
English 1a	3	English 1b	3
Shop 1, 2, 3	2	Shopwork 4, 5	2
Physical Education	1	Physical Education	1
Military Science	1	Military Science	1
Freshman Lectures	0	Freshman Lectures	0
Total	18	Total	18

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 54	4	Mathematics 55	4
Chemistry 11	5	Mechanics 1, 2	5
Physics 51	5	Physics 52	5
Machine Design 1	4	Chem. Engr. 12, 18	4
Military Science	1	Military Science	1
Total	19	Total	19

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Mechanics 3	5	Steam & Gas 4, 25	5
Steam & Gas Engr. 3a	3	Electrical Engr. 131a	2
Chemistry 120	3	Chemistry 120	3
Chem. Engr. 117	2	Drawing 3	3
Chem. Engr. 119	3	Chem. Engr. 111	2
*Electives	3	Mechanics 53	2
		Electives	3
Total	19	Total	20

Summer Work, Chemical Engineering 114 (Chemical Manufacture), 4 credits.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Steam & Gas Engr. 26	1	Contracts	2
Elect. Engr. 131b, 130	4	Machine Design 5	3
Chemistry 130	3	Chem. Engr. 116	2
Chem. Engr. 101a	5	Chem. Engr. 120	2
Chem. Engr. 15, 116	5	Thesis	5
Elective	2	Elective	5
Total	20	Total	19

* Economics is recommended.

COURSES IN MINING, METALLURGY, AND GEOLOGY

Leading to the B. S. Degree

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 51	5	Mathematics 52	5
Drawing 1	3	Drawing 2	3
Chemistry 2	3	Chemistry 2	3
English 1a	3	English 1b	3
{Shopwork 1, 2, 3 or		{Shopwork 4, 5 or	
{Top. Engr. 1	2	{Top. Engr. 2	2
Physical Education	1	Physical Education	1
Military Science	1	Military Science	1
Freshman Lectures	0	Freshman Lectures	0
Total	18	Total	18

Summer School of Surveying, 6 weeks.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Mathematics 54	4	Mathematics 55	4
Physics 51	4	Physics 52	4
Chemistry 11	5	Mechanics 1, 2	5
Mineralogy 6	5	Mineralogy 6	5
Military Science	1	Military Science	1
Total	19	Total	19

JUNIOR YEAR*

First Semester	Credits	Second Semester	Credits
Mechanics 3	5	Mechanics 53	2
		Drawing 3	3
{Major {Minor {Free Electives	15	{Major {Minor {Free Electives	15
Total	20	Total	20

SENIOR YEAR*

First Semester	Credits	Second Semester	Credits
{Major {Minor {Free Electives	19	{Major {Minor {Free Electives	19
Total	19	Total	19

* At the beginning of the junior year, the student must elect his major and minor studies as follows:
Major to consist of 30–40 credits in any one of the following groups.
Minor to consist of 15–20 credits in any except the major group.
Balance to make 152 credits, free electives.

MINING GROUP

Courses in Mining Engineering
Railway Engineering 104
Structural Design, Structural Engineering 10
Thermodynamics, Steam & Gas Engineering 3
Steam Laboratory, Steam & Gas Engineering 28
Direct Current Machinery, Electrical Engineering 131a
Alternating Current Machinery, Electrical Engineering 131b
Hydraulics 1
General Geology, Geology 1
Economic Geology, Geology 111

METALLURGICAL GROUP

Courses in Metallurgy
Structural Design, Structural Engineering 10
Thermodynamics, Steam & Gas Engineering 3 and 4
Steam Laboratory, Steam and Gas Engineering 28
Direct Current Machinery, Electrical Engineering 131a
Alternating Current Machinery, Electrical Engineering 131b
Physical Chemistry, Chemistry 130
Metallography, Chemical Engineering 119a
Electric Furnaces, Chemical Engineering 102
General Geology, Geology 1
Economic Geology, Geology 111

GEOLOGICAL GROUP

General Geology, Geology 1 or 9
Structural Geology, Geology 114
Economic Geology, Geology 111
Petrology, Geology 108

Other courses on consultation.

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, Geology, Mathematics, Meteorology, Physics, and Economics.

COURSES GIVEN IN THE COLLEGE OF ENGINEERING

AERONAUTICS

PROFESSORS MAURER, CALLAN.

1. Aeronautics. I; 2 cr. Historical sketch of the development of aircraft; 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

PROFESSOR KOWALKE; ASSOCIATE PROFESSOR WATTS; INSTRUCTOR FAHLBERG.

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. Watts, Mr. Fahlberg.

12b. Advanced Analysis. I or II; cr. to be arranged. Continuation of 12a. Mr. Watts.

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. Watts.

For Undergraduates and Graduates

101a. Applied Electrochemistry. I; 5 cr. Principles and applications to electroplating and electrochemical manufacture. Mr. Watts.

101b. Advanced Electrochemistry. II; 1 or more cr. Preparation of inorganic and organic compounds. Mr. Watts.

102. Electric Furnace. II; 3 cr. Construction, operation, applications. Mr. Watts.

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,

Chemical Engineering 111. Required of chemical engineers as summer work, elective for others. Mr. Kowalke.

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. Fahlberg.

117b. Advanced Pyrometry. II; 1 or more cr. Continuation of 117a. Mr. Kowalke, Mr. Fahlberg.

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. Kowalke, Mr. Fahlberg.

119b. Advanced Metallography. I or II; cr. to be arranged. Special problems. Mr. Kowalke.

120. Industrial Organic Chemistry. II; 2 cr. Technology of organic chemical industries. Prerequisites: Chemistry 120. Mr. Kowalke.

121. Analysis of Highway Bitumens. II; 2 cr. Oils, asphalts, asphaltic petroleums, tars. Mr. ———.

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*

PROFESSOR L. S. SMITH

For Undergraduates and Graduates

101. City Planning. I; 2 cr. Brief history of city planning. Modern city planning requirements for present abnormal traffic conditions. Over-standardization of street widths and block sizes. Town development. Subject presented by illustrated lectures. Theme writing. No prerequisites. Mr. Smith.

102. Industrial Housing. II; 2 cr. Land and room crowding; causes and cures for bad housing; zoning; garden cities of Europe; modern American industrial housing; housing and labor turnover; parks and playgrounds. No prerequisites. Mr. Smith.

103. Land Platting. II; 2 cr. Economic, sociological, and topographic considerations controlling street, lot, and block design. Study and redesign of local plats, after field study. Prerequisite: City Planning 101 or its equivalent. Mr. Smith.

COMMERCIAL MECHANICAL ENGINEERING

PROFESSOR CALLAN; ASSISTANT PROFESSORS GODDARD, 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, and special lecturers.

104. Mechanical Engineering Seminary. II; 1 cr. Prepar-

* Students desiring work in planning and planting of public grounds, parks, and home grounds, see courses in Horticulture, College of Agriculture.

ation and discussion of papers on engineering and industrial problems. Open to seniors. Mr. Callan.

DRAWING

PROFESSOR PHILLIPS; ASSISTANT PROFESSORS MILLAR, ORTH; INSTRUCTORS DAUBNER, HOMER, LIVERMORE.

During the first quarter of the academic year 1918–19, the following people from other departments assisted in the S. A. T. C. work in the Department of Drawing: Professors Kinne and Varnum, Messrs. Hyland, MacLean, Diamond, and Miss Anderson.

For Undergraduates

1. Elements of Drawing. I or II; 3 cr. Third angle projection; lettering, tracing, blueprinting; working drawings. Mr. Phillips, Mr. Millar, Mr. Orth, Mr. Livermore, Mr. Homer, Mr. Daubner, Mr. Kinne, Mr. Varnum, Mr. Hyland, Mr. McLean, Miss Anderson, Mr. Diamond.

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. Livermore, Mr. Homer, Mr. Daubner.

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. Orth.

4. Freehand Lettering. I or II; 1 cr. Prerequisites: courses 1, 2. Mr. Orth.

ECONOMICS

PROFESSOR SCOTT; ASSOCIATE PROFESSORS HESS, KIEKHOFER; INSTRUCTORS EBERLE, HAAKE, JEROME, KRUEGER, MILLER.

For Undergraduates

1a. Elements of Economics. I or II; 4 cr. Modern industrial society and economic principles. Mr. Kiekhofer and staff.

1b. Elements of Economics. I or II; 4 cr. Economic problems and economic policies. Mr. Kiekhofer and staff.

5. Money and Banking. I or II; 3 cr. A study of the principles of monetary science and bank organization and methods. The functions and characteristics of money, credit, the theory of exchange, government and bank issues, banking machinery, banking systems, defects of the American system and proposed remedies, the foreign exchanges and international banking. Prerequisite: Economics 1a. Mr. Scott, Mr. Haake, Mr. Jerome.

For Undergraduates and Graduates

130a. Statistical Method. I or II; 3 cr. Mr. Krueger.

135. Railway Transportation. I or II; 3 cr. The development and present status of American railways in matters of economic, social and legal importance. The nature and organization of the transportation business; railway management and finance; rate theories and present rate systems; doctrines and methods of railway regulation; the postal, express, pullman and private car services and charges; recent development of electric traction; foreign railway systems. Prerequisite: Economics 1a. Mr. Eberle, Mr. Miller.

136. Railway Problems. I or II; 3 cr. A specific study of the rate structures in the United States. Railroad rates and the labor problem. A study of traffic conditions as to railroad, water, electric and auto competition. Terminal and funding problems. Social and economic aspects of valuation and depreciation of the railroads. Railways and national defense. Electrification vs. steam operation. Taxation of railroads. Prerequisite: Economics 135. Mr. Eberle, Mr. Miller.

142. Public Utilities. II; 2 cr. Theory and practice of the economic valuation of public utilities. Purposes of valuation. Intangible values. Depreciation. Appreciation. Rate of return. Cost of service analysis. Prerequisite: Economics 142a. Students without prerequisite admitted upon certain conditions. Mr. Hess, Mr. Eberle.

ELECTRICAL ENGINEERING

PROFESSOR BENNETT; ASSISTANT PROFESSORS DISQUE, PRICE, SHUSTER, WATSON; INSTRUCTORS CROTHERS, KARTAK, KELSO, LANGE.

102. Dynamo Laboratory. Tests of direct current dynamos and appliances. Prerequisite: course 141. Mr. Price and laboratory instructors.

103. Alternating Current Machinery. I; 3 cr. Prerequisite: course 144. For mechanical engineers. Mr. Shuster.

104. Dynamo Design. I; 2 cr. Individual design of a direct current dynamo. Prerequisite: course 141. Mr. Watson.

112a. Alternating Current Laboratory. II; 2 cr. Tests of generators, motors, transformers, meters, and appliances. Mr. Price and laboratory instructors.

112b. Advanced Laboratory. I; 2 cr. Continuation of 112a.

116. Electric Circuits. I; 3 cr. Analytical and oscillograph study of starting currents of transformers and transmission lines, short circuit currents of alternators, generation of radio frequencies, distribution of current and voltage in loaded and unloaded telephone lines. Prerequisite: course 143a. Mr. Bennett, Mr. Crothers.

122. Electric Testing. I; 1 or 2 cr. Calibration of instruments by engineering methods in connection with University Standards Laboratory. Prerequisites: courses 103, 143 or 131. 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.

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 schedule, equipment. Open to seniors. Mr. Shuster.

130. Direct Current Laboratory. I; 2 cr. For mechanical and chemical engineers. Should be accompanied by course 103 or 131a. Mr. Price and laboratory instructors.

131a. Direct Current Machinery. II; 2 cr. For chemical and mining engineers. Prerequisite: Physics 52. Mr. Shuster.

131b. Alternating Current Machinery. I; 2 cr. Principles in generation, transformation, and applications of alternating currents. Prerequisite: course 131a or 103. 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. II; 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. Crothers.

137. Power Distribution and Insulation. II; 3 cr. Design of distributing systems for buildings and municipalities; problems in high voltage insulation. Mr. Bennett, Mr. Crothers.

140a. Elements of Electrical Engineering. II; 3 cr. Introductory course for sophomore electrical engineers. Prerequisites: Physics 53, Mathematics 54. Mr. Bennett, Mr. Crothers.

140b. Electrical Engineering Laboratory. II; 2 cr. To accompany course 140a. Mr. Price and laboratory instructors.

141. Direct Current Machinery, Construction and Operation. I; 4 cr. Mr. Watson.

143a. Alternating Current Machinery. II; 3 cr. Generator, synchronous motor. Mr. Watson.

143b. Alternating Current Machinery. I; 4 cr. Transformer, induction motor, commutator motor. Mr. Watson.

144. Direct Current Machinery. II; 3 cr. Primarily for mechanical engineers. Prerequisite: Physics 52. Mr. Shuster.

149. Direct Current Machinery. II; 3 cr. Primarily for civil engineers. Mr. Shuster.

150. Direct Current Laboratory. II; 1 cr. To accompany course 149. Mr. Price.

118. Electric Amplifiers and Oscillators. II; 3 cr. An experimental and analytical study of the properties of amplifiers and oscillatory circuits and of the characteristics of the tri-electrode thermionic amplifiers. Prerequisite: Electrical Engineering 116. Mr. Bennett.

For Graduates

214. Advanced Dynamo Laboratory. I or II; 2 cr. Prerequisites: courses 112a, 112b, 143. Mr. Price.

231. Transmission and Distribution of Power. Yr.; 3 cr. Mr. Bennett.

232. Advanced Theory of Electric Circuits. 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; ASSISTANT PROFESSOR WARD.

1. Contracts and Specifications. II; 2 cr. Engineering relations, legal, contractual and personal; preparation of contracts, specifications and other engineering papers.

ENGINEERING ENGLISH AND ENGINEERING JOURNALISM

ASSOCIATE PROFESSORS CORP, VAN HAGAN.

1a. Junior Engineering English. I; 1 cr. To supplement the English work of the freshman year and to assist in maintaining standards in speech and writing throughout the last two years of the engineering course. Prerequisite: English 1b. Mr. Van Hagan.

1b. Junior Engineering English. II; 1 cr. Follows course 1a. Mr. Van Hagan.

2a. Senior Engineering English. I; 1 cr. Follows course 1b. Mr. Van Hagan.

2b. Senior Engineering English. II; 1 cr. Follows course 2a. Mr. Van Hagan.

10. Engineering Journalism. I or II; 1 cr. Editing and managing a technical magazine. Mr. Corp, Mr. Van Hagan.

FORESTRY AND WOOD TECHNOLOGY

H. D. TIEMANN (chairman); LECTURERS GERRY, KOEHLER.

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, Miss Gerry.

110. Structural Timbers. II; 1 cr. Identification, preservation, mechanical properties, grading rules, and building codes. Prerequisites: Mechanics 3 and 4.

Wood Inspection. II; 2 cr. Inspection of wood for airplanes, vehicles, and implements. Mr. Koehler.

HYDRAULIC AND SANITARY ENGINEERING

PROFESSOR MEAD; ASSOCIATE PROFESSOR CORP; ASSISTANT PROFESSOR 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 students 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. Ward.

105. Hydraulic Machinery. II; 2 cr. Theory; selection and installation. Prerequisite: course 1. Mr. Mead, Mr. Ward.

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. Ward.

111. Water Supply. I; 3 cr. Domestic supply, commercial and fire service. Prerequisite: course 1. Mr. Mead, Mr. Ward.

112. Sewerage, Drainage, and Irrigation. II; 3 cr. Prerequisite: course 1. Mr. Mead, Mr. Corp.

113a. Hydraulic Design. I; 2 cr. Investigation of supply for power, irrigation, or municipal purposes. Prerequisites: courses 1, 110. Mr. Mead, Mr. Ward.

113b. Hydraulic Design. II. Continuation of 113a. Individual design of some part of an hydraulic work. Prerequisites: courses 1, 110, 113a. Mr. Mead, Mr. Ward.

MACHINE DESIGN

ASSOCIATE PROFESSOR KEOWN*; ASSISTANT PROFESSOR HYLAND; INSTRUCTOR MACLEAN.

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.

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.

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.

6. Advanced Machine Design. I or II; 2 cr. Similar in scope to course 4. For electrical engineers. Prerequisite: course 5. Mr. MacLean.

7. Chemical Machine Design. II; 2 cr. Pumping and filtration machinery; sugar, oil, and other chemical machinery. For chemical engineers. Prerequisite: course 5. Mr. MacLean.

8. Patent Office Drawing. I or II; 1 cr. Requirements of U. S. Patent Office. Prerequisites: Mechanical Drawing 1, 2. Mr. Keown.

11. Machine Testing. I or II; 1 cr. Experimental determination of strength and efficiency of machine elements. Mr. Hyland, Mr. MacLean.

12. Advanced Machine Testing. II; 1 cr. Continuation of 11. Mr. Hyland, Mr. MacLean.

---

* On leave of absence, academic year 1918–19.

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.

For Undergraduates

1. Statics. I or II, first ten weeks; 3 cr. Prerequisite: Physics 51.

2. Dynamics. I or II, last eight weeks; 2 cr. Prerequisites: course 1, Mathematics 54.

3. Mechanics of Materials. I or II; 5 cr. Prerequisites: course 1, Mathematics 54.

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. 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. II; 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. I; 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

PROFESSOR MCCAFFERY; INSTRUCTOR BARNARD.

101. Excavation and Tunneling. I; 3 cr. Lectures. Mr. McCaffery.

103. Mining Methods. II; 3 cr. Shaft sinking, prospecting, developing, and exploitation. Lectures. Mr. McCaffery.

104. Valuation of Mineral Properties. II; 2 cr. Lectures. Mr. McCaffery.

105. Mine Engineering. I; 3 cr. Drainage, ventilation and lighting of mines, haulage and hoisting, surface plants. Lectures. Mr. McCaffery.

107. Ore Dressing. I; 5 cr. Principles and design of concentrating plants, coal breakers and washers. Lectures and laboratory work. Prerequisite: Geology 6. Mr. McCaffery, Mr. Barnard.

109. Mine and Smelter Accounts. I; 1 cr. Lectures. Mr. McCaffery.

121. Assaying. I or II; 2 or 3 cr. Ores, mattes, bullion, slag, metallurgical by-products. Laboratory work. Prerequisite: Chemistry 2. Mr. McCaffery, Mr. Barnard.

122. General Metallurgy. I; 3 cr. Physics and chemistry of high temperatures. Lectures. Prerequisite: Chemistry 2. Mr. McCaffery.

123. Fire Metallurgy of Copper, Lead and Zinc. II; 3 cr. Lectures. Prerequisite: course 122. Mr. McCaffery.

124. Metallurgy of Iron and Steel. I or II; 2 cr. Lectures. Mr. McCaffery.

125. Metallurgy of Minor Metals. II; 2 or 3 cr. The metallurgy of zinc, tin, nickel, aluminum, mercury, bismuth, antimony, etc. Recovery of metals from by-products and secondary sources. Mr. McCaffery.

126. Clay Testing and Manufacture. I; 2 cr. Laboratory work. Mr. McCaffery.

127. Hydrometallurgy of Gold, Silver, Copper, Lead and Zinc. II; 3 cr. Lectures. Prerequisite: course 122. Mr. McCaffery.

128. Iron and Steel Laboratory. II; 2 cr. Mr. McCaffery, Mr. Barnard.

129. Non-ferrous Laboratory. II; 3 cr. Mr. McCaffery, Mr. Barnard.

131. Foundry Metallurgy. II; 2 cr. The metallurgy of grey-iron, cast steel, and malleable iron. Mr. McCaffery.

For Graduates

210. Ore Dressing Laboratory. I or II; 2 or more cr. Research problems. Mr. McCaffery.

225. Metallurgical Laboratory. I or II; 2 or more cr. Research problems. Mr. McCaffery.

RAILWAY ENGINEERING

Associate Professor Van Hagan.

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; 3 cr. Prerequisite: course 1. Mr. Van Hagan.

22. Practice in Railway Location and Construction. Summer survey of two weeks. Prerequisites: course 2 and Topographic Engineering 106. Mr. Van Hagan.

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; 2 cr. Theory and design. Mr. Van Hagan.

110. Masonry Construction. II; 2 cr. Theory and design. Prerequisites: Mechanics 3, 51. Mr. Van Hagan.

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. For seniors and graduate students. Mr. Van Hagan.

ROADS AND PAVEMENTS

PROFESSOR SMITH.

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. One-fourth lectures and theme writing. Designed especially for students desiring a short course in agriculture. Mr. Smith.

102. Introduction to Construction and Maintenance. I or II; 3 cr. Library work and reports. Mr. Smith.

103. Advanced Design and Economics. 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 BRECKEY, BRUNSELL, CHISHOLM, DABNEY†, SCHUMANN; 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. Breckey.

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. Breckey.

5. Planing and Milling. I or II; 1 cr. Surfacing, slotting, and gear cutting. Mr. Dabney, Mr. Breckey.

6. Tool Making. I or II; 2 cr. Taps, reamers, counterborers, milling cutters. Prerequisites: courses 4, 5. Mr. Dabney, Mr. Breckey.

7. General Shop Work. I or II; 2 cr. Manufacturing complete machines. Prerequisites: course 4, 5. Mr. Dabney, Mr. Breckey.

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.

---

† On leave of absence, war service.

STEAM AND GAS ENGINEERING

PROFESSOR CALLEN; ASSOCIATE PROFESSOR LARSON; ASSISTANT PROFESSOR BERGGREN; INSTRUCTOR FINNEY.

For Undergraduates

1. Thermodynamics. I; 4 cr. Application of principles to prime movers. Prerequisites: Physics 51, 52, Mathematics 54, 55. Mr. Larson.

2. Thermodynamics. II; 4 cr. Economics of prime movers, boilers, power plant auxiliaries, refrigerating machines. Mr. Larson.

3. Thermodynamics. I; 3 cr. For electrical, chemical, and mining engineers. Prerequisites: Physics 51, 52; Mathematics 54, 55. Mr. Berggren, Mr. Finney.

4. Thermodynamics. II; 3 cr. Continuation of 3. Mr. Berggren, Mr. Finney.

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. Callan.

Laboratory Courses

MR. BERGGREN and laboratory instructors.

22. Elementary Testing. II; 2 cr. Calibration of instruments; tests of engines, analysis of fuels for mechanical engineers.

23. Advanced Testing. I; 2 cr. Continuation of 22. Complex engines, air compressors, refrigerating machinery, gas producers and engines, turbines, boilers, and complete plants for mechanical engineers.

25. Elementary Testing. II; 2 cr. Calibration of instruments; adjustment and testing of simple engines. For chemical engineers.

26. Advanced Testing. I; 1 cr. Continuation of 25. Adjustment and testing of engines and boilers. For chemical engineers.

28. Elementary Testing. II; 2 cr. Calibration of instruments, testing of simple steam engines and turbines, and gas engines. For electrical engineers.

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.

30. Gas Engine Testing. I or II; 2 cr. Open only to seniors in the College of Engineering.

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 3, 4. Mr. Callan.

106. Continuation of Course 105. II; 2 cr. This course can be taken without having had course 105, but the same courses are prerequisite. Mr. Callan.

108. Heating, Ventilating, and Refrigerating. I; 3 cr. Principles and commercial design problems. Prerequisites: courses 1, 2 or 3, 4 or 7. Mr. Larson.

111. Compressed Air. II; 2 cr. Theory and applications. Prerequisites: courses 1, 2 or 3, 4 or 7. Mr. Berggren.

Laboratory Courses

Mr. Berggren and laboratory instructors.

124. Advanced Commercial Testing. II; 1 cr. Special tests on engines, transmission machinery, heating and ventilating apparatus and power plants.

127. Short Course in Testing. I; 2 cr. Calibration of instruments, tests on engines, turbines and power plants.

130. Research. Yr.; credit according to work done. Open to graduates and others by consultation.

Vocational Course in Auto Mechanics

The course which was organized and developed for training auto mechanics for the United States Army is being continued as a civilian vocational course. The work is laid out with the

idea of giving the necessary information and practice in the operation and maintenance of modern automobiles. The vocational section of this work is open to all persons (not regular university students) over eighteen years of age who have completed grammar school work.

Further information may be had on request to Professor G. L. Larson, College of Engineering.

A special abbreviated course in auto mechanics is open for election to all university students except freshmen.

STRUCTURAL ENGINEERING

PROFESSOR TURNEAURE; ASSOCIATE PROFESSOR KINNE.

For Undergraduates

2. Stresses in Simple Structures. II; 4 cr. Algebraic and graphical analysis. Prerequisites: Mechanics 1, 2. Mr. Kinne.

3. Design of Roof Trusses and Plate Girders. I; 3 cr. Detailed drawings, estimates of cost and weight. Prerequisite: course 2. Mr. Kinne.

4. Design of Railway Bridge Trusses. II; 2 cr. General drawings, estimates of weight and cost of riveted and pin connected bridge trusses. Prerequisites: courses 2, 3. Mr. Kinne.

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; 3 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Turneaure, Mr. Kinne.

106. Concrete Arches. I; 2 cr. Analysis and design. Prerequisites: Mechanics 1, 2. Mr. Kinne.

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. Kinne.

112. Highway Bridges and Culverts. II; 2 cr. Design and analysis. Prerequisites: courses 2, 3, 4, 105. Mr. Kinne.

TOPOGRAPHIC AND GEODETIC ENGINEERING

Professor Smith; Assistant Professor Owen†; Instructors Buck, Hopkins, Scudder.

During the first quarter of the academic year 1918–19, Professor Ward of the Department of Hydraulic Engineering and Professor Van Hagan of the Department of Railway Engineering assisted in the S. A. T. C. work in this department.

For Undergraduates

1. Elementary Surveying. I; 2 cr. Use of chain, tape, and level; platting of field notes. Mr. Hopkins.

2. Elementary Surveying. II; 2 cr. Continuation of 1, use of level, compass, and transit. Mr. Hopkins.

3. Land Surveying. I; 3 cr. Use of transit, solar attachment, sextant, and plane table; methods of computation; practice in lettering and mapping. Mr. Smith.

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. Smith.

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

† On leave of absence, war service.

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.

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. Hopkins.

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 the university tunnels; mining problems. Mr. Hopkins.

THE COLLEGE OF AGRICULTURE

†H. L. Russell, Dean.

General Information

The College of Agriculture is one of the general divisions of the University. Instruction in the general sciences, languages, and mathematics is given to agricultural students in 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 with a seating capacity of 750, which 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 2,500 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 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 17,100 bound volumes and 15,800 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 discusses general questions in agriculture, and the Grafters' Club is composed of students interested in horticulture.

An Agricultural Experiment Association with a paid membership of about 1,500 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.

A chapter of the national honorary agricultural fraternity, Alpha Zeta, is maintained by faculty and student members.

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 three-fold basis. Each department aims:

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

See pp. 70ff.

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 jour-

nalism, 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 mathematics and Botany 1. 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. 285 and 354 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 winter terms of fifteen 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 about November 15, and closes in March. An illustrated circular describing this course may be had on request to Prof. J. A. James, 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 about February 3, 1920, 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.

Women'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

See pp. 96ff.

Fellowships and Scholarships

See Index.

A. J. Horlick Scholarship

See p. 82.

Loan Fund

See p. 84.

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.

Outline of the Long Course

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.

Freshman Year

FIRST SEMESTER

Subject	Credits
English 1a (L. & S.)	3
Mathematics 71 (L. & S.)	5
Chemistry 1 (L. & S.)	5
Agronomy 1 or Agricultural Engineering 1	2½
Animal Husbandry 1	2½
Total	18
Military Drill	1
Physical Education	1
*Convocation	1

* Required of all freshmen.

SECOND SEMESTER

	Credits
English 1b (L. & S.)	3
Botany 1 (L. & S.)	5
Chemistry 1 (L. & S.)	5
Agricultural Engineering 1 or Agronomy 1	2½
Dairy Husbandry	2½
Total	18
Military drill	1
Physical Education	1

Sophomore Year

FIRST SEMESTER

Subject	Credits
Chemistry 11Ag. (L. & S.)	2½
Chemistry 20 (L. & S.)	2½
Physics 61 (L. & S.)	3
Agricultural Bacteriology 1	5
Horticulture 1	3
Electives	2
Total	18
Military Drill	1
Physical Education	1

SECOND SEMESTER

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

	Credits
Agricultural Economics 1	5
Electives	12
Total	17

SECOND SEMESTER

Botany 146 (L. & S.) or Physiology 3 (Animal Physiology)	4
Electives	13
Total	17

Senior Year

FIRST SEMESTER

Subject	Credits
Major, including Thesis	5
Electives	10
Total	15

SECOND SEMESTER

Major, including Thesis	5
Electives	9
Total	14

The total requirements for graduation are 135 credits in addition to military drill and physical education. The same number of grade points (135) are also required for graduation. See p. 87.

Electives to the amount of ten credits must be taken outside the College of Agriculture, and with the approval of the adviser, students may elect as many as forty credits outside the College.

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. For farm experience requirement see p. 344.

Outline of Middle Course in Agriculture

Freshman Year

FIRST SEMESTER

Subject	Credits
English 1a (L. & S.)	3
Chemistry 1 (L. & S.)	5
Agronomy 1	2½
Animal Husbandry 1	2½
Horticulture 1	3
Animal Husbandry 2	2
Total	18
Military Drill	1
Physical Education	1
*Convocation	1

SECOND SEMESTER

English 1b (L. & S.)	3
Chemistry 1 (L. & S.)	5
Dairy Husbandry 1	2½
Agricultural Engineering 1	2½
Soils 3	3
Electives in College of Agriculture	2
Total	18
Military Drill	1
Physical Education	1

* Required of all freshmen.

Sophomore Year

FIRST SEMESTER

	Credits
Agricultural Bacteriology 1	5
Electives	11
Total	16
Military Drill	1
Physical Education	1

SECOND SEMESTER

Subject	Credits
Agricultural Chemistry 1	3
Electives	11
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. 352.)

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. 344.) A maximum of 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; Agronomy 140, Animal Husbandry 128, 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; and two of the following: Agronomy 140, two credits; Animal Husbandry 128, two credits; Dairy Husbandry 110, two 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.

Those members of the faculty whose names are followed by a dagger have been granted leave of absence to engage in war service.

AGRICULTURAL BACTERIOLOGY

PROFESSORS FROST, HASTINGS (chairman); ASSOCIATE PROFESSOR FRED; ASSISTANT PROFESSOR WRIGHT; INSTRUCTOR BACHMANN; ASSISTANT CLEVENGER.

SCHOLAR, MISS LITTLE.

Dr. Stovall of the State Laboratory of Hygiene and Dr. Clark of the Medical School assisted with the S. A. T. C. work in this department during the first quarter.

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; 5 cr. The relation of micro-organisms to soil fertility, to disease, and to foods. Mr. Wright.

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. General Survey. II; 5 cr. Survey of bacteriology with special emphasis on the relation of micro-organisms to foods and domestic sanitation. For students in home economics. Mr. Frost, Miss Bachmann.

Thesis. Yr.; 2 cr. Prerequisites: courses 1 or 4 and 124 and either 121, 123, or 125. Mr. Fred, Mr. Frost, Mr. Hastings.

For Undergraduates and Graduates

121. Dairy Bacteriology. II; 3 cr. Prerequisite: course 1 or 4. Mr. Hastings.

123. Soil Bacteriology. I; 2 or 4 cr. Prerequisite: course 1 or 4. Mr. Fred.

124. Technique. II; 2 or 3 cr. Prerequisite: course 1 or 4. Mr. Wright.

125. Food Bacteriology. I; 3 cr. Prerequisite: course 1 or 4. 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; Professor Hart (chairman); Associate Professors Peterson, Steenbock, Tottingham; Assistant Professor Boutwell; Assistants Gross, Kent, Sommer, Smith.

Fellow, Koehler.

Scholars, Sure and E. M. Nelson.

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 sub-

jects 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.

3. Household Chemistry. I; 5 cr. Composition and physical properties of foods and their nutrititive value. Mr. Peterson, Mr. Sommer.

Thesis. Yr.; 2 cr. May be taken in plant, animal or dairy chemistry. Mr. Hart, Mr. Peterson, Mr. Steenbock, Mr. Tottingham.

For Undergraduates and Graduates

120. Plant Chemistry. II; 2 or 5 cr. Select methods in the analysis of plant materials and studies of processes of growth. Mr. Tottingham.

121. Dairy Chemistry. I; 2 or 5 cr. Chemistry of milk and its products, including the chemistry of fermentation. Mr. Hart, Mr. Sommer.

122. Animal Chemistry. I; 2 or 5 cr. Chemistry of nutrients, processes of digestion, metabolic changes involved in nutrition. Mr. Steenbock, Mr. Boutwell.

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 be arranged. A survey of important analytical processes used in the study of biochemical problems. Mr. Hart, Mr. Steenbock.

125. Sugar Beet Analysis. I; 2 cr. Mr. Boutwell.

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 mik, etc. Mr. Hart, Mr. Steenbock.

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. Steenbock.

AGRICULTURAL ECONOMICS

Professors Hibbard, Otis, Taylor (chairman); Associate Professor Galpin; Instructors Juve, Mendum; Assistant Hoag.

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 in agricultural marketing will find courses 1 and 128 in agricultural economics, and courses 1b, 5, 8a, 11, 12, 13, 15, 109a, 109b, 130, 135, 136, 181 and 182 in economics 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 Economics to round out their work. Courses 1b, 8a, 8b, 101, 130, 135, 122, 123, 145, 146, 200, 201, 202, 220, 221, 222, 223, and 226 are available for this purpose.

See also summer catalogue.

For Undergraduates

1. Principles of Agricultural Economics. I; 5 cr. Mr. Hibbard 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.

25. 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.

128. Cooperation and Marketing. II; 3 cr. Mr. Hibbard.

130. Farm Credit. II; 2 cr. Systems of farm credit in use in different countries. 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. Galpin.

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; ASSOCIATE PROFESSOR JAMES (chairman).

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.

For Undergraduates and Graduates

103. Seminary. Yr.; cr. to be arranged. Mr. Hatch, Mr. James.

103S. Agricultural Extension Methods and Problems. 2 cr. Origin and development of agricultural extension work in colleges, organization and administration under Smith-Lever law; types of extension in progress, bankers' and railroad; activities and future developments in extension. Mr. Hatch.

105S. Vocational Agriculture. 2 cr. Types, methods of instruction and results of secondary vocational agriculture at home and abroad. Adjustments to meet ecenomic and social conditions of different sections of this country. National system education and the plans of different states for secondary and teacher training development. Courses of study, equipment, methods of instruction, directed practice in agriculture and its supervision. The Smith-Hughes Law. Mr. James.

200. Special Problems (Research). Cr. to be arranged. Topical work relative to problems of elementary, vocational or collegiate agricultural education, extension, county agent, or demonstrational work. Mr. Hatch, Mr. James.

Thesis. Yr., 2 cr. Original work on problems of agricultural extension or teaching. Mr. Hatch, Mr. James.

Special Teachers Courses

The following courses for teachers are offered in technical departments and are electives for University Teachers Certificate in Agriculture as discussed on p. 285.

Education A. I or II; 2 cr. Educational practice in agricultural classes of the Wisconsin High School. Mr. Mortimer, Mr. Hulce.

128. The Teaching of Animal Husbandry. I; 2 cr. Department of Animal Husbandry. Mr. Hulce.

140. The Teaching of Agronomy. II; 2 cr. Department of Agronomy. Mr. Mortimer.

AGRICULTURAL ENGINEERING

Associate Professor E. R. Jones (chairman); Assistant Professors Schindler, Swenehart; Instructors Sauvé, Duffee, Zeasman.

This department has unusual facilities for giving laboratory and field work under actual farm conditions. The courses prepare students of farm machinery, power machinery, farm buildings, and land drainage for general farm work, for expert service in commercial enterprises and for teaching or research. Lectures and textbook work accompany the practical work in each course. Students are advised to supplement this work with courses in higher mathematics and mechanics in the College of Engineering.

For Undergraduates

1. General Agricultural Engineering. I or II; 2½ cr. Required of freshman agricultural students. Mr. Schindler.

2. Farm Structures. I; 2 or 3 cr. Farm houses, barns, and sheds. Prerequisite: course 1 or its equivalent. Mr. Schindler.

3. Power Machinery. I or II; 3 cr. Gas engine operation. Ignition, carburetion and valve setting. Prerequisite: course 1. Mr. Sauvé.

4. Concrete Construction. II; 2 cr. Proportioning, reinforcing and inspecting. Prerequisite: course 1 or its equivalent. Mr. Schindler.

5. Farm Machinery. II; 3 cr. Study of operation. Prerequisite: course 1. Mr. Duffee.

6. Land Drainage. I; 3 cr. The principles and practice of land drainage and the surveying pertaining thereto. Leveling, mapping, chaining and tile laying. Lectures, laboratory and field practice. Mr. Jones.

Thesis. Yr.; 2 cr. Mr. Jones and staff.

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. Schumann.

For Undergraduates and Graduates

101. Advanced Gas Engines and Farm Tactors. I or II; 2 cr. Laboratory and field tests of gas engines and farm tractors. Prerequisite: courses 3, 5 and 14. Mr. Sauvé.

*** 102. Drainage Design.** II; 3 cr. Surveying for, laying out, and inspecting drainage work. Prerequisite: course 6. Mr. Jones, Mr. Zeasman.

*** 103. Advanced Farm Machinery.** I; 3 cr. Field operation and testing. Prerequisite: course 5. Mr. Duffee.

*** 120. Research.** Yr.; cr. to be arranged. Mr. Jones and staff.

---

* See Long Course Circular.

AGRICULTURAL JOURNALISM

PROFESSOR HOPKINS (chairman); INSTRUCTOR SUMNER.

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. Hopkins.

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 PROFESSORS DELWICHE, GRABER; ASSISTANT PROFESSORS LEITH, MORTIMER, STONE; INSTRUCTORS LUNZ, WRIGHT, ALBERTZ.

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. I or II; 2½ cr. Mr. Mortimer.

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 station. 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 cr. A detailed study of the uses, distribution, culture, composition, and improvement of grain crops. Prerequisite: course 1. Mr. Leith.

120. Seed and Weed Identification and Control. I; 3 cr. Prerequisite: course 1. Mr. Stone, Mr. Lunz.

121. Advanced Crop Judging. II; 2 cr. Prerequisites: course 1. 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: course 1. Mr. Mortimer.

ANIMAL HUSBANDRY

Emeritus PROFESSOR HENRY; PROFESSOR HUMPHREY (chairman); ASSOCIATE PROFESSORS FULLER, HULCE, MORRISON; ASSISTANT PROFESSORS BOHSTEDT, KLEINHEINZ; INSTRUCTOR HARRIS.

For Undergraduates

1. Elementary Live Stock Judging. I; 2½ cr. Mr. Fuller, Mr. Hulce.

2. Live Stock Management. I; 2 cr. Mr. Fuller and staff.

Thesis. Yr.; 2 cr. Mr. Bohstedt, Mr. Fuller, Mr. Harris, Mr. Hulce, Mr. Humphrey, Mr. Morrison.

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. Bohstedt.

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. Bohstedt, Mr. Morrison.

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. Hulce.

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. Fuller, Mr. Hulce.

135. Animal Husbandry Seminary. 1 cr. Mr. Morrison.

140. Field Problems. Yr.; 3 or 4 cr. Problems relating to the feeding, breeding and management of dairy cattle. Work to be done *in absentia* by students supervising cow testing associations and having had two years of agricultural college work. Mr. Harris, Mr. Hulce, Mr. Humphrey, Mr. Negley.

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.

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. II; 2½ cr. Elementary study of milk, and methods of testing and manufacturing farm dairy products. Lectures, Mr. Farrington; laboratory, Mr. Benkendorf.

2. Advanced Milk Inspection. I; 3 cr. Sanitary and commercial tests of dairy products. Prerequisite: course 1. Lecture, Mr. Farrington; laboratory, Mr. Benkendorf.

3. Creamery Buttermaking and Dairy Machinery. Yr.; 3 cr. Lecture, Mr. Farrington; laboratory, Mr. Benkendorf.

4. Cheese Making. Yr.; 3 cr. A general survey of commercial varieties. Lectures and laboratory. 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. Lectures and laboratory. Mr. Benkendorf.

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. Lectures and laboratory. Mr. Benkendorf.

120. Advanced Market Milk Problems. Yr.; 3 or 5 cr. Prerequisites: courses 2 and 5. Mr. Benkendorf.

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.

130. Field Problems. Yr.; 3 to 4 cr. Work to be done *in absentia* by students supervising cow testing associations and having had two years of Agricultural College work. A study of the variations in milk tests, economy of operating cream separators and the operation of milking machines where these are in use at the farm. Mr. Benkendorf, Mr. Farrington.

ECONOMIC ENTOMOLOGY

PROFESSOR WILSON (chairman); INSTRUCTOR 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

1. General Economic Entomology. II; 3 cr. A general consideration of insects in relation to agriculture. Mr. Wilson, Mr. Gentner.

10. Elementary Beekeeping. II; 2 cr. The elements of beekeeping; practical demonstrations on modern beekeeping. For advance work see Course 120. Mr. Wilson.

For Undergraduates and Graduates

103. Orchard Insects. I; 3 cr. The principal insect pests of orchard and bush fruits. Laboratory and field demonstrations; modern control measures. Prerequisites: course 1 or Zoology 3. Mr. Wilson, Mr. Fluke.

105. Field Crop and Garden Insects. I; 3 cr. The principal insect pests of field and garden crops and up-to-date

methods of control. Laboratory and field demonstrations. Prerequisites: course 1 or Zoology 3. Mr. Fluke.

115. Seminary. Yr.; 1 cr. For advanced and graduate students. Special topics and methods of research. Mr. Wilson.

120. Research Work. Yr.; cr. to be arranged. Special assigned problems. Mr. Wilson, Mr. Fluke.

Thesis. Yr.; 2 cr. For advanced and graduate students specializing in entomology. Mr. Wilson.

FORESTRY

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. ——.

GENETICS

PROFESSOR COLE (chairman); INSTRUCTORS LINDSTROM, WOODWORTH; ASSISTANT SARAH V. JONES.

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 Genetics. I; 2 cr. Elementary principles of heredity and their application to breeding problems. Mr. Cole, Mr. Woodworth.

Thesis. Yr.; 2 cr. Mr. Cole.

For Undergraduates and Graduates

101. Principles of Genetics. I; 2 cr. Lectures and other work of course 1 with laboratory additional. Mr. Cole, Mr. Woodworth, Mr. Lindstrom.

103S. Methods in Genetics. 2 or 3 cr. Practical experience in methods of experimental breeding and record keeping. Mr. Cole.

105. Advanced Genetics. II; 3 cr. Prerequisite: Genetics 1 or equivalent in Departments of Botany or Zoology. Mr. Cole, Mr. Lindstrom.

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.

For other courses in heredity and evolution see Botany 154 and 156 and Zoology 6 and 107 in the College of Letters and Science.

HORTICULTURE

PROFESSOR J. G. MOORE (chairman); ASSOCIATE PROFESSOR MILWARD; ASSISTANT PROFESSORS AUST, JOHNSON, ROBERTS; INSTRUCTORS BRANN, POTTER.

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. (Offered as a 2 credit course in Summer Session.)

2. Fruit Growing. II; 2 or 3 cr. Prerequisite: course 1. Mr. Potter.

2S. Teachers Horticulture. 2 cr. Mr. Moore.

3. Vegetable Gardening. II; 3 cr. Mr. Moore.

3S. School and Home Grounds Decoration. 2 cr. Mr. Aust.

4. Vegetable Forcing. I; 3 cr. Mr. Moore.

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.

9. Advanced Vegetable Forcing. II; 2 cr. Continuation of Horticulture 4. Prerequisite: course 4. Mr. Moore.

Thesis. Yr.; 2 cr. Mr. Moore, Mr. Johnson, Mr. Potter, Mr. Roberts.

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. 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. (Omitted in 1917–18.)

***125. Advanced Landscape Gardening.** II; 2 cr. Continuation of Horticulture 6. Mr. Aust.

---

* See also College of Engineering for lectures on City Planning.

PLANT PATHOLOGY

PROFESSOR L. R. JONES (chairman); ASSOCIATE PROFESSORS KEITT, JOHNSON; ASSISTANT PROFESSOR VAUGHAN; LECTURER HUMPHREY; INSTRUCTORS BRANN, COERPER, MILLER, WALKER; ASSISTANT MCKINNEY.

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 and staff.

5. Crop Diseases and Their Control. II; 1 cr. Lectures and demonstrations dealing with the occurrence, symptoms, and control of the more important diseases of the commonly cultivated crops. 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. Prerequisites: Botany 1 and Bacteriology 1. Mr. Jones, Miss Miller.

102. Methods in Plant Pathology. I; 3 cr. Isolation of parasites, technique of cultural methods, spore germination, and inoculation. Prerequisite: Plant Pathology 101. In alternate years as follows:

Fungous Diseases of Plants. (Given in 1917–18);

Bacterial Diseases of Plants. (Given in 1918–19.) Mr. Jones and staff.

116. Diseases of Field Crops. II; 2 cr. Arranged to meet the needs of students specializing in plant pathology and agronomy. Mr. Johnson.

117. Diseases of Orchard Fruits. (Omitted 1918–19.)

118. Diseases of Small Fruits. (Omitted 1918–19.)

119. Diseases of Timber. II; 1 cr. A survey of fungi causing rot in living trees and structural timbers, and control methods. Mr. Humphrey.

120. Diseases of Garden Crops. II; 2 cr. Arranged to meet the needs of students specializing in plant pathology and horticulture. Mr. Walker.

122. Fungicides in Relation to Host and Parasite. (Omitted 1918–19.)

For Graduates

223. Seminary. Yr.; 1 cr. Mr. Jones.

225. Research. Cr. to be arranged. Mr. Jones.

POULTRY HUSBANDRY

Professor Halpin (chairman); Instructor 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 twenty varieties of chickens, three varieties of ducks, five breeds of geese, 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.

3. Poultry Practice. Yr.; 1 to 3 cr. Mr. Halpin.

5. Artificial Incubation and Brooding. II; 1 to 3 cr. Prerequisites: courses 2 and 3. Mr. Johnson.

6. Poultry Judging. I; 3 cr. Mr. Halpin.

7. Advanced Poultry Management. II; 3 cr. Prerequisites: courses 1, 2, and 3. Mr. ——

8. Market Poultry. I; 1 or 2 cr. Practice in fattening, killing, and dressing. Prerequisites: courses 1 and 3. Mr. Halpin.

Thesis. 2 cr. Mr. Halpin.

---

* In War Service.

SOILS

PROFESSOR WHITSON (chairman); ASSOCIATE PROFESSOR TRUOG; ASSISTANT PROFESSORS STEWART, WALSTER, WEIR; INSTRUCTOR GRAUL.

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.

1S. Elementary Soils. 2 cr. Prerequisite: a course in general chemistry. Mr. Stewart.

3. Soil Physics and Fertility; Brief Course. II; 3 cr. Required of freshmen, Middle Course. (Not given 1917–18.) Mr. Weir.

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. Graul.

122. Soil Physics. I; 4 cr. Mr. Stewart.

124. Plant Nutrition. I; 3 cr. Given 1918–19 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. 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; Professor Hadley (chairman); Associate Professor Beach.

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. Diseases of Horses and Swine. II; 2 cr. Their causes, symptoms and treatment. Mr. Hadley.

3. Diseases of Cattle and Sheep. I; 2 cr. Their causes, symptoms and treatment. Mr. Alexander.

4. Animal Disease Control. I; 1 cr. The principles of the control of animal diseases. One lecture. Mr. Alexander and staff.

Thesis. Yr.; 2 or 4 cr. Mr. Hadley, Mr. Beach.

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.

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, 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 designed for wide distribution and are sent to libraries, investigators, etc. Thirty annual reports, 285 popular bulletins, 42 research bulletins, 94 circulars, 12 poster bulletins, 24 special bulletins and 53 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:

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 100 two day, 24 Light Soils-Live Stock, 40 Women's and such other special activities as the needs require. 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 31,000 copies and is distributed free of charge. A

Women's Bulletin is also issued annually in an edition of 10,000 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 has 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 dormi-

tories, and in the use of the women's gymnasium, etc., as other women of the University.

Terms of Admission

See pp. 96ff.

Fees and Expenses

See pp. 70ff.

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.

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 six 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.
6. Those who wish to prepare themselves for teaching the vocation of home making in the vocational and continuation

schools of the state. (See outline of course for Vocational Education.)

The courses in the related sciences as chemistry, physics, physiology, zoology, bacteriology, economics and political science are given in the different colleges of the University.

Outline for Course in Home Economics

Students entering with two units of foreign language must take at least 8 credits of advanced language in the University.

Students entering with no foreign language 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.

Freshman Year

FIRST SEMESTER

	Credits
English 1a (L & S), a study of the elements of efficient writing with practice in composition	3
Foreign Language, advanced	4
Chemistry 1 (L & S), lectures and laboratory work in general chemistry and qualitative analysis	5
Home Economics 5, introduction to textile study	3
Home Economics 9, introduction to home economics	1
Total	16

SECOND SEMESTER

	Credits
English 1b, a continuation of 1a	3
Foreign Language, advanced	4
Chemistry, same as first semester	5
Home Economics 3, introduction to food study	3
Total	15

* Another language may be substituted by special permission.

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	2
Electives	2 or 3
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 material to be found in the household	5
Home Economics 50, textiles	3
Electives	3 or 4
Total	14 or 15

Junior Year

General Major

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

	Credits
Home Economics 8, household decoration	4
Home Economics 6, dietetics	4
Home Economics 11, manufacture and selection of clothing	3
Electives to be chosen as indicated below	4
Total	15

Senior Year

FIRST SEMESTER

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, 11—Mental development, 41—Educational psychology; English 30—general survey of English literature; Horticulture 6—landscape gardening, 8—floriculture; Philosophy 1—psychology; Political Science 7—government and

politics in United States, 13—municipal government; 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 380 at the beginning of the junior year, the student may choose 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, and 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, economics, 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 to any college)	6 or 7
Total	15

SECOND SEMESTER

	Credits
Major	7 or 8
Electives (open in any college)	7 or 8
Total	15

Senior Year

FIRST SEMESTER

Major	6
Thesis	2
Electives (open in any college)	7
Total	15

SECOND SEMESTER

Major	4
Thesis	2
Home Economics 109, humanics	4
Electives (open in any college)	5
Total	15

(3) Hospital Administration. Those taking a food major may elect in addition courses in physiological chemistry, pharmacology, anatomy, clinical medicine and hospital practice which will equip them to meet the requirements for the bachelor of science degree and part of the requirements for the registered nurse certificate. The hospital practice work will be taken in connection with the Bradley Memorial Hospital, the University Infirmary and local and state hospitals. To fulfill the requirement for a registered nurse each student must take one graduate year in residence in an approved hospital. The demand for college trained women to take charge of the work in large hospitals and sanatoria may thus be met by specialized courses which will equip students in their college courses to handle the fundamental problems that arise in connection with this line of professional work.

In case students elect the hospital administration major, the following outline will be followed:

Junior Year

FIRST SEMESTER

	Credits
Home Economics 4, Advanced foods	3
Home Economics 7, housing and sanitation	4 or 5**
Physiological Chemistry 114	3
Hospital Practice (4 hours)*	2
Electives†	3
Total	15

SECOND SEMESTER

Home Economics 6, dietetics	4
Anatomy 120	6
Hospital Practice (6 hours)	3
Electives†	2
Total	15

Senior Year

FIRST SEMESTER

Home Economics 10, house management	3 or 4**
Home Economics 125, advanced dietetics	3
Pharmacology 104	2
Thesis	2
Home Economics 122, institutional management	2
Hospital Practice (6 hours)	3
Total	15

* General hospital practice includes lectures in technique taken during the junior and senior years.

† Suggested electives are Biology 1, botany; Zoology 1, general zoology; Organic Chemistry 120; Quantitative Chemistry 11; Anatomy 115, embryology; history; English literature; psychology; economics. (Elementary Latin equivalent to two years in high school should have been taken before beginning this course. A reading knowledge of French is desirable.)

** An additional credit is given for term theme.

SECOND SEMESTER

	Credits
Home Economics 109, humanics	3 or 4**
Clinical Medicine, (special)	3
Thesis	2
Hospital Practice (6 hours)	3
Electives†	4
Total	15

(4) Applied Bacteriology. The students who minor in food may include beyond their sophomore year such detailed work in applied bacteriology as will equip them to become bacteriological technicians in the various laboratories maintained in connection with municipal water and sewerage plants, with manufactories of biological products, with milk plants, as well as with public health laboratories, hospital laboratories, private laboratories in physicians' offices, and in laboratories in connection with public and private sanatoria. There is a constantly growing demand for such technicians, and many of the home economics graduates have found the work both attractive and stimulating. The positions are opening up very rapidly and more workers will be demanded in the very near future. In addition to the required work as indicated in the outline for junior and senior years, on the advice of the major professor, appropriate electives may be taken in zoology, botany, plant pathology or chemistry.

The following outline is the work of the junior and senior years in the Applied Bacteriology major:

Junior Year

FIRST SEMESTER

	Credits
Home Economics 4, advanced foods	3
Home Economics 7, housing and sanitation	4
Agricultural Bacteriology**	3
Chemistry 11, quantitative analysis	3
Electives†	2 or 3
Total	15

SECOND SEMESTER

	Credits
Home Economics 6, dietetics	3
Zoology 11, microscopic anatomy and micro-technique	3
Agricultural Bacteriology**	4
Electives†	5
Total	15

Senior Year

FIRST SEMESTER

Home Economics 10, house management	3
Hygiene 115, public health administration	2
Hygiene 102, bacteriology for health officers	5
Chemistry 113, water analysis	1
Thesis	2
Electives†	2 or 3
Total	15

SECOND SEMESTER

Home Economics 109, humanics	4
Rural Hygiene (Special)	2
Clinical Medicine 104, advanced clinical laboratory work	3
Pathology 104, immunity	4
Thesis	2
Total	15

** Courses Agricultural Bacteriology 120, Dairy Bacteriology; 124, bacteriology technique; 12, food bacteriology; and pathology 102, medical bacteriology are grouped together, any two of these are required.

Twenty credits in bacteriology are required for the major.

† Suggested Electives:

Home Economics 125, advanced dietetics
Agricultural Bacteriology 230, research
Agricultural Bacteriology 231, seminary
Zoology 104, comparative anatomy of vertebrates
Botany 146, plant physiology
Plant Pathology 101, 102
Economics 1, general
Economics 141, poverty and relief

(5) Vocational Education Major in Home Making (Smith-Hughes). In compliance with the request of the State Board of Vocational Education and in cooperation with the Federal Board under the Smith-Hughes bill, the University is offering a four year course designed to equip teachers of home making in the vocational schools of the state. The first two years of this course are similar to those required of all the other majors in home economics, the only exception is that students who know before their junior year that they expect to major in vocational education in home making would find it wise to elect the beginning courses in psychology some time during the sophomore year. During the junior and senior year such students will take the required courses in which, because of the need for more detailed technical training, the electives are fewer in number than in either the general major, food major or textile major. The required courses in psychology and education are those designed to meet the university teachers' certificate in home economics. The very liberal grant of the government makes it possible in connection with the state vocational grant to develop training in home making in city, town, and country schools. The need for the college trained woman is imperative. In addition to the four year course the candidate for the teacher's certificate in vocational education is expected to have practical experience in house management. This is provided in connection with the practice cottage and the model farm house which are laboratories in connection with the Home Economics Department.

The following outline is the work of the junior and senior years in the Vocational Education Major:

Junior Year

FIRST SEMESTER

	Credits
Home Economics 11, selection and preparation of clothing	3
Home Economics 70, housing the worker	2
Home Economics 74, decoration of the home	2
Home Economics 4, economic problems of food supply	3
Electives	5
Total	15

SECOND SEMESTER

	Credits
Home Economics 11, selection and preparation of clothing	3
Home Economics 6, dietetics	4
Home Economics 32, clothing for children	2
Education	2
Electives	4
Total	15

Senior Year

FIRST SEMESTER

Home Economics 10, household management	4
Home Economics 97, costume design	4
Home Economics 125, advanced dietetics	3
Home Economics 92, organization of courses in hand and machine sewing for teachers	2
Thesis	2
Total	15

SECOND SEMESTER

Home Economics 109, humanics	4
Home Economics 96, household crafts	2
Education A, educational practice	2
Home Economics 124, vocational education in Home Economics (teachers' course)	2
Thesis	2
Electives†	3
Total	15

† Suggested electives:
Economics 1a, 1b
Economics 140, sociology
Economics 141, poverty and relief
Economics 147, methods of social service
Political Science 13, municipal government
Political science 7, government and politics in the United States
English 30, general survey, or English 32, study of literature
History 1, mediaeval
History 4, history of the United States
History 5, English
History 10, ancient

Two Year Course for Training Vocational Teachers in Home-Making

In addition to the four year course the University is offering a two year course designed to equip teachers in the vocational schools of the state, the requirements for which are at present a general education including the graduation from an accredited High School, two years practical experience including a reasonable period of supervised home making, and a satisfactory completion of at least an approved two year teacher training course.

Students are admitted to this course on the same basis as are students in the other courses in the University; namely, graduation from a high school course. Students entering this course and deciding later to transfer to the four-year course in Home Economics can secure credit on the same basis as students from other two year normal and junior college courses, as 58 of the 68 credits listed are applicable toward the 120 credits required for the degree of Bachelor of Science in Home Economics.

The title of Graduate in Home Economics will be conferred upon students who complete this Vocational Teachers' Course in a satisfactory manner.

On completion of the course, and on recommendation of fitness by the Department of Home Economics, a graduate will be certificated to the State Board of Vocational Education, who on approval of the student's record will issue a certificate as instructor in Vocational Courses in Home Making.

OUTLINE OF THE TWO YEAR COURSE

First Year

General Major

First Semester	Cr.	Second Semester	Cr.
Gen. Chem	5	**Science Prob. in the House Home Economics 48	3
Physics 65	3	Physics 65	3
English 1a	3	English 1b	3
Sewing (Home Econ. 5)	2	Design (Home Econ. 2)	3
*Food Study & Cookery 40	4	**Dressmaking, (Ele.) 31a	3
		Experimental Cookery (Home Ec. 98)	2
	17		17

Second Year

First Semester	Cr.	Second Semester	Cr.
Physiology 1	3	Household Bact. 4	4
Psychology 1	3	**Food Conservation (Canning, etc.) 43	2
*Textiles & Laundry 33	2	Household Crafts (H. Ec. 96.)	2
*Marketing 42	1	House Management (Plan, Decoration & Care) (H. Ec. 1b)	3
Food Economics 46	2	*Organization of courses 124	2
**Dressmaking (Adv.) 31b (Ele. Costume Design)	3–2	Education A (Practice teaching)	2
Elementary Dietetics (H. Ec. 1a)	3–4	Humanics (The Family) 109	1
		Home Nursing 72	1
	17		17

* Courses that do not apply toward the 120 credits required for the degree of Bachelor of Science in Home Economics.

** Open only to those students enrolled in the Course for the Training of Vocational Teachers. (Federal Ruling.)

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 wil have a broad foundation knowledge of the fundamental probems in housing conditions. This minor includes Home Economics 2, 70, 10, 123, for which the prerequisites are Physics 1, Bacteriology 4.

Educational Requirements for State Teachers Certificate

MAJOR.—In the general major, the food major, the textile major, or the vocational major the minimum requirements in home economics subjects taken during the junior and senior year are twenty-six, four of which represent thesis credit. The special courses vary with the major, but not more than forty strictly home economics credits may be counted toward the 120 required for graduation. During the sophomore year three credits in Philosophy 1 should be taken, and during the junior and senior years seven credits in education should be taken. Of these, two or five credits may be in the departmental teachers' courses; the others in approved courses in education. For those preparing to teach in high schools and vocational schools, Education A should be elected. A minimum of ten credits of professional work, including one course in psychology, is required for the University Certificate in Home Economics.

MINORS.—A minimum of fifteen to twenty credits. A minor may be taken in foods, textiles, or housing problems.

(1) A teaching minor in food must include the Teachers Course in addition to Home Economics 1a, 3, 4, and such other related courses as to make fifteen to twenty credits in strictly home economics subjects.

(2) A teaching minor in textiles must include the Teachers Course, Home Economics 2, 5, 50, 11, and other courses in home economics to complete twenty credits. A non-teaching minor may include the teachers course.

DEPARTMENTAL TEACHERS' COURSE.

Home Economics 121. The teaching of home economics in high schools. Prerequisite: a major or minor in home economics. 2 cr. Miss Binzel, Miss Dodge.

Home Economics 92. Organization of courses in sewing and textiles. 2 cr. Miss Madison.

Home Economics 124. Vocational education. History and methods. 2 cr. Miss Schmit, Miss Madison.

Thesis

All candidates for a degree from the University are required to present a graduating thesis or to take a thesis course which must be acceptable to the professor at the head of the department. These must represent original work upon some subject which has been arranged after consultation with the student's adviser and the head of the department in which the work is done.

DESCRIPTION OF THE COURSES

PROFESSOR MARLATT (director); ASSOCIATE PROFESSOR SCHMIT; ASSISTANT PROFESSORS BINZEL, HILLSTROM, KRUEGER; INSTRUCTORS AMERY, BOEING, BUELL, COWLES, CULLINAN, M. DAVIS, DODGE, LEONARD, MADISON, MANNING, RAYMOND, ROBERTS, STILLMAN, STRANG, WENGEL; ASSISTANTS BURHOP, VAUGHAN.

FELLOW, N. DAVIS.

For Undergraduates

1. General Survey. House Management. Yr.; 3 or 6 cr. I: Elementary Dietetics; II: The house plan, first aids, cost of living, etc. Miss Cowles, Miss Krueger.

2. Art and Design. I or II; 3 cr. Miss Hillstrom, Miss Strang.

3. Introduction to Food Study. 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 Roberts.

5. Introduction to Textile Study. I; 2 cr. Drafting, sewing, and textile study. Miss Cullinan.

6. Nutrition and Dietetics. II; 4 cr. Prerequisites: Home Economics 3, 4, Physiology 1, Bacteriology 4, Chemistry 1, Agricultural Chemistry 3. Miss Buell and Miss Raymond.

7. House Architecture and Sanitation. I; 5 cr. Prerequisites: Physics 1, Bacteriology 4, Home Economics 2. Miss Cowles, Miss Strang.

8. Household Decoration. II; 4 cr. Artistic and economic problems. Prerequisites: Home Economics 2, 7. Miss Hillstrom, Miss Strang.

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 1Sc, Home Economics 3, 4, 5, 6, 7, 8. Miss Marlatt, Miss Krueger.

11. Manufacture and Selection of Clothing. Yr.; 6 cr. Prerequisites: Home Economics 2 and 5. Miss Manning and staff.

32. Clothing for Children. II; 2 cr. Miss Schmit.

50. Textiles. II; 3 cr. Historical, economic, chemical, hygienic treatment. Prerequisites: Chemistry 1, Agricultural Chemistry 3, Home Economics 5. Miss Roberts.

70. Housing the Worker. II; 2 cr. Miss Cowles.

74. Decoration of the Home. II; 2 cr. Miss Strang.

91S. Millinery. 2 cr. Summer school only. Miss Schmit.

92. Organization of courses in Hand and Machine Sewing for Teachers. 2 cr. Summer school only. Miss Madison.

95. Household Crafts. I; 2 cr. Miss Hillstrom.

96. Household Crafts. II; 1 cr. Miss Schmit.

97. Costume Design. I; 4 cr. Prerequisites: Home Economics 11. Required in major in textiles. Miss Schmit, Miss Strang.

98. Experimental Cookery. I; 1 cr. Open to upper class students in Home Economics. Miss Wengel.

For Undergraduates and Graduates

101. Research. Yr.; credit to be arranged. Miss M. Davis, Miss Roberts.

102. Topical Work. Yr.; credit to be arranged. May precede or be taken in connection with course 101. Miss Krueger, Miss M. Davis.

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 Krueger.

104. History of Costume in its Sociological Aspect. I; 2 cr. Miss Krueger.

105. Experimental Food Study. I; 2 cr. Limited to seniors and graduate students. Miss Buell, Miss Wengel.

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, Miss Dodge.

122. Institutional Management. I; 4 cr. For seniors and graduates in Home Economics. Miss Leonard.

122b. Cafeteria Management. II; 4 cr. Miss Leonard.

123. Seminary in Housing Problems. I; 3 cr. Miss Marlatt.

124. Vocational Education in Home Economics. II; 2 cr. Miss Schmit.

Education A. Practice Teaching. I or II; 2 cr. Mr. Miller, Miss Binzel, Miss Dodge, Miss Schmit, Miss Madison.

125. Dietetics in Disorders of Nutrition. I; 3 cr. Prerequisites: Home Economics 6, Agricultural Chemistry 122. Required in major in food. Miss Buell.

126. Extension Course in Home Economics. II; 1 cr. Miss Marlatt and staff.

Courses for Vocational Teachers in Home Making in the Two Year Course

1a. General Survey of House Management. I; 3 cr. Miss Marlatt, Miss Cowles.

1b. General Survey of House Management. II; 3 cr. Miss Krueger.

2. Applied Design. II; 3 cr. Miss Strang.

5. Sewing (Home Ec. 5). I; 2 cr. Miss Cullinan.

31a. Elementary Dressmaking. I; 3 cr. Miss Cullinan.

31b. Advanced Dressmaking. II; 3 cr. Miss Schmit.

32. Clothing for Children. II; 2 cr. Miss Schmit.

33. Textiles and Laundry. I; 2 cr. Miss Roberts.

34. Laundry. I; 2 cr. Miss Roberts.

35. Textiles. I; 2 cr. Miss Roberts.

40. Food Study and Cookery. I; 4 cr. Miss Madison.

42. Practical Marketing Course. II; 1 cr. Miss Madison.

43. Food Conservation. II; 2 cr. Miss Wengel.

46. Food Economics. I; 2 cr. Miss Roberts.

47. Care and Feeding of Children. I; 3 cr.

48. Science Problems in the House. II; 3 cr. Miss Madison.

70. Housing the Worker. II; 2 cr. Miss Cowles.

72. Home Nursing. II; 1 cr. Miss Krueger.

74. Decoration of the Home. II; 2 cr. Miss Strang.

91. Millinery. II; 2 cr. Miss Madison.

96. Household Crafts. II; 2 cr. Miss Schmit.

97. Costume Design. I; 4 cr. Miss Schmit, Miss Strang.

98. Experimental Cookery. II; 2 cr. Miss Wengel.

109. Humanics (The Family, Civics & Health). II; 1 or 4 cr. Miss Marlatt.

124. Vocational Education in Home Economics. II; 2 cr. Miss Schmit.

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

See pp. 96ff.

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.

For dates of examinations see Calendar, p. 8.

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) 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.

Students completing the course with distinguished ability and presenting a thesis of unusual merit will be recommended for the degree with honor.

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; 2 cr. Wambaugh's *Cases on Agency.* Mr. Richards.

Briefmaking. I; 1 cr. Use of law books. Cooley on *Briefmaking,* 3rd ed. and assigned problems. (Omitted 1918–19.) Mr. Page.

Common Law Pleading. I; 2 cr. Whittier's *Cases on Common Law Pleading.* (Omitted 1918–19.) Mr. Rundell.

Contracts. Yr.; 6 cr. Williston's *Cases on Contracts,* 2nd ed. Mr. Page.

Criminal Law. II; 3⅓ cr. Beale's *Cases on Criminal Law.* Mr. Gilmore.

Master and Servant. II; 1⅓ cr. Wambaugh's *Cases on Agency,* Wisconsin Workmen's Compensation Act and selected cases. Mr. Richards.

Property I. (Personal.) II; 2 cr. Gray's *Cases on Property,* 2nd ed., Vol. I. Mr. Rundell.

Property I. (Real.) II; 2 cr. Gray's *Cases on Property*, 2nd ed., Vol. I and Kirchwey's *Readings in Real Property*. Mr. Rundell.

Torts. Yr.; 4 cr. Ames and Smith's *Cases on Torts*. Mr. Gilmore.

Second and Third Years

Administrative Law I. I; 2 cr. Officers and elections. Selected cases and Goodnow's *Cases on the Law of Public Officers*. (Omitted 1918–19.) Mr. Hall.

Administrative Law II. II; 2 cr. The law governing administrative action. Freund's *Cases on Administrative Law*. (Omitted 1918–19.) Mr. Hall.

Administrative Law III. I; 2 cr. The law of taxation. Goodnow's *Cases on Taxation*. (Omitted 1918–19.) Mr. Hall.

Administrative Law IV. II; 2 cr. Municipal Corporations. Beale's *Cases on Municipal Corporations* and selected cases. Mr. Hall.

Bankruptcy. 2 cr. Holbrook & Aigler's *Cases on Bankruptcy*. (Omitted 1918–19.) Mr. ——.

Bills of Exchange and Promissory Notes. II; 2 cr. Smith & Moore's *Cases on Bills and Notes*. Mr. Rundell.

Code Pleading. II; 3⅓ cr. Ames' *Cases on Pleading*, Parts I–IV, 2nd ed. Hinton's *Cases on Code Pleading*. Mr. Wickhem.

Code Practice. Yr.; 4 cr. Hinton's *Cases on Code Practice*. Mr. Sanborn.

Conflict of Laws. II; 2⅔ cr. Beale's *Shorter Cases on Conflict Laws*. Mr. Page.

Constitutional Law. Yr.; 4 cr. Hall's *Cases on Constitutional Law*. Mr. Gilmore.

Conveyancing. I; 3 cr. Gray's *Cases on Property*, Vol. III. (Omitted 1918–19.) Mr. Rundell.

Criminal Procedure. Mikell's *Cases on Criminal Procedure*. (Omitted 1918–19.) Mr. Smith.

Damages. 2 cr. Beale's *Cases on Damages*. (Omitted 1918–19.) Mr. ——.

Equity I. I; 3 cr. Ames' *Cases on Equity Jurisdiction*, Vol. I and II. General principles, specific performance and injunctions. (Omitted 1918–19.) 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. (Omitted 1918–19.) Mr. Smith.

Equity Pleading. 1 cr. Selected Cases. (Omitted 1918–19.)

Evidence. Yr.; 4 cr. Thayer's *Cases on Evidence.* Mr. Gilmore.

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. (Omitted 1918–19.) Mr. Rundell.

Insurance. I; 2 cr. Wambaugh's *Cases on Insurance.* Mr. Rundell.

International Law. Yr.; 5⅓ cr. Scott's *Cases on International Law.* Mr. Page.

Military Law. I; 2 cr. Messrs. Page, Gilmore, Rundell.

Mortgages. I; 2 cr. Kirchwey's *Cases on Mortgages.* Mr. Rundell.

Office Practice. II; 2 cr. Course to consist largely of actual practice in the drafting of wills, deeds, contracts and other instruments. Mr. Wickhem.

Partnership and Corporations. Yr.; 5⅓ cr. Gilmore's *Cases on Partnership*, Richards' *Cases on Corporations.* Mr. Richards.

Persons. I; 2 cr. Casebook to be announced. (Omitted 1918–19.) Mr. ——.

Practice Court. II; 1 cr. (Omitted 1918–19).

Professional Ethics. II; no credit. (Omitted 1918–19.) Chief Justice Winslow.

Property II. I; 2 cr. Rights in the land of another, natural rights, easements, covenants as to the use of land. Gray's *Cases on Property*, Vol. II. (Omitted 1918–19.) Mr. Rundell.

Property III. See Conveyancing.

Property IV. Wills and Administration. II; 2⅔ cr. Warren's *Cases on Wills.* Mr. Page.

Public Service Companies. II; 2 cr. Green's *Cases on Carriers.* (Omitted 1918–19.) Mr. Gilmore.

Quasi-Contracts. II; 3 cr. Thurston's *Cases on Quasi-Contracts.* (Omitted 1918–19.) Mr. Smith.

Sales. II; 2⅔ cr. Williston's *Cases on Sales.* Mr. Gilmore.

Suretyship. 2 cr. Ames' *Cases on Suretyship.* (Omitted in 1918–19.) Mr. ——.

Thesis Course. Legal History. II; 2 cr. (Omitted 1918–19.) Mr. Page.

Trusts. II; 3½ cr. Ames' *Cases on Trusts,* 2nd ed. Scott's *Cases on Trusts.* Mr. Richards, 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 toward 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 p. 123.

Examinations

Written examinations are held at the close of each semester and of the summer session.

Library

The Library of the Law School contains 28,000 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 p. 67.

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 students 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

See pp. 70ff.

Receipts showing the payment of tuition must be filed with the Dean within ten days after entry.

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.

PROFESSORS GILMORE, GOODRICH, (University of Iowa) RUNDELL; MR. WICKHEM.

(June 23–August 30, 1919)

First Year

Common Law Pleading. Three hours a week for ten weeks; 2 cr. Mr. Rundell.

Real Property. Three hours a week for ten weeks; 2 cr. Mr. Rundell.

Torts. Six hours a week for ten weeks; 4 cr. Mr. Goodrich.

Second and Third Years

Code Pleading. Six hours a week for ten weeks; 4 cr. Mr. Wickhem.

Conveyancing. Three hours a week for ten weeks; 2 cr. Mr. Rundell.

Damages. Three hours a week for ten weeks; 2 cr. Mr. Goodrich.

Public Service Companies. Nine hours a week for the second five weeks; 3 cr. Mr. Gilmore.

Quasi-Contracts. Nine hours a week for the first five weeks; 3 cr. Mr. Gilmore.

Suretyship. Three hours a week for ten weeks; 2 cr. Mr. Wickhem.

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

See pp. 96ff.

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, master of public health, 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 is also required. 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 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
Second Year Medical Course			
Pathology	80	192	8
Bacteriology and Hygiene	64	112	5
Pharmacology and Toxicology	64	144	6
Clinical Medicine	64	128	6
	272	576	25

* It is recognized that similar courses at other institutions may not correspond with the scientific courses given at Wisconsin. This will not prevent full credit being granted for approximately equivalent courses pursued elsewhere.

Required of candidates for a bachelor's degree: Thesis: 128 laboratory hours (4 units).

Required and elective work may be arranged according to one of the following plans:

1. Six-Year Combined Course (Leading to the B. S. and M. D. Degrees)

If the student has a thorough preparation in the high school, he may take work in the freshman and sophomore years which will enable him to matriculate in the Medical School in his junior year, take the B. S. degree and get a certificate for two years of medical study at the end of the senior year, and complete his medical course by two years' further study in any medical school which does not require more than two years of college work for entrance. During the freshman and sophomore years such a student will have to confine himself closely to the work in science and language required for matriculation in the Medical School. The exact choice of studies will depend somewhat upon the high school training and the ability of the student.

The following schedule is suggested:

Freshman Year

English 1a and 1b_____3 credits per semester
German or French_____4 credits per semester
Chemistry 1_____5 credits per semester
Electives_____3 credits per semester

Sophomore Year

German or French_____4 credits per semester
Physics 1_____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. Chem. 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 1918–19. 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	5	Hygiene 120–121	5
Hygiene 115	2	Hygiene 126	3
Hygiene 125	3	Pathology 104	4
		Zoology 19	3

Various other courses are also open to election.

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, as 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; ASSISTANT PROFESSOR LARSELL; INSTRUCTOR ESCABI; ASSISTANTS GOUGH, SONNENBURG, CHIPMAN, WHITE; ARTIST AND TECHNICIAN JOHNSON.

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 Undergraduates and Graduates

110. Histology and Organology. I; 4 cr. Dr. Miller.

115. Mammalian Embryology. I or II; 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. I or II; 3 cr. Frozen sections and special preparations.

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

Professors Evans, Van Valzah; Associate Professor Lorenz†; Assistant Professors Middleton†, Morris, Rinker; Lecturers Dean, Drake, Jackson, Greeley, Tormey; Instructor Curl, Drane†, Robbins; Assistant Miss Gray.

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 or 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

† Leave of absence for war service.

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 or II; 5 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 slaughterhouses, 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

PROFESSORS BUNTING, CLARK; INSTRUCTOR LEACH; ASSISTANTS MARTINI, DRIVER, WRIGHT.

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, 106 are required of medical students.

101. General and Special Pathology. I; 4 cr. The laboratory exercises devoted mainly to pathological histology and to demonstrations of gross morbid specimens. Dr. Bunting, Mr. Leach.

102. Medical Bacteriology. I; 5 cr. Considers the bacteria and protozoa which are especially concerned in the production of disease processes. Dr. Clark, Mr. Wright, Mr. Driver, Mr. Martini.

103. Experimental Pathology. II; 4 cr. Dr. Bunting, Mr. Leach.

104. Immunity. II; 4 cr. Prerequisite: course 102. Dr. Clark.

106. Oncology. II; 2 cr. A study of tumors. Prerequisite: course 101. Dr. Bunting, Mr. Leach.

107. Sanitary Bacteriology. 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. Mr. Clark.

PHARMACOLOGY AND TOXICOLOGY

PROFESSOR LOEVENHART; ASSISTANTS GREEN, HOYER.

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, Bradley†, Meek, Salant*; Assistant Professor Dawson; Instructors Schlomovitz, Sevringhaus; Assistants Borsack, Hatleberg, Reid, Ronzone, Shimpa, Sutton, Weber.

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.

* Acting Professor, physiological chemistry, 1918–19.
† On leave of absence to engage in war service.

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.

2. Elements of Physiology. I; 1 cr. Laboratory. Required of sophomores in home economics; open to others as an elective. Dr. Meek, Dr. Dawson.

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. Sevringhaus.

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. Sevringhaus.

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.

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.

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 Sigma Xi
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-four University Fellowships of the annual value of $400 each. These are allotted to the several departments of instruction as follows:

To Economics, two; to History, two; to Geology, and the biological sciences, (zoology), 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, Psychology, Education, Home Economics, Semitics.

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

* With the exception of honorary fellows, all fellows and university scholars are required to pay the incidental fee.

should contain a full acount 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.

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.

Training of Teachers Fellowships

The Teaching Fellowship plan which was in operation for the Course for the Training of Teachers for several years was abandoned two years ago, and there was substituted therefor two resident Teachers Training Fellowships with an annual value of $400 each. These fellowships are to be assigned, on the recommendation of the Committee on the Training of Teachers, to graduate students who are interested primarily in the problems of teaching secondary school subjects.

The primary purpose of these fellowships is to encourage advanced work toward higher degrees by students who expect to take charge of special teachers courses in normal schools, colleges and universities. They are, however, open to experienced teachers preparing for work in secondary schools. The holders of these fellowships are expected to do graduate work in the departments concerned and in the Department of Education. It is expected that the research work will be under the joint supervision of the Director of the Course for the

Training of Teachers and the adviser selected in the department in which the fellowship is assigned.

Further information concerning these fellowships may be obtained from the Director of the Course for the Training of Teachers.

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 annual income is approximately $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 is approximately $550.

Charles Kendall Adams Fellowship in Modern History

The first appointment to a fellowship bearing the above title was made for the academic year 1918–19. Its value to the incumbent is approximately $550.

Graduate Scholarships

The Regents of the University maintain twenty-three 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, four for Agriculture, and three for Engineering. Appointments to these scholarships are in general made in the same manner as appointments to fellowships. By special provision authority is conferred upon the faculties of Beloit, Carroll, Lawrence, Milton, Milwaukee-Downer, and Ripon Colleges 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 1917–18, 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 Uihlein Graduate Fellowship in German.

The Fred Vogel, Jr., Graduate Fellowship in German.

The Albert C. Elser Graduate Scholarship in German.

The Henry Schoelkopf 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.

Other Scholarships and Fellowships Available in 1918–19

During the current year there are available the following scholarships and fellowships.

The Cutler-Hammer Manufacturing Company of Milwaukee offers $400 for a research fellowship in physics.

The Fritzsche Brothers Fellowship in Pharmacy of the value of $500 is offered by the Fritzsche Brothers of New York. The holder of this fellowship is to do research work, especially in the distilling of monarda oil and its use in the manufacture of thymol.

The duPont Fellowship in Chemistry of $750 is offered by E. I. duPont de Nemours and Company of Wilmington, Del.

Two fellowships for French young women in cooperation with the Association of American Colleges have been established. In addition to a Legislative Scholarship for the year 1918–19, each is to be paid $700, as follows: One of $300 by the University and $400 by Mr. Walter J. Kohler of Kohler, Wisconsin; and one of $300 by the University and $400 from private funds.

Two scholarships for French young women in cooperation with the Carnegie Peace Foundation of $100 each, in addition to a Legislative Scholarship for the year 1918–19, are also offered.

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.

Wisconsin Legislative Scholarships

For a statement regarding these scholarships see p. 79.

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. There are also established under similar conditions two Forest Products Laboratory fellowships. Applications for these assistantships and fellowships, accompanied by testimonials, should be sent to Director C. P. Winslow, Forest Products Laboratory, Madison, Wis., before March 1 of the collegiate year preceding that during which such appointments are to be held.

Admission to the Graduate School

Graduates from four-year courses of liberal study in any approved university or college will be admitted to the Graduate School without examination, but will not be considered as candidates for a higher degree until announcement of such candidacy has been made to the Dean of the Graduate School. Undergraduates of the University of Wisconsin who have completed all requirements for the baccalaureate degree may be admitted to the Graduate School before the degree is actually conferred. Each applicant for admission to the Graduate School should, in person, present his college diploma to the University Registrar, who will determine, provisionally, his

eligibility to admission, and will furnish a statement of fees to be paid at the Bursar's office. This statement serves also as a certificate of enrollment in the Graduate School and should be presented promptly to the Dean, at Room 157, University Hall, who will issue to the student an election card for presentation to the several instructors under whom he desires to study. Students already enrolled in the Graduate School should obtain from the Dean an election card at or before the beginning of each semester.

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 equiva-

lent 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 upon candidates whose undergraduate training corresponds to that leading to the degree of bachelor of philosophy as conferred by the University of Wisconsin.

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 of 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 subject of his major study. 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. Upon recommendation of a committee specially appointed for that purpose the Graduate Committee may modify the application of this rule to individual cases.

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 appoint 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 pp. 70ff.

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:

1. Certain regular university studies which may, under approved conditions, be taken for credit toward a degree.

2. 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.

3. High school and preparatory studies for those for whom the conventional institutions are not available or practicable.

4. Elementary and grammar school studies for those who require such instruction for practical purposes.

5. Vocational courses prepared with reference to the needs and requirements of given occupations.

6. 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

PROFESSORS ALLEN, OVERTON; ASSOCIATE PROFESSOR GILBERT; ASSISTANT PROFESSOR DENNISTON.

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 ELWELL, GILMAN, SCOTT; ASSISTANT PROFESSORS KEISTER, READ; INSTRUCTORS BLACKMUN, BLOOD, LEE, MARSH, MOORE.

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.

Banking

186A. Practical Banking; 186B. Banking Law.

Bookkeeping and Accounting

128. Bookkeeping; 129. Accounting Principles; 134. Municipal Accounting; 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 Geography of the United States.*

Chemistry

PROFESSOR KAHLENBERG; ASSISTANT PROFESSOR KRAUSKOPF.

1. Elementary Chemistry*; 2. Qualitative Analysis.*

Civil and Structural Engineering

PROFESSOR HOOL; ASSISTANT PROFESSOR FULLER; INSTRUCTOR THIESSEN†.

1. Railway Curves*; 2. Stresses in Simple Structures*; 3. Design of Roof Trusses and Plate Girders*; 4. Design of Railway Bridge Trusses*; 105 and 111. Principles of Reinforced Concrete*; 106. Concrete Arches*; 281. Hydraulics; 406. Elements of Mechanics; 407. Strength of Materials; 408 and 409. Elements of Structures; 410. Roof Trusses; 411. Plate Girders; 412. Stresses in Bridge Trusses; 413. Design of Railway Bridge Trusses; 415. 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; 431A and 431B. Introductory to Structural Steel Drafting; 431C. Elementary Steel Design; 431D. Steel Designing and Detailing; 441. Surveying.

Economics

PROFESSORS ELY, ROSS, SCOTT, GILLIN†; ASSOCIATE PROFESSORS HESS†, MELVILLE†; INSTRUCTORS JAMESON, MILLER.

1. Elements of Political Economy*; 2. The Labor Movement*; 3. Transportation*; 4. Socialism*; 5. Economics of Saving and Investment; 7. Commercial Geography*; 10. Ele-

† Leave of absence to engage in war service.

ments of Money and Banking*; 10A. Brief Course in Money and Banking; 186A. Practical Banking; 186B. Banking Law; 15. Social Psychology*; 16. General Sociology*; 17. Practical Sociology*; 18. Criminology and Penology.*

Education

PROFESSORS HENMON†, O'SHEA; ASSOCIATE PROFESSOR STARCH; ASSISTANT PROFESSORS HENDERSON†, MILLER, SEYBOLT; 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*; 85. Organization and Curriculum of the High School*; 91. Conferences on Teaching Problems.*

Electrical Engineering

ASSOCIATE PROFESSOR JANSKY; INSTRUCTORS ATHERTON, HOBBS, JACKLIN.

301. Elementary Electrical Mathematics; 310. Elementary Magnetism and Electricity; 310S. Advanced Electricity and Magnetism; 311. Theory and Operation of Direct-Current Machinery; 311S. Principles of Direct-Current Machines (Advanced); 312. Theory of Alternating Currents; 313. Alternating-Current Machinery; 314. Electric Lamps and Illumination; 316. Central Electric Stations; 317. Electric Power Transmission; 318. Telephony; 319. Commercial Electrical Measuring Instruments; 319A. Watt-hour Meters; 321. Electric Railways; 322. Storage Batteries; 323. Electrical Central Station Distribution Systems; 324. Electric Wiring; 330. Electrical Engineering Mathematics.

---

† Leave of absence to engage in war service.

English

ASSOCIATE PROFESSORS LATHROP, GARDNER; ASSISTANT PROFESSORS BEATTY†, PENDLETON, PITMAN; INSTRUCTOR BASCOM; ASSISTANT HANSEN.

1. Elementary English; 61. English Grammar; 64. Practical English Review; 2. Intermediate English Composition; 3. High School English Classics; 8. Elementary Technical English; 63. Grammar Review and Elementary 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. Shakespeare*; 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. Milton[1]; 215S. Emerson[1]; 216S. Shakespeare[1].

French

PROFESSOR SMITH; ASSISTANT PROFESSORS REED, SCHLATTER.

1 and 2. Elementary French*; 3 and 4. Intermediate French*; 6. Elementary French Composition*; 7. Advanced French Composition*; 8. Modern French Dramatists*; 9. Modern French Novelists*; 10. General Survey of French Literature.*

Geology and Mineralogy

PROFESSOR 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.*

---

[1] Graduate courses arranged to carry on the work of the preceding Summer Session.

---

† On leave of absence for war service.
‡ On leave of absence second and third quarters, 1918–19.

German

PROFESSOR HOHLFELD; ASSISTANT PROFESSOR ERNST.

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*; 6. Advanced Prose Composition*; 113B. Ancient Classical Drama—in English.*

Health

DR. DEARHOLT, DR. D. R. MENDENHALL, DR. PHILLIPS.

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

ASSISTANT PROFESSOR WOLFENSON.

1 and 2. Elementary Hebrew.*

Highway Engineering

PROFESSOR HOOL; ASSISTANT PROFESSOR BASCOM.†

501. Roads and Pavements; 502. Rural Highway Work.

† On leave of absence for war service.

History

PROFESSORS DENNIS†, FISH†, SELLERY; ASSOCIATE PROFESSOR CHASE; ASSISTANT PROFESSOR SMITH.

1. United States History; 2. American History 1760–1830*; 6A and 6B. English History*; 8A and 8B. Modern European History*; 12A and 12B. 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, PHILLIPS.

1. Food Study for the Housekeeper; 2. Planning the Family Dietary; 3. Dietetics; 4. The House and Its Equipment; 5. Spending the Income; 6. Home Nursing; 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 and Designing; 14. Infants' Clothes; 15. Home Furnishing and Decoration; 19. The House and Its Management*; 20. Food and Nutrition*; 21. Applied Design*; 25. Cooking for Rural Schools; 26. Sewing for Rural School Teachers; 27A and 27B. Cooking and Sewing (combined course for Rural School Teachers).

Italian

PROFESSOR SMITH; ASSISTANT PROFESSORS REED, SCHLATTER.

1. Elementary Italian*; 2. Elementary Italian.*

Latin

PROFESSORS SLAUGHTER†, SHOWERMAN; 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

† On leave of absence for war service.

Epistles*; 16. Catullus*; 17. Roman Mythology*; 20. Cicero: Letters*; 113B. Ancient Classical Drama—in English.*

Library Methods

INSTRUCTOR GANGSTAD.

1. Library Methods for Teacher-Librarians.

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; ASSISTANT WOOD.

1. Elementary Algebra; 3. Plane Geometry; 4. Solid Geometry; 5. Plane Trigonometry*; 6. University Algebra*; 7. Analytic Geometry*; 8. Elementary Calculus*; 11. Practical Arithmetic; 12. Mensuration and Practical Geometry; 13. Practical Algebra; 14. Practical Trigonometry and Logarithms; 15. Practical Calculus; 62. Elementary Algebra; 201A and 201B. Shop Mathematics; 40. Algebra for Engineers; 41, 42, and 43. Elementary Analysis*; 44 and 45. 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.*

Mechanics

ASSOCIATE PROFESSOR ELLIOTT.

1. Statics; 2 Dynamics.

---

† On leave of absence for war service.

Mechanical Drawing

PROFESSOR PHILLIPS; ASSISTANT PROFESSORS CONSOLIVER, MILLAR; INSTRUCTOR ATHERTON.

1 and 2. Elements of Drawing*; 3. Descriptive Geometry*; 4. Freehand Lettering; 203. Shop Sketching; 204A and 204B. Shop Drawing; 204S. Mechanical Drawing; 205. Sheet Metal Drafting; 243A. Principles of Architectural Drawing.

Mechanical Engineering

ASSOCIATE PROFESSORS ELLIOTT, SHEALY; ASSISTANT PROFESSOR CONSOLIVER; INSTRUCTORS ATHERTON, GEORGE, JACKLIN.

201A. Shop Arithmetic; 201B. Advanced Shop Mathematics; 203. Shop Sketching; 204A. Shop Drawing; 204B. Advanced Shop Drawing; 205. Sheet Metal Drafting; 206. Elements of Mechanics; 207. Strength of Materials; 208. Mechanism; 209. Machine Elements; 210. Advanced Machine Design; 213. Practical Hand Firing; 214. Principles of Steam Engineering; 215. Heat; 216. Steam Boilers; 217. Steam Engines; 219A. Gas and Oil Engines; 219B. Gas Producers; 219C. Gas Engine Design; 219D. The Gasoline Automobile; 219E. Gas Engine Ignition; 219F. Automobile Starting and Lighting Systems; 222. Refrigeration; 223. Heating and Ventilation; 225. Compressed Air; 231. Fuels; 234. Heating and Ventilating Public Buildings; 241. Carpenters' and Builders' Arithmetic; 242. Lumber and Its Uses; 272. Cupola Practice; 274. Foundry Metallurgy.

Meteorology

MR. MILLER.

1. Elementary Meteorology*; 2. Climatology.*

Municipal and Sanitary Engineering

ASSISTANT PROFESSOR BASCOM†.

235. Principles and Practice of Plumbing; 281. Hydraulics; 441. Plane and Topographical Surveying; 501. Roads and Pavements; 512. Disposal of Sewage; 516. Water Purification.

---

† On leave of absence for war service.

Music

PROFESSOR GORDON.

1C. Theory of Music; 5C. Elementary Harmony*; 31C. Public School Music*; 61C. Advanced Harmony*; 75C. History of Music*; 97C. Community Music.*

Pharmacy

PROFESSORS BRADLEY†, FISCHER, KREMERS, KAHLENBERG; ASSOCIATE PROFESSOR GILBERT; ASSISTANT PROFESSORS DENNISTON, 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*; 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 PROFESSORS OTTO, STARCH; ASSISTANT KOEPP.

1. General Psychology*; 10. Ethics*; 12. Business Ethics.*

Physics

PROFESSOR SNOW; ASSOCIATE PROFESSORS JANSKY, TERRY.

5. General Physics*; 6. General Physics*; 51E. Engineering Physics*; 52E. Engineering Physics.*

Political Science

PROFESSOR C. LLOYD-JONES†; ASSISTANT PROFESSOR MACGREGOR.

1. American Government and Politics*; 1A. The American Judiciary*; 1B. The American Executive and Executive Meth-

† On leave of absence for war service.

ods*; 3. Party Organization and Management*; 3A. American Legislatures and Legislative Methods*; 4A. American Diplomacy*; 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.*

Public Speaking

PROFESSOR O'NEILL; ASSOCIATE PROFESSOR BLANTON†.

1. Elementary Speech Writing; 10. Composition of Public Addresses*; 12. Argumentation*; 21. Correction of Speech Defects*; 22. Voice Training and Elimination of Vocal Defects.*

Spanish

PROFESSOR SMITH; ASSISTANT PROFESSORS REED, SCHLATTER.

1 and 2. Elementary Spanish*; 3 and 4. Intermediate Spanish*; 7 and 8. Don Quixote.*

Surveying

PROFESSOR HOOL; ASSISTANT PROFESSOR BASCOM†.

441. Plane and Topographical Surveying.

Teachers' Reviews

PROFESSOR WHITBECK; ASSOCIATE PROFESSORS CHASE, JANSKY; ASSISTANT PROFESSORS BEATTY†, BURGESS†; INSTRUCTORS BASCOM, GANGSTAD, HOYT.

62. Elementary Algebra; 63. Grammar and Elementary Composition; 67. United States History; 69. Civil Government; 71. Physiology and Hygiene; 73. School Management; 77. Physical Geography; 81. American Literature; 83. Cataloguing and Use of the School Library; 87. Physics; 89. English History; 91. English Literature.

---

† On leave of absence for war service.

INSTRUCTION BY LECTURES

PAUL F. VOELKER, Secretary and Extension Lecturer.[1]

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.

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.

---

[1] Resigned October 1, 1918.

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 tend 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, parent-teacher associations, school and library boards, and literary societies of educational institutions.

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. As special aids to organizations, bulletins on Farmers' Clubs, Civic Clubs, and Parent-Teacher Associations have been published. The Triangular Discussion League bulletin suggests a plan to encourage the study and the intelligent discussion of great current problems not suited to a two-sided

contest, but rather suited to a general discussion which brings out the many sides and salient facts. Because of the keen and widespread interest in the Great War, a study outline of its causes, immediate background, and beginnings has been published as a bulletin.

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 v. Open Shop; Commission Plan of City Government; Initiative and Referendum; Municipal Home Rule; and The Recall. These publications are sent free upon request to Wisconsin citizens, and upon receipt of list price, outside of the state.

Loan of Material

The loan package libraries include selected newspaper and periodical clippings, office bound sections of periodicals, government documents, publications of organizations, copies of addresses, reprints, typewritten excerpts, books—in fact all forms of carefully selected available material dealing in a fair and balanced manner with the different phases of worth while subjects. This 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 locally, thus avoiding unnecessary duplication and expense.

GENERAL INFORMATION AND WELFARE

EDGAR B. GORDON, ACTING SECRETARY AND PROFESSOR OF MUSIC.

Purpose

The Department of General Information and Welfare constitutes a clearing-house through which all reasonable inquiries of the people of the state on general matters may receive consideration. The department disseminates methodically information bearing on public welfare.

The researches of government bureaus and commissions, of experiment stations and laboratories, of scientific institutions and associations, are often imbedded in voluminous technical reports. Thus they do not serve their full measure of usefulness. The department digests and edits these documents into a form which retains all the essential facts adapted to non-technical and democratic needs.

Reports are made by the department upon questions of food, hygiene, and sanitation; discoveries affecting the cure and prevention of disease; economic, political, social, and ethical topics; educational matters; the conservation of resources; agricultural, engineering, manufacturing, and commercial conditions; recreation and social health; child labor; municipal problems; the aesthetic and economic requirements of life in country and in city; home furnishing and decoration; landscape design; architecture; music; and similar subjects, as demands for such information arise.

Method

Information is gathered by this department and presented in suitable form for distribution. The department also secures expert advisers for communities having special problems to solve.

To conduct several specific lines of welfare work, the Municipal Reference Bureau; the Bureau of Civic, Commercial, and Community Development; the Health Instruction Bureau; and the Bureau of Community Music and Drama have been organized, each with an expert in 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, traveling 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 three score community and social service institutes held in various parts of the state, and in twenty Wisconsin Week programs during the past five 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. These exhibits are sent by the Extension Divison 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 bakers of the state. The Extension Division will arrange for and conduct vocational institutes of one or more days' duration as desired.

Bureau of Community Music and Drama

To enable the people of local communities to develop their musical interest, the Bureau of Community Music and Drama offers in addition to the correspondence-study courses in music given under another department, the services of a leader for the organization of community choruses, dramatic clubs, 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 is maintained 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 is 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 1917–18 nearly 42,000 lantern slides on more than 250 subjects and 510,000 feet of motion picture film on 175 subjects were available for use through this bureau. Seven circuits were established on which the material was routed weekly to 175 schools which applied for regular service for 21 weeks in succession, and in a similar manner 35 applicants were given service for 14 weeks in succession. In addition service was 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.

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. See pp. 96ff.

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.

Students enrolled in other schools and colleges of the University are allowed to include among their electives, credits in the School of Music not to exceed twenty. Of these, ten credits may be taken by juniors and seniors in advanced instruction (in applied music) after the approval of their adviser and of the Director of the School of Music has been secured.

A detailed statement of musical courses will be found under Music in the College of Letters and Science.

N. B. Freshmen and sophomores may take work in applied music but receive no credit.

Course of Study Leading to the Degree of Bachelor of Music

PROFESSOR MILLS, CHAIRMAN.

The School of Music offers a four-year course in music leading to the degree of Bachelor of Music. In this course the candidate may choose his major in one of the following departments: Applied Music; History and Theory; General Teaching; Public School Music.

Musical Requirements for Entrance

Organ

No previous knowledge of organ playing is required, but a student will not be enrolled until he has acquired a satisfactory pianoforte technique and some skill in polyphonic playing.

Piano

Applicants for admission will be required to play music of the following grade or its equivalent: easier sonatas by Haydn and Mozart, Czerny, Op. 299, books I and II, Heller, Op. 47, easier Songs without Words by Mendelssohn. Some knowledge of major and minor scales is necessary.

Voice

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.

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.

Courses of Instruction

Freshman

Music 81–2–3–4, Applied	2
Music 1, Harmony	3
Music 71, Solfeggi	0
Letters and Science,	
Foreign Language	4
English	3
History	3
Total	15

Sophomore

Music 81–2–3–4, Applied	2
Music, 61, Aesthetics	2
Music 75, Solfeggi	1
Music 11, Harmony	3
Music, Electives	2
Letters and Science	
Foreign Language	4 or 3
English or History	2 or 3
Total	15 or 16

Junior

Music 21, Counterpoint	2
Music 31, History	2
Music, Prescribed electives	5
Letters and Science	
*Electives	3
Electives	3
Total	15

* Psychology and Education, three credits required for students registered in the Course for the Training of Teachers.

Senior

Music 100, Thesis, or Music 100, Recital	2
Music, Prescribed electives	4
Music, Free electives	3
Letters and Science, **Electives	6
Total	15

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.

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.

** Physics 1 including Accoustics by arrangement with Department of Physics.

† The same number of grade points is also required.

Organ students are subject to the following exception: Those not sufficiently advanced 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 P. W. DYKEMA*, (Chairman); ASSISTANT PROFESSOR JONES (Acting 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. A four year course leading to the Bachelor of Music degree is also offered.

For entrance requirements see p. 99.

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.

---

* On leave of absence academic year 1918–19.

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 p. 122.

The required work is as follows:

First Year

Music 41 and 42, Methods and Practice	4
Music 1, Harmony	3
Music 71, Solfeggi	1
Music 61, Aesthetics	2
Music 81 or 82, Applied Music	1
Music 89, Practical Instrumentation	1
Music 77, Choral Union	0
Letters and Science	
Education 44	1
English 1	3
Physical Education 6	0
	16

Second Year

Music 51 and 52, Methods and Practice	4
Music 11, Harmony	3
Music 75, Solfeggi	1
Music 31, History	2
Music 77, Choral Union	0
Letters and Science	
*†Electives	6
Physical Education	0
	16

* Psychology and Education, 3 credits required for students registered in the Course for the Training of Teachers.

† 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.)

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 1 of the first year of residence:

(b) That the student has earned the following credits as electives: Philosophy 1 (psychology), three credits; choice of the following three-fifths 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.

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 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 $15. (Collegiate Course 45, 2 cr.)

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 follow-

ing 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); Courses 62a and 62b, Industrial Arts Design (first and second semester); Course 1, Elements of Mechanical Drawing (throughout the year).

Instruction in Applied Music

Pianoforte: Mr. Townsend, Miss Gunderson, Miss Campbell.
Voice Culture: Mr. Swinney, Miss Jones.
Organ: Mr. Mills, Miss Eastman.
Violin and Viola: Mr. Geltch, Mr. Yates.

Orchestral Instruments

Violoncello and Double-Bass:
Wood-Wind Instruments: Mr. Yates.
Brass Instruments: Mr. Yates.

Orchestra

MR. YATES.

The University Orchestra is composed of about sixty-five 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 the 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. YATES.

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. JONES.

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. SWINNEY.

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	15 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 $15 a semester, but neither the incidental fee nor the 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
Piano practice, each semester, one hour daily	$3 00
Organ practice, each semester, one hour daily	9 00
Concert fee	1 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.

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 courses in music must present their registration cards 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 Monday, Tuesday, and Wednesday, Sept. 22, 23, and 24, and on Wednesday at eleven throughout the semester when necessary. Appointments to meet the committee may be made with the secretary.

The office of the director in Music Hall at the University will be open for several days before the opening of each half

semester for the reception of students and assignment of courses. After the opening of the University the director may be found at Music Hall from 11 to 12 and from 2:30 to 3:30 daily, Saturday excepted.

For further information address

C. H. Mills,
Director, School of Music,
The University of Wisconsin,
Madison, Wisconsin.

DEPARTMENT OF PHYSICAL EDUCATION

PROFESSOR T. E. JONES, (chairman); ASSOCIATE PROFESSORS LOWMAN, Director of Men's Gymnasium, TRILLING, Director of Women's Gymnasium; ASSISTANT PROFESSORS BROWN, ELSOM, LIPPITT, RICHARDS; INSTRUCTORS BRESNAHAN, BROWNELL, CARNS, ELMORE, H'DOUBLER, KENT, LINDEN, MCKEE, SCHLATTER, STEINAUER, VAIL; ASSISTANT TRUMPF.

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. 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 horsepower, 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 opportunities for skating and hockey on the rink maintained by the department on Lake Mendota.

Requirements

Physical training is required of all first and second year students throughout the college year, two periods a week for men and four indoor or three 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.

Credits to the extent of four for men and eight 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 as 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. In 1918 the cost was $6.

The gymnasium fee is $1.25 each semester, required of each freshman and sophomore and of all upper class women taking work in the department.

Exemptions and Deferments from Physical Training

All requests for exemption and postponements from Physical Training must be made at the office of the Director of the Gymnasium and be approved by the Director.

I. Exemptions provided for by the rules and regulations of the University.
   1. Foreigners not desiring to become citizens.
   2. Physically unfit, on medical certificate from the Department of Clinical Medicine of the University.
   3. Short Course for Pharmacy students, known as Pharmacy II.
   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 similiar entrance requirements.

      Students coming under the above classes will fill out the official exemption form in the office of the Director of the Gymnasium and have same approved by his adviser, dean or medical examiner.

II. Excused from Physical Training under policy of the department on authority of the Director of the Gymnasium.
   1. Students from institutions of college or university rank giving accredited courses in physical education. Proper credentials must be presented to show actual performance of duty and that the course given elsewhere equals that given here.
   2. Adult Special students over 23 years of age not intending to graduate.
   3. Such other cases as the Director deems advisable.

III. Deferments required to be made up in the department.
   1. Self-supporting students where the hours of labor actually conflict with the hours of required work.

2. All cases not falling under any of those previously mentioned.

Note: In no case will work be permitted to be deferred for more than one semester consecutively, and no deferred work will be allowed to extend into the senior year.

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 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 are required to meet in the Concert Room, Lathrop Hall, Monday, Sept. 29, at 4:30 for instructions. All second year women will meet in the Concert Room, Thursday, Sept. 25, 1919, at 4:30.

All first year men in the College of Engineering will be assigned to class periods by the committees of that college. All first and second year men of the College of Agriculture and Letters and Science will be assigned to class periods in physical education, at the office of the Men's Gymnasium during the week of registration, beginning Sept. 22. All assignments must be made by Saturday noon, September 27.

All required activities of the Department of Physical Edu-

cation begin Monday, September 29, 1919. All absences on and after that date must be made up.

Tournaments and Contests

Interclass and intercollegiate 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 Interests 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. 217–220 and p. 292.)

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 instincts expressed in play and in establishing hygienic and recreative habits; and (7) the principles of organization, management, and administration.

The requirements for a major are designed to prepare students for a responsible direction of physical training activities in all their developmental, hygienic, and social relationships. The development of physical education in the public schools, the rapid rise of playground organization, the emphasis on physical training activities in social centers and their introduction into social welfare institutions, are continually increasing the demand for well-trained physical educators who can make the activities of 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, 55, 56, 59, 63, 67, 68, 107 (Physiology 116), 114, courses 21–50 (at least four credits) and thesis (4 credits) a total of 32 credits; Physical Education 19 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. Additional credit in physical education may be secured in courses 16, 107, 80, and 21–50, but 40 credits is the maximum allowed toward graduation.

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 and 67, and 21–50 for four credits, a minimum of 10 credits. Additional credits may be secured in courses 55, 16, 80 and 21–50, but the total number secured shall not exceed 20. Prerequisites are Zoology 1a or 1b or Physiology 1 and 2, Philosophy 1, and elementary education at least 3 credits, a total of 20 credits in Physical Education being allowed.

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 292, 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

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. 2 cr. Mr. Lowman and Miss Carns.

20. General Technique. a. Men. b. Women. 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 and Principles of Physical Education. II; 3 cr. Mr. Elsom.

56. Kinesiology. I; 2 cr. Prerequisites: course 20 and Anatomy 121. Miss Carns.

107. Physiology of Exercise (Physiology 116). I; 3 cr. Prerequisites: course 56 and Physiology 105 or 115. Mr. Eyster, Mr. Dawson, Mr. Meek.

59. Nature, Function and Organization of Play. II; 3 cr. Prerequisite: Philosophy 1. Mr. Lowman.

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.

67. Principles of Teaching and Adaptation. I; 3 cr. The psychology of leadership, coaching, etc. Principles of selection, evolution and adaptation of motor activities to individuals and groups, differentiated by sex and age. Prerequisites: courses 20 and 59, or 55. Miss Trilling.

68. Organization and Administration of Physical Education. II; 2 cr. Prerequisites: course 20, 59, 67, and 55. Mr. Lowman.

71. Scouting and Other Adolescent Organizations. Theory and Practice. II; 2 cr. Adolescent tendencies; the theory of scouting and adolescent organizations; the programs of activi-

ties and their educational values. Prerequisites: Philosophy 1 and Physical Education 59, or 3 cr. in education or sociology. Mr. Elsom.

80. Community Recreation. II; 2 cr. Custom in recreation, social changes and the new attitude; the needs of different classes of people; methods of arousing and maintaining community interest in general forms of recreation; types of activities; games and plays suitable for social purposes. For teachers and leaders in recreation to meet the demand for forms of social and community recreational activities. Prerequisites: Physical Education 59, or 3 cr. in education or sociology. Mr. Elsom.

MILITARY SCIENCE AND TACTICS

MAJOR JOHN S. WOOD, ORDNANCE, U. S. A., PROFESSOR OF MILITARY SCIENCE AND TACTICS, COMMANDANT; MAJOR JOHN KELIHER, INFANTRY, U. S. A., ASSISTANT PROFESSOR OF MILITARY SCIENCE AND TACTICS, ASSISTANT COMMANDANT, ACTING QUARTERMASTER; MAJOR HENRY V. DEHORITY, INFANTRY, U. S. A., ASSISTANT PROFESSOR OF MILITARY SCIENCE AND TACTICS, ASSISTANT COMMANDANT, ADJUTANT; SERGEANT MAJOR W. G. ATKINS, INFANTRY, U. S. A., RTD., ASSISTANT TO THE 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 available, in time of national emergency, an increased 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, and graduate students. 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, 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.

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 as second 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.

Reserve Officers' Training Corps

The Department has been designated by the President of the United States as an infantry unit, senior division, Reserve Officers' Training Corps under the Act of Congress of June 3, 1916. This act provides for a four year course in military training. The work of the first two years for freshmen and sophomores will not differ from that of former years, nor does the act alter the requirements placed upon freshmen and sophomores. However, all freshmen and sophomores who become members of the R. O. T. C. are furnished uniforms by the war department.

Upon the completion of the sophomore year those members of the division who are selected for further military training by the President of the University and the professor of military science and tactics may elect to take the work of the advanced course. This necessitates a written agreement on the part of the student that he will continue the work, taking it five hours a week, until the end of his college course, and pursue such

camp training as may be prescribed by the secretary of war. Upon the execution of this agreement, the war department furnishes to members of the advanced course, in addition to equipment, commutation of subsistence, amounting to about $100 a year. University credit is allowed for this work in accordance with the regulations of the various colleges.

Upon the satisfactory completion of the advanced course, together with such camp training as may be prescribed, graduates who are twenty-one years of age are eligible for appointment by the president of the United States as members of the Officers' Reserve Corps, subject to call for active service any time within ten years.

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.

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 will be provided with a cadet uniform as prescribed by and furnished through the Military Department.

Courses of Instruction

Detailed information as to the courses is given in *Regulations of the University of Wisconsin Corps of Cadets*, copies of which may be secured from the Commandant.

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, a spectroscope, astrophotometer, 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 145 centimeters. 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, a personal equation machine, a spherometer caliper, seismoscopes, photographic and meteorological apparatus, and nautical charts and 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.

The results of important investigations conducted at the Washburn Observatory are published by the state, and twelve volumes, representing the more important work done, 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, while from May, 1883, to September, 1904, the observations were made at the Washburn Observatory. The present office, since its establishment in September, 1904, has continued the series of observations. 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. WINSLOW (chairman); MR. HUMPHREY, MR. NEWLIN, MR. TEESDALE, MR. TIEMANN, MR. KOEHLER, MISS GERRY, MR. HAWLEY, MR. BATEMAN, MR. MAHOOD, MR. SHERRARD, MR. HUNT, MR. KRESS, MR. WELLS, MR. EDWARDS.

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 morphological characteristics and physical 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., obtained 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. (7) Lumbering. Study of present practice and application of improved methods of lumber manufacture.

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 or minor work for a thesis for a degree.

Student Research Assistantships

Students who show unusual ability in research may be appointed as student research assisants 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) open to all junior, senior, and graduate students and one on structural timbers (110) which is adapted particularly to junior, senior, and graduate engineers. Two lecture courses in the chemistry of wood utilization, including a description of industrial chemical processes using wood as a raw material.

Special research work can be arranged for graduate students. 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

LECTURERS BATEMAN, HUMPHREY, HAWLEY, MAHOOD, SHERRARD.

For Undergraduates and Graduates

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. Hawley, Mr. Mahood, Mr. Sherrard.

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, Mr. Wells, Mr. Edwardes.

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. Sherrard.

C. Wood distillation and wood extraction. Mr. Hawley.

D. Carbohydrates and terpenes. Mr. Mahood.

E. The chemical action of bacteria and fungi on carbohydrates. Mr. Humphrey.

F. Pulp and Paper. Mr. Kress.

FORESTRY AND WOOD TECHNOLOGY

LECTURERS TIEMANN (chairman), GERRY, HUMPHREY, KOEHLER, NEWLIN, TEESDALE.

For Undergraduates and Graduates

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, Mr. Koehler.

102. Wood Technology. II; 2 cr. Structure and identification of woods, physical and mechanical properties, kiln drying, wood preservation. Mr. Tiemann, Mr. Newlin, Mr. Teesdale, Mr. Koehler, Miss Gerry.

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, Mr. Teesdale.

119. Diseases of Timber and Forest Protection. In the Department of Plant Pathology. See p. 371.

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.

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. Maintenance of Way and Structures. Three lectures on the preservation of structural timbers as applied to railroad requirements. Mr. Teesdale.

IN THE DEPARTMENT OF ROADS AND PAVEMENTS

103. Advanced Economics in 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. Hunt.

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.

The Summer Session, originated twenty-one years ago as a period of study and review for teachers, has become an integral part of the university year. Nearly all departments are represented. The courses range from preparatory work for students seeking to meet entrance requirements through all grades of undergraduate work to the most advanced graduate instruction and investigation. The work for teachers and for graduate students receives major emphasis, but very many undergraduate students of this and other colleges now avail themselves of the opportunity thus presented to shorten the period of their college courses or to make up deficiencies in either preparation or course requirements. They have the advantage in summer of being free from many of the distractions (intercollegiate games, fraternity rushing, etc.), which obtain during the semesters. At the same time there is no lack of social life and wholesome recreation during the summer.

Duration of the Session

The twenty-first Summer Session of the University of Wisconsin opens June 30, 1919. The session lasts six weeks and closes August 8. In the Law School the session begins June 23 and ends August 29.

Classes of Courses

Courses, both academic and professional, are offered for graduates and for undergraduates in arts, engineering, medicine, law, and agriculture, for teachers in colleges, agricultural schools, high schools, and technical schools, and for special students, as lawyers, doctors, chemists, writers, social workers,

farmers and practicing engineers. Virtually 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 admission for graduates and undergraduates who desire university credit are the same for the Summer Session as for the other sessions of the University. (See pp. 96ff.)

Students, who desire to enter with advanced standing from normal or college, should submit either by mail or in person, a complete record of their preparatory and college credit to the chairman of the Advanced Standing Committee, Professor M. H. Haertel, University Hall. Blank forms for submitting such records will be supplied upon application to the chairman.

Credit students who do not desire to become candidates for a degree at this University need not comply with the entrance requirements. They may register in any course or courses the work of which, in the estimation of the instructors in charge, they are able to carry to advantage. If such students complete the work of a course satisfactorily, the Registrar will, upon application, issue a statement to that effect, stating hours of work carried and grades earned. Credit toward graduation at this University, however, will be given only after regular matriculation by one of the methods described above.

Holders of bachelor's degrees are registered directly, after conference with the Dean of the Graduate School, as graduate students. This privilege carries with it, however, no guarantee as to the length of the period of study requisite for earning any given higher degree. A special bulletin of the Graduate School will be mailed upon application. Correspondence relative to graduate work should be addressed to Dean G. C. Comstock, University Hall.

Auditors and Special Students

Adults who desire to pursue college work for their profit or pleasure, but without reference to a degree, also those who de-

sire merely to visit lecture courses in subjects which are of special interest to them, without being held responsible for the work expected of students working for credit, may register in the summer session as auditors. Auditors pay the same fee as other students and enjoy the same privileges, except that of being included in recitation and theme work.

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. 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 432 of this catalogue.

Fees and Registration

The general fee for the Summer Session, irrespective of the number of courses taken, is $15, except in the Law School (ten weeks), where the fee is $25.

Registration must precede entrance upon any part of the work of the session. Registration takes place Saturday, June 28, and Monday, June 30, at the office of the Registrar, 158 University Hall. In the Law School, registration takes place on Monday, June 23.

Students who remain beyond the regular summer session must pay an additional fee of $2.50 per week.

For estimates of the expense of a student during a session, see page 78.

GRADUATE SCHOOL, COLLEGE OF LETTERS AND SCIENCE

ART

LECTURER PHILLIPS (Winnipeg, Canada).

1S. The Figure in Landscape, 2 cr.; 2S, (a) The Art of Etching, (b) Color-Printing from Wood Blocks, 2 cr.

ASTRONOMY

PROFESSOR COMSTOCK.

1S. General Astronomy, 2 cr.

BOTANY

PROFESSOR ALLEN; ASSISTANT PROFESSORS BARTHOLOMEW, SMITH, VAUGHAN; ASSISTANTS GUGLER, MARTIN, SCHACKE.

1. General Botany, 4 or 5 cr. according to laboratory work done, by special arrangement for 3 cr.; senior thesis; 90. Teaching of Botany, 2 cr.; 101S. Plant Pathology, 2 cr.; 103. Morphology of Algae, 2 or 3 cr.; 106. Morphology of Seed Plants, 2 or 3 cr.; 146. Plant Physiology, 4 cr.; 130S. Classification of Seed Plants, 2 cr.; 140S. Economic Botany, 1 cr.; 156S. Problems of Heredity, 1 cr.; 216. Research.

CHEMISTRY

PROFESSORS LENHER, MATHEWS, WALTON; ASSISTANT PROFESSORS KRAUSKOPF, NEBEL; ASSISTANTS KRAEMER, SNYDER.

1. General Chemistry, 2 or more cr.; 1S. General Chemistry of Metals and Qualitative Analysis, 2 to 5 cr.; 5S. The 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, 1 to 4 cr.; 130S. Physical Chemistry, 2 cr.; 133S. Photography and its Scientific Applications, 2 cr.; 251S. Advanced Inorganic Chemistry, 1 cr.; 260S. Chemical Research, cr. according to work done.

CLASSICS

ASSOCIATE PROFESSORS FISKE, LAIRD; ASSISTANT PROFESSOR MISS SABIN; ASSISTANT BRYAN.

Greek

1S. Elementary Greek, 2 cr.; 7S. Second Year Greek, 1 cr.; 30S. The Greek Words in English, 1 cr.; 100S. Advanced Reading Course, 1 cr.

Latin

1S. Elementary Latin, 4 cr.; 2S. Prose Composition and Syntax, 1 cr.; 3S. Caesar, 1 cr.; 116S. Teachers Course, 2 cr.; 117S. Advanced Caesar, 1 cr.; 119S. Virgil, 1 cr.; 120S. Roman Religion, 1 cr.; 233S. Graduate Seminary, 2 cr.

ECONOMICS, COMMERCE, SOCIOLOGY

PROFESSORS COMMONS, ELWELL, GILMAN, ROSS; ASSOCIATE PROFESSOR LESCOHIER; INSTRUCTOR HAAKE.

1a. Elements of Economics, 4 cr.; 5S. Banking, 2 cr.; 8S. Elements of Accounting, 2 cr.; 111S. Business Organization and Management, 2 cr.; 122S. Labor Problems and Employment Management, 2 cr.; 137S. Corporation Finance, 2 cr.; 140. General Sociology, 4 cr.; 170S. Americanization, 2 cr.; 181S. Theory and Practice of Accounting, 2 cr.; 210S. Legal and Economic Theories of Value, 2 cr.

EDUCATION

PROFESSORS HENMON, O'SHEA, SHARP; ASSOCIATE PROFESSOR STARCH; ASSISTANT PROFESSORS JONES, MILLER, SEYBOLT; SUPERINTENDENT POTTER (Milwaukee, Wisconsin); ASSISTANTS AMES, HANSEN.

1. History of Modern Education, 2 cr.; 2S. The High-School Recitation, 2 cr.; 11. Mental Development and Education, 2 cr.; 41. Educational Psychology, 2 cr.; 103. History of American Education, 2 cr.; 108S. Principles of Secondary Education, 2 cr.; 109S. School Relations: Internal School Management, 2 cr.; 112. Social Development and Education, 2 cr.; 144. Advanced Educational Psychology, 2 cr.; Vocational Ed-

ucation and Guidance, (See Manual Arts 113S), 1 cr.; 145. Educational Measurements, 2 cr.; 149S. Moral Education, 2 cr.; 209S. School Relations: External School Management, 2 cr.

ENGLISH

PROFESSOR HUBBARD; ASSOCIATE PROFESSORS CAIRNS, GARDNER, LATHROP, PYRE; ASSISTANT PROFESSORS MANCHESTER, TAYLOR; INSTRUCTORS ALDERMAN, HARKNESS, MISS SCALLON, MISS WILLSON.

A. Sub-Freshman English, no cr.; 1a. Freshman English, 3 cr.; 1b. Freshman English, 3 cr.; 4S. The Teaching of Commercial English, 2 cr.; 6S. Advanced Composition, 2 cr.; 7S. Contemporary Drama, 2 cr.; 30. General Survey of English Literature from Beowulf through Paradise Lost, 3 cr.; 35S. Victorian Poets, 2 cr.; 37S. Shakspere, 2 cr.; 50S. The Teaching of English in the High School, 2 cr.; 123S. Teachers Course in Modern English Grammar, 2 cr.; 134S. Byron, 2 cr.; 147S. Literary Criticism, 2 cr.; 149S. Poe and Whitman, 2 cr.; 214S. The Predecessors of Shakspere, 2 cr.; 215S. Dryden and Pope, 2 cr.; 216S. Emerson, 2 cr.

FESTIVALS AND PAGEANTRY

PROFESSOR GORDON.

1S. Dramatics and the School Festival, 1 cr.; 2S. The Community Pageant and Drama Movement, 1 cr.

GEOGRAPHY AND GEOLOGY

PROFESSOR WHITBECK; ASSOCIATE PROFESSOR TWENHOFEL; INSTRUCTORS BLANCHARD, MISS LOFT.

1S. Elements of Physiography and Geology, 2 cr.; 5S. Commercial and Industrial Geography, 2 cr.; 101S. Geography of Europe, 2 cr.; 102S. Geography of South America, 1 cr.; 103S. Advanced Economic Geography, 1 cr.; 104S. Geography of North America, 2 cr.; 110S. Teachers Course in High-School Geography, 1 or 2 cr.; 132S. Geographical Seminary, 1 or 2 cr.; 125S. Field Course in Geology, 1 to 10 cr. according to work done. See also courses in Meteorology.

GERMAN

PROFESSOR HOHLFELD; INSTRUCTORS ARON, HOLLANDER.

1a. First Semester German, 4 cr.; 2a. Third Semester German, 4 cr.; 3Sc. Scientific German, 2 cr.; 17. Modern German Drama, 2 cr.; 131, Classical German Literature, 1748–1832, 2 cr.; 269. Philological Proseminary, 1 cr.; 248. Seminary in German Literature, 1 or 2 cr.; 250S. Research.

HISTORY

PROFESSORS MUNRO (Princeton University), PAXSON; ASSOCIATE PROFESSOR CHASE; LECTURER HICKS (Hamline University); INSTRUCTOR KNAPLUND.

1. Medieval History, 395–1095, 2 cr.; 2S. The World War, 2 cr.; 4. United States, 1830 to Present, 2 cr.; 90. The Teaching of History, 2 cr.; 111. History of the West, 2 cr.; 124. Recent History of the United States, 1898–1918, 2 cr.; 130S. History and Historians, 1 cr.; 132S. The Crusades, 2 cr.; 139S. Europe, 1815–1914, 2 cr.; 252S. Seminary in Historical Method, cr. according to work done; 262. Seminary in American History, 2 cr.

JOURNALISM

PROFESSOR BLEYER; LECTURER SPENCER.

102S. Newspaper Reporting, 2 cr.; 105. Special Feature and Magazine Writing, 2 cr.; 106S. Short Story Writing, 2 cr.; 120S. The Teaching of Journalistic Writing in the High School and College, 1 cr.; 130S. Editing, 1 cr.

LIBRARY TRAINING

MISS HAZELTINE AND FACULTY OF LIBRARY SCHOOL.

1. Library Administration, 6 cr.

MANUAL ARTS

ASSOCIATE PROFESSOR VARNUM; ASSISTANT PROFESSORS GODDARD, MILLER, ORTH; LECTURER LEAVITT (Assistant Superintendent of Schools, Pittsburgh, Pa.), INSTRUCTORS BRECKEY, BALLIETTE, CHISHOLM, DIAMOND, PAYTON, SCHUMANN, MISS WILSON; ASSISTANT PETERS.

1. Elements of Mechanical Drawing, 3 cr.; 2. Elements of Mechanical Drawing, 3 cr.; 3S. Descriptive Geometry, 3 cr.; 4. Elementary Bench Work, 3 cr.; 5. Furniture Cabinet Design and Construction, 3 cr.; 6. Wood Turning, 3 cr.; 7. Foundry Work, 3 cr.; 8. Forge Work, 3 cr.; 9. Machine Shop Work, 3 cr.; 12. Elementary Hand Work, 3 cr.; 15S. Architectural Drafting and Building Construction, 3 cr.; 16S. Advanced Architectural Drafting, 3 cr.; 16. Pattern-Making, 3 cr.; 17. Advanced Pattern Making, 3 cr.; 17S. Machine Design for Teachers of Manual Arts (see Machine Design, Course B); 30S. Thermodynamics (see Steam and Gas, course A); 31S. Steam and Gas Laboratory (Advanced. See Steam and Gas, course B); 32S. Steam and Gas Laboratory (See Steam and Gas, Course C); 33S. Automobile Ignition, (See Steam and Gas, Course D); 34S. Automobile Motors (See Steam and Gas, Course E); 35S. Automobile Chassis (See Steam and Gas, Course F); 40S. Sheet Metal Work, 2 cr.; 41S. Plumbing, 1 cr.; 42S. Electrical Construction, 1 cr.; 52a. Public School Drawing and Design, 3 cr.; 52b. Public School Drawing and Design, 3 cr.; 61. Civic Art, 1 cr.; 62. Industrial Arts Design, 2 cr.; 55S. Blackboard Drawing and Perspective, 1 cr.; 90. Teaching and Supervision of Secondary School Industrial Work, 2 cr.; 113S. Vocational Education and Guidance, 1 cr.; 115. Seminary on Special Methods and Problems, 1 cr.

MATHEMATICS

PROFESSOR SLICHTER; ASSOCIATE PROFESSOR DOWLING; ASSISTANT PROFESSORS HART, WOLFF; INSTRUCTORS BABCOCK, PAINE.

1S. Algebra, 2 cr.; 2S. Plane Trigonometry and Logarithms, 2 cr.; 3S. Analytic Geometry, 2 cr.; 5S. Calculus, 2 cr.; 8S. Solid Geometry, 2 cr.; 10. The Teaching of Secondary Mathematics, 2 cr.; 11S. The Content of Secondary Mathematics, 1

cr.; 52. Elementary Mathematical Analysis, 4 cr.; 55. Integral Calculus, 4 cr.; 110S. Definite Integrals, 1 cr.; 113S. Mechanics, 2 cr.; 115S. Projective Geometry, 2 cr.; 116S. Fourier Series, 1 cr.; 120S. Practical Computation, 2 cr.; 125S. Complex Numbers and Algebraic Equations of Higher Degrees, 1 cr.

METEOROLOGY

LECTURER ERIC R. MILLER, of the U. S. Weather Bureau.

1. Weather and Climate, 2 cr.; 106. Climatology, 2 cr.

MUSIC

PROFESSORS MILLS, DYKEMA; ASSISTANT PROFESSORS JONES, GELTCH, TOWNSEND; INSTRUCTOR SWINNEY.

1a-S. Harmony, 2 cr.; 11. Harmony, cr. to be arranged; 33S. Appreciation and History of Music, 2 cr.; 41a-S. Public School Music, 2 cr.; 41b-S. Public School Music, 2 cr.; 51a-S. Public School Music, 2 cr.; 51b-S. Problems of Public School Music, cr. to be arranged; 78. Community Music, 2 cr.; 81. Pianoforte, 1 cr.; 82. Voice Culture, 1 cr.; 83. Violin, 1 cr.; 89S. Practical Instrumentation, 2 cr.; 92S. Orchestra, 1 cr.; 93S. Choral Music, no cr.; 96S. Choral Music, Glee Club, no cr.

PHILOSOPHY AND PSYCHOLOGY

PROFESSORS HENMON, MCGILVARY, SHARP; ASSOCIATE PROFESSOR OTTO.

1S. Introductory Psychology, 2 cr.; 21. Introduction to Philosophy, 2 cr.; 25S. The Relation of Man to Nature, 2 cr.; 41S. Introductory Ethics, 2 cr.; 49. Moral Education, 2 cr.; 134S. The Philosophy of Bergson, 2 cr.; 139. Representative American Philosophers, 2 cr.

PHYSICAL EDUCATION AND PLAY

PROFESSOR JONES; ASSOCIATE PROFESSOR LOWMAN; ASSISTANT PROFESSORS ELSOM, MISS BROWN; INSTRUCTORS MISS H'DOUBLER, HINDMAN, SCHLATTER, MISS SMALL; ASSISTANT MRS. TRUMPF.

50S. Community Recreation, 1 cr.; 54S. History and Principles of Physical Education, 2 cr.; 57S. The Boy Scout Movement in Theory and Practice, 2 cr.; 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.; 20eS. Swimming, no cr.; 20gS. Baseball, no cr.; 20-1S. 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.; 27S. Technique of Baseball, 1 cr.; 29. Technique of Football, 1 cr.; 41. Gymnastics for Girls and Women, 1 cr.; 42. Technique of Games, 1 cr.; 43aS. Singing Games and Elementary Folk Dancing, 1 cr.; 43bS. Folk Dancing, 1 cr.; 44. Basketball and Baseball for Girls, 1 cr.; 46aS. Elementary Interpretative Dancing, 1 cr.; 46bS. Advanced Interpretative Dancing, 1 cr.

PHYSICS

PROFESSOR MENDENHALL; ASSOCIATE PROFESSOR TERRY; ASSISTANT PROFESSOR ROEBUCK; ASSISTANT JANSKY.

1. General Lectures, Mechanics and Heat, 2 cr. 1S. General Laboratory, 1 cr. for each 30 hrs.; 2S. Advanced Lectures on Light and Heat, 2 cr.; 3S. Advanced Laboratory Practice in Light or Heat, 1 cr. for each 30 hrs.; 4S. Advanced Lectures on Electricity and Magnetism, 2 cr.; 5S. Advanced Laboratory Practice in Electricity and Magnetism, 1 cr. for each 30 hrs.; 8S. Experimental Lectures for High School Teachers, no cr.; 121S. Lectures on Wireless Telegraphy, 1 cr.; 122S. Laboratory in Wireless Telegraphy, 1 cr.

POLITICAL SCIENCE

PROFESSOR OGG; ASSOCIATE PROFESSOR HALL.

7S. American Government and Politics, 2 cr.; 119S. Practical Problems of Democracy, 2 cr.; 125S. Modern Imperialism, 2 cr.; 135S. The War and Political Reconstruction, 2 cr.

PUBLIC SPEAKING

PROFESSOR O'NEILL; ASSISTANT PROFESSORS MISS JOHNSON, WEAVER; LECTURER MISS CAMP (Grand Rapids, Michigan), ORR (Lawrence College).

7S. Elements of Public Speaking, 1 cr.; 8S. Extempore Speaking, 1 cr.; 12S. Fundamentals of Vocal Expression, 2 cr.; 21S. Voice Training and Phonetics, 2 cr.; 33S. Dramatic Production, 2 cr.; 35S. Argumentation and Debate, 2 cr.; 105S. Speech Composition, 2 cr.; 125S. Correction of Speech Defects, 2 cr.; 190S. Seminary in Teachers' Problems, 2 cr.

ROMANCE LANGUAGES

PROFESSOR SMITH; ASSISTANT PROFESSORS ATKIN, GILLIN, LYON, REED, ZDANOWICZ; INSTRUCTORS BRADLEY, CARDON, MISS CONRAD, MME. GREENLEAF, HALVERSON, JENKINS, RANEY, MISS ROSS; ASSISTANTS MISS GASSAWAY, MLLE. JULLIEN.

French

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.; 15S. Elementary Conversation and Composition, 2 cr.; 16S. Intermediate Conversation and Composition, 2 cr.; 17S. Grammar and Composition, 1 cr.; 18S. French Pronunciation, 2 cr.; 19S. Elementary French Composition, 2 cr.; 90S. The Teaching of French and Spanish, 2 cr.; 120S. Advanced Conversation and Composition, 2 cr.; 138S. Modern French Verse Drama, 2 cr.; 139S. Molière, 2 cr.; 140S. French Novel, 2 cr.; 141S. French Short Story, 2 cr.; 142S. Contemporary French Literature, 2 cr.; 233S. Be-

ginning Old French, 2 cr.; 244S. Old French Literature, 1 or 2 cr.; 245S. Research in French.

Italian

1S. Elementary Italian, 2 cr. 246S. Research in Italian.

Spanish

1a. Elementary Spanish, 4 cr.; 1b. Second Semester Spanish, 4 cr.; 10S. Second Year Spanish, 2 or 3 cr.; 15S. Elementary Conversation and Composition, 2 cr.; 90S. Teachers Course, (See French 90S); 158S. Advanced Conversation and Composition, 2 cr.; 159S. Spanish Novel, 2 cr.; 160S. Don Quixote, 2 cr.; 240S. Research Work in Spanish Language and Literature.

ZOOLOGY

Professor Guyer; Associate Professor Pearse; Assistant Cole.

7S. Animal Biology, 3 cr.; 6. Heredity and Eugenics, 2 cr.; 103. Field Zoology, 2 cr.; 105S. Special Problems, cr. to be arranged; 124. Limnology, cr. to be arranged; 228. Research, cr. to be arranged.

LAW SCHOOL

Professor Gilmore; Associate Professor Rundell; Lecturers Goodrich (University of Iowa), Wickhem (Milwaukee, Wisconsin).

Common Law Pleading, 2 cr.; Real Property, 2 cr.; Torts, 4 cr.; Code Pleading, 4 cr.; Conveyancing, 2 cr.; Damages, 2 cr.; Public Service Companies, 3 cr.; Quasi Contracts, 3 cr.; Suretyship, 2 cr.

MEDICAL SCHOOL

ANATOMY

PROFESSORS BARDEEN, MILLER; ASSISTANT PROFESSOR LARSELL.

110S. Histology and Organology, 3 cr.; 115S. Embryology, 3 cr.; 121. Human Anatomy, cr. according to work done; 122. Topographical Anatomy, cr. according to work done; 126S. Neurology, 3 cr.; 130S. Modern Laboratory Methods and Research.

BACTERIOLOGY

PROFESSOR CLARK.

102. Medical Bacteriology, 5 or 6 cr.; 3S. Bacteriology, 3 or 4 cr.; 2S. Immunity, 1 cr.

CLINICAL MEDICINE

ASSISTANT PROFESSOR DR. MORRIS; INSTRUCTORS CURL, ROBBINS; ASSISTANT MISS GRAY.

101S. Clinical Diagnosis, 1 cr.; 102S. Clinical Laboratory Diagnosis, 1 cr.; 103S. Minor Surgery and Bandaging, 1 cr.; 104S. X-Ray Technique, cr. to be arranged.

PHARMACOLOGY

DR. EYSTER.

104S. Pharmacology, 3 cr.; 105S. Pharmacology, cr. according to work done.

COLLEGE OF ENGINEERING

APPLIED MECHANICS

ASSOCIATE PROFESSOR WITHEY; ASSISTANT PROFESSOR KOMMERS.

1. Statics, 3 cr.; 2. Dynamics, 2 cr.; 3. Mechanics of Materials, 5 cr.; 4. Materials of Construction, cr. to be arranged.

CHEMICAL ENGINEERING

PROFESSOR KOWALKE.

114. Chemical Manufacture, 4 cr.

MACHINE DESIGN

ASSISTANT PROFESSOR HYLAND.

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. The Kinematics of Valve Gears, cr. to be arranged; 3. Machine Elements, cr. to be arranged; 4. Design of Complete Machines, cr. to be arranged.

MECHANICAL DRAWING

ASSISTANT PROFESSORS MILLAR, ORTH.

1. Elements of Mechanical Drawing, 3 cr.; 2. Elements of Mechanical Drawing, 3 cr.; 3. Descriptive Geometry, 3 cr.

RAILWAY ENGINEERING

ASSOCIATE PROFESSOR VAN HAGAN.

22. Practice in Railway Location and Construction.

SHOP WORK

SUPERINTENDENT GODDARD; INSTRUCTORS BRECKEY, CHISHOLM, PAYTON, SCHUMANN; ASSISTANT PETERS.

1. Elementary Pattern Making, 1 cr.; 2. Bench Work in Iron, one-half cr.; 3. Elementary Forge Work, one-half cr.; 4. Lathe Work in Metals, 1 cr.; 5. Planing and Milling, 1 cr.

STEAM AND GAS ENGINEERING

ASSISTANT PROFESSOR BERGGREN, INSTRUCTOR LITTLEWOOD.

A. Thermodynamics, 3 cr.; B. Steam and Gas Laboratory, 2 cr.; C. Steam and Gas Laboratory, 2 cr.; D. Automobile Ignition, Starting, and Lighting Systems, 2 cr.; E. Automobile Motors, 2 cr.; F. Automobile Chassis, 2 cr.

SURVEYING

PROFESSOR SMITH and INSTRUCTORS.

106. Topographical Survey, cr. by arrangement.

COLLEGE OF AGRICULTURE

AGRICULTURAL BACTERIOLOGY

PROFESSOR HASTINGS; ASSISTANT PROFESSOR WRIGHT.

1S. General Survey of Bacteriology as Related to the Farm and Home, 4 cr.; 230. Research Work in Agricultural Bacteriology, cr. to be arranged.

AGRICULTURAL CHEMISTRY

PROFESSOR HART; ASSISTANT PROFESSOR PETERSON.

3. Household Chemistry, 1 to 3 cr.; 200S. Research in Agricultural Chemistry, cr. according to work done.

AGRICULTURAL ECONOMICS

PROFESSOR HIBBARD; ASSOCIATE PROFESSOR GALPIN.

126S. Farm Tenure and Land Credit, 2 cr.; 225S. Rural Social Organization, 2 cr.; 240. Special Research Problems, cr. to be arranged.

AGRICULTURAL EDUCATION

ASSOCIATE PROFESSOR JAMES.

105S. Methods and Problems of Vocational Agriculture, 2 cr.; 200S. Special Research Problems, cr. to be arranged.

AGRICULTURAL ENGINEERING

INSTRUCTOR SAUVÉ.

3S. Tractors, Gas, and Automobile Engines, 3 cr.

AGRONOMY

ASSISTANT PROFESSORS LEITH, MORTIMER.

140S. Teaching of Agronomy, 2 cr.; 121S. Advanced Crop Judging, 1 cr.; 101S. Thesis and Field Course, cr. to be arranged.

ANIMAL HUSBANDRY

ASSOCIATE PROFESSOR HULCE.

1S. Dairy Farm Practice, 3 cr.

GENETICS

PROFESSOR COLE.

101. Principles of Breeding, 2 or 3 cr.; 121. Topical Work, 2, 3 or 4 cr.; 225. Research, cr. to be arranged.

HOME ECONOMICS

ASSOCIATE PROFESSOR MISS SCHMIT; ASSISTANT PROFESSORS MISS HILLSTROM, MISS KRUEGER; INSTRUCTORS MISS CULLINAN, MISS DAVIS, MISS ROBERTS, MISS WENGEL.

6S. Nutrition and Dietetics, 2 cr.; 8S. Decoration of the Home, 2 or 4 cr.; 10S. House Management, 3 or 4 cr.; 31aS. Elementary Dressmaking, 2 cr.; 31bS. Advanced Dressmaking, 2 cr.; 32S. Clothing for Children, 2 cr.; 40S. Food Study and Cookery, 2 to 4 cr.; 46S. Economic Problems in Food and Fuel Conservation, 2 cr.; 50S. Textiles and Weaving, 2 or 3 cr.; 92S. Hand and Machine Sewing, 2 cr.; 102S. Topical Work, cr. according to work done; 103S. Seminary. Economic History of Textile Industry, 2 cr.

PLANT PATHOLOGY

ASSISTANT PROFESSOR VAUGHAN.

101S. Diseases of Plants, 2 cr.

SOILS

ASSOCIATE PROFESSOR TRUOG.

3S. Principles of Soil Physics and Fertility, 3 cr.

CONVOCATIONS

List of Convocation Addresses: Calendar Year 1918

Jan. 14.

Henry C. King, president of Oberlin College.
"Grounds of Hope in the Changing World-Order."

March 14.

David R. Porter, general secretary of the International Committee of the Students' Y. M. C. A.
"North American Students and a New Christian World."

April 4.

All-University Convocation under the auspices of the Student Council of Defense in Honor of Wisconsin Men in the Service of Democracy. Preceded by Escort of Colors on the campus.

April 26.

Patriotic Rally in Response to President Wilson's Call. Address by W. A. Scott, professor of economics, the University of Wisconsin.
"War and Its Exactions."

PUBLIC LECTURES

Each year the University arranges a series of public lectures, and brings to Madison for that purpose a number of distinguished speakers. The aim is 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.

Given in War Course

Feb. 19.
Helen Frazer, England.
"Woman's Work in War."

Feb. 25.
Stuart P. Sherman, professor of English, University of Illinois.
"America and the International Spirit."

March 6.
Charles Upson Clark, Rome, Italy.
"Italy's Part in the War."

March 11.
Anthony Czarnecki, editorial staff, Chicago Daily News.
"Poland."

March 14.
Major S. J. M. Auld, member British Mission to America.
"Gas Warfare."

March 25.
W. H. Schofield, professor of English, Harvard University.
"The Scandinavian Situation."

April 1.
Ellinor Fell, Paris.
"Conditions in France."

April 3.
John B. Winslow, Chief Justice Supreme Court of Wisconsin.
"Overthrow of International Law."

April 10.
Suzanne Silvercruys, Belgium.
"Belgium under German Rule."

April 17.
E. L. Philipp, governor of Wisconsin.
"Wisconsin in the War."

April 18.
Edward Brown, London, England.
"War and Agriculture in England and France."

April 22.
H. Gideon Welles, professor of pathology, University of Chicago, member Red Cross Mission to Roumania.
"Roumania's Part in the War."

April 29.
John F. Coar, professor of modern languages, University of Alberta, Canada.
"The German Paradox."

May 1.
Eugene Davenport, dean, College of Agriculture, University of Illinois.
"The Civilian and the War."

May 6.
Mrs. Vernon Kellogg.
"Message from the Women of Belgium."

May 15.
Major K. B. Ferguson, British Royal Artillery.
"Artillery's Part in the War."

May 22.
P. B. Noyes, head of Conservation Division, U. S. Fuel Administration.
"Relation of Fuel to War and Industry."

May 27.
Dr. H. H. Powers.
"United States and Latin America."

May 28.
Theodore Roosevelt.
"Preparedness and Americanism."

May 29.
Dr. H. H. Powers.
"United States and the Far East."

June 3.

Colonel Applin, British Army.

"Discipline."

July 5.

J. H. Breasted, professor of oriental history, University of Chicago.

"The Near East and the Great War."

July 9, 10.

Lieutenant Raoul Renard, French Army.

"France at War."

"France and Peace."

July 11, 12.

Arthur Vincent, member British Mission.

"Relation of the Colonies to Great Britain in the Present War."

"An Historical Review of the Irish Situation."

July 19.

George M. Wrong, professor of history, University of Toronto.

"Canada in the War—Why and How."

July 22.

Theodore G. Soares, professor of practical theology, University of Chicago.

"Fight the Next War Now."

July 23.

Major General J. D. McLachlan, military attaché, British Embassy.

"The British Army."

July 26.

E. Raymond Turner, professor of history, University of Michigan.

"The Jugo-Slavs and the Czecho Slovaks."

July 30.

Geoffrey Butler, British Mission.

"English Experiences of the War."

DEGREES

CONFERRED ON COMMENCEMENT DAY, 1918

COLLEGE OF LETTERS AND SCIENCE

Bachelor of Arts

The star preceding a name indicates that the candidate was in military service and was granted a war diploma.

George Leonard Adair
Elizabeth Ona Andrews
Lulu Belle Andrews
George Brynhilde Anundsen
Eleanor Bernice Babcock
*Kenneth Edward Bahe
Verena M. Baker
Louise Medberry Barber
*Robert Lynee Barger
Helen Margaret Batty
Ruth Spalding Beach
Dorothy M. Bell
Alice Louise Bemis
Ada Lillian Benson
Faye Oretta Bentley
Lucile Harriet Berg
*Max John Berg
*Louis Bradley Blachley
Leita Ruth Bestow
Ruth Laura Beyer
*Gilman Dorr Blake
Elizabeth Rowell Blanchard
Clara Marie Blau
Madalin Bliss
Ovid Bernhart Blix
*Newell Stephen Boardman
Ralph Hutchinson Bongey
Helene Jarvis Bowersox
Ruth Huldah Boyce
†*William Rowland Boyd
*Robert Miller Brewer
Herman Oswald Brill
Dorothy L. Brinker
*Edward George Brittingham
Christine Etna Brown
Dorothy Grace Brown
Mary Elizabeth Brown
*Neil Winthrop Brown
Leone Grace Bryhan
Elsie Buckstaff
William F. Buech
Bessie Margaret Buell
†Helen de Yoe Buell
Helen Perkins Bull
Katharine Mary Bundy
Leroy James Burlingame
Marion Clinch Calkins
Margaret Chamberlain
*Marshall Howard Childs
Jessie Overton Clark
Anna Marie Clarke
Josephine Freeman Clarke
Vera Margaret Clarke
Lucia Baldwin Clow
Marion Olive Cole
Esther Agnes Collins
Helen Jeanette Collins
Sarah Lois Colosimo
Jessica Burt Colvin
‡Harold Francis Connors
Emma Gretchen Corstvet
Winnifred Katharine Corwin

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.

†Helen D. Craig
Rosamond Crosby
Catharine Culver
Raymond Henry Cummings
Emma Clara Damkoehler
Marion Evelyn Davis
*Trayton Hooker Davis
Marion Lucile Dawson
David Eliott Day
Mary Catherine Dick
Helen Rose Dodd
*Joseph Conway Dodd
Died in service.
*Newell P. Dodge
†Blanche Marie Doran
William George Dormeyer
Ethel Sturges Dummer
Marian Dunnette
*Everett Hall Eaton
Helen Orrissa Eaton
Everett Carlyle Edwards
*Robert Charles Ellis
Anna Mason Ely
Gertrude Winifred Erickson
*Ray Sanford Erlandson
Marjory Etnyre
*James Ambrose Evans
Jessie Marion Evans
Margaret Mae Evans
*Louis Philip Ewald
*Charles Oscar Ewing
Rosa Felsher
Mary Josephine Ferguson
*Jerome Joseph Feeney
Gertrude Fitzgerald
Bernice Bridget Fitzgibbon
Edith Marion Fleming
Mary Florence Fleming
*Olaf Flood
Grace Neva Foglesong
Marion A. Fox
Stephen Patrick Fox
Margaret Alice Fraser
Fred John Fuehring
Anne Marguerite Fullerton
Dorothy Jane Fullerton
*Glenn Lion Gardiner
*Lloyd Milton Garner
Kathryn Marie Geiger
†Gertrude Emily Germer
Annie Bertha Gidley
*William Sydnor Gilbreath, Jr.
Mary Staunton Glover
Doris Martha Goodland
*Carl Anthony Gosline
Jessie Louise Green
Marjorie Katharine Griesser
*Clarence Reynold Grosser
Lillian Clara Haley
Glen William Halik
Anna Semelie Halsor
Alma Newell Halverson
Estella Ione Halverson
Louise Hammon
Mary Lois Hanley
Alma Christine Hanson
*Will Peter Hanson
Juanita Marie Hardman
†Hannah Truesdale Harrington
Edna Gertrude Hartman
†Michael William Heckmann
Dorothy A. Helmes
Albert James Henry, Jr.
*Harold Carl Heseman
Amanda C. Hessman
*Clarence Martin Heublein
Catharine Romana Higgins
Frances Lucretia Hill
Nicholas Joseph Hoffman
Gretta Fenelon Holahan
Gladys Mae Holstein
Ada Horn
Letha Marjorie Hoskins
Margaret Condi Hosmer
Nora Christine Hovrud
Miriam Beardsley Hubbard
Mary Harlow Hudson
Beatrice Hayden Humiston
Lee Wilson Hutchins
Winifred Inglis
*Clara Marie Ingwersen
*Macauley Irwin

† Degree conferred since commencement, 1918.

Frances Marguerite Jamieson
†Clara Augusta Jankel
Esther Jenkins
Rolf Thorleif Horn Johannesen
Genevieve Catherine Johnson
Irene Helen Jones
Laura Julio
Helen Theresa Kammerer
Clara Louisa F. Kepke
Edna Marie Kesler
Iva Nodene Ketcham
*Francis Orton Keyes
Emily Amanthus Kimball
Alice Van Patten King
Marjorie Kinnan
Theresa Marie Kleinheinz
Ione Magdalena Klenk
†Marion Armstrong Knight
Eve Tenney Knower
Helen Sheldon Knowlton
Margaret Roper Knowlton
Mary Rose Kobetich
*Albert Henry Kohlman
Walter Charles Kraatz
Augusta Kreitzer
Elsa Kremers
Florence Isabel Krieger
Amy C. Lathrop
Pauline Gottsleben Liebig
Esther Eugene Littig
Lucile Harshaw Logan
Dorothy Loomis
Agnes Celestine Loughlin
Helen Irene Lounsbury
*Alvin Matthew Loverud
Elizabeth Lucile McCarthy
Margaret Mary McCarthy
Margaret Agatha McGuire
*Charles Thomas McIntosh
Fred William McKay
Emma Marie McKnight
Marjorie McMurray
Katherine V. Mabis
*James Norman Mackenzie
‡Carl James Marsh
Kate Landis Martin
Marion Catherine Mayers
*John Metschl
Charles Alois Meyer
Harrison A. Meyer
†Margaret Lucy Middlekauff
Audra Evelyn Miller
Florence Emma Miller
John Coventry Miller
Clara Margaret Moeschler
Alice Elizabeth Mooney
Kathryn Morris
Meade McKinley Morris
Edwin French Morse
Milton Moses
†Eleanor Janet Murphy
Lorna Murphy
‡Katherine Margaret Murray
John William Nash
†Vera Emma Naylor
Ingrid Chase Nelson
Lutie Marie Nelson
†Marion Catharine Neprud
†Martha Neprud
Evelyn Virginia Nicolls
Claire Nolte
Marie E. Fanning O'Brien
*George Peter Oliver
Clara Louise Opper
Gladys Evelyn Palmer
Edna Amelia Parker
Florence Alevia Partridge
Norma Lenys Pearson
Margery Anne Peck
Rose Perel
Esther Adollia Peterson
*James Dahle Peterson
*Harris Grow Pett
Reuben Roland Pfeiffer
†Clarence Henry Phelps, Jr.
†Cordelia Clement Pierce
Viola Elizabeth Pohle
Mary Eliza Porter
Ellis D. Potter
Mary Eileen Powers
Esther Anne Preston
Mable Watson Raimey

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.
†Degree conferred since commencement, 1918.

Dorothy Emma Reid
Alberita Napier Richards
Dolores Millicent Richards
Dorothy Rietbrock
Ethel Genevieve Rindy
Olga Belle Ristow
*Junius Sturges Roberts
Alma Edith Robinson
Margaret Ann Robinson
*Alfred Moore Rogers
Lucy E. Rogers
Helen Natalie Rohrs
Dorothy Ross
Eva Lucile Rossiter
Elizabeth Royce
Ingeborg Elizabeth Rudd
Genevieve Ingersoll Ryan
†Sister Mary Samuela
Hazel Alvilda Sanders
Marian Elizabeth Sanford
Gladys Marguerite Sapp
Frances Margaret Sarles
Estelle Julia Sawyer
Erich George Schalkhauser
Armand Robert Schiller
*Herbert Gustave Schreiter
Sarah Charlotte Schustedt
Elinore Louise Schweizer
Dorothy Belle Scott
Fern Horton Searls
Margaret Devlin Sennett
†Lois Fuller Shortess
*Edward George Sievers
†Oscar Carl Simenson
Martha Olea Skaar
Thomas Harry Skemp
Oscar Bernard Sletteland
Allen McKinnon Slichter
*Gwynette Ellsworth Smalley
‡Earle Eugene Smith
*Harold David Smith
Katharine Smith
Ruth Solon
†Margaret Spielmacher
Mildred Sprague
Madelyn Elizabeth Stanchfield
Norma Hoffman Stauffer
Mildred V. Stewart
William McKinley Stewart
Dimple Rhea Stier
Lydia Isabell Stitt
Ruth Lucile Stolte
Angela Hope Sullivan
†Jessie Taber
*Joseph Clark Taylor
*Hans Peter Termansen
*Cyrus Charles Thieme
†Olga Christiane Thompson
Alberta Margaret Titus
§Ernst Lorenz Traeger
†Hubert Louis Traeger
Ruth Anna Tufts
†Raymond Charles Tuttle
Geneva Anna Twells
Inez Edna Upgren
§Chauncey Learen Vander Bie
Miriam Vander Bie
Charline Marie Wackman
Dora May Walser
Anna Lucille Warren
*Joseph Branick Weix
Esther Winifred Werden
*Walter Albert Werner
Mary Esther Wessinger
Marthena Whipple
†Cleveland J. White
Olive Annie White
*James Lowell Whittet
Nina Mary Wickwire
Gertrude M. Wilmanns
*Roger Gilbert Wolcott
Frances Carolyn Wood
†Frances McKay Wood
Mabelle Gertrude Ziegler
Hazel Zum Brunnen

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.
‡ Degree conferred March 6, 1918.

Course in Commerce

†Charles Lippincott Andrews
William James Carey Babcock Jr.
*Stanley Leslie Balmer
Max Benard Belsky
*Edwin Louis Berg
*Frank Victor Birch
*Lawson Waterman Bishop
*John William Boehne Jr.
*Harold John Bryant
*Henry Hason Bush
Harold Cornelius Collins
*John George Conley
*Raymond Michael Coughlin
Oak Robert Davis
*Earle Frank Drow
Ben Louis Ellman
*Frank Joseph Entrop
*Arthur Albert Erdmann
*William Friend Ferguson, Jr.
*Conrad Marion Fox
*Donald Stephen Farley
Frederick William Fuhrmann
*Frank Joseph Funke
*Milton Leroy Gardner
*Harold Matthew Gasser
Frank Demmer Golden
*Marvin Clifford Goul
Gertrude Johanna Haessler
Helen Annette Haessler
*Arthur Guy Hanson
Irene Eleanor Hart
*George Albert Hill
*Cecil Lloyd Holman
*Frank Lyman Hughes
*Welton Ellery Johnson
Clarence Egbert Josephson
Raymond Edward Karcher
John Garver Kerch
*Halford Harrison Kittleman
*Alvin Edward Lentz
*Robert Ferdinand Levy
*Gustaf Heimer Lindberg
Cecilia Marie Lins
Hyman Stanley Lipschutz
*Donald William McGinnis
*Edwin Aldons Moffitt
*John Lawrence Moody
*Raymond Peter Morrissey
Victor Clinton Moses
*Cyril Winton Nave
*William Ambrose Nevin
*Harold Vincent Nicoll
*Alex Joseph Olshefsky
*Vernon Wing Packard
*John Raymond Perkins
*Harry Arnold Pollack
Isadore Reichenbaum
*Edwin James Rhodes
*James Marston Richardson
*Harvey Earl Roberts
*Harold John Schubert
*Armin Daniel Schultz
*John Newton Sherwood
*George John Silbernagel
*Gerald Daum Stone
*Sidney Allerdice Stout
*Daniel James Teare
*John Trautmann
Erwin Clarence Trumpf
*Leslie Walter Van Natta
Barton Kerr Warner
*Harold Parker Weeks
*Paul Stevens Widman
*Clarence Nathan Wolf

Course in Journalism

*Marshall Francis Browne
Imogene Burch
Mary Louis Doherty
Marjory Everest Hendricks
Elizabeth Pruett
*Irving Alfred Puchner
Sarah Amelia Spensley
Frank Thomas Tucker
George Earl Wallis

† Degree conferred since commencement, 1918.

Bachelor of Philosophy

Normal Course

†George Mordecai Appleman
†Edwin Sidell Billings
Nettalie Harriet Boucher
Bernard Ray Bowden
Beulah May Bowden
Nehemiah Homer Brainerd
Gertrude Buehler
†Tomsyna Carlyle
‡Edgar George Doudna
†Bessie Eva Edsall
Victor Edward Forseth
†William James Hamilton
*James John Hayden
Homer Selmo Hemenway
†Everett Charles Hirsch
†Sadie Elizabeth Hood
Ruth Hopkin
Florence Rose Keeley
Alfred Dominic Mueller
†John Peaslee O'Connor
†Emanuel Marion Paulu
Henry David Schultz
Mathilde Angela Schwerdt
Ida Ruth Shilling
†Katherine Foley Sullivan
†Jessie Swan
Luella Frances Voigt
Katharine Clark Washburn
Ruth Wetmore
†Carl Tipton Wise
†Charles Bihum Woodstock

General Course

*Albert Kingsley Guy
Mildred Emma Johnson
Clarence Kohl
John Robert Lange
Maude Agnes Shepherd
John Charles Watson

Bachelor of Science

Chemistry Course

Lyman Anderson Beeman
*Henry Louis Biersach
*John Herman Black
Edgar Lee Chaplin
*Gordon Manly Cole
*Ralph Friess
*Carleton Henningsen
Philip John Hickey
Alfred Koehler
Elmer Otto Kraemer
Carl Arthur Krohn
Armand James Quick
*Chester Elmore Shepard
Ida Farr Starkweather
*Lewis Delmar Suhr
George Galloway Town
Otho Jacques Urech
Charles Law Warner
*Henry Hermann Edward Wessel

Pharmacy Course

*Jalmer Bernard Johnson
Claude Earl Rupp
Joseph Henry Salentine

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.

Graduate in Pharmacy

*Oscar Edward Anderson
Franklin James Bacon
Howard Holton Baker
Elmer Vern Gabler
Joseph Adolf Gitzen
Harlan George Groffman
Ernest Gottfried Kuenzi
Jonas Louis La Crosse
George Kellar Mills
William Kenneth Mills
Gustave J. Noel
Charlotte R. Rath
Irene Foster Staples
Lida Luella Winkelblech

Bachelor of Science

Medical Science Course

Thomas James Aylward
Ruth Evelyn Boynton
Joseph Patrick Brennan
Roger Clifton Cantwell
Otto Peter Diederich
Norton John Eversoll
†Louis Fauerbach, Jr.
‡Frederick Ray Fisher
Lydian Paul Guttmann
†Louis E. Hanson
Paul Leo Hefty
†William Edwin Hunt
George Howard Irwin
Francis Rush Janney
Harry Edward Kasten
Benjamin Parsegh Khanlian
Frank C. Kinsman
William Alfred Koelsch
Rose Alice Kriz
Charles B. Lakoff
Arno Robert Langjahr
*John Lawrence Loomis
James Stewart Mills
†Bernard Parker Mullen
Samuel Alfred Murphy
Irving Isidor Muskat
†Mynie Gustav Peterman
Arthur S. J. Peterson
John James Pink
Mary Torey Roudebush
†Wilbur Herman Ruehl
Mark Edward Ryan
Otis Warren Saunders
Herbert Walter Schmitz
Edwin Frank Schneiders
Harry Arthur Shearer
Eber Edward Simpson, Jr.
Sylvester Stephen Stack
John William Truitt
William John Van Den Berg
‡Charles Grafton Weller
John Webster Williams

SCHOOL OF MUSIC

Bachelor of Music

Dorothy Alice Beecher
Lucille Eleanor Campbell
Hildegarde Henrietta Mayer
Leila Evangeline Miller
Agnes Cecelia Skelton

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.

Graduates from Course for Supervisor of Music

Carol Elizabeth Draggs
Florence B. Gravenbrock
Lucille Caroline Hieber
Mary Lula Kilpatrick
Eleanor Catherine Jennie Kraemer
Hildegarde Henrietta Mayer
Leona Annette Schneider
Isabelle Sanderson Schwalbe
Mary Elizabeth Shafer
Ruth Carol Smith
Ruth Marie Turner
Edith Marie Zander

COLLEGE OF ENGINEERING

Bachelor of Science

Civil Engineering Course

*Wayne Osman Axtell
*Joseph Gardner Bennett
*William John Camlin
*Bernard Martin Conaty
*Arthur Frederick Dahlman
Charles Edwin Dennis, Jr.
Thomas Edward Fieweger
Henry Herman Gumprecht
*John Wallis Harris
*Harold John Hosler
Frank Andrew Kaiser
Frank M. Kennedy
Louis Adolf Kirch
*James Robert McAteer
§Joseph Alfred Mannington
*Adolph William Meiselwitz
*Walter Solomon Nathan
*William Dennis Ryan
Philip Harold Smith
†*Joseph Rexford Vernon

Mechanical Engineering Course

Edward Anderson
Arthur Otto Frederick Bucholtz
Larry Edward Burzynski
*Arthur Frederick Fredericksen
*Harry West Hirshheimer
*Harold Herman Holling
(Died in service)
*Herbel Arthur Lange
Alois Joseph Mikna
*Raymond Miller
*George Thomas Moore
*Perry Haines Paul
James Alfred Peachey
James Frank Roberts
§Gilbert Ferdinand Roddewig
*Louis Claude Rove
*Elmer Edward Saberhagen
*Carleton Engler Saecker
*Edwin Schmidt
*Herbert Eugene Schraeder
Edward Sylvester Schranck
Kurt Louis Seelbach
*Kenneth Shiels
*Earle Potter Shnable
Everett Hoxie Van Patten
*Robert Bruce White
Raymond Michael Wirka
De Witt Edward Yates

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.
§Degree conferred March 6, 1918.

Electrical Engineering Course

*Herbert Laflin Avery
Harold William Brock
Lloyd Lenard Call
Everett Leland Cole
*Clark Smith Collins
Brooks Lawson Conley
John Mark Connelly
Paul Emil Dahm
Howard Hastings Fuller
†Harry Richard Heintzen
†George Stephenson Jackson
Carl Frederic Kattler
Wen Paul Liang
Allan Chase McCullough
*Cleve A. McMullen
†Alexander Carl Maercker
Ernest Benedict Morse
Lucius Byron Nash
Arthur Charles Nielsen
Arthur George Pergande
*Clarence Albert Pottinger
*Frederick Livingston ReQua
*Clarence Walter Schmidt
Claire Leslie Schneider
*Lawrence Frederick Seybold
Harold Nichols Shaw
*Fred Emil Sinnen
Harold Guilford Tufty
Willard Smith Wilder

Chemical Engineering Course

Gregor Sidney Affleck
Ernest David Fahlberg
Clemens Thomas Fleckenstein
John Albert Hanson
*Carl Frederick Hayden
*Russel Shultz Johnson
Karl Christian Kleimenhagen
Victor Axel Olson
*Ralph Edwin Ramsey
Paul Herman Schmidt
†Richard Milton Storer
Nelson Bo Tan
Louis Van Ermen
J. Wesley Williams

Mining Engineering Course

Khoren Leon Hussissian
*Arthur Frederick Peterson
*Morgan Evan Roberts
*Ernest Henry Schwartz

General Engineering Course

Cudworth Beye
(Degree conferred as of the class of 1906.)

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.

COLLEGE OF AGRICULTURE

Bachelor of Science, (Agriculture)

Hugo William Albertz
*George Veyne Banta
*Dean Smith Bascom
*John Ellsworth Belden
*Stanley Raymond Belden
*Roy Frederick Benkert
Charles Curtis Brace
*Andrew Jacob Brann
*Lawrence Murphy Brown
*Sidney Thompson Brown
*Orvin Richard Brunkow
Donald Alan Caldwell
*William Waller Carson
*William Stephen Chandler
Carroll Curtis Clarke
*Earl Galbreth Cowie
*Walter Scott Craig
Deane Griswold Davis
*John Fonda Downing, Jr.
Clyde DeForrest Dopkins
†Porter Smith Dyer
*Ned Royce Ellis
Albert Charles Fiedler
Emil Erich Finner
Julian Seymour Gallentine
William T. Grams
*Edward Collins Gratiot
*Ralph August Harbach
*Carl Quantick Harris
Richard Winsor Hartwell
*Clarence Irving Hendrickson
*John Hugh Hill
Henry Chester Hoesly
Orlando Oswald Horlamus
Severt M. Jensen
*Leland Sylvester Johnson
*Gustav Ulrich Kappel
§William Frederick Kauffman
*William Michael Kelley
Elizabeth Norris Kendall
Dwight Clinton Kennard
Vincent Earl Kivlin
Arthur William Knott
Fred Alexander Korst
*Arthur James Kralovec
*Robert Wilmer Leukel
Franklin Leslie Liebenstein
*William Frederic Meyer
*Glen Edward Moore
Elmer Martin Nelson
*Victor Hugo Quick
*John Basil Roberts
*Herbert Hugo Ross
*William Herman Ross
*Marshall William Sergeant
Tracy Ray Shane
*Harold Jack Shapiro
*Sherwood William Shear
Hugo Henry Sommer
*George Henry Stueber
†Martin O. Tosterud
*Verne Vincent Varney
William Allen Walker
*John Clement Warner
*Linton Gilmore Weed
*Sergeant Peabody Wild
Milton C. Zellmer
*Ulrich Randolph Zuehlke

Bachelor of Science, Home Economics Course

†Claribel Josephine Adams
Grace Marion Andersen
Esther Hannah Anderson
Carol Bird

† Degree conferred since commencement, 1918.
‡ Degree conferred January 16, 1918.
§Degree conferred March 6, 1918.

Hazel E. Branine
Katherine Warren Browne
Maribel Jeannette Butler
Dorothy Serena Case
Helen Petrovna Churchill
†Beulah Isabelle Coon
Catherine Helen Cronin
Magdalen Cronin
Helen Maria Cumming
Helen McKee Davis
Dorothy Wheeler Dickerson
Frances Mildred Enger
Emma Kasparek England
Dorothy Catherine Findorff
Anne Cecilia Foley
Edith Fultz
Leona Mae Garrow
Esther Emeline Gifford
Marie Louise Haessler
Mildred Isabel Hagerty
Wealthy Maria Hale
Reba Cordelia Haner
Joanne Rose Hayes
Martha Healey
Esther Helen Heisig
Katharine Hudson
Martha Estelle Humphrey
Myra Bertha Jahr
Myrtle Elvira Jobse
Grace Alice Johnson
Verna Louise Johnson
Ruth C. Kuhns
Mary Frances Little
Marie Kathryn Lottes
Edwina May MacDougall
†Dorothy Ellen McGinnis
Betsey Madison
Frances Theodosia Martin
Frances Jean Moffitt
†Genevieve Downs Moore
Nellie Ethel Morrissey
Ruth Douglas Noer
Dorothy Paine
Helen Elizabeth Parkinson
Avis Marie Peters
Janet Ella Reid
Helen Avalee Rice
Margaret Emma Roberts
Margaret Gertrude Rogers
Jennie Irene Rowntree
Garnetta E. Scheid
†Marie Mable Scheinpflug
Myrtle Mae Schnackenberg
Hazel Angeline Sims
Hannah Bigelow Smylie
Florence Mildred Sprecher
Margaret Frances Stevens
Mary Llewllyn Stout
†Mary Margaret Todd
Ethel Van Wart
Helen Walsh
Elizabeth Nancy Wilson

Graduate in Agriculture

†John Edelston Bowstead
Lloyd Merril Boyce
Lloyd Emerson Gasser
Luster Eugene Hines
Frank Emerson Howard
Wabun Clarence Krueger
Kenneth William Mainland
Pansy Mae Modesitt
Jay Howard Stillman
Blanche Stevens Tolman

† Degree conferred since commencement, 1918.

LAW SCHOOL

Bachelor of Laws

‡Bradner Frank Boreson
Grover Lee Broadfoot
‖Arthur Herman Brunkow
§Louis John Brunner
§Earl James Caskey, B.A.
Robert John Cunningham
‡Gerhardt Oscar Gullickson, B.A.
§Louis Cowdrick Horner
John Frederick Kuehnl
Edward John Neuenschwander
Armand Joseph Tuteur
§Clarence Fred Whiffen
†Jacob Charles Wilberscheid

Certificate

Marie Angelina Brunner
Stephen Walter Brunner
Louis Dee Mallonee

GRADUATE SCHOOL

Master of Arts

Lewis Orvin Anderson, B.A. (University of Wisconsin) in Psychology
†Lura Blackburn, B.A. (University of Wisconsin) in English
Clara Katherine Bleck, B.A. (Northwestern College) in French
†Joseph Lyndel Bowler, B.A. (University of Kansas) in History
†Other Dwight Brown, B.A. (Ohio Wesleyan University) in Education
Walter Reid Bryan, B.A. (University of Wisconsin) in Latin
Flora Buck, B.A. (Vassar College) in German
Robert Newton Burrows, B.A. (University of Texas) in Agricultural Economics
Benjamin Franklin Coen, B.L. (University of Wisconsin) in Economics
Blair Converse, B.A. (Earlham College) in Journalism
Marcia Baird Cremer, B.A. (University of Wisconsin) in English
Clarence Gus Dittmer, Ph.B. (Hamline University) in Economics
†Edward William Dolch, B.A. (Washington University, St. Louis) in Education
James Clay Dolley, M.A. (Randolph Macon College) in Greek
†Jonathan Truman Dorris, B.A. (Illinois College) in History
Agnes Durrie, B.A. (University of Wisconsin) in English

---

†Degree conferred since commencement, 1918.
‡Degree conferred January 16, 1918.
§Degree conferred March 6, 1918.
‖Degree conferred April 17, 1918.

†Charles Crawford Edmonds, B.A. (University of Wisconsin) in Economics
Margaret Virginia Fay, B.A. (University of Wisconsin) in German
Thomas Robert Foulkes, B.A. (University of Wisconsin) in Manual Arts
Clara Adelaide Griffin, B.A. (Wellesley College) in Journalism
Adolph Geiger, B.A. (College of the City of New York) in German
Joseph Boyd Haley, M.A. (Emory College) in Greek
Donald Littlejohn Halverson, B.A. (Beloit College) in French
†Walter Worth Harvey, B.A. (Indiana State Normal) in English
Lillie Vinal Hathaway, B.A. (Vassar College) in German
Margaret Camilla Hayden, B.A. (University of Wisconsin) in Mathematics
†Hazel Marie Healy, B.A. (Simpson College) in English
†Edna Heidbreder, B.A. (Knox College) in Philosophy
†Florence Margaret Helmich, B.A. (Ripon College) in German
Helen Minnie Hohlfeld, B.A. (University of Wisconsin) in German
‡Harold Harvey Herbert, B.A. (University of Illinois) in Journalism
†Herbert Paist Ide, B.A. (Hamline University) in Education
†Benjamin Franklin Price Ivins, B.A. (Valparaiso University) in Sociology
James Francis Jenkins, B.A. (University of Wisconsin) in French
Claude Rupert Kellogg, B.A. (University of Denver) in Zoology
Edna Henrietta Kuhnert, B.A. (Rochester College) in Economics
Bernice Donnelly Kuney, B.A. (University of Wisconsin) in English
Helen Mary Langer, B.A. (University of Wisconsin) in French
Nelle Irene McClurg, B.A. (University of Illinois) in Home Economics
Wallace Robert McConnell, B.A. (University of Illinois) in Geology
Rodney L. Mott, B.A. (Leland Stanford University) in Political Science
†Henry Adolph Onsgard, B.A. (Luther College) in German
Stephen Jefferson Patten, Ph.B. (Brown University) Political Science
LeRoy Prince Ramenstein, B.A. (Wabash College) in Physics
‡George Worcester Ricker, B.S. (Bowdoin College) in European History
Eliza Margaret Ritchie, B.A. (Lawrence College) in Botany
‡Byron Lewis Robinson, B.A. (University of Wisconsin) in Zoology
Harold Vincent Roelse, B.S. (Hastings College) in Economics
Eva Marie Rohner, B.S. (University of Akron) in German
Hilda Rojas, (University of Chile) in Botany
Leslie Truesdale Ross, B.A. (University of Colorado) in Romance Languages
Gertrude Mathilda Schlueter, B.A. (Northwestern College) in German
Irene Scrutchfield, B.A. (Missouri State University) in German

† Degree conferred since commencement, 1918.
‡Degree conferred March 6, 1918.

Elmer Louis Sevringhaus, B.A. (University of Wisconsin) in Medicine
Daniel C. L. Sherk, B.A. (University of South Dakota) in Chemistry
†Sister Mary Camillus, B.A. (Washington University) in Latin
‡Sister Mary Coronata Schardt, B.A. (Washington University) in German
Jessica Minerva Smith, B.A. (Kansas State Teachers College) in History
†Maxwell Austin Smith, B.A. (University of Wisconsin) in Romance Languages
†Paul Tincher Smith, B.A. (DePauw University) in History
Hosmer Ward Stone, B.A. (University of Wisconsin) in Chemistry
Charis Strong, B.A. (Carroll College) in German
Graham Henry Stuart, B.A. (Western Reserve University) in Political Science
Shoichi Tochikura, B.A. (Waseda College) in Economics
Myrtle Trowbridge, B.A. (University of Wisconsin) in American History
Helen Flint Wallace, B.A. (University of Wisconsin) in French
James Merton Watters, B.A. (University of Illinois) in Education
Bertha Harris Wiles, B.A. (University of Illinois) in English
Meta Aileen Wood, B.A. (University of Wisconsin) in Mathematics
Ellsworth Ewing Zook, B.A. (Missouri State Normal School) in Political Science

Master of Science

Alexander V. Arlton, B.S. (St. Olaf College) in Zoology
†Dimitar Atanasoff, B.Agr. (Michigan Agricultural College) in Plant Pathology
Morgan Thompson Binney, B.S. (Kansas State Agricultural College) in Plant Pathology
‡Raymond George Bressler, M.A. (Wofford College) in Agricultural Education
Mason Herbert Campbell, B.S. (University of Illinois) in Experimental Breeding
†May Louise Cowles, B.S. (Kansas State Agricultural College) in Home Economics
†Charles Lewis Fluke, B.S. (Colorado Agricultural College) in Economic Entomology
Louis Gustave Gentner, B.S. (Oregon Agricultural College) in Economic Entomology
Edward John Graul, B.S. (University of Wisconsin) in Soils
Neale Frederick Howard, B.S. (University of Wisconsin) in Economic Entomology
Dih Hoe Lee, B.A. (St. John's University) in Animal Husbandry

‡ Degree conferred March 6, 1918.
†Degree conferred since commencement, 1918.

Alice Lloyd Jones, B.S. (University of Wisconsin) in Home Economics
‡Ralph Brownlee Lowry, B.S. (Clemson College) in Agronomy
Paul Mehl, B.S. (Oregon Agricultural College) in Economics
Albertine Emilie Metzner, B.A. (University of Wisconsin) in Geology
Louis Guy Micheal, B.S. (Michigan Agricultural College) in Experimental Breeding
Thomas Bartlett Mullin, B.S. (Queens, Kingston College of Ontario) in Hydraulic and Sanitary Engineering
Noel Ardis Negley, B.A. (University of Nebraska) in Animal Husbandry
Merle Starr Nichols, B.S. (University of Wisconsin) in Physiological Chemistry
‡Herman John Ninman, B.S. (University of Wisconsin) in Agricultural Bacteriology
Dickson Ward Parsons, B.A. (University of West Virginia) in Animal Husbandry
Charles Semple Pettis, B.S. (University of Wisconsin) in Soils
Max Phillips, B.S. (University of Wisconsin) in Chemistry
†Sterling Elliott Price, B.S. (Utah Agricultural College) in Experimental Breeding
Dwight Logan Reid, B.A. (University of Wisconsin) in Soils
Jean Katharine Rich, B.S. (Lewis Institute) in Home Economics
‡Raymond Walter Schafer, B.S. (Kansas State Agricultural College) in Agricultural Economics
John Henry Schmidt, B.Ch.E. (University of Michigan) in Chemistry
Carl Carpenter Searle, B.S. (Washburn College of Kansas) in Medicine
Joseph Ellsworth Simmons, B.S. (University of Wisconsin) in Agricultural Bacteriology
†Mabel Pearl Spanswick, B.S. (Beloit College) in Agricultural Bacteriology

Master of Philosophy

Walter Ray Ames, Ph.B. (University of Wisconsin) in Education
†Bernard Ray Bowden, Ph.B. (University of Wisconsin) in Political Science
Elmer Ernest Lehman, B.A. (Goshen College) Agricultural Education
William John Trautmann, Ph.B. (University of Wisconsin) Chemistry

---

†Degree conferred since commencement, 1918.
§Degree conferred March 6, 1918.

Civil Engineer

Henry Horton Frenzel, B.S. (Oklahoma Agricultural and Mechanical College)
A comparison of the ellipse of elasticity method and a method based on the elastic theory in the analysis of an elastic arch
Paul Clifford Gillette, B.S. (Agricultural and Mechanical College of Texas)
Arly Luther Hedrick, B.A. (Yale University)
Robert Dunham Short, B.S. (University of Georgia)
Mitering lock gates

Mechanical Engineer

‡Otto Carter Berry, B.S. (University of Michigan) Mechanical Engineering

Chemical Engineer

Olav Andreas Hougen, B.S. (University of Wisconsin)
The load carrying capacities of magnesia-silica mixtures at high temperatures
Howard Elliott Sweet, B.S. (University of Wisconsin)
Some studies of gaseous combustion for heat treatment of steel

Doctor of Philosophy

†Willis James Bell, M.A. (University of Wisconsin) in Education, German and Latin
The psychology of learning a foreign language
James Percy Bennett, M.A. (University of Missouri) in Botany and Chemistry
A study of certain factors affecting the nutrition of aspergillus niger
Albert Brann, M.A. (University of Wisconsin) in Chemistry and Applied Electro-chemistry
The effect of dissolved substances on the velocity of the crystallization of water and of formanide and its application to the solvate theory of solutions
†Robert Spencer Cotterill, B.A. (Kentucky Wesleyan College) in History and Latin
Sears Polydore Doolittle, M.S. (Michigan Agricultural College) in Plant Pathology, Botany, and Agricultural Bacteriology
The mosaic disease of cucurbits

---

†Degree conferred since commencement, 1918.
‡Degree conferred March 6, 1918.

†Charlotte Elliott, M.A. (Leland Stanford University) in Plant Pathology, Botany, and Experimental Breeding
Bacteriosis of oats

‡Max William Gardner, M.S. (University of Wisconsin) in Plant Pathology, Botany and Bacteriology
Anthracnose of cucurbits

†Nahum James Giddings, M.S. (University of Vermont) in Plant Pathology, Bacteriology and Chemistry
Infection and immunity in apple rust

Aaron Martin Hageman, M.S. (Rutgers College) in Chemistry, Agricultural Chemistry and Applied Electro-chemistry
Tellurium sulphide

Alvin Harvey Hansen, M.A. (University of Wisconsin) in Political Economy and American History
Cycles of prosperity and depression in the United States, Great Britain and Germany: a study of monthly data 1902–1908

Clark Leonard Hull, M.A. (University of Wisconsin) in Psychology and Education
Quantitative aspects of the evolution of concepts: an experimental study

Harry Jerome, M.A. (University of Wisconsin) in Economics and Political Science
The relation of custom to price

James Johnson, M.S. (University of Wisconsin) in Plant Pathology, Botany and Economic Entomology
The influence of heated soils when used in phyto pathological research

Henry August Langenhan, M.S. (University of Wisconsin) in Pharmacy and Botany
Arsenical liquors of the United States pharmacopoeia

Eldin Verne Lynn, M.A. (University of Wisconsin) in Plant Chemistry and Chemistry
Chemical studies of the terpenes

†Hermon King Murphey, M.A. (Harvard University) in American History and Political Science
The Mugwump movement of 1884

George Porter Paine, M.A. (Harvard University) in Mathematical Physics and Mathematics
The general circulation of the earth's atmosphere

†Rudolf Theodor Rieder, B.A. (University of Wisconsin) in German and French
Ein bild Robert Reitzels und des "Armen Teufels" aus seinem verhältnis zur litteratur

Eugene Washburn Roark, M.S. (University of Wisconsin) in Plant Pathology, Botany and Agricultural Bacteriology
The septoria leaf spot of Rubus

---

†Degree conferred since commencement, 1918.
‡Degree conferred March 6, 1918.

William Royal Smithey, M.A. (Randolph-Macon College) in Education and Economics
State and county educational reorganization in Virginia
Rinehart John Swenson, M.A. (University of Minnesota) in Political Science and American History
River and harbor improvements by the United States government
Clarence Lester Turner, M.A. (Ohio Wesleyan University) in Zoology and Geology
The seasonal cycle in the spermary of the perch
John Charles Walker, M.S. (University of Wisconsin) in Plant Pathology, Botany and Agricultural Bacteriology
Onion anthracnose
Gertrude Mareau White, M.A. (University of Wisconsin) in Zoology and Botany
Association and color discrimination in mudminnows and sticklebacks

HONORARY DEGREES

Doctor of Science

LEANDER MILLER HOSKINS, Professor of Applied Mathematics, Leland Stanford Jr. University.

Doctor of Laws

DAVID KINLEY, Vice President, Dean of the Graduate School, Professor of Economics, University of Illinois.

GRADUATION HONORS

Honors for Theses

College of Letters and Science

Max Benard Belsky, in Commerce
A uniform accounting system for garages
Ovid Bernhart Blix, in Economics
The labor troubles in the copper mining camps of Arizona and Montana
Helen De Yoe Buell, in English
Anticipations of Wordsworth in Akenside
Marion Lucile Dawson, in Botany
Some studies on the fungous flora of the soil
Mary Staunton Glover, in History
Economic and social position of women in Ptolemaic and Roman Egypt

Meade McKinley Morris, in Economics
Steam railroad traffic congestion in the United States
Norma Lenys Pearson, in Botany
The early history of the embryo-sac development of *Oenothera*
Armand James Quick, in Chemistry
The action of ammonia on chlor-substituted benzene derivatives
Dorothy Emma Reid, in Botany
A survey of the micrasterias flora of Wisconsin
Mathilde Angela Schwerdt, in German
The social tendencies in Goethe's *Wilhelm Meister*
Margaret Devlin Sennett, in History
History of Madison 1850–1880
Ruth Lucile Stolte, in Sociology
The development of American outdoor poor relief as shown by the reports of the National Conference of Charities and Corrections, 1874–1916

STUDENTS

GRADUATES

Fellows and Scholars

Anderson, Carl Arthur — *East Tawas, Mich.*
B.A., Augustana College — Fellow in Semitic Languages

Andrae, Lydia — *Milwaukee*
B.A., Milwaukee-Downer College
Milwaukee-Downer Scholar (Economics)

Ault, Otho Clifford — *Gainesville, Fla.*
B.A., Defiance College — Fellow in Economics

*Baird, Harry Silversides — *Davis, California*
B.S., Kansas State Agricultural College
Honorary Fellow in Dairy Husbandry

Bauer, Frederick Charles — *Madison*
M.S., University of Illinois — Scholar in Soils

*Bausch, Mary M. — *Everett, Pa.*
M.A., Bryn Mawr College — Henry Gund Scholar in German

Beyer, Ruth Laura — *Madison*
B.A., University of Wisconsin
Albert Trostel Scholar in German

Boyd, Alice Ruth — *Lima Center*
B.A., Milton College — Milton College Scholar (English)

Brandt, Walther Immanuel — *MacFarland*
M.A., University of Wisconsin — Fellow in American History

Brickbauer, Lydia Anna — *Elkhart Lake*
B.A., Ripon College — Ripon College Scholar (History)

*Brown, Mabel Mary — *Madison*
M.A., University of Wisconsin — Fellow in Botany

*Browne, Frederick Lincoln — *Madison*
B.Chem., Cornell University
Du Pont Fellow in Physical Chemistry

Bryan, Walter Reid — *Madison*
M.A., University of Wisconsin — Fellow in Latin

*Burdick, Adelaide Bartholf — *Milton*
B.A., Milton College — Scholar in English

---

* Appointment for part of the year.
† Enrolled in Students' Army Training Corps.

*Call, Lloyd Leonard — *Marshall*
B.S., University of Wisconsin — Fellow in Physics
†Carpenter, Otto Frank — *Belleville, Mich.*
M.A., University of Wisconsin — Fellow in Economics
*Carroll, Burt Haring — *Warwick, N. Y.*
B.S., Cornell University — Du Pont Fellow in Chemistry
Coburn, Elizabeth Mary — *Madison*
B.A., St. Clara College — Teaching Fellow in English
Davis, Norma Jessie — *Evanston, Ill.*
B.S., University of Wisconsin — Fellow in Home Economics
Dexter, Elise Forsythe — *Madison*
M.A., University of Wisconsin
Alfred Uihlein Fellow in German
Dunham, Gertrude Helen — *New London, Conn.*
M.A., Smith College — Fred Vogel Jr. Fellow in German
Eaton, Helen Orrissa — *Madison*
B.A., University of Wisconsin
Albert C. Elser Scholar in German
Essinger, Anna — *Madison*
M.A., University of Wisconsin
Charles F. Pfister Fellow in German
Evans, Aneta — *Beloit*
B.A., Beloit College — Beloit Scholar (Economics)
Geiger, Adolph — *New York City*
M.A., University of Wisconsin
Joseph Schneider Fellow in German
Grant, Mary Amelia — *Topeka, Kansas*
M.A., University of Kansas
Charles Kendall Adams Fellow in Greek
Haessler, Clara Louise — *Milwaukee*
M.A., University of Wisconsin
Albert F. Gallun Fellow in German
Hayden, Margaret Camilla — *Madison*
M.A., University of Wisconsin — Fellow in Mathematics
Hertzler, Joyce Oramel — *Berea, Ohio*
B.A., Baldwin-Wallace College — Fellow in Sociology
Hoeltzel, Pauline Reichardt t c — *Little Rock, Ark.*
B.A., University of Arkansas
Albert Trostel Scholar in German
Jacobson, Ruby Inez Selma t c — *Missoula, Montana*
B.A., University of Montana
Henry Schoelkopf Scholar in German
Ketcham, Iva Nodene — *Madison*
B.A., University of Wisconsin — Scholar in Romance Languages
Knower, Eve Tenney — *Interwald*
B.A., University of Wisconsin — Scholar in Philosophy
Koehler, Alfred E. — *Mishicot*
B.S., University of Wisconsin
Fellow in Agricultural Chemistry

Krafka, Elizabeth Barbara — *Ottumwa, Iowa*
B.A., Lake Forest College — Fellow in Zoology
*Kremers, Roland Edward — *Madison*
B.A., University of Wisconsin — Fellow in Chemistry
*Langer, Helen Mary — *Chicago, Ill.*
M.A., University of Wisconsin — Scholar in French
Little, Mary Frances — *Menasha*
B.S., University of Wisconsin
Scholar in Agricultural Bacteriology
Macnaughton, Ariel Marguerita — *Madison*
M.A., McGill University — Mary M. Adams Fellow in English
*Mix, Morton E. — *Alfred, New York*
Ph.B., Alfred University — Gustav Pabst Fellow in German
Murphy, Eleanor Janet — *Madison*
B.A., University of Wisconsin — Scholar in Botany
*Nelson, Elmer Martin — *Madison*
B.S., University of Wisconsin
Scholar in Genetics and Agricultural Chemistry
(Paint Mfg. Asso. of U. S.)
*Reif, Herman Peter — *Madison*
B.S., University of Wisconsin — Hollister Fellow in Chemistry
*Richards, Bert Lorin — *Logan, Utah*
M.A., Utah Agricultural College — Fellow in Plant Pathology
Rudolph, Verna Florence — *Manitowoc*
B.A., Carroll College — Carroll College Scholar (English)
*Schacke, Martha Alvina — *Reedsburg*
B.A., University of Wisconsin — Fellow in Botany
Schafheitlin, Anna — *Canning, Nova Scotia, Canada*
M.A., McGill University
Charlotte Trostel Fellow in German
*Sharp, Malcolm Pitman 1 — *Madison*
B.A., Amherst College — Scholar in Economics
*Sherk, Daniel Christopher Leander — *Madison*
M.A., University of Wisconsin — Fritzsche Fellow in Pharmacy
Shine, Mary Lambert — *Cincinnati, Ohio*
M.A., University of Cincinnati — Fellow in European History
Sure, Barnett — *Milwaukee*
M.S., University of Wisconsin
Scholar in Agricultural Chemistry
*Tilden, Chloe Elizabeth — *Wausau*
B.A., University of Wisconsin
Teaching Fellow in Romance Languages
*Tisdale, William Burleigh — *Madison*
M.S., University of Wisconsin
Horlick Scholar in Plant Pathology
Titchener, Margaret Seymour — *Ithaca, N. Y.*
B.A., Wells College — Fellow in Greek
*Turnbull, Julia Isabella — *Nashville, Tenn.*
B.S., Vanderbilt University
Teaching Fellow in Romance Languages

Weeks, O. Douglas — *Marion, Ohio*
B.A., Ohio Wesleyan University
Scholar in Political Science

Wiles, Bertha Harris — *Kansas City, Mo.*
M.A., University of Wisconsin
Scholar in Classics

*Wurst, Gotthilf — *Madison*
M.A., Northwestern University
Gustav Pabst Fellow in German

—58

Other Graduates

Adams, Jesse Bliss — *Madison*
B.S., Kansas State Agricultural College — Agricultural Education

Adler, Philip Abrams — *Madison*
B.A., University of Wisconsin — Philosophy

Albertz, Hugo William — *Watertown*
B.S., University of Wisconsin — Plant Pathology

Alderman, William E. — *Madison*
B.A., Hiram College — English

Allen, Claudia M. — *Belleville*
Ph.B., University of Chicago — History

Altmeyer, Arthur J. — *Madison*
B.A., University of Wisconsin — Economics

Ames, Norton Travis — *Oregon*
B.S., University of Wisconsin

Ames, Walter Ray — *Madison*
Ph.M., University of Wisconsin — Education

Atanosoff, Dimitar — *Putnam, Conn.*
M.S., University of Wisconsin — Plant Pathology

Axley, Harold m — *Cleveland*
B.S., University of Wisconsin — Medicine

Babcock, Rodney Whittemore — *Madison*
M.A., University of Wisconsin — Mathematics

Bachelder, Calvin Leslie — *Madison*
B.A., Bowdoin College — Chemical Engineering

Bahadur, Mohindra — *Hyderabad, Deccan, India*
B.A., University of Pumjab — Agriculture

Bailey, Ernest Hayden — *Madison*
B.S., University of Wisconsin — Plant Pathology

Ballard, Charles McElvy — *Madison*
B.Litt., Kenyon College — Semitic Languages

Ballou, Susan Helen — *Madison*
Ph.D., University of Giessen — History

Ballu, Celine Agnes — *Madison*
B.A., University of Wisconsin — French

Baumgartel, Walter Herbert — *Crookston, Minn.*
B.S., North Dakota Agricultural College — Economics

Bensend, Louis Adolf t c — *Whitehall*
B.S., University of Wisconsin — Animal Husbandry

Bishop, George H. — *Ann Arbor, Mich.*
B.A., University of Michigan — Zoology
Blanchard, William Oscar — *Madison*
Ph.M., University of Wisconsin — Geology
Bleyer, Alice Haskell — *Madison*
M.A., Columbia University — French
Bohnson, Van Lorens — *Madison*
M.S., University of Wisconsin — Chemistry
Bohstedt, Gustav — *Madison*
M.S., University of Wisconsin — Animal Husbandry
†Borsack, Karl Kasper m — *Fond du Lac*
B.A., University of Wisconsin — Medicine
Bourgeois, Helena La Vern — *Bismarck, N. D.*
B.S., Jamestown College — History
Bowden, Beulah May — *Brodhead*
Ph.B., University of Wisconsin — History
Bruce, Harold Rozelle — *Clinton*
B.A., Beloit College — Political Science
Buell, Mary Van Rensselaer — *Madison*
M.A., University of Wisconsin — Agricultural Chemistry
†Burdick, Allison Lovelle m — *Milton*
B.A., Milton College — Anatomy
Burdick, William Dighton — *Milton*
B.A., Milton College — Chemistry
Bureau, Paule — *Fouras, Charente-Inferieure, France*
M.A., University of Bordeaux — French
Cable, Donald Elmer — *Madison*
B.S., Armour Institute of Technology — Chemical Engineering
Cady, Grace Raymond — *Reedsburg*
B.A., University of Wisconsin — Latin
Calderwood, Howard Newton — *Madison*
B.S., University of Kansas — Physical Chemistry
Caldwell, Clinton Coppage — *New Castle, Va.*
M.A., Johns Hopkins University — Agricultural Economics
Chase, Ruth Wayland — *Madison*
B.A., University of Wisconsin — Zoology
Churchill, Helen Petrovna — *Monroe*
B.S., University of Wisconsin — Agricultural Chemistry
Clarke, Anna Marie — *Whitewater*
B.A., University of Wisconsin — Economics
Clayton, Edward Eastman — *Chicago, Ill.*
B.S., Ohio State University — Plant Pathology
Clevenger, Clinton B. — *Madison*
M.S., Ohio State Agricultural College — Soils
Clugston, Phil R. — *Crawfordsville, Ind.*
B.A., Wabash College — English
Cole, Arch Evan — *Madison*
B.A., Ohio Wesleyan University — Zoology

Coleman, William Harold — *Madison*
M.A., Yale University — English
Conrad, Agnes — *Madison*
B.S., University of Arizona — Psychology
Cook, Guy Shimer — *Greenville, Ill.*
B.A., University of Missouri — Physics
Copp, Ellen Adelaide — *Madison*
M.A., Hillsdale College — Philosophy
Cowles, Jean Mills — *Madison*
B.A., University of Wisconsin
Cox, Alonzo Bettis — *Cleburne, Texas*
M.A., University of Texas — Economics
Crane, Alice Whittaker — *Boston, Mass.*
B.A., University of Wisconsin
Crothers, Harold Marion — *Madison*
E.E., University of Wisconsin — Electrical Engineering
Dahm, Thomas Matthew — *Madison*
B.A., Northwestern University — Physics
Davis, Ira Cleveland — *Madison*
B.A., Ripon College — Education
Dickson, James G. — *Madison*
M.S., University of Wisconsin — Botany
Dooley, Mabel — *Madison*
M.A., University of Wisconsin — English
Douglas, James Lee — *Madison*
B.A., University of Wisconsin — Education
Eimer, Edna — *Milwaukee*
B.A., University of Wisconsin — English
Elmendorf, Stella Texas — *Madison*
B.S., University of Texas
Ely, Anna Mason — *Madison*
B.A., University of Wisconsin — Economics
Enright, Eleanor Marie — *Janesville*
B.S., University of Wisconsin — Home Economics
Etter, Rolland Robert — *Monroe*
B.S., University of Wisconsin — Chemistry
Evans, Viriginia Harriett — *Madison*
B.A., University of Washington — Economics
Eybers, Ebenezer — *Worcester, S. Africa*
Ph.D., New York University — Economics
Fabin, Madeleine Charlo He — *Prayssac, France*
Certificate Secondaire, Paris — French
Diplome d'Etudes Superieures, Bordeaux
Fahlberg, Ernest David — *Madison*
B.S., University of Wisconsin — Chemical Engineering
Fisher, Ray D. — *Portland, Oregon*
M.A., University of Oregon — English
Fite, Alexander Green — *Madison*
M.A., Vanderbilt University — French

Frank, Marian Field — *Sioux City, Iowa*
Ph.B., Grinnell College — Education
Frantz, Ruth — *Elgin, Ill.*
B.A., Pomona College — Public Speaking
Garman, Jessie Lena — *Tyrone, Pa.*
B.A., Mt. Union College — Latin
Gassaway, Mary Eleanor — *Cairo, Ill.*
B.L., University of California — French
George, May Olivia — *Ypsilanti, Mich.*
B.A., University of Wisconsin — French
Gerry, Eloise — *Madison*
M.A., Radcliffe College — Botany
Green, Carroll Gardner — *Brookings, S. D.*
B.S., State College of South Dakota — History
Greene, Louise McMynn — *Milwaukee*
B.A., University of Wisconsin
Greenleaf, Charles Hunt — *Madison*
M.A., University of Wisconsin — French
Greenslade, Grover Rawle — *Madison*
M.A., University of Washington — Physics
Griswold, Edith — *Wyoming, Iowa*
B.A., Lenox College — English
Gross, Erwin George — *Madison*
B.S., University of Wisconsin — Agricultural Chemistry
Grossman, Nora Neprud — *Westby*
B.A., University of Wisconsin — French
Gugler, Milton Clarence — *Chapman, Kansas*
B.A., Washburn College — Botany
Haake, Alfred Paul — *Madison*
M.A., University of Wisconsin — Economics
Halik, Glen William — *La Crosse*
B.A., University of Wisconsin
Haner, Reba Cordelia — *Sun Prairie*
B.S., University of Wisconsin — Bacteriology
Hannan, Loretto F. — *Milwaukee*
B.A., University of Wisconsin
Hansen, Allen Oscar — *Madison*
M.A., Culver-Stockton College — Education
Hansen, Grace Maybelle — *Madison*
B.A., Culver-Stockton College — Botany
Hartwell, Richard Winsor — *Madison*
B.S., University of Wisconsin — Economic Entomology
Hawkins, Hildred Moser — *Madison*
B.A., University of Wisconsin — Economics
Hawkins, Pliny Haine — *Madison*
M.S., Montana Agricultural College — Botany
Helie, Fernande Marie-Louise — *Vitré-ile-et-Vilaine, France*
License des Lettres, University of Rennes — French
Henning, Erwin Lloyd — *Madison*
M.S., University of Wisconsin — Soils

Herreid, Cecilia — *Madison*
B.A., University of Wisconsin — Botany

Hickey, Philip John — *Cleveland, Ohio*
B.S., University of Wisconsin — Chemistry

Hill, George Cornelius — *Mahopac, N. Y.*
B.A., Columbia University — Public Speaking

Holway, Ida Mackin — *Madison*
B.A., Lawrence College — English

Hubbard, Dorothy Rowe — *Madison*
B.A., University of Wisconsin — Physics

Ingersoll, Julia Day — *Denver, Colorado*
B.A., Colorado College — French

Inomata, Tsunao — *Nagaoka-shi, Japan*
B.A., Waseda University — Agricultural Economics

Jansky, Cyril Moreau, Jr. — *Madison*
B.A., University of Wisconsin — Physics

Jeddeloh, Henry John zu — *Madison*
B.A., University of Wisconsin — Education

Jensen, C. Gail — *Madison*
B.A., University of Wisconsin — Home Economics

Johnson, Isabelle Charlotte — *Chicago, Ill.*
M.A., Northwestern University — Anatomy

Jones, Sarah Van Hoosen — *Chicago, Ill.*
M.S., University of Wisconsin — Genetics

Jullien, Andrée — *Torbes, Htes Pyrénées, France*
Diplome de fin d'etudes secondaires, College of Moulin — French

Kent, Hazel Eva — *Madison*
B.S., University of Wisconsin — Agriculture

Khoorshid, Ardeshir Behmanji Hirji — *Secunderabad, Deccan, India*
B.A., University of Bombay — Genetics

Kiekhofer, Gladys Owen — *Madison*
B.A., Smith College — French

Kirch, Louis Adolf — *Mazomanie*
B.S., University of Wisconsin

Kissick, Mary Florence — *Oskaloosa, Iowa*
Ph.B., Pennsylvania College — Economics

Knaplund, Paul — *Madison*
M.A., University of Wisconsin — History

Knowlton, Margaret Roper — *Madison*
B.A., University of Wisconsin — English

Koehler, Benjamin — *Mishicot*
B.A., Lawrence College — Plant Pathology

Koenen, Anita Kathrine — *Milwaukee*
Ph.B., University of Wisconsin — Economics

Kraemer, Elmer Otto — *Madison*
B.S., University of Wisconsin — Chemistry

Krueger, Leonard Bayliss — *Madison*
Ph.B., University of Wisconsin — Economics

Kuney, Bernice Donnelly — *Three Lakes*
M.A., University of Wisconsin — English
Langdon, Grace Elizabeth — *Madison*
B.S., Elmira College — Sociology
Leake, Chauncey Depew — *Roselle, N. J.*
B.Litt., Princeton University — Physiology
Lewis, Herdis Leo — *Howell, Mich.*
B.S., Michigan Agricultural College — Plant Pathology
Liang, Wen Paul — *Hong Kong, China*
B.S., University of Wisconsin — Electrical Engineering
Lieu, Kwang-Yee — *Kiangsu, China*
B.A., The Government University of Pekin — Economics
Littig, Esther Eugene — *Flandreau, S. D.*
B.A., University of Wisconsin — English
Loft, Genivera Edmunds — *Madison*
M.A., University of Wisconsin — Geography
Loomis, Dorothy — *Madison*
B.A., University of Wisconsin — Botany
Lorch, Augusta Christine — *Madison*
B.A., University of Wisconsin
Loth, Herbert Charles — *Kiel*
B.S., Northwestern University — Agricultural Education
Lottes, Marie Kathryn — *Madison*
B.S., University of Wisconsin — Bacteriology
Loughlin, Agnes Celestine — *Madison*
B.A., University of Wisconsin — Public Speaking
Lyon, Albert E. — *Madison*
M.A., University of Wisconsin — Spanish
McCarthy, Alice L. — *Madison*
B.A., University of Wisconsin — History
McCarthy, Lucile — *Madison*
B.A., University of Wisconsin
McClintock, Helen Elizabeth — *Meadville, Pa.*
M.A., Allegheny College — French
McKay, Fred William — *Oshkosh*
B.A., University of Wisconsin — History
McKinney, Harold Hall — *Madison*
B.S., Michigan Agricultural College — Plant Pathology
†MacNaughton, Leslie m — ***Madison***
B.S., University of Wisconsin — Bacteriology
Mann, Albert E. — *Madison*
M.A., University of Chicago — Economics
Martin, Ella May — *Milwaukee*
B.A., Lawrence College — Botany
Mendum, Samuel Weis — *Madison*
M.S., University of Wisconsin — Agricultural Economics
Middleton, Forest Case — *Madison*
B.A., University of Wisconsin — English
Miller, Glenn Evelyn — *LaValle*
B.A., Milwaukee-Downer College — Economics

Miller, Sidney Lincoln — *Madison*
M.A., University of Wisconsin — Economics
Mix, Hannah Arlotta Bass — *Alfred, New York*
Ph.B., Alfred University — English
Montgomery, John Arthur — *Madison*
M.S., Iowa State College — Physical Chemistry
Moses, Victor Clinton — *Eau Claire*
B.A., University of Wisconsin — Economics
Mueller, Alfred D. — *Port Washington*
Ph.B., University of Wisconsin — Education
Mueller, Fred George — *Madison*
Ph.B., University of Wisconsin — Education
Muench, Alois J. — *Madison*
B.A., University of Wisconsin — Economics
Mullaney, Catherine — *Sioux City, Iowa*
B.A., St. Clara College — English
Mullin, Thomas Bartlett — *Acton, Ontario, Can.*
M.S., University of Wisconsin
Murata, Tetsusaburo — *Kyoto, Japan*
B.A., Waseda University — Economics
Nagaoka, Otojiro — *Amagun, Aichiken, Japan*
B.A., Training Institute of Industrial Teachers, Tokio, Japan — Chemical Engineering
Neerman, Katharine Elizabeth — *Racine*
B.S., Oklahoma Agricultural and Mechanical College — Agricultural Bacteriology
Newton, Joseph Stanley — *Madison*
B.A., Wooster College — Public Speaking
Nofcier, William Lincoln — *Merrimack*
B.A., Asbury College — Economics
Nourse, Mary Augusta — *Madison*
Ph.B., University of Chicago — History
Ortega, Joaquin — *Madrid, Spain*
M.A., University of Wisconsin — Romance Languages
†Parker, Frank Wilson — *Madisonville, Ky.*
B.S., Alabama Polytechnic Institute — Soils
Parmley, Hermann Joseph — *Madison*
Ph.B., University of Wisconsin — English
Petersen, Mary White — *Madison*
B.A., Wellesley College
Pfluger, Luther A. — *Trevorton, Pa.*
M.A., Indiana University — French
Phelps, Marion Eveline — *Madison*
M.A., Smith College — Physics
Pierlé, Chester Arthur — *Madison*
M.S., Lehigh University — Chemistry
Pujos, Jeanne Héléne — *Torbes, Htes Pyrénées, France*
Baccalaureat es Lettres, Licence es Lettres, University of Toulouse — French

Quick, Armand James	
B.S., University of Wisconsin	*Theresa*
Raney, William Francis	Chemistry
B. A., Oxford, England	*Hastings, Nebr.*
Reif, Herman Peter	History
B.S., University of Wisconsin	*Madison*
Richards, C. Audrey	Pharmacy
M.A., Miami University	*Madison*
Rickett, Harold William	Botany
B.A., University of Wisconsin	*New York City*
Ritter, George J.	Botany
Ph.M., Universiy of Wisconsin	*Madison*
Roberts, Ray Harland	Chemistry
M.S., Oregon Agricultural College	***Madison***
Rogers, Lucy E.	Botany
B.A., University of Wisconsin	*Kimball*
Ronzone, Ethel m	Journalism
M.A., Columbia University	*Madison*
Rosenstein, Miriam Sena	Physiology
B.A., James Millikin University	*Decatur, Ill.*
Ross, Leslie Truesdale	Romance Languages
M.A., University of Wisconsin	*Denver, Colorado*
Royce, Marion	Romance Languages
B.A., Radcliffe College	*Madison*
San Augustin, Gregorio	**Manual Arts**
D.V.M., University of the Philippines	*Cavite, Cavite, P. I.*
Scallon, Brighidin Trumble	Animal Husbandry
B.A., Trinity College	*Hancock, Mich.*
Scallon, Margaret	French
M.A., University of Wisconsin	*Hancock, Mich.*
Schacke, Martha Alvina	**English**
B.A., University of Wisconsin	*Reedsburg*
Schaefer, Roland	Botany
B.A., Baldwin-Wallace College	*Madison*
Schmidt, John Henry	Education
M.S., University of Wisconsin	*Saginaw, Mich.*
Schneiders, Edwin Frank m	Chemistry
B.S., University of Wisconsin	*Marathon*
Schoenmann, Lee Roy	Medicine
B.S., University of Wisconsin	*Madison*
Schrenk, Walter Theodore	Soils
B.S., Monmouth College	*Golcondo, Ill.*
Schubert, Marguerite Barbara	Chemistry
B.A., St. Mary's College	*Madison*
Schubring, Selma Langenhan	English
M.A., University of Wisconsin	*Madison*
Seder, Florence May	Geography
B.A., University of New Mexico	*Madison*
Sevringhaus, Grace Colby	Journalism
B.A., University of Wisconsin	*Madison*
	Psychology

†Sevringhaus, Elmer Louis m — *Madison*
M.A., University of Wisconsin — Medicine
Seybolt, Ottilie — ***Madison***
M.A., University of Wisconsin — English
Seymour, Edith Katharine — *Madison*
B.A., Miami University — Plant Pathology
Shaw, George Robert — *Frederick, Md.*
M.A., Washington University — Chemistry
Slagg, Charles Mervyn — *Madison*
B.S., University of Wisconsin — Plant Pathology
Sleep, Carol Augusta — *Elkhorn*
B.S., Beloit College — Bacteriology
Smith, Amy G. Hoyt — *Madison*
M.A., University of Wisconsin — Education
Smith, David William — *Madison*
B.S., University of Wisconsin — Agricultural Chemistry
Smith, Willard Mallalien — ***Whitewater***
B.A., Lawrence College — English
Snell, Walter Henry — *Madison*
M.A., Brown University — Plant Pathology
Snyder, Andrew Joseph — *Waukesha*
M.S., University of Wisconsin — Chemistry
Sommer, Hugo Henry — *Sheboygan*
B.S., University of Wisconsin — Agricultural Chemistry
Sprague, Frank A. — *Madison*
B.A., University of Wisconsin — Spanish
Stewart, Harold Wilson — *Madison*
B.S., University of Illinois — Agriculture
Stone, Hosmer Ward — *Madison*
M.A., University of Wisconsin — Chemistry
Stormzand, Martin James — *Madison*
B.D., Princeton Theological Seminary — Education
Strang, Louise Luqueer — *Pueblo, Colorado*
B.A., Colorado College — Philosophy
Stroman, Govan N. vt — *Uvalde, Texas*
B.S., Texas Agricultural and Mechanical College — Agronomy
Strowd, Wallace Headen — *Madison*
M.S., University of Wisconsin — Agricultural Chemistry
Stuart, Graham H. — *Cleveland, Ohio*
M.A., University of Wisconsin — Political Science
Swenson, Sweyn Warren — *Madison*
M.A., University of Minnesota — Political Science
Sze, Frederic Chi-Yuan — *Shanghai, China*
B.A., Harvard University — Economics
Szlupas, Keistutes George — *Madison*
B.S., Pennsylvania State College — Physics
Tehon, Mary Bruner — *Mattoon, Ill.*
M.A., University of Illinois — Latin

Thomsen, Frederick Lundy — *Hyattsville, Md.*
B.S., Maryland State College of Agriculture — Agricultural Economics

Tillotson, Abby Beach — *New York City*
B.A., Vassar College — English

Tillotson, Ruth A. — *Madison*
B.A., University of Wisconsin — Plant Pathology

Townley, Hubert Claude — *Randolph*
B.A., Carleton College — Philosophy

Trautmann, William John — *Madison*
Ph.M., University of Wisconsin — Chemistry

Turner, Jennie Willing — *Madison*
M.A., University of Wisconsin — Economics

Van Hise, Mary Janet — *Madison*
B.A., University of Wisconsin — Economics

Veatch, William Homer — *Cedar Falls, Iowa*
Ph.B., University of Chicago — Public Speaking

Wackman, Charline Marie — *Oregon*
B.A., University of Wisconsin — English

Wagg, Frank Ernest — *Oregon*
B.A., University of Manitoba — Economics

Wagner, Melvin Ferdinand — *Haven*
B.S., University of Wisconsin — Economics

Warner, Charles Law — *Decorah, Iowa*
B.S., University of Wisconsin — Chemistry

Watkins, Axie Dell — *Petersburg, Ill.*
B.S., Northwestern University — Economics

Weaver, Andrew Thomas — *Madison*
M.A., University of Wisconsin — Psychology

Weaver, Warren — *Madison*
C.E., University of Wisconsin — Mathematics

West, Robert William — *Milton Junction*
B.A., Milton College — Public Speaking

†White, Cleveland J. m — *Shullsburg*
B.A., University of Wisconsin — Medicine

White, David George — *Madison*
M.S., University of Wisconsin — Economics

Williamson, Robert Crosier — *Madison*
B.A., University of Wisconsin — Physics

Wise, Clarence Ruben — *Madison*
B.A., Cornell College, Iowa — Chemistry

Woodworth, Clyde Melvin — *Madison*
M.S., University of Wisconsin — Genetics

Woody, Clyde C. — *Madison*
B.S., Iowa State College of Agricultural and Mechanical Arts — Economics

Wooster, Lyman Dwight — *Madison*
B.A., Kansas State Teachers College — Education

—236

UNDERGRADUATES

COLLEGE OF LETTERS AND SCIENCE

Seniors

Aardal, Albert Anderson	*Moorhead, Minn.*
Alexander, Trent tc	*Madison*
Alling, Eliza Treat	*Madison*
Ashby, Sarah Elizabeth	*Indianapolis, Ind.*
Atkins, Irma Alice	*Elkhart, Ind.*
Atwood, Frederica	*Madison*
Aucutt, Lucile Katherine t c	*Aurora, Ill.*
Baer, Edwin Ben	*St. Paul, Minn.*
Bardon, Anna Roy	*Superior*
Barry, Margery Johanna t c	*Oconomowoc*
Bartholf, Winifred	*Glencoe, Ill.*
Batz, Zita Barbara tc	*Sun Prairie*
†Bauer, Carl Philip m	*Mandan, N. D.*
Beaucage, Louise Harriet	*Fond du Lac*
Belknap, Margaret Knowlton t c	*Waukesha*
†Bemis, George Gordon m	*Antigo*
Benisek, Helen Annette tc	*Antigo*
Beveridge, Gladys Maurine wls	*Lake Mills*
Bieberman, Lucile Wilhelmina	*Duluth, Minn.*
Bierbauer, Vera Louise	*Mankato, Minn.*
Bjornson, Marvel Milne	*La Moure, N. D.*
Blackburn, Lois Vivian t c	*Palmyra*
Blair, John Covode	*Grand Rapids, Mich.*
Blum, Fred Gabriel	*Monticello*
Bohan, Mary Zilpha	*Avoca*
Boll, Kathryn Mae t c	*Rice Lake*
Bordelon, Grace Weymouth	*Bunkie, La.*
Born, Lucile Dorothy t c	*Toledo, Ohio*
Bradley, Helen Mae t c	*Hudson*
Bray, Grace Catherine	*Elkhorn*
†Brickbauer, Benjamin George m	*Elkhart Lake*
Brossard, Eugene Edward, Jr.	*Madison*
Brown, Ernest James m	*Madison*
Brown, Kathryn Kent	*Rhinelander*
Brown, Reuben Samuel T.	*Madison*

† Enrolled in Students' Army Training Corps.

*Bryden, James Alan	*Milwaukee*
Burtness, Katherine Elvina t c	*Sioux City, Ia.*
Byrne, Ethel Mary t c	*Milwaukee*
Callahan, Gertrude Leona	*Madison*
Campbell, Leota Mae	*Toledo, Ohio*
Campbell, Mary Helen	*Milwaukee*
Cape, Thomas Wilson	*Dodgeville*
Caradine, Mahlon Humphrey l	*Monroe*
Carpenter, Charles Hand	*Madison*
Chadwick, Rachel Beal	*Detroit, Mich.*
†Chipman, Willard Alonzo m	*Stoughton*
Chu, Keats Synn	*Ningpo, China*
Chubb, Mavis Adelaide	*St. Louis, Mo.*
Churchill, Norma Eleanor t c	*Monroe*
Clark, Lillian Martin	*Oshkosh*
Coapman, Vida Alice	*Kilbourn*
†Cole, Arthur Vincent m	*Mauston*
Conine, Mary Belle	*Nowata, Okla.*
Conklin, Lauretta Bugher	*Chicago, Ill.*
Conlin, Ruth Margaret t c	*Madison*
Connell, Beulah Martha t c	*Menomonee Falls*
Cooper, Gloria Olive	*Baraboo*
Corey, Marion Julia	*De Kalb, Ill.*
Currie, Agnes Elizabeth	*Minneapolis, Minn.*
†Dahle, Artman Hovey m	*Madison*
Dana, Eleanor Fairchild	*Eau Claire*
Deakin, Florence Isabelle	*Waukesha*
†Dehne, Willard Oliver m	*Waupun*
Delaney, William Francis	*Milwaukee*
Deming, Joseph Byron	*Madison*
Deuss, Edward Louis	*Sheboygan*
Dimond, Dorothy Sara m	*Albany, Ill.*
Donacelski, Florence Agatha t c	*Preston, Ia.*
Donaldson, Emily Lucile	*Racine*
Donkle, Annetta	*Ft. Atkinson*
Dopp, Dorothy Ravenhill	*Davenport, Ia.*
†Driver, Camilles Ogden m	*Racine*
Dunaway, Gretchen Marie t c	*Sikeston*
Eaton, Howard Ormsby	*Madison*
†Ede, Richard Hoyt	*Zenda*
Egan, Howard Edward	*Madison*
Ellsworth, Thomas Thorpe	*Bowling Green, Ohio*
Elsom, Bernardo Whitfield	*Madison*
Emerson, Louise Lindsley	*Ekalaka, Mont.*
Engel, Martha Sophie t c	*Sun Prairie*
Escabi, José m	*Mayaguez, Porto Rico*
Esch, Marie Matilda t c	*La Crosse*

*Died March 11, 1919

Evans, Harrison	*Shuqualak, Miss.*
Evans, Mildred Campbell	*Grand Rapids, Mich.*
Everett, Lucile	*Denver, Colorado*
Ewe, Joeina Mary t c	*La Crosse*
Falk, Karen Fredrikka	*Stoughton*
†Falstad, Clarence Henry m	*Eau Claire*
Fauerbach, Clara Vierling	*Madison*
Fay, Marion Elizabeth	*Madison*
Fedde, Katherine Ann	*Peotone, Ill.*
Fellows, Gladys	*Racine*
Felsher, Augusta Rose	*Madison*
†Ferger, Wirth Fitch	*Chattanooga, Tenn.*
Ferry, Elizabeth Blanche	*St. Paul, Minn.*
Field, Harold Manoel t c	*Oelwein, Iowa*
†Finsky, Morris m	*Lake Geneva*
Fleming, Catherine Loretta	*West Allis*
Focke, William John m	*Chicago, Ill.*
Folckemer, Martha Irene	*Camp Point, Ill.*
†Foster, Joseph O'Kane	*Milwaukee*
Frazier, Mildred Lucile t c	*Madison*
†Freymiller, Ernest Fred m	*Woodman*
Frish, Evelyn Agnes t c	*Madison*
Frye, Miriam Louise	*Madison*
Garwood, Ruth Emma	*Madison*
Gehr, Bertha t c	*Madison*
Gerds, Huldah Hedwig	*Milwaukee*
Gibbon, Martha Gladys	*Madison*
Gilman, James Ward	*Madison*
Goddard, Grace Clemans mu	*Madison*
Goldberg, Benjamin m	*Antigo*
Goldmann, Madelaine Henriette t c	*Milwaukee*
Goodwin, Harriet	*Hartland*
†Gough, James Arthur m	*Sugar Bush*
Grace, Dorothy Patterson	*Oak Park, Ill.*
Graf, Lottie Catherine	*Chicago, Ill.*
Gratz, Marion Clevenger l	*Pemberton, N. J.*
†Greenberg, James Edward	*New York City*
Greene, Dorothy Nichols t c	*Milwaukee*
Gross, Alma Eleanor w l s	*Duluth, Minn.*
Guequierre, Jacques Pierre m	*Madison*
Guillemin, Madelene	*North Milwaukee*
Hadley, Ella Josephine	*Stoughton*
Haker, Milton Albert	*Portage*
Hanna, Lavone Agnes	*Clay Center, Kansas*
Hanson, William Peter	*Michigan, N. D.*
Harker, Myra Susan t c	*Madison*
Harkes, Barbara	*Coal City, Ill.*
Harrison, Dorothy Beth	*Madison*
†Hatleberg, Clarence Nels Bugge m	*Madison*

Hay, Frances t c	*Beloit*
Hayssen, Irma Charlotte	*Madison*
Head, Elizabeth Read	*Madison*
Heddles, Rena	*Madison*
Heuston, Alfred Newman	*Tacoma, Wash.*
Hillstrom, Ellen	*McKeesport, Pa.*
Hindman, Harry Hingston	*Madison*
Hipke, Lucius Warrington m	*Milwaukee*
Hjermstad, Marie Emily	*Red Wing, Minn.*
Hoag, Hazel Lucy	*Monticello, Iowa*
Hogan, Beatrice Muriel	*Madison*
Holford, Frances Elizabeth m	*Cassville*
Hollensteiner, Viola Martha t c	*Milwaukee*
Holt, Ethel Mae t c	*Cambridge*
Hooper, Elizabeth Jane t c	*Palmyra*
Hopson, Perle Mary	*Madison*
†Horwitz, Lazarus Herman m	*Sheboygan*
Howard, Margaret m	*Portland, Ore.*
†Hoyer, George Henry Christian m	*West Bend*
Hsieh, Hsueh Hai	*Kiangsu, China*
Hughes, Ruth Anne	*Downers Grove, Ill.*
Hulbert, Marietta Lucile t c	*Burlington*
Hurlbut, Ruth Bingham t c	*Omro*
†Huston, John m	*Richland Center*
Hutchinson, Grace Theresa t c	*Cedar Rapids, Iowa*
Jackson, Helen Katharine	*Sisterville, W. Va.*
Jacobs, Gertrude Margaretta	*Chicago, Ill.*
Jameson, Anna Cordelia	*Fulton, Mo.*
Jensen, Dagmar Christine t c	*Racine*
Johnson, Gladys w l s	*Waterloo, Ia.*
Johnson, Julia Agnes	*Portage*
Johnson, Margaret Ruth	*Portage*
†Johnson, Nicholas Stanislaus m	*Ohio, Ill.*
Jones, Marguerite Edwards t c	*Ft. Atkinson*
Jones, Thelma Fay t c	*Madison*
Karger, Ralph	*Milwaukee*
Kennedy, Dorothy Elizabeth w l s	*Ashland*
Keyes, Francis Orton	*Waldo*
Keyes, Mary w l s	*Madison*
Kieckhefer, Hilda Louise t c	*Milwaukee*
Kimball, Charles Leonard	*Oak Park, Ill.*
King, Florence Harriet	*Milwaukee*
King, Gertrude Phyllis	*Peoria, Ill.*
Koepp, Otto August	*Madison*
Koschmann, Albert Herbert	*Wausau*
Kramer, Paul Stevens	*Faribault, Minn.*
Krauth, Marguerite Harriet	*Phillips*
Kuepper, Gretchen	*Waukesha*
Kupfer, Harriet Angeline t c	*Kenosha*

Kurz, Martha Wilhelmina t c	*Madison*
Kyle, Dorothy t c	*Tomah*
La Follette, Philip Fox	*Madison*
Lamb, Jeanette Jones	*Erie, Pa.*
Lamont, Marion Elizabeth t c	*Madison*
Lander, Miles Krause	*Grand Forks, N. D.*
Landwehr, Margaret Emma	*Milwaukee*
Larkin, William James m	*Madison*
Larsen, Esther Amelia t c	*Madison*
Lathrop, Francis Child mu	*Madison*
Lathrop, Margaret t c	*Madison*
Laut, Margaret Donilla	*Wausau*
Levy, Francis Eleanor	*La Crosse*
Lewis, Lillian Lucile t c	*McFarland*
†Lieberthal, Eugene Paul m	*Chicago, Ill.*
†Littig, Lawrence Victor m	*Iowa City, Iowa*
Lowell, Mary Ann w l s	*Ballston Spa, N. Y.*
Lowry, Lucille Lillian t c	*N. Fond du Lac*
Luessen, Alma Catherine	*Valley City, N. Dak.*
Luzenska, Wanda	*Berlin*
McDonald, Blanche Lois t c	*Beaver Dam*
McDougall, Helen Elizabeth	*Pocatello, Idaho*
McHenry, Mary Sears	*Denison, Iowa*
†McIntosh, Roscoe Lyle m	*Edgerton*
McKinley, George Briton Jr.	*Milwaukee*
Maedje, Carl Waldemar	*Cleveland, Ohio*
Maher, Evangeline Genevieve	*Devils Lake, N. D.*
Mann, Nina	*Lake Benton, Minn.*
Maplesden, Edith Martin	*Madison*
March, Mildred	*Warren, Ohio*
†Marks, Harold Eugene	*Madison*
Marohn, Irma Elaine	*Milwaukee*
Marquardt, Gladys Eugenia	*Wausau*
Marsh, Harry Gilmore m	*Waunakee*
Marshall, Jane Ramsay Grant w l s	*Lake Forest, Ill.*
Martin, Alice Mae	*Hartford*
Mautz, Cora Amalie t c	*Madison*
Metcalf, Mary Eleanor t c	*Berlin*
†Meyer, Charles Alois m	*Colby*
Meyer, Sylva	*Madison*
Miller, Barbara Jessie	*Ripon*
Miller, George Ellsworth, Jr.	*Charleston, W. Va.*
Mitchell, Eva Marie t c	*Milwaukee*
Moe, Lilly Elvina t c	*Duluth, Minn.*
Moe, Sigrid Winifred t c	*Chetek*
Mohme, Erwin Theodore t c	*Kewaskum*
†Montgomery, Robert Bresee m	*Madison*
Moore, Alice Louise t c	*Milwaukee*
Moznigo, Ardis Mary	*Wyoming, Ill.*

Mueller, Clara Ernestine	*Milwaukee*
Munson, Catherine Oliver	*Viroqua*
Murphy, Brynhilde Josephine	*Madison*
†Murphy, James Henry m	*Chilton*
Naffz, Alice Camille	*Madison*
†Nebel, Harold m, vt	*Milwaukee*
Neprud, Esther	*Westby*
Newman, Rose Katherine	*Madison*
Noetzel, Gertrude Murilla	*Waukesha*
Noll, Edith Dorothy	*Marshfield*
Nystrom, Elizabeth Ruth t c	*Chicago, Ill.*
Ochsner, Bertha	*Chicago, Ill.*
Odegard, Ethel Jannette	*Merrill*
Odegard, Helena M.	*Madison*
O'Laughlin, Eleanor Margaret t c	*Madison*
Olin, Doris Louise	*Florence*
Olin, Irene Hazel	*Florence*
Olson, Mamie Isabella	*La Crosse*
Olson, Oscar Albert l	*Madison*
O'Malley, Stella Ethelbert t c	*Madison*
Opgenorth, Irene Kathryn t c	*Kewaskum*
Padley, Grace t c	*Lodi*
Parker, Louisa t c	*Clinton*
Pasley, Virginia Cleveland	*Fulton, Mo.*
Patterson, Dorothy Jean	*Madison*
†Patterson, George Hill m	*Chicago, Ill.*
Pearsall, Barbara Evelyn	*Evansville*
Pederson, Wilhelmine Mildred	*Strum*
†Pellow, Chauncey James	*Mineral Point*
†Perlman, Jacob	*Madison*
Peterson, Margaret Irene	*Delavan*
Pieh, Addie Emma t c	*Madison*
*Phillips, Evelyn Alice t c	*Milwaukee*
Pilpel, Emily Marion	*New York City, N. Y.*
Pirie, Amelia	*Milwaukee*
Pleuss, Viola Elfrieda	*Madison*
Porterfield, Alice Viola	*Omaha, Neb.*
Post, Julia Harriet	*Madison*
Prasser, Leona Lenore	*Milwaukee*
Pribnow, Harry U.	*Madison*
Pritzlaff, Edward Frank	*Milwaukee*
Proudfit, Delia Crossette	*Constantine, Mich.*
Puckett, Mildred U.	*Rock Rapids, Ia.*
†Puestow, Karver Louis m	*Oshkosh*
†Pullen, Richard Woollard m	*North Fond du Lac*
Radford, Ruth Marie t c	*Madison*

*Died March 23, 1919.

Ramsey, John Robbins	*Racine*
Reid, Velma Agnes t c	*Hurley*
Rettger, Robert Ernest	*Terre Haute, Ind.*
Ritchie, Catharine Jean	*Jefferson*
Roberts, Edward Howell	*Madison*
†Roberts, Rob Roy m	*Ft. Atkinson*
Robinson, Kathleen Mary	*Green Bay*
†Rogers, Ezra Hazelton m	*Hartford*
†Ross, Frank Alsworth	*Madison*
Roth, Rada Rosalind	*Fowler, Ind.*
Ruder, Clara Louise t c	*Wausau*
Rufsvold, Mildred Priscilla t c	*Marinette*
Salter, Georgia Ellen t c	*Waupaca*
Sandrock, Laura Mae	*Madison*
Saul, Lulu Estelle	*Douglas, Wyo.*
Scanlan, Marian Eunice Frances	*Prairie du Chien*
Schatz, Margaret Arlotta	*Randolph*
Schmidt, Herbert Glueck m	*Milwaukee*
Schroeder, Elinor Marie	*Cleveland, Ohio*
Schulte, Margaret	*Freeport, Ill.*
Schultz, Margaret Charlotte	*Milwaukee*
Schuster, Catherine Elizabeth	*Lancaster*
Schwebs, Lorena Elizabeth t c	*Madison*
Sexton, Marjorie Jean	*Marshfield*
Shaw, Marlys Dove	*Parkston, S. D.*
Shepherd, Grace	*Platteville*
Shepherd, Ruth Alberta	*Platteville*
Shepherd, Thomas Le Roy	*Platteville*
†Shimpa, Joseph Frank m	*Boscobel*
Sinaiko, Sohnia	*Madison*
Skinner, Helen Harriet	*Madison*
Smith, Carol Josephine w l s	*Grinnell, Ia.*
Smith, Dorothy Paul	*Madison*
Smith, Harriet McCune t c	*Superior*
Smith, Helen Belle	*Madison*
Smith, Mary Ruth t c	*Madison*
Snyder, Florence Gladys	*Clinton*
Sonnenburg, Willard Michael m	*Sheboygan*
†Spengler, Silas Llewellyn l	*Menasha*
Sperry, Margaret Berenice	*Chicago, Ill.*
†Stabo, Nils Eivind	*Decorah, Ia.*
Stafford, Harold Stanley	*Madison*
Stearns, Rachel Elizabeth t c	*Madison*
Steudel, Esther Mary	*Chilton*
Stevens, Sara Fay	*Chicago, Ill.*
Stevenson, Nellie Hurlbut	*Burlington, Ia.*
Stofflet, Mary Kathryn	*Bishop, Calif.*
†Stolze, Joseph Ariel m	*Wausau*
Suchy, Raymond Joseph t c	*Milwaukee*

Sumner, Catherine Clawson	*Madison*
Sundell, Ruth Duncan tc	*Mason City, Iowa*
†Sutton, Robert Mage m	*Peoria, Ill.*
Swanson, Cleary Neil m	*Marinette*
Taylor, Bessie Lillis tc	*Glen Haven*
Taylor, Sarah Margaret	*Ottawa, Ill.*
Tener, Virginia Simpson	*Wheeling, W. Va.*
Thompson, Dora Belle	*Waupaca*
Thompson, Robert Oliver	*Madison*
Thornton, Eva May tc	*La Valle*
Thwaits, Mabel	*Milwaukee*
Tierney, Katharine B. t c	*Niagara Falls, N. Y.*
†Tilleman, John Francis m	*Madison*
Tredwell, Lillian	*Chicago, Ill.*
Turner, Alice	*Port Washington*
Turner, Helen Louise	*Toledo, Ohio*
Tye, Paul Farrell	*West Chicago, Ill.*
Uebele, Eunice Rosina tc	*Tomah*
Van Deursen, Ruth	*Dalton, Ill.*
Van Hise, Alice Ring	*Madison*
Vasey, Ethel Lois	*Menomonie*
Vaughn, Maurine Ella	*Des Moines, Iowa*
Vesey, Marion Elizabeth tc	*La Crosse*
†Vivian, Robert Stansmore m	*Madison*
Wade, Margaret Moore	*Muscoda*
Walker, Frances Nell tc	*Algoma, Iowa*
Wallrich, Lucy Angeline	*Shawano*
Walton, Ruby La Verna tc	*Scales Mound, Ill.*
Ward, Edna Margaret	*Sioux City, Iowa*
†Watson, Allen Smith m	*Madison*
†Weber, Carl Joseph m	*Hartland*
Weiser, Irma tc	*Waunakee*
Weldon, Charles William Temple l	*Milwaukee*
Whelan, Anna m	*Mondovi*
Whitbeck, Florence tc	*Madison*
White, Dora Margurite tc	*Mineral Point*
Whiteside, Katharine Page tc	*Louisville, Ky.*
Williams, Clara Bassett	*Whitewater*
Williston, Horace Hays	*Billings, Mont.*
Wise, Gladys Minnie	*Madison*
Wishnefsky, Ben M.	*Milwaukee*
Wolfe, Ruth Mathilda	*Sun Prairie*
†Woodward, King Grier m	*Peoria, Ill.*
Works, Lucile Ruth	*Madison*
Wright, Cornelia	*Winona, Minn.*
Yabroff, Anne tc	*Fond du Lac*
Yabroff, Bertha Dorothy tc	*Horicon*
Young, Martha Grace	*Memphis, Tenn.*
Zillmann, Ruth tc	*Thorpe*

—286

Course in Commerce

†Adams, Gordon Dale	*Evansville*
†Bainbridge, Thomas Mason	*Platteville*
†Baker, Herbert Miller	*Zanesville, Ohio*
Beaver, Cyril James	*Madison*
Bird, George E.	*Wausau*
†Brown, Porter Harris	*St. Louis, Mo.*
†Cance, John Webb	*Galesville*
Clark, Mildred Elizabeth	*Janesville*
Clayton, Thayer Zachariah	*Milwaukee*
Doyle, Elmer Michael	*Highland*
†Duwe, Henry John	*Middleton*
Fitzgerald, Robert Drake	*Milwaukee*
Gibson, John Currie	*Oshkosh*
Glaser, Joseph Nicholas	*Fond du Lac*
Gotfredson, Henry Lawrence	*Green Bay*
Hanaford, Earl Joseph	*Madison*
Hanssen, John Louis	*Davenport, Iowa*
†Harding, Raymond Oscar	*McFarland*
†Hayden, James Matthew	*Madison*
Herrold, Lloyd D	*Kansas City, Mo.*
Hewett, Floyd F.	*Arlington, S. D.*
Ho, Teh Kuei	*China*
Holtz, Harold Lawrence	*Columbus*
Kress, Fred Raymond	*Tomah*
McCoy, William John	*Lancaster*
McCray, Sim Thaxter	*Oshkosh*
†Malzahn, Walter Ernst William	*West Bend*
Matzen, Herbert James	*Milwaukee*
Maw, Dora Elizabeth	*Madison*
Moore, David Weston	*Onalaska*
Mungavin, James F.	*Superior*
Nelson, Frederick Washington	*Racine*
Noer, Harold Rolf 1	*Wabeno*
Nuzum, William Alva	*Madison*
Pasewalk, Gladys	*Norfolk, Neb.*
†Schuknecht, Roy John	*Port Washington*
Spickard, Leland William	*Richland Center*
Thomas, Margaret Helene Stratman	*Dodgeville*
Thoreson, Andrew Theodore	*Edgerton*
Tilson, Harold Wilbur	*Terre Haute, Ind.*
Vanden Braak, Gail	*S. Pasadena, Calif.*
Welsh, Daniel Scott	*Madison*

—42

Course for Normal School Graduates

Albright, Bernice tc	*Normal, Ill.*	
Anderson, Clifford Norman	*Scandinavia*	
Babcock, Florence Elizabeth	*Cumberland*	
Berry, Olive Magdalene tc	*Dakota, Minn.*	
Borchers, Helen Augusta	*Whitewater*	
Dittmer, Margaret Ada	*Augusta*	
Galvin, Irene Emma	*Benton, Ill.*	
Gould, Violet Elizabeth tc	*Norwalk*	
Howell, Etta Hudson tc	*Winona, Minn.*	
Howell, Minnie Elinor	*Winona, Minn.*	
Kell, Herman Frederic	*Madison*	
Merrill, Inez Chapman	*Pardeeville*	
Michaels, Etta May	*Stillwater, Okla.*	
Quinn, Matthew James	*River Falls*	
Regan, Michael Patrick	*Milwaukee*	
Rose, Hazel Alice	*Prentice*	
Smith, Bessie Jenkins tc	*Milwaukee*	—18
Stormzand, Leila Elizabeth	*Madison*	

Course in Chemistry

Cauwenberg, Winfred Joseph	*Milwaukee*	
†Cheetham, Harold Cowan	*Milwaukee*	
Chou, Ming-Heng	*Ningpo, China*	
Corine, George Andrew	*Superior*	
Dunn, George Edward	*Milwaukee*	
Epstein, Samuel Noah	*Madison*	
Finner, Lucy Louise	*Dodge*	
†Flogans, William Albert	*Chicago, Ill.*	
Hoffman, Alice Emily	*Madison*	
†Jung, Frederic Theodore	*Sheboygan*	
†Keebler, Irvin Wallace	*Milwaukee*	
Melaas, Margaret Isabelle	*Stoughton*	
Nehrlich, Clara Amelia	*Sheboygan*	
Quentmeyer, Phillip Carl	*Watertown*	
Schuler, Catharine Ellen	*Milwaukee*	
Thomas, Norton A.	*Milwaukee*	
Wiese, Hilda Frieda	*Madison*	—17

Course in Journalism

Bennett, Elizabeh Rhea	*Aberdeen, S. D.*
Collins, Florence Elma	*Tipton, Iowa*
Farrington, Joseph Rider	*Honolulu, T. Hawaii*
Holmburg, Frances Estelle	*Grand Junction, Colo.*
Klug, John Leslie	*Lake Geneva*

Ludlum, Louise Perkins	*Madison*	
Pettibone, Harriet Nixon	*Burlington, Iowa*	
Pine, Jane	*River Forest, Ill.*	
Robinson, Hester Douglas	*Santa Ana, Calif.*	—9

General Course

Ball, Ruth Lucile	*Muncie, Ind.*	
Browne, Helen Converse tc	*Waupaca*	
Clarke, Ernest	*Madison*	
Early, Junius Campbell	*Cleveland, Ohio*	
†Groves, Harold Martin	*Lodi*	
Olesen, Martha Helena	*Humboldt, Ia.*	—6

Juniors

Aid, Mary Laura	*Council Bluffs, Iowa*
Albertz, Max Henry	*Watertown*
Allen, Marjorie Strong	*Oshkosh*
Allen, Lilla May	*Madison*
†Altschwager, Edwin Henry m	*Sheboygan*
Alway, Martha Marie	*Aberdeen, S. D.*
Andersen, Marion Ruth	*Madison*
Archibald, Helen Marion t c	*Ashland*
Armstrong, Nina Faith	*Winnebago, Ill.*
†Aronson, Harry J.	*Milwaukee*
†Bach, Clarence Edwin m	*Milwaukee*
Bacon, (Miss) Lee Fairchild	*Madison*
Bardon, Anna Roy	*Superior*
Barrett, Cecilia Winifred	*Edgerton*
Bartholf, Marjorie	*Glencoe, Ill.*
Bartz, Mildred Barbara	*Bozeman, Mont.*
Bassett, Dorothy Jane	*Rock Island, Ill.*
†Bauer, Alfred John	*Cedarburg*
Baur, Gladys Mercedis t c	*Milwaukee*
Beach, Joseph Barnes	*Whitehall*
Beal, Beatrice Elizabeth	*Oneida, N. Y.*
Beard, Mary Doris	*Springfield, Ohio*
Bents, Caryl Zelda	*Madison*
Berger, Doris	*Milwaukee*
Berry, Esther Mary	*Milwaukee*
Bertling, Adeline Ida	*Wilmette, Ill.*
†Beyer, Herbert Arthur	*Milwaukee*
Billau, Margaret Elizabeth	*Cedar Rapids, Iowa*
Bissell, Lillian	*Viola, Ill.*
Bitterman, Grace Vivian	*Madison*
Black, Mary Gertrude	*Chicago, Ill.*

Blaul, Sophie Poehler	*Burlington, Iowa*
Bonzelet, Mary Augusta	*Madison*
Brackebusch, Agnes Adelheid	*Lake Mills*
Bradbury, Dorothy	*Topeka, Kan.*
Bradfield, Harriet Alma	*La Crosse*
Bradley, Melcena Vereeda	*Sedalia, Mo.*
Bridge, Dorothy Evelyn	*Madison*
Briggs, Adelin Sumner	*Madison*
Brown, Enid Lois	*Colfax, Iowa*
Brown, Margaret Relihan	*St. Louis, Mo.*
Brunkow, Esther Martha	*Monroe*
Bruns, Eleanor Copeland	*Lake Mills*
Bur, Catherine Hedwig	*Green Bay*
Burch, Helen Upton	*Madison*
Butler, Janet	*Madison*
Butler, Katharine Lois	*River Forest, Ill.*
Byers, Ruth E.	*Coldwater, Mich.*
Caldwell, Mary Lavina	*Poynette*
Calvert, Winifred Emilie	*Benton*
Campbell, Arch Phelps	*East Ellsworth*
Carley, Verna Adeline tc	*Appleton*
Carlock, Dorothy Mabel	*Mechanicsburg, Ill.*
Carlson, Helen Ovidia	*La Salle, Ill.*
†Chapman, Lawrence Brinkman	*Great Bend, Kan.*
Chappel, Meda Augusta	*Oregon*
Cirlin, Marcus Bernarr m	*Staten Island, N. Y.*
Clapsaddle, Janet Ames	*Leland, Ill.*
Clapsaddle, Reita Margaret	*Leland, Ill.*
Clark, Dorothy Elizabeth	*Boise, Idaho*
Clark, Helene	*Duluth, Minn.*
Clark, Thelma Lee tc	*Evansville*
Coates, Charles Penney	*Madison*
†Cochems, Kenneth m	*St. Anthony, Idaho*
Coerper, Dorothy Magdalene	*Hartford*
†Cohn, Fletcher Gans	*Memphis, Tenn.*
Colby, Helen Maud tc	*Madison*
Collins, Florence Emily	*Racine*
Connell, John William m	*Fond du Lac*
Conover, Daphne Grace	*Madison*
Converse, Mary	*Madison*
Cook, Katherine John	*Madison*
Coon, George Wayland m	*Milton Jct.*
Cottrell, Lois Marie	*Madison*
Craighill, Margaret Dorothea	*Madison*
Crook, Dorothy Dee	*Madison*
Crosley, Marion Albright	*Milwaukee*
Crownhart, Jesse George	*Madison*
Cummings, Hannah Elson	*Marquette, Mich.*
Cumnock, Beatrice	*Black River Falls*

Cutler, Viola Alyse	*Dodgeville*
Dana, Margurite Conrad	*West Allis*
Dangel, Dorothea Louisa	*Reedsburg*
Davey, Ethel	*Dodgeville*
Day, Alice Marie	*St. Louis, Mo.*
Day, Florence Roberts	*Cleveland, Ohio*
Deutsch, Herman Julius	*Milwaukee*
Devine, Mildred Kathryn	*Madison*
Dickelman, Lorin Elmer	*Milwaukee*
Dodd, Helen Eliza	*Milwaukee*
Donald, Ernest m	*Madison*
Donaldson, Ruth Elizabeth	
Donkle, Venice Marion	*Madison*
†Dredge, Thomas Joseph	*Green Bay*
Durch, Rose Magdalene tc	*Chippewa Falls*
Durrie, Janet	*Madison*
Edelman, Mary	*Sheridan, Wyo.*
†Elliott, James Rolland	*Apple River, Ill.*
Ellis, Aline Elizabeth	*Evansville, Ind.*
†Ende, Arthur	*Sheboygan*
Engel, Adolph Charles m	*Milwaukee*
Ernst, Leo W.	*Chicago, Ill.*
Evans, Dorothy Charlotte	*Moline, Ill.*
Evans, Edward Thompson m	*La Crosse*
Falk, Philip Hadley	*Lake Mills*
Farley, Leonore Agnes	*Madison*
Ferguson, Mary Ella	*Madison*
†Fiedler, Donald John	*Mineral Point*
Finley, Frances Damaris	*Rockford, Ill.*
Fishburn, Katharine	*Madison*
Fisher, Marjorie Katherine	*Baraboo*
FitzGerald, Charlotte	*Richland Center*
Forward, Katharine Gertrude	*Oshkosh*
Fuchs, Harry Sigmund	*Janesville*
Furst, Frances Evelyn m	*Kalamazoo, Mich.*
Gabbert, Mildred Muriel	*Dearborn, Mo.*
Gaik, Eleanor Adelheid	*South Bend, Ind.*
Gardner, Ina Louise	*La Valle*
Gaveney, Stanleigh Keyes l	*Arcadia*
Gebhardt, Anna Laura	*Madison*
Gerken, Florence Eva	*Elroy*
Gibbon, Elsie Florence	*Kenosha*
Glassner, Rose Ruth tc	*Milwaukee*
Gluck, Elsie	*New York City, N. Y.*
Godfrey, Edwin Samuel	*Waupaca*
†Goerlitz, Frederic Omar	*Sheboygan*
Golder, Helen Dorothy	*Oak Park, Ill.*
Good, Frances m	*Ashland*
†Gorder, Arne Christian m	*La Crosse*

Graham, Ruth Anne	*Ottumwa, Iowa*
Graham, Theodora Agnes	*Fargo, N. D.*
Gregory, Mary Elizabeth	*Delavan*
Grover, Georgia	*Kenosha*
Grover, Lethe Genevieve	*Grantsburg*
Gudsos, Alta Jeannette	*Cashton*
†Haberland, Erwin John m	*Verona*
Hadfield, Anna Helen	*Madison*
Haessler, Dorothy	*Milwaukee*
Hahn, Agatha Helen	*Watertown*
Haldeman, Lennox Glenn	*Chicago, Ill.*
Haley, Irene Wilson	*Tulsa, Okla.*
†Haley, John Wendell	*Madison*
Hall, Dorcas Josephine	*Milwaukee*
Hall, Irene Corinne	*Ottumwa, Iowa*
†Hall, Laurence Waterbury l	*Madison*
†Halline, Edward Paul	*De Pere*
Hamilton, Phyllis Brayton	*Madison*
Hanna, Florence Bernice	*Ottawa, Ill.*
Hansen, Sigrid Alfreda	*Ashland*
Harker, John William	*Madison*
†Harley, Herman Kenneth	*Madison*
Harloff, Gladys Louise	*Madison*
Harper, Francis Donald m	*Chicago, Ill.*
Hartmann, Elise Asenith	*Philadelphia, Pa.*
Hartman, Leone Anne	*Madison*
Hartmeyer, Helen Ann Elizabeth	*Madison*
Hathaway, Grace Esther	*Baraboo*
Hauk, Helen Celia	*Madison*
Hawthorne, Gladys Ruth	*Monroe*
Hayes, Louis James	*Janesville*
Hedderich, Mabel Lucile	*La Crosse*
Hemsing, James Franklin	*Milwaukee*
Hendricks, Mary Lela	*Tomah*
Hersey, Ruth Boyce	*Madison*
†Herzfeld, Richard Philip	*Milwaukee*
Hickey, Mary Catherine	*Reedsburg*
Hicks, Marion Adah	*Madison*
Hield, Charles Raymond tc	*Janesville*
Higbie, Nathan Bradley, Jr.	*Chicago, Ill.*
Hill, Isabelle Laura	*Milwaukee*
Hinn, Helen Bertha	*Fennimore*
Hinners, Virginia Miller	*Milwaukee*
Hintgen, Josephine	*La Crosse*
†Hittner, Vernon James m	*Seymour*
Hoagland, Gertrude Betsy	*Peoria, Ill.*
Hoard, Marjorie Jean	*Sharon*
Hobbs, Merville Kummer	*Platteville*
†Hoffman, Arthur Louis	*Madison*

Hoffmann, Adele Myrtle Louise	*Watertown*
†Holcombe, Ray Edward	*Madison*
Holscher, Maude Marie tc	*McFarland*
Holzinger, Lillian Esther	*Lancaster*
Hoover, Clara Viola	*Oak Park, Ill.*
Householder, George Seegers	*Chicago, Ill.*
Howard, Doris Allegra	*Superior*
†Howland, Donald Stewart	*Reedsburg*
Hubbard, Mary Louise	*Indianapolis, Ind.*
Hubble, Helen Mary tc	*Madison*
Huber, Herman Harry m	*Milwaukee*
Hullinger, Ruth H.	*Chicago, Ill.*
Humphrey, Anne	*Milwaukee*
Hymer, Howard Golden	*Lancaster*
Hyzer, Leland l	*Janesville*
Ingalls, Louise Pebbles	*Oak Park, Ill.*
†Irvine, Robert Kenneth m	*Manawa*
Ivey, Everett D. m	*Millston*
Jackson, Mabel Bond	*River Forest, Ill.*
Jamieson, Helen May	*Poynette*
Jewell, Ernest Lemon m	*Hillsboro*
Jobse, Amy Clara	*Milwaukee*
Johnson, Imogene Hess	*Kahoka, Mo.*
Johnson, Marian March	*Normal, Ill.*
Johnson, Mary Anastasia	*Lemont, Ill.*
Johnson, Ruth Ann	*Rye, Fla.*
Johnson, Ruth Ellsworth	*Madison*
Johnston, Mildred Lyne	*Ft. Atkinson*
Jones, Edna	*Spring Green*
Jones, Grace Eloise	*Brandon*
Jones, Mabel Anna	*Melvina*
Jones, Vesta Norine	*Madison*
Juergens, Flora Minna	*Milwaukee*
Kahlenberg, Hester	*Madison*
Kautsky, Ruth	*Colby*
Kearns, Edward Peter l	*Pardeeville*
Keeley, Lawrence Carl	*Mayville*
Kellett, Kathryn A.	*Neenah*
Kern, Mildred Kathryn	*Bellaire, Ohio*
Kernan, Kathryn Elma	*Madison*
†Kidder, Earle Elton m	*Madison*
Kimball, Helen Lou	*Fulton, Mo.*
King, Helen	*Cleveland, Ohio*
King, Mildred	*Cleveland, Ohio*
Kischel, Goldes Vilas	*Wausau*
Kitchell, Mary Virginia	*Topeka, Kan.*
†Kitowski, John Edward	*Berlin*
Klass, Frances Elfrieda	*Oconto*
Knowlton, Gertrude Mary	*Madison*

Krebs, Esther Viola	*Berlin*
Krembs, Ferdinand Richard m	*Stevens Point*
Kremers, Laura Ruth	*Madison*
†Krohn, Irwin Kjelland m	*Black River Falls*
†Krumm, John Frederick m	*Chicago, Ill.*
†Kucheman, Norman Albert	*Moline, Ill.*
Kuehn, Helena Elizabeth	*West Salem*
Lamb, Elizabeh Risk tc	*Janesville*
Lamberson, Winifred Alida	*Whitehall*
Leach, Albert Edgar m	*New Boston, N. H.*
Lee, Margaret Irene tc	*Madison*
Leverich, Harriett Elizabeth	*Sparta*
Levitan, Ethel	*Madison*
Levy, Dorothy	*Milwaukee*
Lewis, Margaret Jane	*Madison*
Liebermann, Lucile Sara	*Watertown*
†Lieberthal, Paul Ralph m	*Ironwood, Mich.*
Lindsay, Janet Edmond	*Milwaukee*
Logemann, Margaret	*Milwaukee*
Loomer, Zella Grace tc	*Madison*
†Lorfeld, Gerhard William	*Cleveland*
†Luban, Simon m	*Milwaukee*
Luckey, Ruth Campbell	*Madison*
Ludlow, Evelyn Charlotte	*Monroe*
†Lugoff, Leonard Seymour	*Duluth, Minn.*
Lund, Laura Thelma	*Bloomer*
Lynch, Agnes	*Superior*
McCabe, Cornelia Devlin	*Superior*
†McCabe, Lester Follett	*Duluth, Minn.*
McCabe, Marion A.	*Rock Island, Ill.*
McCain, Katherine Louise	*Crawfordsville, Ind.*
McCandless, Donald Sesson	*Davenport, Iowa*
McCandless, Stanley Russell	*Davenport, Iowa*
McClurg, Clarence Alba	*Spencer, Iowa*
McCollister, Elizabeth	*Madison*
†McGarty, Michael Edmund m	*Mauston*
†McKinley, Edwin Daniel	*Dodgeville*
McKinney, Estelle La Reine	*Flint, Mich.*
McLay, Grace Christina	*Janesville*
McMeans, Margaret Collins tc	*Davenport, Iowa*
McNamee, Shurly Laurence	*Madison*
McPherrin, John Weitz	*Des Moines, Iowa*
†Machlis, Samul Arthur m	*Madison*
Mackay, Ralph Sutherland	*Milwaukee*
Mahar, Margaret Buckley	*Hartford*
Maher, Catherine Mary tc	*Milwaukee*
Mahlkuck, Samuel August	*Monroe*
Margraff, Gertrude Bertha	*Colby*
Markham, Margaret Cornelia	*Manitowoc*

†Markley, Paul Lewis Jr. m	*Rockford, Ill.*
†Marshall, Samuel Hagar	*Madison*
Martin, Dorothy Isabel	*Michigan City, Ind.*
Martin, Jennie McKee	*Mt. Horeb*
Martin, Ruth Agnes Mary	*Madison*
Martineau, Mary Lenore	*Green Bay*
Matravers, Chester Harold	*Oconto*
Melby, Eva	*Madison*
Mell, Mildred Rutherford	*Athens, Ga.*
Metcalf, Lael Frances	*Spring Green*
Metcalf, Lethe Viola	*Spring Green*
†Millard, Robert Dinsmore m	*Antigo*
Miller, Fanny	*Milwaukee*
†Miller, George Paul	*Madison*
Miller, Maude	*Cumberland*
Miller, Winifred Vanderpool	*Madison*
Moe, Margaret Mather	*Union Grove*
Moe, Orpah Ruth	*Chetek*
Monaghan, Marguerite	*Osage, Iowa*
Monk, Floyd J.	*Neillsville*
Montgomery, Minette Alice tc	*Green Bay*
†Moody, Sidney Frederick	*Weyauwega*
Moore, Anne Evelyn	*Watertown*
Moore, Thomas Francis m	*Watertown*
Moran, Margaret Marie	*Hibbing, Minn.*
Morman, Wade Hampton	*Wausau*
Morris, Francis Joseph m	*Timothy*
Morris, Josephine Osgood	*Madison*
†Moss, Walter King	*Milwaukee*
Mueller, Gretchen	*Lebanon, Ky.*
Murphy, Elizabeth Hazel	*Delavan*
†Murphy, William John	*Chilton*
Naeckel, Harold William	*Davenport, Ia.*
Nelson, Eunice	*Edgerton*
Nelson, Kathryn	*Manitowoc*
Nelson, Mark Snowden m	*Canton, Ill.*
†Neprud, Lincoln	*Westby*
Nichols, Lauretta Hessin	*Marshalltown, Iowa*
Nutter, Jean Irene	*Young, Saskatchewan, Can.*
Nutter, Lucile Adeline	*Sac City, Iowa*
Nuzum, Marguerite Frances	*Madison*
Oberheim, Grace Myrtle	*Mt. Carroll, Ill.*
Older, Leone Florence	*Portage*
Ophaug, Ruth	*Windsor*
Oppelt, Gertrude Josephine	*Fort Wayne, Ind.*
Osborn, Eighmy-bell	*Madison*
Ostlund, Elvira Otilia	*Butte, Mont.*
Otteson, Elli tc	*Eau Claire*
†Overton, Orrin Van m	*Beloit*

Owen, Helen Joanne	*Milwaukee*
Owen, Leona Frances	*Chicago, Ill.*
Paine, Wendell W.	*Milwaukee*
Palmer, Lora Belinda	*La Crosse*
Parmelee, Abbie Neal	*Chicago, Ill.*
Parsley, Mannie Nutt	*Kansas City, Mo.*
Patterson, Clarissa Estella	*LaGrange, Mo.*
Patterson, Grace	*Wahpeton, N. D.*
Patterson, Marguerite	*Wahpeton, N. D.*
Paull, Helen Grace	*Woodruff*
Paynter, Ruth Elizabeth	*Fond du Lac*
Pearson, Josephine Rae	*Montclair, N. J.*
Pelunek, Norma Agatha	*Alma*
Perrigo, Burton Richardson l	*Oconomowoc*
Peterson, Leo Willis m	*Granton*
Pett, Ernest H.	*Johnson Creek*
Pettegrew, Melba Irene	*Fox Lake*
Philipp, Cyrus Lucius	*Milwaukee*
Philpott, Merrill Raymond	*North Freedom*
Porter, Autentia May	*Oak Park, Ill.*
Prentiss, Marion Sara	*Milwaukee*
Price, Frances Louise	*Milwaukee*
Proctor, Sarah Louise	*Union City, Ind.*
Quarberg, Isabelle Emma	*Mondovi*
†Quisling, Sverre m	*Madison*
Ragatz, Lowell Joseph tc	*Madison*
Ramsey, Helen	*Rock Rapids, Iowa*
Randolph, John Binford	*Lafayette, Ind.*
Rankin, Iva Lucille t c	*Pekin, Ill.*
†Raube, Herbert Albert m	*Waupun*
Reeder, Margaret Helen	*Houghton, Mich.*
Riggs, Gladys Evelyn	*Cando, N. D.*
Rockwell, Dorothea Hand	*Madison*
†Rollefson, Gerhard Krohn	*Superior*
Rottiger, Ruby Anna	*Platteville*
Rudy, Frances Eleanor	*Madison*
Ruggles, Ruth Elizabeth	*Hurley*
Rushenberg, Marene Jennie	*Roberts*
Ryan, Madge Irene t c	*Glen Haven*
Salisbury, Jane Frances	*Sparta*
Sabean, Inez M.	*Hayward*
Sammons, Louise	*Sioux City, Iowa*
Saposs, Bertha Tigay	*Madison*
Schilling, Gladys Ruth t c	*Wausau*
†Schlicher, John Rudolph	*Madison*
†Schlomovitz, Elias Herman m	*Milwaukee*
Schlomovitz, Harry Herman m	*Milwaukee*
Schneider, Marie Antoinette	*Two Rivers*
Schroeder, John Edward	*Milwaukee*

†Schubert, Clarence Karl Frederick	*Madison*
Schuette, Louise Marie	*Manitowoc*
Schulte, Victor Jacob	*Milwaukee*
Schumacher, Ethel Maude	*Elroy*
Settle, Ruth Johan	*Martinsdale, Mont.*
Sevringhaus, Lois Katherine	*New Albany, Ind.*
†Seybold, Erwin George m	*Forest Junction*
Seymour, Whitney North	*Madison*
Shaw, Donald Lee	*Delavan*
Shea, Edith Verena	*Ashland*
Shurtleff, Dorothy Hancock	*Manchester, N. H.*
Siewert, Anita Mary	*Arlington*
Silverman, Maurice m	*Madison*
Simpson, Marjorie DuVal t c	*Chicago, Ill.*
Sinclair, Mildred Iantha	*Ladysmith*
Skaar, Ragnhild Synnove	*La Crosse*
Smith, Emmett Patrick	*Madison*
†Smith, Herbert Harold l	*Milwaukee*
Smith, Mabel Gertrude	*Menomonie*
Smith, Mabel Mayhew	*Chicago, Ill.*
Smith, Mildred Trabue	*Madison*
†Smuckler, Robert Henry m	*Milwaukee*
Snodgrass, Etha Cleaver	*Eugene, Oregon*
Snyder, Helen Marion	*Milwaukee*
Sotirakos, Spiros Dimitrion m	*Chicago, Ill.*
†Spohn, George Daniel l	*Janesville*
Stacy, Esther Anna	*Osage, Iowa*
Steensland, Marie Louise	*Madison*
†Stern, William m	*Kenosha*
Stevenson, Violet Esther	*Arlington*
Stirwalt, Bessie Joan	*Terre Haute, Ind.*
*Stoeber, Mary Margaret m	*Madison*
Stofflet, Anna Beryl	*Bishop, Calif.*
Stone, Estelle Ruth t c	*Milwaukee*
Strassburger, Albert Emmanuel	*Oshkosh*
Sullivan, Winifred Irene	*North Fond du Lac*
Summerville, Warren James	*Madison*
†Sumner, Willard Carlyle	*Fennimore*
Swanson, Greta	*Bayfield*
†Taylor, Alfred Hendricks	*Ottawa, Ill.*
Taylor, Cornelia Katheryne tc	*La Crosse*
Taylor, Elsie Elizabeth	*Madison*
Taylor, Harold Beecher	*Chicago, Ill.*
Tenney, Kathryn Estelle	*River Forest, Ill.*
†Terry, Halstead Coleman	*Madison*
Teschner, Hermance Sarah	*Milwaukee*
Teschner, Paul August m	*Milwaukee*

*Died December 14, 1918.

Thomas, Robert Kevie	*Chicago, Ill.*
†Thompson, Evan Gwynne	*Lake Mills*
†Tierney, Edward Frederick m	*Portage*
Tipton, Elsie Leone	*Tabor, Ia.*
Tormey, Marion Elizabeth	*Madison*
Turner, Eva Jewel	*Temple, Ariz.*
Turney, Frances	*Fairfield, Iowa*
Ulrich, Helen Ruth	*Neenah*
Umbreit, Freda Emmet	*Milwaukee*
Urban, Ruth Marie	*Wauwatosa*
†Urberg, Sofus Emanuel m	*Blair*
†Van Vleck, John Hasbrouck	*Madison*
Vander Bie, Roscoe	*Platteville*
Veleber, Emma June	*Belt, Mont.*
Vinje, Ethel	*Madison*
Wade, Hester	*St. Louis, Mo.*
Wagner, Margaret Louise	*Freeport, Ill.*
Wagner, Newton Van Deverr	*Madison*
Walz, Chester Davison	*Madison*
Wanner, Esther Juliette	*Chicago, Ill.*
†Ward, Alonza La Rue	*Aberdeen, S. D.*
Warner, Frances Marian	*Kansas City, Mo.*
Waterbury, Eva Kate	*Prairie du Sac*
Waterman, Isabelle Amanda	*Menomonie*
†Watson, Goodwin Barbour	*Whitewater*
Weber, Gertrude	*Keokuk, Ia.*
†Weeks, Herbert John	*Chilton*
Weimer, Elizabeth Ann	*Sheboygan*
Weiss, Helen Catherine tc	*Madison*
Weld, Beatrice Louise	*South Bend, Ind.*
†Wellauer, Henry Conrad	*Wauwatosa*
Weller, Daniel Max	*Madison*
Welsh, Mary Irene	*La Crosse*
Wensley, Margaret Gray	*Cleveland, Ohio*
†Werba, Daniel Richard m	*Milwaukee*
Westerlund, Ruby Luella	*Elliott, Ia.*
White, Lola Anna tc	*Winneconne*
Wigder, Clara Florence	*Milwaukee*
Wilcoxon, Marie Elise	*Catskill, N. Y.*
Wilgus, Alva Curtis	*Platteville*
Winchell, Vira Frances	*Madison*
Wise, Evelyn	*Jackson, Tenn.*
Witter, Catherine Maurer	*Madison*
Wittwer, Marie Gladys	*Madison*
Wolfe, Seth August	*Madison*
Wood, Delphine	*Fonda, Iowa*
Wright, Florence Margaret	*Wahpeton, N. D.*
Wright, Hazel Embree	*Webster Groves, Mo.*
†Wright, Herbert Beach m	*Milwaukee*

Zieman, Arthur Herman tc	*Bloomer*	
Zulfer, Anthony George	*Chicago, Ill.*	—445

Course in Commerce

Andersen, Elizabeth Marie	*Madison*
Baxter, Marcus Luling	*Lancaster*
Behrendt, Otto Herman	*Wausau*
Bekkedal, Darline Madelia	*Westby*
Benson, Elmer Fred	*Clear Lake*
Bickel, Frederick McIntyre	*Racine*
Bohnson, Roland Durfee	*Madison*
Brewster, Grace Elizabeth	*East Troy*
†Brown, Earl Dow	*Madison*
Buckmaster, Dean Albert	*Kenosha*
†Burgy, Jacob Herbert	*Monticello*
Carroll, Clark Joseph	*Watertown*
Clark, William Arthur	*Stoneville, S. D.*
Claus, Pearl Elizabeth	*Madison*
Coe, Orpha Maizie	*Barron*
Cox, Marcia Bliss	*Madison*
†Culbertson, Charles D.	*Stanley*
†Dahl, Aad Joel	*Kenosha*
†Dahlman, Oscar Conrad E.	*Sheboygan*
†Dickens, Perry Allen	*Milwaukee*
Dohr, Donald	*Madison*
Donohue, Raymond Earl	*Tipton, Iowa*
Drew, Francis Leo	*McAlister, Okla.*
Eaglesfield, Virginia	*Indianapolis, Ind.*
†Eckert, Joseph Floyd	*Hastings, Mich.*
†Edwards, Leroy Eugene	*Madison*
†Edwards, Raymond Delos	*Madison*
Fee, Archibald Hubert	*Superior*
†Feldman, Grant Allan	*Mason City, Iowa*
Fetter, Russell Marion	*Kendallville, Ind.*
†Fisher, Myron Merle	*Columbia City, Ind.*
Fowler, Mary Collison	*Fithian, Ill.*
Freese, Herbert George	*Sioux Falls, So. Dak.*
Freund, Walter Emerson	*Cedarburg*
Fricker, William Henry	*Whitewater*
Froehlich, Harold Lamfrom	*Milwaukee*
†Frohbach, Harold Otto	*Three Forks, Mont*
Gildermaster, Henry Herman	*Princeton, Ill.*
Goetsch, Arthur Albert	*Reedsburg*
†Hammond, Loring Theodore	*Wauwatosa*
†Hankin, Harry	*Marinette*
Harrington, Florence M.	*Milwaukee*
Haugan, Addison	*Elkhorn*
Hensey, Irene Annette	*Ft. Atkinson*

Hewett, Roswall Elof	*Rapid City, S. D.*
Hodgins, Gerald Burgh	*Moscow, Idaho*
†Hoyer, Frank Charles	*Manitowoc*
†Hughes, Charles Louis	*Pardeeville*
Hunting, Laura Updegraff	*McGregor, Iowa*
Hurley, Edith Belle	*Fox Lake*
†Joerndt, Clarence Venoah John	*Kenosha*
Karow, Eugene William	*De Forest*
†Katzenstein, Henry Bonnus	*Milwaukee*
Kearney, Everett Wheeler	*Ironwood, Mich.*
Kellogg, Frederick Conway	*Edgerton*
Kiekhofer, Erna Lula	*Fond du Lac*
Kinzel, Lesley Kenneth	*Merrill*
Kletzein, Hobart Henry	*New Holstein*
Knappen, Lawrence Stevens	*Brookings, S. Dak.*
†Knorr, Lincoln Dewey	*Madison*
†Kraemer, Elmore Andrew	*Rockfield*
Kuehl, Frank William	*Fountain City*
Levy, Edward David	*Augusta*
Ley, Hilda Margaret	*De Pere*
Lindsay, Robert Brown	*Milwaukee*
Lindsey, James Milton	*Boise, Idaho*
Linehan, Raymond Francis	*Genesee Depot*
McCoy, Frank A. vt	*Sterling, Ill.*
†McIver, Frazier Daniel	*Superior*
McRae, Grace Klendyll	*Rhinelander*
Mandel, Walter R.	*La Grange, Ill.*
†Mann, Berthold Charles	*Mayville*
Mann, Frederick John	*Evansville, Ind.*
Melaas, Karel Christian	*Stoughton*
Melcher, Burton Walters	*Madison*
Metz, Henry Lawrence	*Madison*
Metzger, Norman	*Indianapolis, Ind.*
Metzker, William Martin	*Milwaukee*
Meyer, Lawrence Emmons	*Oshkosh*
Miller, James Christopher	*Wausau*
Moran, Edwin L.	*Superior*
Morrissy, Lewis William	*Madison*
†Mueller, Alphons Robert	*La Crosse*
Murphy, Daniel Francis	*Chicago, Ill.*
Nissen, Laura Hagerup	*Madison*
O'Keefe, Alexis Wyckoff vt	*Madison*
Oldenburg, Frederick William	*Linden*
†Omsted, Karl R.	*Stoughton*
Oyaas, Einar Bernhardt	*Eau Claire*
†Patterson, William Francis	*Madison*
†Pease, Harlow Heath	*Wauwatosa*
Peters, Oswald Henry	*West Bend*
†Pieh, Roy John	*Madison*

Pinther, Harold Otto	*Fond du Lac*	
†Pollack, Samuel Sydney	*Milwaukee*	
Pratt, Harold J.	*Edgerton*	
Quimby, John Alvan	*Sheboygan*	
†Ramsey, Ronald West	*Rock Rapids, Iowa*	
Ray, Charles Harold	*Milwaukee*	
Rewey, Robert Livingston	*Rewey*	
Saylor, Esther	*Wellington, Kan.*	
Schatzle, Henry	*Delavan*	
Scheidenhelm, Albert Knauer	*Wilmette, Ill.*	
†Schenck, Edwin William	*Madison*	
Schenck, Willard John	*Madison*	
Schneider, Walter Edward	*Toledo, Ohio*	
Schomberg, Richard Jost, Jr.	*Milwaukee*	
Schumann, Harold Louis	*Watertown*	
†Schwartz, Charles Floyd	*Sharon*	
Schwenn, Bertha Jane	*Madison*	
Shellenberger, J. Herbert	*Paris, Ill.*	
Shellman, Ernest John	*Ogema*	
Sherman, Howard Cole	*Grand Rapids, Mich.*	
†Sinaiko, Jacob	*Madison*	
†Smith, Sanford Fred	*Edgerton*	
Sprinkman, Roland Coleman	*Milwaukee*	
Steele, Richard Wilson	*Oak Park, Ill.*	
†Stiles, Ralph DeMerit	*Lake Mills*	
Stuhler, Frederick Stewart	*Monticello, Iowa*	
Upgren, Arthur Rheinholdt	*River Falls*	
Vanderjagt, Ellis Leonard	*Milwaukee*	
Vollmar, Grace Janet	*Duluth, Minn.*	
†Werrbach, Archie John	*Milwaukee*	
†Westphal, Harry Leroy	*Preston, Iowa*	
White, Charles Herman	*Rewey*	
†Wilder, Frank Edward	*Madison*	—126

Course for Normal School Graduates

Barney, Emma Grace	*Superior*	
Bonzelet, Gertrude Louise	*Madison*	
Byrnes, Chester Henry	*Ellsworth*	
Drewry, Lucile Marguerite	*Madison*	
Gleason, Nellie Katharine tc	*Stevens Point*	
Hanson, Lillian Christine	*Superior*	
Heiliger, Ella Catherine	*Madison*	
Olson, Lila Belle	*Madison*	
Sparks, Loran Darius	*Madison*	
Swancutt, Ivan LeRoy	*Viola*	
Wegner, Henry Carl	*Oconto*	
Wheeler, Mary Agnes	*Kalamazoo, Mich.*	—12

Course in Chemistry

Beckman, Orville Charles	*Madison*	
†Bischoff, Fritz Emil	*Milwaukee*	
Blonien, Bert Andrew	*Milwaukee*	
Chase, Lucille Eastwood	*Greeley, Colo.*	
†Coe, Arthur William	*Horicon*	
Cox, John Van Brunt	*Horicon*	
Grams, Marie Helen	*Kansas City, Mo.*	
Hackbert, Clarence Reinold	*Poynette*	
†Helfaer, Evan Philip	*Milwaukee*	
†Hentzen, Erwin Albert	*Milwaukee*	
†Himmler, Lowell Whitman	*Washington, D. C.*	
†Holbrook, William Floyd	*Cameron*	
Hoppert, Carl Arthur	*Sheboygan*	
†Horton, Frederic Arthur	*Rockford, Ill.*	
Kahlenberg, Herman Heald	*Madison*	
†Koch, John Ralph	*Janesville*	
†Koehler, Henry George	*Ripon*	
†Lamm, Vincent Peter Benedict	*Plymouth*	
Mead, Max Lionel	*Pringhar, Iowa*	
Orr, John Edward	*Mellen*	
†Phillips, George Dewey	*Milwaukee*	
Prichett, Mary Josephine	*Mankato, Minn.*	
Schulz, Johanna Henrietta	*Milwaukee*	
Steinle, John Vernon	*Madison*	
Taylor, Henry Gordon	*Madison*	
Terkel, Richard Benjamin	*Milwaukee*	
Tischner, Theodore T. tc	*Milwaukee*	
Verhulst, John	*Sheboygan*	—28

Course in Journalism

Bergeson, Marian Faith	*Earlville, Ill.*	
†Bump, Franklin Elisha, Jr.	*Wausau*	
Custer, Ethel Mae	*Galesburg, Ill.*	
Edison, Alice Grace	*Sun Prairie*	
Erikson, Leonard Frederick	*Chicago, Ill.*	
Gausman, Ariel Elleanore	*Madison*	
Guernsey, Dorothy	*Chicago, Ill.*	
Hadley, Edith Jane	*Stoughton*	
Hartung, Leatha Vesta	*Two Rivers*	
Kleven, Garnet Estelle	*Mt. Horeb*	
McDonald, Iva Mary	*Markesan*	
Merrill, Louis Taylor	*Beloit*	
†Meyers, Bernard Edward	*Kenosha*	
Moore, Marion Eleanor	*Madison*	
†Quarberg, Lincoln Andrew	*Mondovi*	

Regli, Adolph Casper	*Eau Claire*	
Riordan, Hugh Leo	*Port Washington*	
Roth, Marion Regula	*St. Louis, Mo.*	
Schulz, Ella Marion	*Madison*	
Selk, Lucile Charlotte	*Madison*	
†Scott, Owen Le Grand	*Sioux Falls, S. D.*	
Van Wagoner, Esther Ellen	*Pontiac, Mich.*	
Whipple, Marcia	*Waterloo*	
Wilson, Margaret Curtiss	*Madison*	
Wolfe, Hazel Zeta	*Mt. Horeb*	
†Zilmer, Bertram George	*Monroe*	—26

General Course

Koch, Elmer John	*Brillion*	
Martin, Finley Furman	*Madison*	
†Meyer, Baron DeHirsh	*Brillion*	
Petrie, Hazen Hill	*Madison*	—4

Sophomores

Albough, Helen Elizabeth	*Eaton, Ohio*
Albrecht, Selma Carrie	*Madison*
Alexander, Ruth	*Madison*
Allyn, Louise	*Madison*
Anderson, Mary Eloise	*Chicago, Ill.*
Arpin, Cecile	*Grand Rapids*
Aschenbrenner, Steven	*Milwaukee*
†Assovsky, Charles	*Sun Prairie*
†Bach, Mark John	*Milwaukee*
†Bachman, Charles Haskell	*Milwaukee*
Bacon, Caryl Monona	*Madison*
Bacon, Isabel Lyman	*Salt Lake City, Utah*
Bakken, Henry Harrison	*Blue Mounds*
Baldwin, Marion Elizabeth	*Berwyn, Ill.*
†Barney, Tyler Davis	*Sparta*
†Barr, Wallace Andre	*Milwaukee*
Barrett, Elzaida Mildred	*Baraboo*
Bauman, George Alexander	*Oshkosh*
Beach, Marguerite Marie	*Ft. Atkinson*
Bell, Inda Richards	*Dubuque, Iowa*
Bendeke, Valdis Marion	*Grand Forks, N. Dak.*
†Bennett, Donald Menzies	*Madison*
Berger, Elsa	*Milwaukee*
Bernardo Gabriel Andriano wls	*Malolos, Bulacan, P. I.*
†Bernhardt, Lloyd Edmond	*Wilton*
†Bigler, John Adolph	*Chippewa Falls*
Blaul, Bertha Pauline	*Burlington, Iowa*

†Blum, Bruce Marty	*Monroe*
†Blum, George Louis, Jr.	*Eau Claire*
†Bohl, Warren A.	*Bruce, S. Dak.*
Bollenbeck, Marcella Kathryne	*Madison*
†Bormann, Milton Carter	*Oshkosh*
†Bowles, John Herschel	*Sheldon, Ill.*
Breidablik, Anna Bergitte	*Madison*
Breitenbach, Margaret Frances	*Madison*
Brennan, Elsie May	*Lancaster*
†Brown, Thomas Kenneth	*Kankakee, Ill.*
†Browne, William George	*Racine*
Bruns, Pearl Mattie	*Morrisonville*
Bucknam, Vernis Nettie	*Osage, Iowa*
Buckstaff, Angus Griswold	*Oshkosh*
Buell, Gelia Mary	*Bozeman, Mont.*
Bump, Warner Smith	*Wausau*
†Bunge, George Christian	*La Crosse*
Busby, Fern Mae	*Arcadia*
†Caldwell, Hugh McIntyre	*Poynette*
Callan, Patrick Lawrence	*Milwaukee*
Callander, John Morgan, Jr.	*Des Moines, Iowa*
Calvert, Charlotte Joslin	*Madison*
†Campbell, Everette Lowell	*Madison*
Capellen, Eda Cecelia	*La Crosse*
†Carpenter, Earl Eugene	*Superior*
Chandler, Elizabeth Ash	*Silver Spring, Md.*
†Chapman, Arthur Hubert	*Washington, D. C.*
†Clark, Burton	*Oshkosh*
Clayton, Helen	*Webster Groves, Mo.*
Cohen, Esther Marie	*Wilmette, Ill.*
Colman, Russell Benjamin	*Neillsville*
Commons, Rachel Sutherland	*Madison*
Conklin, Katherine Mary	*Madison*
Conklin, Virginia Theresa	*Madison*
Connell, Laura May	*Fond du Lac*
Conway, Florence Mary Anna	*Antigo*
Cook, Mabel Louise	*Chippewa Falls*
Cooper, Doris Edwina	*Madison*
Coulthard, W. Joyce	*Darlington*
Cox, Deirdre Dorothy	*Chicago, Ill.*
Cox, Eleanor Harriet	*Madison*
†Coxon, Robert Gregg	*Madison*
Crabb, Henrietta Mary	*Green Bay*
Crane, Dorothy Evelyn	*Weyauwega*
Croskey, Marguerite Isabel	*Madison*
Culver, Florence S.	*Holdenville, Okla.*
†Culver, Glenn Lucian	*Eau Claire*
Dauksys, Joseph	*Newark, N. J.*
†Davidoff, Isidore Zolmon	*Milwaukee*

†Davis, Robert William	*Madison*
Dawson, Harriet Ione	*La Crosse*
Dehler, Sophie A.	*Helena, Mont.*
Dickens, Marion	*Milwaukee*
Dobry, Lillian Anna	*Kewaunee*
†Docter, Myron George	*Milwaukee*
Dodge, Howard McLellan	*Valparaiso, Ind.*
†Doege, Paul Frederick	*Marshfield*
Doerr, Margaret Alice	*Mt. Vernon, Ind.*
†Doerfler, Frederic Anderson	*Wauwatosa*
†Dornbrook, Percy Fred	*Menasha*
Dowling, Philip Herschel	*Madison*
Drake, Frances E.	*Mason City, Iowa*
†Drummey, Frank Edward	*Monroe*
Drummond, Doris	*Eau Claire*
Dummer, Frances	*Coronado, Cal.*
Dwight, Frances Elizabeth	*Madison*
†Ede, Kenneth Leland	*Zenda*
Edmonds, Hobart John	*Wausau*
†Egan, John Marion	*Highland*
Eleston, Mary Rose	*Madison*
Ellingson, Eldred Junius	*Milan*
†Ells, Robert Borden	*Rockford, Ill.*
†Emery, Clyde Burtis	*Kansas City, Mo.*
Epstein, Janet Sylvia	*Delavan*
Eschweiler, Elaine Katharine	*Madison*
Evans, Alice Louise	*West Point, Miss.*
†Evans, Richard Donald	*Evansville*
†Fagan, Robert Halderman	*Columbia City, Ind.*
Falk, Adele Marie	*Lake Mills*
Farrand, Isabel Douglas	*Houghton, Mich.*
Fee, Marie Antoinette	*Superior*
Felix, Marion Crittenden	*Chicago, Ill.*
†Fiedler, Ralph Oliver	*Milwaukee*
Filtzer, Flora Marie Louise	*Milwaukee*
Finch, Louise Edith	*Peoria, Ill.*
Fisher, Elizabeth Mildred	*Madison*
Fisher, Margaret	*Chicago, Ill.*
Fisher, Susie	*Galveston, Tex.*
Follett, Lothrop Frank	*Ottawa, Ill.*
Fox, Raymond Walter	*Waterloo*
†Franklin, Louis	*Milwaukee*
†Frederickson, James Fyfe	*Madison*
Fritsch, Dorothy	*Milwaukee*
†Fucilla, Joseph Guerin	*Racine*
†Fugina, Clarence Edward	*Arcadia*
Fuller, Willard Love	*Madison*
†Gaarden, Clarence Arthur	*Spring Valley*
Gallagher, Sarah Dean	*Wilmette, Ill.*

Gapen, Edna Courtney	*Whitewater*
Gapen, Zelda Judith	*Whitewater*
Gardner, Irene Gladys	*Ashland*
Gill, Helen Etta	*Madison*
Gleerup, Grace Alice	*Madison*
Gnagi, Will Bender	*Monroe*
Gnewikow, Sylvia Heloise	*Norwalk*
†Goessling, Wilbur William	*St. Louis, Mo.*
†Goff, Sidney Britton	*Elkhorn*
Gold, Ida Eudice	*Berlin*
Goldmann, Annetta Grace	*Milwaukee*
Gooding, Marguerite A.	*Fond du Lac*
Goodwin, Marion	*Hartland*
Goss, Marian Maxwell	*Oshkosh*
Graham, Esther Gertrude	*Milwaukee*
Greene, Gladys	*Madison*
Gregg, Mabel Josephine	*Madison*
Gregory, Lawrence William	*Valders*
Grotophorst, Agnes Emily	*Baraboo*
Gruenbeck, Gussie	*Philipsburg, Mont.*
Gutenkunst, Eleanor Marie	*Milwaukee*
Haass, Marie Evelyn	*Pewaukee*
Hadley, Gladys Richey	*Ft. Wayne, Ind.*
Hall, Marjorie	*St. Louis, Mo.*
Halperin, Harry	*Madison*
Halsor, Josephine Marie	*De Forest*
Hammond, Harriet Elizabeth	*Antigo*
†Hammond, Reginald Wilmot	*Manitowoc*
Hampton, Mary McDuffie	*Washington, D. C.*
Hancock, Madeleine Prudence	*Chicago, Ill.*
Hanks, Julia Judge	*Madison*
†Hannon, Theodore Richard	*Sturgeon Bay*
Hanson, Amanda Mathilda	*Ashland*
Harper, Helen Campbell	*Burlington*
Hart, Mae Evelyn	*Waunakee*
Harvey, Dorothy Marie	*Washington, Iowa*
†Harville, Clifford Henry	*Eau Claire*
Hess, Ardis Marie	*Mauston*
†Hill, Clarence Donald	*Port Washington*
Hinkins, Marcia Nelson	*Delavan*
Hinman, Dorothy	*Sandwich, Ill.*
Hinners, Mildred Jean	*Chicago, Ill.*
Hiss, Agnes Ames	*Casper, Wyo.*
Hoard, Annie Laurie	*Ft. Atkinson*
Hoehn, Henry Gerard	*Monroe*
Hohlfeld, Karl Voss	*Madison*
Hohlfeld, Rudolf Libbert	*Madison*
†Holcombe, Robert Lyndon	*Madison*
Holland, Rebecca	*Chicago, Ill.*

Hollands, Dorothy May	*Oak Park, Ill.*
Hornibrook, Kathryn	*Marinette*
Howard, George Ephriam	*Pittsburgh, Pa.*
Hughes, Eleanor Carolyn	*Madison*
Humphrey, Ethel Elizabeth	*Northfield*
Hunt, Lydia Elizabeth	*Madison*
Hunter, Margaret Mary	*Billings, Mont.*
†Husting, Nathaniel Juneau Bonduel	*S. Kaukauna*
Ickes, Wilmarth	*Hubbards Woods, Ill.*
†Ingram, Walter Julius	*Rice Lake*
Isaacs, Henry Garcia	*St. Louis, Mo.*
Jenison, Frances Ernestine	*Fond du Lac*
Johnson, Almeda Alice	*Augusta*
Johnson, Thelma Beryl	*Madison*
Jones, Charles Henry	*Spencer, Iowa*
Jones, Mabel Jennings	*Waupun*
†Kaumheimer, Leon Emanuel	*Milwaukee*
Kellogg, Hazel Irene	*Marshalltown, Iowa*
Kessenich, Lucille Ernestine	*Madison*
†Kiland, Karl Gustav	*Madison*
King, Ruth B.	*Kearney, Neb.*
Kinne, Constance	*Elkhorn*
Kispert, Katherine Ida	*Jefferson*
†Kolitsch, Louis Joseph	*Appleton*
Kraft, Roa Iza	*Madison*
†Krivonos, Fred George	*Allentown, Pa.*
Kroening, Ada Beach	*Milwaukee*
Kropf, Dorothy Anne	*Madison*
Kubly, Louise Florence	*Monroe*
Kyle, Lucile	*Tomah*
Lacey, Lydia Joy	*Madison*
Lanz, Ruth Irene	*Madison*
Larson, Luella Clair	*Crosby, N. D.*
Latimer, Frances Hamilton	*Mellen*
Lehmann, Jane Schrumpf	*Madison*
Letcher, Gwendolyn Muriel	*Madison*
Lewis, Pauline S.	*Madison*
Lichtenwalner, Ray Peter	*Monroe*
Linden, Gabriel Eric	*Des Moines, Iowa*
Little, Clarence Henry	*Langdon, Kans.*
Liu Ven Hai	*Wan-Hsien-Lui, Suchow, China*
Lloyd, Mazie Georgiana	*Ashland*
Lord, Stella Mary	*Carlton, Minn.*
Lorentz, Nancy Ranghild	*Chicago, Ill.*
†Loughlin, Edward Leo	*Madison*
Lowe, John William	*Whitehall*
McCarthy, Helen Mary	*Madison*
McChesney, Annie Elizabeth	*Dane*

McClelland, Ruth Marie	*Findlay, Ohio*
†McDonald, Edward Martin	*Beaver Dam*
McGuire, Harry Joseph	*Waunakee*
†McIntyre, Chauncey W.	*Farnham, N. Y.*
McKellar, Jessie Mae	*Blanchardville*
McKitrick, Mildred Marie	*Madison*
MacLaurin, Dorothea Drummond	*Madison*
McMullen, Glenn John	*Tomah*
†Maack, Alfred Henry	*Clintonville*
Mabley, Hilda Barney	*St. Louis, Mo.*
Madden, Helen Monica	*Tomah*
†Madison, Frederick William	*Oconomowoc*
Markham, Elizabeth	*Manitowoc*
†Marsden, Wendell Herbert	*Fennimore*
†Martineau, Thomas Bourgoine	*Oshkosh*
Marty, Rosa	*Council Bluffs, Iowa*
Mathews, Lorraine Katherine	*Ashland*
†Mayer, Chester Justin	*Milwaukee*
Mead, Dorothy Louise	*Dayton, Ohio*
†Mecartney, Malcolm	*Hinsdale, Ill.*
Meiselwitz, Henrietta Caroline	*Kiel*
†Melcher, Louis Chester	*Madison*
Milbrandt, Ruth Victoria	*New Holstein*
†Miller, Russell Howard	*Whitewater*
Miller, Ruth Beatrice	*Alma Center*
Mitchel, Mira Louise	*Madison*
Mitchell, Florence Elizabeth	*Sun Prairie*
Mlsna, Anna Agnes	*Cashton*
Monfried, Clara	*Madison*
Montague, Theodore Giles	*La Crosse*
Moore, Ellen Bertha	*Madison*
Morehouse, Lillian Maude	*Elkhart, Ind.*
Mueller, Emma Caroline	*Madison*
Munda, José M. wls	*Salasa, Pangasinan, P. I.*
Murphy, Lawrence W.	*Madison*
†Muskat, Harry	*Milwaukee*
Neal, Margaret Eastwood	*Lake City, Minn.*
Neiberger, Mary Coe	*Normal, Ill.*
Neilson, Dorothy Maude	*N. Milwaukee*
Nelson, Dorothea	*Rockford, Ill.*
†Newcomb, Alvah Lay	*Pepin*
†Niederauer, Frank Lee	*Bryan, Ohio*
North, Ludlow Frey	*Green Bay*
†Nyhus, Walter Edmund	*Chippewa Falls*
O'Keefe, Aileen Elizabeth	*Waunakee*
O'Keefe, Lucille Elizabeth	*Madison*
Oleson, Eleanor Marie	*Rio*
O'Shea, Stanley Daniel	*Madison*
Otteson, Thelma Antonette	*Viroqua*

Pabst, Pauline Theckla	*Oconomowoc*
†Paddock, John Munger	*Milwaukee*
Parkhill, Frances Margaret	*Rochester, Minn.*
Parkinson, Mary Julia	*Madison*
†Paul, Harold Henry	*Milwaukee*
Paul, Olin	*Rib Lake*
Paulson, Thelma Luella	*Evansville*
Peabody, Charlotte Elizabeth	*Madison*
Penhallegon, Marian Loveday	*Mineral Point*
Perez, Cirilo Barcial wls	*Sta. Maria, Bulacan, P. I.*
Perlman, Tilly	*Madison*
†Peterson, Edward Nohl	*Florence*
Peterson, Eleanor Lelia	*Madison*
†Peterson, Marvin Garfield	*Geneva, Ill.*
Peterson, Mary Marquardt	*Madison*
†Pfeifer, Oliver Wendell	*Sheboygan Falls*
Phillips, Vera Irma	*Milwaukee*
Pierce, Marion Frances	*Menomonie*
Plumb, Eugenia Langson	*Milwaukee*
Pointer, Ruth	*Birmingham, Ala.*
Pradt, Alan Emmons	*Wausau*
Preston, Mary Ellen	*Brodhead*
Radtke, Clarence William	*Madison*
†Ralph, Edwin Donald	*Wauwatosa*
Rastede, Ethel Bernice	*Morrison, Ill.*
Ray, Dorothy Margaret	*Madison*
Reed, Zilpha Eliza	*Blue River*
Rendall, Mary Louise	*Des Moines, Iowa*
†Resh, Warren Herlan	*Winnebago, Ill.*
Rhodes, Lillian	*Madison*
Riley, Eleanor Farrell	*Madison*
†Risteen, Herbert Lyle	*Chippewa Falls*
Roberts, Esther Josephine	*Madison*
Robertson, Clark Mead	*Plymouth*
Robinson, Olive Ellen	*Evansville*
Rodriguez, Eulogio Balan wls	*Manila, P. I.*
Roessler, Evora Kathryn	*Milwaukee*
Rogers, Mildred Adella	*Highland Park, Ill.*
Rosser, Grace Annetta	*Montrose, S. D.*
Russett, Jessie Theresa	*Billings, Mont.*
Ryan, Frances Aveline	*New York City*
Ryan, Mildred Elizabeth	*Madison*
†Ryan, Patrick Henry Jr.	*Sheboygan*
Ryburn, Florence Olive	*Bloomington, Ill.*
Sackett, Helen Eliza	*Springfield, Ohio*
Sammis, Malvena Elizabeth	*Madison*
Samuels, Agnes Helen	*Schuyler, Neb.*
Sanborn, Vinnie Frances	*Madison*
Sander, Esther Adele	*Fond du Lac*

Sarles, Agnes Bowen	*Madison*
Schaper, Dorothy	*Milwaukee*
Schapiro, Saul	*Milwaukee*
Schlosser, Gladys Marguerite	*Arlington*
Schmedeman, Katharine	*Madison*
†Schramm, Frank Higgason	*Burlington, Iowa*
†Schulz, Irwin Paul	*Milwaukee*
Schumaker, Arlisle	*Milwaukee*
Schwartzburg, Mildred Louise	*Milwaukee*
Schweizer, Gretchen Marie	*La Crosse*
†Schwentker, James Milton	*Evansville, Ind.*
Scilley, Deddy Gordon	*Billings, Mont.*
Scott, Margaret Helen	*Richland Center*
Seaton, Dorothy Melissa	*Canton, Ill.*
†Seids, John William, Jr.	*Moline, Ill.*
*Shea, Isabel Frances	*Ashland*
Shepard, Marguerite Eugenia	*Madison*
Sherburne, Beatrice	*Fremont*
Shuttleworth, Saadi Sapho	*Madison*
Silbernagel, Helen Elizabeth	*Wausau*
Sinaiko, Herman Louis	*Madison*
Sinaiko, Leila	*Madison*
Sippel, Johann Christoph	*Evansville*
Skinner, Mildred Alice	*Tomah*
Skolas, Christine Gertrude	*Madison*
Smart, Dorothy Hathaway	*Davenport, Iowa*
Smith, Frances Eugenia	*Madison*
Smith, Frances S.	*Roann, Ind.*
Smith, Harold Clare	*Jefferson*
Smith, Ruth Estelle	*Madison*
Snyder, Helen Marie	*Massillon, Ohio*
Spaulding, Juniet Walker	*Princeton, Ill.*
Statz, Eleanor Carissa	*Madison*
Steeholm, Hardy	*Racine*
Stetson, Marjorie Frances	*Lake Mills*
Steven, Isabel Ellen	*Glenwood City*
†Stevens, Linton Cooke	*Milwaukee*
Stevens, Thelma Butler	*Lancaster*
Stevenson, Eva Caroline	*Madison*
Storms, Ruth	*Glencoe, Ill.*
Sullivan, Laura Frances	*Milwaukee*
Sutcliffe, Leah Marion	*Chicago, Ill.*
†Sutliff, Wheelan Dwight	*Rhinelander*
Swan, George Dewey	*Madison*
Swan, Mary Florence	*Wauwatosa*
Swancutt, Ida Estelle	*Evansville*
Swendson, Norman L.	*Amherst*

*Died January 13, 1919.

Swift, Margaret Julia	*Darlington*
†Tasche, Leslie William	*Sheboygan*
Taylor, Eva Minerva	*Lancaster*
Templin, Vera May	*Baraboo*
Theobald, Elfrieda Adelaide	*Monticello*
Thompson, Troy Melvin	*Madison*
†Thomson, John Norman	*Centerville, S. Dak.*
Thornton, David Howard	*Atchinson, Kans.*
Titus, H. Winifred	*Fond du Lac*
Tsai, Feng	*Peking, China*
Tucker, Frances Ellen	*Madison*
Urschel, Mary Ann	*Toledo, Ohio*
Van Aken, Julia Lois	*Coldwater, Mich.*
Verst, Herbert Earl	*Chicago, Ill.*
Voorhees, Mary Toucey	*Washington, D. C.*
Wade, Mary Susette	*Wausau*
Wagner, Elsa	*Freeport, Ill.*
Wagner, William	*Bloomfield, Mont.*
Waite, Mina Kathleen	*Nashua, Iowa*
Wakefield, Kent Townshend	*Milwaukee*
†Walls, Milton Guernsey	*St. Paul, Minn.*
†Warren, Willott Marcus	*Baraboo*
Warsinske, Mildred E.	*Marshfield*
Waterman, Elizabeth Marion	*Kalamazoo, Mich.*
Watters, George Hanawalt	*Des Moines, Iowa*
†Wegener, James Hugo	*Marshfield*
†Weisman, Jacob Mathew	*Racine*
†Weisse, Lester Charles	*Sheboygan Falls*
Wellerman, Elizabeth	*Milwaukee*
Welsh, Rodney Costello J.	*Madison*
Weston, Frank Laurance	*Mason City, Iowa*
White, Alettea Alice	*Grayslake, Ill.*
Williams, Ada Griswold	*Oshkosh*
Williams, Stalhalm Leon	*Wilmette, Ill.*
Winchester, Clarice Rutherford	*Flint, Mich.*
Winckler, Kathrine	*Madison*
Wolf, Lorelle Arthur	*Madison*
†Wolfe, John Calvin	*Madison*
†Wright, Warren Finch	*Fond du Lac* —406

Course in Commerce

†Abrahamson, Abe	*Winthrop Harbor, Ill.*
†Andersen, Victor Sigurd	*Madison*
Bartlett, Harriet Dorothy	*Madison*
†Beckwith, Wayne Izor	*Cincinnati, Ohio*
†Bennett, Loren	*Flandreau, S. Dak.*
†Beste, Curtis Francis	*Mosinee*
Bettendorf, Arthur Joseph	*Sublette, Ill.*

Birong, Thomas Vernon	*Madison*
†Blowney, Russell Page	*Waukegan, Ill.*
Bolender, Joseph Bridge	*Monroe*
†Borden, Ruthwin Bennett	*Plainfield*
†Bowers, Newton L.	*Rice Lake*
Brandt, Clarence Albert	*Fennimore*
Brown, Marion	*Nickerson, Kans.*
Buckmaster, Sada Eleanor	*Madison*
†Carver, Horace Jones	*Milwaukee*
Chamberlain, George Henry	*Milwaukee*
Christensen, Anna Marie	*Racine*
†Clear, Ewart Keller	*Ft. Wayne, Ind.*
†Conley, Claude Swanson	*Frankfort, Ind.*
Conway, Helen Tuft	*Grand Rapids*
†Culp, Robert Francis	*Madison*
Curry, Robert James	*Baraboo*
Curtis, Warren Crandall	*Quincy, Ill.*
Dahm, Irene Lancaster	*Madison*
†Darrenougue, Raymond Sylvester	*Reedsburg*
†Deysenroth, Carl Frederick	*Columbus*
Dorries, Charles Wetzel	*Buffalo, N. Y.*
†Eisele, Edward Joseph	*Madison*
†Ellingson, Arvin Belford	*Milan*
Estvad, Ruth Ebba Christensen	*Madison*
†Fairfield, Gordon Grey	*Green Bay*
†Fanning, Willis Moore	*Denver, Colo.*
Feddersen, Nels Christian	*Racine*
Federer, Leo Joseph	*Waukesha*
†Feldman, Joseph George	*Madison*
†Fitzgibbons, James Maurice	*Monroe*
†Florea, William Bowman	*Indianapolis, Ind.*
†Fortney, Rufus Le Roy	*Viroqua*
†Fox, Philip Gorder	*Waterloo*
Gilbert, John Vernon	*Sturgeon Bay*
Godfrey, Dudley James	*Wauwatosa*
†Gotfredson, Roy Charles	*Green Bay*
†Grape, Leon Alvin	*Bruce, S. Dak.*
†Gutenkunst, Charles Albert Jr.	*Milwaukee*
Halperin, Herman Bernard	*Madison*
†Hanson, Roy Benjamin	*Chippewa Falls*
Harris, John Radell	*Madison*
Harrison, Kathleen	*Madison*
Hazard, Charles Mackentosh	*Milwaukee*
Heins, Marguerite Mabel	*Kiel*
†Heyman, Arthur Jerome	*Kenosha*
†Hirsheimer, Earl Spencer	*La Crosse*
Hoffman, Jennie Louisa	*Madison*
Hollatz, Clarence Alexander	*Madison*
†Holscher, Herbert Frederick	*McFarland*

†Holtz, Wilbur Edmund	*Columbus*
Horton, Ralph	*Miles City, Mont.*
Hubbell, Ernest Hammond	*Kansas City, Mo.*
Hunt, Lewis Salisbury	*Milwaukee*
Iversen, Agnes Mathilde	*Stoughton*
†Jackson, F. Morris	*Monroe*
Jerg, Vera Luella	*Janesville*
Jessell, Reuben Fred	*Antigo*
†Johnson, Winfred Edwin	*Madison*
Jung, Otto Alfred	*Sheboygan*
†Jung, Wesley Winter	*Sheboygan*
Kelley, Harold James	*Tomah*
†Klumb, Carl Edwin	*West Bend*
Knilans, Stuart Crocker	*Sheboygan*
†Kuebler, Walter Le Roy	*Viroqua*
Lamb, Harold Wadsworth	*Grand Rapids, Mich.*
†Lammers, Adrian Lucius	*Chicago, Ill.*
†Larson, Milo Reese	*Dodgeville*
Laun, Carl Henry	*Kiel*
†Loewenthal, Richard Joseph	*Chicago, Ill.*
McCabe, Charles Dwight	*Duluth, Minn.*
*†McCray, Joe Whiting	*Oshkosh*
†McIntosh, Clarence William	*Edgerton*
McKinnon, Stewart McLaren	*Superior*
†Madden, John D.	*Fox Lake*
†Maier, Victor Irwin	*Mellen*
†Mann, Gustav Bruno, Jr.	*Evansville, Ind.*
†Martens, Armin Gerhard	*Mayville*
†Mattox, Ronald Clark	*Aurora, Ind.*
May, William Leon	*Milford, Ia.*
†Melvin, James Dewey	*La Harpe, Ill.*
†Miller, Allen Hollis	*Cairo, Ill.*
†Mooney, William Prindle	*Superior*
†Morey, Donald Jackson	*Racine*
Muther, Charles William	*Oak Park, Ill.*
†Neisser, Walter Ralph	*Milwaukee*
†Newman, Robert Thurgood	*Mellen*
Nolen, Herman Christian	*Muskegon, Mich.*
Olds, Helen Brunette	*Albany, Ill.*
Olesen, Julia Amanda	*Humboldt, Iowa*
Olson, Helen Isabel	*Madison*
Owens, John Purdy	*Milwaukee*
Passmore, Josephine Bloodgood	*Milwaukee*
†Peach, Lloyd	*Edgerton*
Perstein, Isadore Arnold	*Madison*
†Peterman, William Frederick	*Merrill*
Pett, Alma E. J.	*Johnson Creek*

*Died March 19, 1919.

†Pond, Thomas Henry	*Keokuk, Iowa*
†Prange, Henry Carl Jr.	*Sheboygan*
†Reps, Donald William	*Cedar Rapids, Iowa*
†Rodems, Leo Sanford	*Milwaukee*
†Rohde, Arthur Allen	*Estherville, Iowa*
Roth, Helen Sophia	*Madison*
†Routt, Myron Meyer	*Milwaukee*
†Royce, Henry Burnside	*Madison*
†Ruffalo, Fred	*Racine*
†Rusterholz, Carl Henry	*Manitowoc*
†Sampson, George Nelson	*Minong*
†Schaab, William Kenneth	*Auburn, Ind.*
Schaffner, Henrietta	*Mt. Pleasant, Iowa*
Schmidt, Arno John	*Davenport, Iowa*
†Schuette, Donald H.	*Manitowoc*
Schwenn, Bertha Jane	*Madison*
†Seeber, Taylor Hayhurst	*Houghton, Mich.*
†Seifert, Carl Julius	*Jefferson*
†Sell, Vernon Wallis	*Reeseville*
†Severson, Conrad Edwin	*Forestville*
†Sidie, Stanley Raymond	*Viroqua*
†Sinagub, Jacob J.	*Madison*
†Smith, Don Wheeler	*Clinton, Iowa*
Smith, Ethel Crandall	*Green Bay*
†Smith, Giles Vance	*Indianapolis, Ind.*
†Smith, Lewis Pettibone	*Chicago, Ill.*
Soderberg, Lillian Marie	*Barron*
†Sollitt, Lincoln Abbott	*Chicago, Ill.*
Sparling, Elliott Walford	*Ashland*
†Spies, Gerald Augustus	*Menomonee, Mich.*
†Stark, Theodore Eugene	*Tripp, S. Dak.*
Statz, Carolyn Agnes	*Madison*
†Stolte, Herbert Albert	*Reedsburg*
Stout, Richard H.	*Indianapolis, Ind.*
†Taylor, Arthur Chandler	*Sioux City, Iowa*
†Teckemeyer, Adolph Otto	*Madison*
Thompson, Helen Irene	*St. Croix Falls*
†Thorp, Leland Asa	*Fish Creek*
†Tower, Earle Jasper	*Chicago, Ill.*
†Travers, C. Wesley	*Port Washington*
Van Gent, Genevieve Philomena	*Madison*
†Voll, Obert Frank	*North Freedom*
†Waite, Philip Clawson	*Oshkosh*
Walker, Harland Bert	*Almond*
Walther, Harriet Doney	*Wichita, Kans.*
†Warner, Michael Mason	*Chicago, Ill.*
†Weeks, Ralph Emon	*Sharon*
Welch, Stanley Edwin	*Chicago, Ill.*
Wheeler, John Edward	*Columbus*

Wilkinson, Anne Edna	*Spring Green*	
Wipperman, Hildegard Amalia	*Shawano*	
Wittkop, Norman Lorenz	*Hartford*	
†Wolf, Walter E.	*Indianapolis, Ind.*	
†Wolfram, Herbert Edward	*Watertown*	
Wood, George Emery vt	*Cottage Grove*	
†Woodhouse, Irving	*Bloomington*	
†Wright, Samuel Clough	*Winona, Minn.*	
Yerly, Leona	*La Crosse*	—161

Course in Chemistry

Alexander, Anne Ruth	*Hayward*	
Baernstein, Harry Daniel	*Racine*	
Boehmer, Kathryn Mueller	*Kearney, Nebr.*	
Budnik, Edmund Louis	*Milwaukee*	
†Drobka, Frank Joseph	*Manitowoc*	
Elder, Joshua Gower	*Keokuk, Ia.*	
†Jung, Clarence Schram	*Milwaukee*	
Lambrecht, Marguerite	*Madison*	
Liu, Chung Hung	*Foochow, China*	
Lueck, Herbert John	*Merrill*	
†Lyons, George Barbour	*Brodhead*	
Newman, Mary Louise	*Jacksonville, Ill.*	
Newton, Mary Alice	*Washington, D. C.*	
†Perrin, Hubert Logan	*Ashland*	
†Stambaugh, Philip Sheridan	*Youngstown, Ohio*	
Steinberg, Gerhard Theodore	*Madison*	
†Stewart, John DeMuth	*Waukegan, Ill.*	—17

Course in Journalism

Allen, L. Blanche	*Arkansas City, Kan.*
Bodden, Marie Viola	*Neenah*
Boies, Addella	*Waterloo, Iowa*
Brindley, John Webster	*La Crosse*
Crosby, Marion Pennell	*Rhinelander*
†Davidson, Jay Hyman	*Racine*
Debus, Viola Beatrice	*Milwaukee*
Devine, Dorothy Johnson	*Elgin, Ill.*
†Faber, Arthur Charles	*Peoria, Ill.*
Friedman, Thelma Beatrice	*Milwaukee*
Heller, Alberta Katherine	*Beaverdam, Ohio*
Hess, Ethel Elsie	*Arcadia*
Hill, Mildred Sarah	*Beloit*
Jillson, Helen Hall	*Fond du Lac*
Jones, Howard Palfrey	*Milwaukee*
Kirch, Margaret Madeline	*Des Moines, Iowa*
†Look, Walter Otto	*S. Kaukauna*

†Lyman, Carson Fitch	*Madison*	
†Manson, Charles Leighton	*Wausau*	
Murphy, Donald Bates	*Peoria, Ill.*	
O'Hora, Sarah Agnes	*Mazomanie*	
Schulz, Marguerite Lucille	*Madison*	
Sinaiko, Josie	*Madison*	
Strong, Margaret	*Chicago, Ill.*	
†Wigder, Benjamin	*Milwaukee*	
Wilkinson, Vivian Mae	*Philadelphia, Pa.*	—26

General Course

Connor, William Duncan	*Marshfield*	
†Field, Maurice Eugene	*Rice Lake*	
King, Vesta Sarah	*Apple River, Ill.*	
†Krause, Clarence Carl Frederick	*Milwaukee*	
Shambaugh, Margaret	*Clinton, Ia.*	
Stark, Howard Bailey	*Milwaukee*	—6

Freshmen

Abaly, Mae Estella	*Madison*
Adams, Adelaide Marion	*Oak Park, Ill.*
Adolphson, Svea Matilda	*Edgerton*
Ahern, Dorothy Frances	*Fond du Lac*
Alford, Eva	*Duluth, Minn.*
†Allds, Hal Lenard	*Greenwood*
†Allen, Thomas C.	*Menomonie*
Amondson, Bertha Lee	*Rio*
Anderson, Adelaide Julia	*McFarland*
Anderson, G. Eugene	*Kankakee, Ill.*
†Anderson, Leonard Sophus	*Sturgeon Bay*
Andes, Lenore Marcia	*Shelbyville, Ill.*
Anstey, Mabel Elizabeth	*Beetown*
†Ashton, Sidney Cornell	*Wichita, Kans.*
Aspinwall, Robert Abbott	*Ft. Atkinson*
†Atwood, John Thomas	*Gays Mills*
Auby, Lawrence Copeland	*Madison*
Axtell, Dorothy Marie	*Evansville*
Ayers, Esther Marion	*Dickinson, N. Dak.*
Babcock, Mary Ruth	*Milwaukee*
Bagley, Eleanor Opal	*Cambridge*
Baker, Burton C.	*Hawkins*
Ballantyne, Dorothy E.	*Bloomington*
Bardell, Philip Jacob	*Freeport, Ill.*
Barsantee, Helen Elizabeth	*Madison*
Bartholf, Katherine	*Glencoe, Ill.*

Bauer, Laurence Hahn	*Chicago, Ill.*
Beiderbecke, Gretchen	*Davenport, Iowa*
Bennett, Doris Louise	*Madison*
Bennett, Elizabeth Barbara	*Viroqua*
Bennett, Margaret Louise	*Twin Falls, Idaho*
Berg, Olga Elvina	*Ruthven, Iowa*
Bergerman, Melbourne	*Pueblo, Colo.*
†Bianco, Tony Joseph	*Spooner*
Biart, Mabel Nelson	*Madison*
Biddick, Lloyd Wendell	*Livingston*
Bilstad, Gwendolyn Warne	*Cambridge*
Binger, Anna Alvina	*Chicago, Ill.*
Bingham, Esther Malcolm	*Madison*
Birong, Loraine Anna	*Madison*
Bishop, Florence Marian	*Arcadia*
Blaine, Helen Madeline	*Boscobel*
Blair, Marjorie	*Webster Groves, Mo.*
†Blatter, Erwin Walter	*La Crosse*
Bluemke, Hugo August	*Rosendale*
Bodden, Matilda Clara	*Neenah*
Boeing, Paul Julius	*Fargo, N. Dak.*
Bonesteel, Wendell	*Huron, S. Dak.*
Bostwick, Charlotte Harriet	*Port Washington*
†Bothwell, John Spies	*Menominee, Mich.*
Bottlemy, Murl Burnett	*Walworth*
Bowie, Helen McKinstry	*Washington, D. C.*
Boyd, Mary Adams	*Toledo, Ohio*
Brabant, Alice Veronica	*Madison*
Brabant, Clara Elizabeth	*Madison*
†Brader, James Lyman	*Madison*
Breitzman, Kathryn Alice	*Fond du Lac*
Brennan, Agnes Marcella	*Fort Dodge, Iowa*
Brethauer, Margaret Anne G.	*Baraboo*
Bridgman, Mary Fawcett	*Stanley*
†Brown, Clarence Baxter	*Highland*
Brown, Edward Dexter	*Rhinelander*
Brown, Susan de Laite	*Chicago, Ill.*
Brownrigg, Clara A.	*Merrimac*
Brunsell, Emma Cecilia	*Evansville*
†Bryan, Richard	*Chicago, Ill.*
Buchanan, Virginia	*Winnetka, Ill.*
Buell, Martha Merry	*Madison*
Bundy, Egbert Bird	*Eau Claire*
Buob, Helen Dorothy	*Madison*
†Burdon, Harold Victor	*Belleville*
Burgess, Martha Katherine	*Geneva, Ill.*
†Buroker, Donald Jasper	*Soldiers Grove*
Burpee, Leah Rowe	*Janesville*
Burwell, Consuelo	*Madison*

†Bussey, Frederick Newton	*Chicago, Ill.*
†Cameron, Thomas Lynn	*Oshkosh*
Carney, Margaret	*S. Kaukauna*
†Carpenter, John Floyd	*Rockton, Ill.*
Carroll, Grace Marguerite	*Madison*
Carter, Lorrayne	*Chetek*
†Casserly, Raymond James	*Madison*
†Chamberlain, Joseph Nourse	*Des Moines, Iowa*
†Charlson, Roy Marion	*Eau Claire*
†Charney, Sydney Clyde	*Milwaukee*
*†Chase, Dudley Hubbard	*Oconto*
Chase, Helen Davison	*Clinton, Iowa*
†Clague, Coleman Elliott	*Winnetka, Ill.*
Clark, Elizabeth	*Menomonie*
Clark, Marion Eugene	*Indianapolis, Ind.*
Cochrane, Frances Priscilla	*Duluth, Minn.*
Collins, William Kinney	*Madison*
Collipp, William Fulton	*Portage*
Colman, Julia	*La Crosse*
Conlee, Ruth Isabel	*Madison*
Conley, Margaret Mary	*Darlington*
Conway, Francis James	*Waunakee*
Coon, Gaylord Palmer	*Madison*
Copeland, Doris Laurine	*Evansville*
Corell, Dorothy Anne	*Plainview, Nebr.*
Correll, Ellen Fredericka	*Memphis, Tenn.*
Counsell, Hazel Irene	*Oconomowoc*
†Craig, James McIntyre	*Oconomowoc*
Cranston, Lee Harold	*Green Bay*
Cremer, Dorothy Elizabeth Rita	*Red Wing, Minn.*
Crosby, Esther Caroline	*Ironwood, Mich.*
†Dahl, Lawrence Gustav	*Marinette*
†Dahle, Orrin Benjamin	*Madison*
Daley, Olive S.	*De Forest*
†Davis, James Bon Durant	*Marinette*
Dayton, William Benton	*Quincy, Ill.*
Dexter, Edwina	*Madison*
Dickinson, Helen Rozilla	*Edgerton*
Dickover, Ruth Beatrice	*Hammond, Ind.*
Diebold, Frances Elizabeth	*Madison*
Dieruf, Gladys Irene	*Morrisonville*
Dixon, Esther Margaret	*Elroy*
†Donaghey, James Bernard	*Madison*
Doring, Josephine Virginia	*Darlington*
†Dornbush, Adrian James	*Kenosha*
Douglas, Martha O.	*Brodhead*
Dowling, Edith	*Boscobel*
Downing, Marion	*Milwaukee*

*Died February 28, 1919.

Ducklow, George N.	*Oconomowoc*
Dwight, Dorothy Marguerite	*Madison*
Dye, William Joseph Paul	*Sisterville, W. Va.*
Dyer, Margaret Ellen	*Madison*
†*Earl, Kenneth Loverhill	*Edgerton*
†Ebert, Reinhold Otto	*Marion*
Ehrman, Wilhelmina	*Oak Park, Ill.*
†Eisenberg, Louis Abraham	*Milwaukee*
Ellingson, Kathryn Naset	*Edgerton*
Ellis, June Ethel	*Madison*
Ellis, William Burton	*Chicago, Ill.*
Elton, Katherine Ruth	*Port Washington*
Ely, Katherine Gordon	*Madison*
Epstein, Hannah Evelyn	*Delavan*
Erbe, Margaret Priscilla	*Green Bay*
Evans, Edward Clark	*Streator, Ill.*
Ewald, Edith Vivien	*Mt. Carmel, Ill.*
Ewell, Agnes Colman	*Duluth, Minn.*
†Faletti, Stephen Lawrence	*Spring Valley, Ill.*
Farrar, Hal Gordon	*Denver, Colo.*
†Farrell, Erwin John	*Spooner*
Fehland, Harold Reinhold	*Merrill*
Fehrer, Florence Louise	*Milwaukee*
Felger, Helen Margaret	*Grand Rapids, Mich.*
†Fellows, Kenneth Sargent	*Evansville*
FitzGibbon, Helen Claire	*Madison*
†Fitzmaurice, James Michael	*Beaver Dam*
Flatz, George Henry	*Milwaukee*
Flett, Margaret Adaline	*Racine*
†Ford, Stanley Edward	*Madison*
†Forsbeck, Filip Carl	*Milwaukee*
Fox, Matie Dorothy	*Waterloo*
†Frederick, Harry Yomen	*Westfield*
Fries, Mary Fredonia	*Richland Center*
Fritsche, Louise Catherine	*New Ulm, Minn.*
Gardiner, Edith Marion	*Edgerton*
†Gasul, Benjamin Morris	*Kenosha*
†Gault, Harry Clayton	*Lancaster*
Gehbe, Florence Lucile	*Manitowoc*
Gehrand, Robert Ransom	*Madison*
†Gericke, Wesley Otto	*Lake Mills*
Gilbertson, Agnes Theresa	*Stoughton*
Gile, Nyria V.	*Edgerton*
†Gordon, William Kenneth	*Oak Park, Ill.*
Gould, Ellen Mary	*Oshkosh*
Graff, Elizabeth Louise	*Gary, Ind.*
Graves, Helen Bryan	*Viroqua*

*Died February 27, 1919.

Greco, Charles vt	*Chicago, Ill.*
Gregerson, Orrin Arthur	*Stoughton*
Griffin, Opal Verda	*Mason City, Iowa*
Grover, Beth Beachel	*Kenosha*
Gruenbeck, Esther Josephine	*Fond du Lac*
Grussendorf, Gladys W.	*New Ulm, Minn.*
Guerini, Esther Teresa	*S. Londonberry, Vt.*
Guyer, Edwin Michael Cooly	*Madison*
Haffenberg, Helen Ethel	*Chicago, Ill.*
Haigh, Frederic Warren	*Madison*
Hames, Martha Rose	*Madison*
†Hance, Lyle Stanley	*Pasadena, Cal.*
Handran, Ethelyn Anna	*Waterford*
Hanlon, Harvey	*Plymouth*
†Hardy, Horace Frederick	*Chicago, Ill.*
†Hargan, James	*Madison, Ind.*
Haring, Ruth Marie	*Chicago, Ill.*
†Harrington, Earl Thomas	*Milwaukee*
Harrison, Gertrude Louise	*La Crosse*
Haskins, Gladys Marjorie	*Madison*
Haugen, William Emmert	*Hudson*
Haugstad, Tillye Anita	*Black River Falls*
Haven, Esther Olive	*Hudson*
Hawley, Margaret Arretta	*Clinton, Iowa*
Hayden, Reba Claribel	*Madison*
Head, Donald Seaver	*Madison*
Heidner, Frederick Carl	*West Bend*
†Held, Rutherford Riesen	*Milwaukee*
Hemingway, Grace Elizabeth	*Mattoon*
†Hendra, Christopher	*Mineral Point*
Hendricks, Lydia	*Tomah*
Henika, Evangeline Cecelia	*Madison*
Henry, Martin Rudolph	*Grand Rapids, Mich.*
Herreid, Borghild Theodora	*Madison*
Hess, James Sam	*Mauston*
†Heyman, Morris Adolph Jr.	*Grand Rapids, Mich.*
†Hiecke, William Arthur	*Milwaukee*
Hile, Dorothy Todd	*Donna, Texas*
Hinners, Ralph Gordon	*Chicago, Ill.*
Hipple, Marietta	*Madison*
†Hirsig, Herron Albert	*Mt. Horeb*
Hirsig, Pearl Theodosia	*Mt. Horeb*
Hoag, Harold Brown	*La Grange, Ill.*
Holbrook, Joseph Carlton	*Okmulgee, Okla.*
†Holton, Herbert Joachim	*Whitehall*
Hooper, Helen	*Oshkosh*
†Hopkins, Joseph Jackson	*Milwaukee*
Hopson, Norma Joy	*Madison*
Hornaday, Sarah Josephine	*Danville, Ind.*

†Hotton, Alfred Dwight	*River Forest, Ill.*
Howe, Cecelia Ann	*Darlington*
Hudson, Robert James	*Boscobel*
Hugunin, Marjorie Roberta	*Janesville*
†Hull, Perry Miller	*Madison*
Hutchins, Jeannette Randell	*Madison*
Jamieson, Raymond William	*Shullsburg*
†Janisch, William J. Bryan	*Waterloo*
Jenson, Clara Agnes	*Mt. Horeb*
† Jewett, Carlyle Artley	*Plymouth*
†Jilbert, Edwin Homer	*Rio*
John, Lillian	*Milwaukee*
Johnson, Mornelda Odelia	*Madison*
Johnson, Ruth Signe	*Madison*
†Johnston, Joseph Henry	*Janesville*
†Jolly, Carl Lee	*Darlington*
Jones, Eulalia	*Turtle Creek, Pa.*
Jorgenson, Louise Margaret	*Racine*
Kahn, Helen Frances	*Galveston, Texas*
Kastler, Donald Montanye	*Racine*
†Kastlin, George Jacob	*La Crosse*
Katz, Elizabeth	*Milwaukee*
Keenan, Matilda Elizabeth	*Fond du Lac*
Kenseth, Selvida Gertrude	*Cambridge*
Kerr, Katherine	*Springfield, Ill.*
†Kerwin, Philip Francis	*Madison*
Kieckhefer, Norma Helen	*Milwaukee*
Kiland, Inger Andrea	*Madison*
Kileen, Edward Thomas	*Superior*
†Kimball, Dean Prichard	*Janesville*
Kimball, Kathleen Mae	*Pine River*
Kirk, Helen Raney	*New Castle, Pa.*
Knilans, Helen	*Sheboygan*
Koelsch, Dorothy	*Boise, Idaho*
Kostuck, John Thomas	*Stevens Point*
†Kraege, Frederick Halsey	*Madison*
Krauskopf, Ruth	*Milwaukee*
Kropf, Wilhelmina Bartlett	*Madison*
Krueger, Lilly L.	*Madison*
Labudde, Constance Amalia	*Oshkosh*
Lake, Ivan Clyde	*Marshall*
Landt, Rena	*Kilbourn*
Lane, Robert Ellsworth	*Janesville*
Langerude, Harold Curtis	*Spooner*
Lautenbach, George Robert	*Weyauwega*
Lawson, Mildred	*Trinidad, Colo.*
Leary, Susan Evelyn	*Oak Park, Ill.*
Leavitt, Mabel	*Mellen*
Lee, Evelyn Lila	*Oak Park, Ill.*

Lentz, Robert Carl	*Mayville*
Leverentz, Rachel Alfanette	*Madison*
Levintin, Nadia	*Mt. Horeb*
Lichtfeldt, Pearl Amalia	*Milwaukee*
Lind, Marjorie Ruth	*Hillsboro*
Lindsten, Esther Merwyn	*Chicago, Ill.*
Little, Dorothy J.	*Menasha*
†Long, Wallace Adolph	*Markesan*
Loomer, Harlin Gilbert	*Madison*
Loveland, Eleanor	*Poynette*
Lovell, Doris Maxine	*Fargo, N. Dak.*
†Loven, Leo Clayton	*Rio*
Lund, Edna Serena	*Eau Claire*
Luraas, Burnette Ames	*Madison*
Lyman, Auta Eveline	*Madison*
MacAnanny, Dorothy Mable	*Madison*
McCaffery, Arthur Laurence	*Madison*
McCaffery, Miriam	*Madison*
McClurg, Thelma Mahron	*Spencer, Iowa*
McCulloch, Lynette Lucile	*Marshfield*
McDowell, Margaret Esther	*Milwaukee*
McFarland, Gladys Mae	*Fredericksburg, Iowa*
Madsen, Violet Hansa	*Oregon*
Mahler, Anita Ida	*Milwaukee*
Mandelker, Martin	*Milwaukee*
Mann, Albert Howell	*Texarkana, Ark.*
Martineau, John Baptiste	*Oshkosh*
Martini, Margarete Katherine	*Milwaukee*
Mather, Doris Harriette	*Ladysmith*
Mauger, Agnes Nora	*Mineral Point*
Mead, Liela Todd	*Shell Lake*
†Mehre, Frederic William	*Glenbeulah*
Meidell, Alice	*Madison*
Meidell, Hildur	*Madison*
Melkers, Irene Elaine	*Grafton*
Merchant, Margaret Alice	*Waukegan, Ill.*
†Merrick, Dale McKeen	*Eldora, Iowa*
Meyer, Catherine Marie	*Oak Park, Ill.*
Meyer, Ovid Otto	*Rosholt*
Meyers, Grace M.	*Belvidere, Ill.*
Miller, Eva	*Milwaukee*
Miller, Florence Rice	*Racine*
Miller, Gertrude Loretta	*Green Bay*
†Miller, Vanson Venorian Jr.	*Ladysmith*
Millet, Lucia	*Brockton, Mass.*
Milliren, Russell Edward	*Stockholm*
Mitchell, Jessie Marie	*Sun Prairie*
†Moe, Ralph Raymond	*Duluth, Minn.*
†Montgomery, William Henry	*Boone, Iowa*

†Moon, John Frank	*Rosendale*
Moore, Maude Myrtle	*Elwood, Ind.*
Morrissey, Katherine Mary	*Madison*
Moss, Winifred	*Milwaukee*
Mountin, Veronica Mary	*Hartford*
Mountin, William John	*Hartford*
†Mueller, Gustav Gottlieb	*Princeton*
Mulrooney, Elizabeth Mary	*Bloomington*
Munson, Thenora	*Stoughton*
†Nelson, George Fremont	*N. Chicago, Ill.*
Neubauer, Harold Raymond	*Baraboo*
Newcomb, Clara Forrest	*Waupun*
Nolan, Mary Ellen	*Madison*
†Nolte, Phillip Pickering	*Wauwatosa*
†Norem, Lawrence Everett	*Milwaukee*
Northup, Esther Grinnell	*Marshalltown, Iowa*
Nott, Elise	*Duluth, Minn.*
Ohlson, Guy Edward	*La Crosse*
O'Keefe, Margaret Mary	*Waunakee*
†Olson, Harold Dewey	*Hudson*
Olson, Mildred Karen	*Madison*
O'Neil, Doris Gwendolyn	*Brilliant, Ohio*
O'Neil, Margaret Adelaide	*Madison*
Orlady, Nelle Fraser	*Durand*
Orschel, Albert Kaufman	*Miles City, Mont.*
†Osmundsen, Orville Alexander	*Madison*
Osten, Earl Lester	*Mankato, Minn.*
Owen, Laures Margaret	*Madison*
Parker, Marian	*Kalamazoo, Mich.*
Patterson, Helen Virginia	*Appleton*
†Pennefeather, Edmund J.	*Kenosha*
Peterman, Leila Henrietta	*Merrill*
Peterson, Olive Bernice	*Chicago, Ill.*
Pett, Frieda Anna	*Johnson Creek*
Pettigrew, Claris Elizabeth	*Flandreau, S. Dak.*
Pickard, William John	*Evanston, Ill.*
Pickering, Elizabeth	*Davenport, Iowa*
Pohle, Genevieve	*Madison*
Pope, Margaret Isabel	*Madison*
Porter, Catherine Alice	*Holcombe*
†Puckett, Walter C.	*Rock Rapids, Iowa*
†Purnell, William Henry Jr.	*Kenosha*
Raymond, Jessie Lauretta	*Madison*
Ream, Margaret Magdalene	*Green Bay*
Reid, Ruth Elizabeth	*Hurley*
Reinertsen, Vivian Mary	*Milwaukee*
Reinhard, Edith E.	*Reeseville*
Reinhard, Ethel E.	*Reeseville*
Reinking, John Juergen	*Madison*

†Reynolds, Thomas A.	*Madison*
Ringer, Marion Louise	*Chicago, Ill.*
†Roberts, David Tracy	*Wilmette, Ill.*
Roberts, Ethel Lillian	*Madison*
†Roberts, Gaylord Bruce	*Waupaca*
Rockwell, Edith Katherine	*Oshkosh*
Rodermund, Anna Dorothy	*Madison*
Romig, Ruth Evangeline	*Madison*
Romson, Ruth Elizabeth	*Green Bay*
Root, Harriette Wilcox	*Racine*
Rosenberry, Katherine	*Madison*
Ross, Velma	*Belleville*
Rounseville, Willis A.	*Winnetka, Ill.*
Rowland, Kathrine Griffith	*Tracy, Minn.*
Ryan, Gertrude Mabel	*Prairie du Sac*
Salem, Ellen Augusta	*Portage*
Sammis, Josephine Louise	*Madison*
Sander, Arline Osgood	*St. Paul, Minn.*
Sanregret, Beatrice Cecil	*L'Anse, Mich.*
Sattre, Jeannette Marion	*Rice Lake*
Saunders, George Murdock	*Superior*
Schen, Katherine	*St. Louis, Mo.*
†Schiffmann, Alvin John	*Chicago, Ill.*
Schildhauer, Gladys Gardiner	*Indianapolis, Ind.*
Schlosser, Agnes Elizabeth	*Arlington*
†Schlotthauer, Daniel Eugene	*Madison*
Schmidt, Dorothea Marguerite	*Freeport, Ill.*
Schmidt, Gladys Marie	*Madison*
Schneider, Arthur Henry	*Chippewa Falls*
Schroeder, Florence Marie	*Milwaukee*
Schrumpf, Violet Marie	*Highland, Ill.*
Schultz, Isadore	*Madison*
Schulz, Lydia Martha	*White, S. Dak.*
†Schutz, George John, Jr.	*Shawano*
Schweizer, Caroline	*La Crosse*
Schwinn, Walter Kelly	*Red Oak, Iowa*
†Segel, Joe	*Madison*
Sehon, Elizabeth Lewis	*Louisville, Ky.*
Sehrt, Naomi Orpha	*Beloit*
Sells, Arthur Max	*Florence*
Seman, Anne Marie	*Granton*
Seymour, Helen Louise	*Reedsburg*
Shaidnagle, Helen Frances	*Milwaukee*
Shaner, Dorothy Romaine	*Philadelphia, Pa.*
Sheldon, Eleanor Pray	*Madison*
Sherwood, Calla Mae	*Reedsburg, Ill.*
Shirey, Hazelbelle	*Madison*
Shockey, Franklin Perry	*Oak Park, Ill.*
Shower, Hazen Emanuel	*Monrovia, Cal.*

Sichler, Margaret Xentha	*Madison*
Siljan, Pearl Marie	*Madison*
Sims, Leslie Clinton	*Rice Lake*
Sinaiko, Grace Maxine	*Madison*
Sinaiko, Isabel Jean	*Madison*
†Smedal, Erling Arnold	*McFarland*
Smith, Agnes	*Muncie, Ind.*
Smith, Dudley Wm. Edmunds	*Madison*
Smith, Edna Louise	*Madison*
Smith, Mae Laura	*Menomonie*
†Smith, Roy Nicholas	*Madison*
Smith, Theodore Jonathan	*Tomah*
†Smith, Walter Henry	*Ancona, Ill.*
Snashall, Hylva Evelyn	*Janesville*
Snell, Mildred Maud	*Plymouth*
Snider, Elizabeth	*Davenport, Iowa*
Solveson, Vera Eleanor	*Oconomowoc*
†Sorenson, Roy	*Milwaukee*
†Sosalla, Joseph Roy	*Whitehall*
Spensley, Alice Lila	*Madison*
Spiker, Irene	*Gary, Ind.*
Staab, Elma Mary	*Wall Lake, Iowa*
Steffen, Irving Daugs	*Madison*
Steinberg, Lorraine	*Jefferson*
Stickney, Mildred Jeanette	*Elkpoint, S. D.*
†Stock, Donald August	*Eau Claire*
Stowell, Esther	*Peoria, Ill.*
Straight, Alma La Veta	*Fonda, Iowa*
Strass, Norma Ida	*Milwaukee*
Sturm, Marian Cornelia	*Green Bay*
†Suhr, Alfred Louis	*Milwaukee*
Sumner, Dorothy Dunning	*Madison*
Swetil, Ellen Marion	*Milwaukee*
†Sygman, Samuel	*Two Rivers*
Tennant, Dorothy Drew	*Lake City, Minn.*
Thanhouser, Marian	*Milwaukee*
Thomas, Elma Viola	*Racine*
Thompson, Edith Darling	*Chicago, Ill.*
†Thompson, John Walker	*Milwaukee*
Tighe, Marie Margariete	*Flandreau, S. Dak.*
Todd, Marjorie	*St. Louis, Mo.*
Toepfer, Nora A.	*Madison*
†Toepfer, Raymond August	*Madison*
Toerne, Augusta von	*Madison*
†Togstad, Karl Raymond	*McFarland*
Tomlin, Elgie Viola	*Mineral Point*
Townsend, Irene	*Des Moines, Iowa*
Tree, Ethel Mildred	*S. Wayne*
Trewyn, Bryant Hooper	*Palmyra*

Trieschmann, Eva Louise	*Milwaukee*
†Trowbridge, Frederick N.	*Viroqua*
Tucker, Alice Needham	*Berwyn, Ill.*
†Van Houten, Richard Walter	*Milwaukee*
†Vetten, Cornelius Nicholas	*Sheboygan*
Wagenbreth, Elizabeth Lucile	*St. Louis, Mo.*
Wallesz, Selma	*Milwaukee*
Waln, Robert Wood	*Davenport, Iowa*
Walsh, Margaret Irene	*Madison*
Ware, Dorothy Rhoda	*Portage*
Warner, Elizabeth Dale	*Madison*
Webb, Iva Pearl	*Norwalk*
†Weeman, King Henry	*Shawano*
†Wehle, Alexander Francis	*West Bend*
†Wehle, Edward William	*West Bend*
Weirich, De Ette Monetta	*Baraboo*
Weller, Horace Look	*Fond du Lac*
†Wheeler, Lyman Edward	*Wauwatosa*
†White, Burton Henry	*Oconomowoc*
†White, William T. Sherman Jr.	*Chicago, Ill.*
Whiting, Kathryn Ruth	*Oshkosh*
Wible, Herbert Lloyd	*Elm Grove*
Wickenden, Gertrude Worth	*St. Louis, Mo.*
Wickwire, Katherine Lydia	*Rockford, Ill.*
Wiese, Esther Lois	*Kewaunee*
†Willett, Alfred Edwin	*Plainfield, N. J.*
†Williams, Frank McKinley	*Earl*
Winchell, Ima Charlotte	*Madison*
Winckler, Salome	*Madison*
Winslow, Mary Isabel	*Madison*
Winter, Mabel	*Madison*
Winton, Mathilda Agnes	*Appleton*
Wolff, Marie Brandstater	*Butternut*
Wood, Vesta Dalliday	*Cairo, Ill.*
Woodard, Mary Rea	*Watertown*
Woodruff, Helen Blanche	*Savanna, Ill.*
Woodruff, Helen Myra	*Miller, S. D.*
Woolery, Virginia Cleveland	*Pasadena, Cal.*
Wright, Isabel Lucille	*Webster Groves, Mo.*
†Zielsky, Frederick Adelbert	*South Shore, S. D.*
Zierke, Victor William	*Princeton*
†Zubrod, William Boardman	*Louisville, Ky.* —506

Course in Commerce

Alexander, Marjorie	*Wauwatosa*
†Alford, Frank Everett	*Madison*
†Allen, Harris Gibbs	*Madison*
†Allen, Harry Daphne	*Madison*

†Anderson, Donald	*Chicago, Ill.*
Anderson, Perry George	*Edgerton*
Arnquist, Anna Theodora	*Hudson*
Aylward, Arhur William	*Madison*
†Babcock, John Davis	*Neenah*
†Bakken, Harold Tester	*Madison*
†Balch, Harold McFarland	*Marshalltown, Iowa*
Barnett, Lawrence Theodore	*Glencoe, Ill.*
†Bartlett, George William Jr.	*Racine*
Bassett, Hortense Elizabeth	*Rock Island, Ill.*
†Bates, Wilfred Bartlett, Jr.	*Madison*
†Bayer, Horace MacDonald	*La Crosse*
†Berg, Casper Robert	*Chippewa Falls*
Bergman, Roy Anthony	*Bark River, Mich.*
Bing, Ralph Christian	*Eau Claire*
Birkett, Lloyde William	*Hazel Green*
Bohri, Waldemar Frederick	*Fountain City*
Bonk, Peter Gregory	*Two Rivers*
†Brodt, Cecil De Witt	*Rice Lake*
†Bronson, Carl Evans	*Spencer, Iowa*
†Brown, Darrell Thamer	*Eldora, Iowa*
Brown, Helen Cecil	*Duluth, Minn.*
†Brumm, Roman Henry	*Madison*
Bruning, Edwin Charles	*Brooklyn, N. Y.*
†Buckmaster, Bruce MacNeill	*Kenosha*
†Burns, Judd Arno	*Stanley*
†Burt, Roland Willard	*Chicago, Ill.*
Caluwaert, Evrard Charles	*Oak Park, Ill.*
†Capek, Charles Ashmore	*Antigo*
†Chadbourn, Reuben Cornwell	*Columbus*
†Chapman, Jay William	*South Wayne*
†Claflin, Paul Cuddeback	*Milwaukee*
Coapman, Esther Catherine	*Kilbourn*
Collins, Catherine	*Chicago, Ill.*
Colony, Oliver Irving	*Evansville*
Conine, William Hinman	*Nowata, Okla.*
Couture, Cemilda Mary	*Rice Lake*
Cox, Alva William	*Madison*
Coxon, Thomas Turmeau	*Madison*
Crane, Eugene Edward	*Cornell*
†Crowley, Robert John	*Janesville*
Dally, John Everton	*Milwaukee*
†Danielson, John Julien	*Rio*
De Bot, Marie Sophia	*Wittenberg*
†Denison, Homer Cooper	*Mellen*
†Desmond, Humphrey Earl	*Milwaukee*
†Dodge, Edward Sabin	*Lake Mills*
Doherty, Marguerite Eleanor	*Williamsburg, Iowa*
†Donnellan, Arthur Newman	*Eau Claire*

†Dougherty, James Kenneth	*Watertown, S. D.*
Duncan, Myran George	*Wausau*
†Durkes, Luther Lahman	*Franklin Grove, Ill.*
†Dysart, Raymond	*Franklin Grove, Ill.*
†Edwards, Max J.	*Belleville*
*Egan, Marcelle Catherin	*Highland*
Ekern, Elsie Alverne	*Madison*
Ellingson, Fred	*Edgerton*
Engelhardt, Carl John	*Milwaukee*
Engelhardt, William Frederick	*Milwaukee*
†Engler, Melvin Ben	*New Glarus*
Falstad, Ralph Leonard	*Eau Claire*
Farrington, Alan McIlwer	*Boscobel*
Ferguson, Leander Wood	*Madison*
Field, William Alexander, Jr.	*Chicago, Ill.*
Foss, Lloyd Franklin	*Reedsburg*
†Franz, Walter Bernhard	*Milwaukee*
Fridlund, LeRoy Courtney	*Chicago, Ill.*
†Fuhrmann, Carl Gustave	*Dubuque, Iowa*
Fuller, Keith Larue	*Hastings, Mich.*
Funke, Allen Jacob	*Fountain City*
†Gahagan, Patrick Marion	*Reedsburg*
†Gates, George B.	*Racine*
Gebhardt, Hertha Anna Louisa	*Juneau*
Gesser, Jack Peter	*Milwaukee*
Gill, Covington Calhoun	*Grand Rapids, Mich.*
†Grace, Howard Richard	*Virginia, Minn.*
†Grady, Cyril James	*Oregon*
Gray James Vernon	*Bristol*
Griem, Lester Victor	*New Holstein*
†Groth, Harold Henry	*Manitowoc*
Gruenbeck, Lucy Agnes	*Philipsburg, Mont.*
†Grupe, Robert Henry	*Huntington, Ind.*
†Halsor, Martin Elmer	*De Forest*
Hamelrath, Dorothy Grace	*Merrill*
†Hamilton, John Stuart	*Westfield*
†Harrington, Delos James	*Elkhorn*
Heim, Laura Elizabeth	*Madison*
†Hein, Martin Nicholas	*Madison*
†Heisig, Wallace Dieruf	*De Forest*
†Heseman, Earl Henry John	*Evansville, Ind.*
Hiestand, Elizabeth M.	*Madison*
Hogan, Irene	*Madison*
†Holcomb, Charles Edward	*La Crosse*
Hopkins, Myron Ball	*Grand Rapids, Mich.*
Houghton, Evelyn Mary	*New York City*
Hubbard, John Wilson	*Mason City, Iowa*

*Died May 7, 1919.

Hull, Ella Jessie	*Oshkosh*
Hunt, Helen Margaret	*Madison*
†Huszagh, Lyman Peyton	*Chicago, Ill.*
Jackson, Virginia Marie	*Fort Wayne, Ind.*
†Jenkins, Glenn Llewellyn	*Sparta*
Johnson, Carl Valdemar	*Racine*
†Jones, Arthur Nichols	*Shullsburg*
†Jones, Marion Wynne	*Evansville*
†Josephson, Selmer Beauford	*Cambridge*
†Keller, Daniel Hamilton	*Madison*
†Kessler, Alfred Ferdinand	*Watertown*
Kiekhöfer, Margaret Adelia	*Fond du Lac*
†King, Wesley Brundige	*Greeley, Colo.*
†Kinnan, Arthur Houston	*Madison*
†Kirkwood, Charles Adelbert	*Barron*
Kiser, Elliott Fox	*Eau Claire*
Klosterman, Erna Henrietta	*Shawano*
†Kneevers, Earl Edwin	*Sheboygan*
Knocke, Arthur Elmore	*Davenport, Ia.*
Koehler, William John	*Milwaukee*
Koltes, Raymond John	*Dane*
Korthals, Albert William	*Sheboygan*
†Larson, Ralph Elliott	*Madison*
Latchford, Ellis Voy	*Madison*
Layton, Edmond Howard	*Fond du Lac*
†Leaper, Wesley Stewart	*Green Bay*
†Lewis, Helmar Ariel	*Macfarland*
†Lewis, Robert Crego	*Milwaukee*
Lewis, William Jacob	*Union City, Ind.*
†Libby, George A.	*Indianapolis, Ind.*
Lighty, Harold Kent	*Madison*
†Lillich, John Edward	*Columbia City, Ind.*
†Lindahl, George Edward	*Chicago, Ill.*
Lindstrom, Ruth	*Viroqua*
Little, Donald Edward	*Menasha*
†Loomis, Porter Lawrence	*Madison*
†Lorig, Arthur Nicholas	*S. Milwaukee*
Lucas, Mary Jane	*Huntington, Ind.*
Lyons, Raymond David	*Lansing, Mich.*
†McBride, Peter Dominic	*Milwaukee*
†McDonald, Robert Edmund	*Milwaukee*
McFarland, Evelyn Volmer	*Cairo, Ill.*
†McKone, Earl John	*Green Bay*
Maedje, Hildegarde Louise	*Cleveland, Ohio*
†Mahoney, David John	*Fond du Lac*
Mainland, William Bruce	*Oshkosh*
Marsh, Frank Harold	*Madison*
†Martin, Horace Perry	*Mineral Point*
†Marvin, Arthur Donald	*Beaver Dam*

Matchette, William Harrison	*Madison*
Mathews, Harold Guy	*Green Bay*
†Mautz, Bernhard Meyer Jr.	*Madison*
†Melham, Arnold Gerhard	*Watertown, S. D.*
†Meyer, Frank Paul	*Oshkosh*
†Moody, Frederic Alan	*Milwaukee*
Neff, John Byron	*Milwaukee*
†Netzow, Edgar Otto	*Milwaukee*
†Nott, Wallace Colt	*Duluth, Minn.*
O'Brien, Elsa Margaret	*Fond du Lac*
†O'Laughlin, Francis Daniel	*Madison*
O'Neil, Philip Edward	*Cloquet, Minn.*
Orr, Dorothy A.	*Negaunee, Mich.*
Osborn, Chandler	*Oshkosh*
†Pasch, Lester Adolph	*Milwaukee*
Pearson, Ralph Jenkins	*Madison*
†Pettegrew, Percy Draper	*Fox Lake*
Pierce, Robert Layne	*Menomonie*
†Porter, Colby Arthur	*Fox Lake*
†Prokop, Joseph J.	*Eau Claire*
Quam, Jerry Herman	*Stoughton*
Quinn, Veronica Rose	*Madison*
†Ralph, James	*Antigo*
†Ralph, James Stanley	*Cuba*
Rannenberg, Bernice Minnie	*Madison*
Richardson, King	*La Grange, Ill.*
†Riggert, Edwin William	*Reedsburg*
Ritzenthaler, Otto Martin	*Baraboo*
†Rose, Herbert Arthur	*Tomah*
†Ryan, Raymond John	*Chicago, Ill.*
†Sale, Orvin H. B.	*Madison*
Saunders, Douglas Hawes	*Chicago, Ill.*
†Schaekel, George Bernard	*Butternut*
Scheidhauer, Helen Juliet	*Rhinelander*
Schujahn, Alvin David	*Fond du Lac*
†Scott, James Donald	*Davenport, Iowa*
†Selvage, Harold Taylor	*Indianapolis, Ind.*
†Serstad, Millard John	*Stoughton*
Severance, Dean Carlisle	*Milwaukee*
†Sherry, Ruben Henry	*Viroqua*
Sichler, Mary Elizabeth	*Madison*
Silbernagel, Edward G.	*Wausau*
†Simpson, Noel	*Oshkosh*
†Solbraa, Burney Arlon	*Stoughton*
†Stavrum, Thomas Lowell	*La Crosse*
†Steel, Homer James	*Milwaukee*
°Steinke, Carl Julius	*Milton*
†Stevens, George Oliver	*Chicago, Ill.*
†Stolley, George Brockway	*Milwaukee*

†Stondall, Ralph Mandt	*Madison*
†Stuebing, Albert Carl	*Sioux Falls, S. D.*
Sunderland, Paul	*Kansas City, Mo.*
†Sundt, Guiserd Merrill	*Stoughton*
†Tamms, Henry Nicholas	*Milwaukee*
Tangney, Homer Francis	*Kilbourn*
Taylor, Eugene MacDonald	*Logansport, Ind.*
†Taylor, Warren Alven	*Ashland*
†Tesch, Roland Carl	*Chilton*
†Thauer, Richard Clarence	*Watertown*
Thomas, Devernon Arthur	*Rice Lake*
Thomas, Margaret Augusta	*Wauwatosa*
†Thomas, Thomas Bernard	*Columbus*
†Thompson, Stuart Edward	*Neenah*
†Thompson, Truman	*Taylor*
†Thomson, Lyall Everett	*Richland Center*
†Tibbett, William Richard	*Chippewa Falls*
†Topp, John Gordon	*Columbus*
†Tuttle, Karl Rogers	*Spencer, Iowa*
Umbreit, George Mackenzie	*Milwaukee*
Van Arsdale, Anna	*Racine*
†Van Sant, Franklin Arthur	*Deerfield*
Vernon, Mary Elizabeth	*Moline, Ill.*
†Voigt, Arnold Robert	*Waupun*
†Walker, Ray Osburn	*Wapakoneta, Ohio*
Watson, Artemus De Long	*Glencoe, Ill.*
Watson, Julie Courtenay	*Duluth, Minn.*
†Webster, Charles Loring	*Milwaukee*
†Wiegand, Henry Burkert	*Racine*
Wilkens, Alice Rastetter	*Ft. Wayne, Ind.*
Williams, Bertha Helen	*Madison*
†Wolberg, Harvey Theodore	*Iola*
Wright, Paul Arthur	*Milwaukee*
†Zimmerman, Harry Francis	*Neillsville* —232

Course in Chemistry

Ayres, Marion Eloise	*Oak Park, Ill.*
Blish, Zirian Aldrich	*Fond du Lac*
†Braun, Mervyn	*Milwaukee*
Briggs, Roberta Jennie	*Chicago, Ill.*
Brown, Florence Janet	*Neenah*
Burnham, John Lewis	*Wheatland, N. D.*
Colvert, Frederick Rohlfing	*Attica, Ind.*
†Draize, John Henry	*Brussels*
†DuBois, Horace Albert	*Neenah*
†Fawkes, Charles Elliott	*Dubuque, Iowa*
Fertig, Esther Marie	*Louisville, Ky.*

†Graf, Frederic Rollin	*Milwaukee*	
†Griem, Walter Bert	*New Holstein*	
†Hrubesky, Clarence Earl	*Menasha*	
†Irwin, John Welcome	*Wyocena*	
†Kirkhuff, John Lawrence	*Nickerson, Kans.*	
†Koepke, Herbert Albert	*Milwaukee*	
Langstadt, Lucille Lena	*Appleton*	
†Ludden, Alfred Dexter	*Mineral Point*	
MacQueen, William Blair	*Oconto*	
†Maccracken James Craft	*West Allis*	
Mansfield, Harriet Louise	*Okauchee*	
Nixon, Cleveland Ford	*Racine*	
Palmer, Genevieve Arlysle	*Columbus*	
Perlman, Henry Bernard	*Madison*	
Sawyer, Frances Marie	*S. Milwaukee*	
†Schildhauer, Fred Jacob	*New Holstein*	
†Schneider, Charles Samuel	*Beloit*	
Shafrin, Irwin Miak	*Milwaukee*	
†Sneider, Elmer Frank	*Sheboygan*	
†Spangenberg, George Robert	*Racine*	
Spence, Ralph Beckett	*La Crosse*	
Thompson, Justin Reginald	*Madison*	
†Tiedeman, Leonard Paul	*Madison*	
†Trantin, Rudolph	*Madison*	—35

Course in Journalism

Allen, Julia Christian Hay	*Oshkosh*	
Anderson, Ruth	*Chicago, Ill.*	
Andrews, Roger Gardiner	*Owen*	
Barriage, Esther Marion	*Janesville*	
†Bartels, Raymond Osborne	*Milwaukee*	
†Bauder, Donald Clinton	*Geneva, Ill.*	
†Beckman, Frederic William III	*Kankakee, Ill.*	
†Bjerke, Jerome Oliver	*Stoughton*	
Blied, Helene Katheryne	*Madison*	
Bliss, Josephine	*Janesville*	
Bruns, Alice Jessie	*Madison*	
†Caldwell, James Ralston	*Albert Lea, Minn.*	
†Capen, Henry Willis	*Bloomington, Ill.*	
Casey, Aileen Margaret	*Oconomowoc*	
†Daniels, Walter Edgar	*Oak Park, Ill.*	
†Desmond, Robert William	*Milwaukee*	
Diller, Gladys Harriette	*Chicago, Ill.*	
Doe, Margaret Ethel	*Philipsburg, Mont.*	
†Dunn, Darrell Dewey	*Elroy*	
Eggers, Nancy Virginia Dodge	*Two Rivers*	
Fandreger, Ruth Elizabeth	*Joplin, Mo.*	
Ferguson, Katherine Corena	*Lake Geneva*	

†George, Lloyd	*Geneva, Ill.*	
Gould, Stevens	*Oshkosh*	
†Griffin, Thomas William	*Rockford, Ill.*	
Hahn, Dorothy Elizabeth	*St. Louis, Mo.*	
†Halling, Erich Martin	*Milwaukee*	
Huseboe, Mabel	*Sioux Falls, S. D.*	
Jacobs, Mildred Robb	*Jerseyville, Ill.*	
Jennings, James Arthur	*Chicago, Ill.*	
Johnson, Clara L.		
Knight, Jocelyn Winthrop	*Racine*	
Koltes, Florence Josephine	*Waunakee*	
†Kruse, Elmer Deling	*Madison*	
†Leonard, Willard Leslie	*Riverside, Ill.*	
Lincoln, Alice Edythe	*Chicago, Ill.*	
MacBride, Lamont Leslie	*Granton*	
MacGinnis, Charles Pattison	*Pittsburgh, Pa.*	
McLean, Mary Wilson	*Menomonie*	
†Maltpress, Seymour Lee	*Rockford, Ill.*	
Mock, Eunice Sophia	*Milwaukee*	
Parke, Wallace Edwin	*Kirkland, Ill.*	
Pedigo, John Paul	*Pueblo, Colo.*	
†Peterman, Ivan Hugh	*Cecil*	
†Rowland, David Hand	*Racine*	
†Ruka, John Pirie	*Boscobel*	
Saunders, Clara Phoebe	*Madison*	
Schultz, Catherine Elizabeth	*Oak Park, Ill.*	
Sears, Thomas Harrison	*Bozeman, Mont.*	
Shearer, Eleanor Constance	*Madison*	
Sholes, Elizabeth Latham	*Crawford, N. J.*	
Smith, Oscar Eldridge	*Hawarden, Iowa*	
Sommers, Eva Margaret	*Madison*	
Strassburger, Marion Dorothy	*Oshkosh*	
†Strong, Fabian Wilbur	*Milwaukee*	
Van Kirk, William Tunis	*Janesville*	
Vilberg, Erling Norman	*Mt. Horeb*	
Wynne, Cornelia Copeland	*Madison*	
Zander, Lucile Trossen	*Brillion*	—59

Adult Special Students

Bossard, George Grant	*Black Earth*	Freshman
Burke, Catharine Genin	*Madison*	Junior
Burns, Florence J.	*Avoca*	Freshman
Cowan, John Warren	*Waltham, Mass.*	Junior
Craighill, Mary Whortley	*Madison*	Freshman
Elliott, William	*Madison*	Freshman
Freymeyer, Daniel Klopp	*Sun Prairie*	Freshman

Freymiller, Erna Emilie	*Woodman*	Freshman
Fried, Lillian Deedee	*Fountain City*	Junior
†Green, Walter Elmer m	*Milwaukee*	Senior
Hesse, Lucie Sophie	*Madison*	Sophomore
Hoffman, Clare Beatrice	*Madison*	Sophomore
Kohl, Leo Henry	*Marshfield*	Freshman
Krotz, Royden Shirley	*Janesville*	Freshman
Kupperman, David Marcus	*Madison*	Freshman
Kupperman, Frances Victoria	*Madison*	Sophomore
LeWhol, Francis Herman	*Madison*	Freshman
McGilvary, Elizabeth Paton	*Madison*	Junior
Moore, Mary Eliza	*Madison*	Senior
Parfrey, Gertrude Davy	*Madison*	Freshman
Paulson, Clara Olive	*Hallondale*	Junior
Potter, Ruth Cristina	*Owen*	Freshman
Purtell, Edna Maie	*Madison*	Sophomore
Retzer, John Peter	*Milwaukee*	Freshman
Riha, Joseph Wencel tc	*Kewaunee*	Senior
Ritter, Flora G.	*Madison*	Freshman
Sannes, Ingeborg Marie	*Madison*	Sophomore
Schmidt, Alfreda Amelia	*Wauwatosa*	Sophomore
Schmidt, Elsie Florence	*Wauwatosa*	Sophomore
Sister Mary Virginia Geimer	*Manitowoc*	Freshman
Stewart, Robert Bruce	*Madison*	Freshman
Tigay, Clara Deborah	*Madison*	Sophomore
Wakeman, M. Lydia	*Madison*	Sophomore
Woldenburg, Rose Lillian	*Madison*	Freshman
Yeh, Yuan Lung	*Chu-Chow, China*	Freshman
Zeigler, Edith Coralee	*Glen Haven*	Freshman
		—36

Course in Commerce

Freer, William Bradford	*Hinsdale, Ill.*	Freshman
		—1

Course in Journalism

Jackman, Frances Spaulding	*Janesville*	Freshman
Peterson, Carl Victor	*Washburn*	Sophomore
Tiegs, Edith Howard	*Madison*	Freshman
Weiss, David	*Madison*	Senior
		—4

Four Year Course in Pharmacy

Bacon, Franklin James	*New London*	Junior
Chen, Ko Kuei	*Shanghai, China*	Sophomore
Dodge, Harold A.	*Darien*	Junior
†Groffman, Harlan George	*Manitowoc*	Junior
Hall, Joseph Alfred	*Paoli, Md.*	Senior

Hanson, Julian	*Sturgeon Bay*	Sophomore
Lanz, Arthur	*Monroe*	Senior
†Mills, William Kenneth	*Hazel Green*	Junior
Rath, Floyd Cecil vt	*Cataract*	Junior
Whelan, Julia Priscilla	*Mondovi*	Senior

—10

Two Year Course in Pharmacy

Albers, William W. Jr.	*Wausau*	Second Year
†Bergstein, Leonard	*Duluth, Minn.*	Second Year
†Brinkerhoff, Charles James	*Neenah*	Second Year
†Brunner, Anton William	*Durand*	Second Year
†Butts, Leo Vinton	*Madison*	Second Year
†Charmley, Charles Clayton	*Rio*	First Year
Dent, Harold Roy	*Tigerton*	First Year
Dieter, Earl Welton	*Richland Center*	Second Year
†Falstad, Gilroy Orland	*Eau Claire*	First Year
†Garland, George Wesley	*Rapid City, S. D.*	First Year
†Hougen, Horace Percival	*Durand*	First Year
Hunt, Evelyn	*Wautoma*	First Year
†Irish, Frederick Walker	*Washington, D. C.*	Second Year
Mercer, William Miller	*Delavan*	First Year
Nilssen, Harold	*Clear Lake*	First Year
†Pokorny, Earl Joseph	*Racine*	First Year
Vaughn, Glenn Henry	*Elkhorn*	First Year
Vorlop, Hugo Joseph	*Reedsburg*	Second Year
†Wright, Leon LaVern	*Lowell*	First Year

—19

SCHOOL OF MUSIC

Seniors

Briggs, Ann tc	*East Grand Forks, Minn.*
Gausman, Rachael Marie tc	*Madison*
Higley, Frances Leanora	*Waukegan, Ill.*
Kraemer, Eleanor Catherine	*Milwaukee*
Lacy, Marjorie Helen	*South Wayne*
Lathrop, Francis Child ls	*Madison*
Willman, Madelon Charity	*Madison*

—7

Juniors

Dennett, Dorothy Dixon	*Sheboygan*
Nash, Florence Marie	*Juneau*
Ruder, Paula Louise tc	*Wausau*
Simmonson, Doris tc	*Tomah*
Turner, Ruth Marie	*Hebron, Ill.*
Winnie, Mildred Louise	*Milwaukee*

—6

Sophomores

Fritz, Fidelia Elizabeth	*Madison*
Hull, Marion Mackey	*Milton Jct.*
Levi, Dorothea Everett	*Madison*
Lowe, Isabel Virginia tc	*St. Louis, Mo.*
Powers, Thrascilla Anne	*Mauston*
Smith, Gengina Wilson	*Racine*
Spring, Marion Sherwood tc	*Madison*
Tillotson, Mary Elizabeth	*Waupun*
Winsor, Ella	*Mauston*

—9

Freshmen

Bernath, Lillie Marie	*Blanchardville*
Bishop, Josephine Phoebe	*Lafayette*
†Bowman, Harold F.	*Sauk City*
Britts, Ruby Evans	*Duluth, Minn.*
Chandler, Martha Kuehmstedt	*Sheboygan*
Cox, Florence May	*Milwaukee*
Fuller, Helen Blanche	*Madison*
McDermott, Margaret	*Shullsburg*
Olsen, Eyvind Thorheim	*Elkhorn*
Reynolds, Helen	*Fort Atkinson*
†Sanders, Paul Philip	*Madison*

—11

Second Year

Borge, Aagot Marion Katharine tc	*Madison*
Estvad, Gudrun Christensen tc	*Madison*
Goddard, Grace Clemens, ls, tc	*Madison*
Heise, Flora W. tc	*Green Bay*
Hill, Pearl Corinne tc	*Spring Green*
Larson, Lucile Elva tc	*Cambridge*
Lloyd, Beulah Cecelia	*New Rome*
Ogle, Frankie Margaret tc	*Sheboygan Falls*
Sammis, Marguerite tc	*Madison*
Schill, Marie Catheryn tc	*Milwaukee*
°Servatius, Florence Ruth Marie	*Menominee, Mich*
Sumption, Myra Rebecca tc	*Kendallville, Ind.*
Timlin, Violet Loraine tc	*Phillips*
Wang, Gladys Lorraine tc	*Shell Lake*
Weiskopf, Norma Johanna tc	*Sheboygan*

—15

First Year

†Hintz, Elmer M.	*Sheboygan*
Ingersoll, Helen	*Rockford, Ill.*
Jorgesen, Josephine Lucille tc	*Oak Park, Ill.*

Kohn, Florence Eleanor tc	*Madison*
McComb, Beulah Howard tc	*Lima Center*
Murtha, Lucille Cecilia tc	*Elkpoint, S. D.*
Roberts, Helen Haynes	*Winona, Minn.*
Schroeder, Florence Marie	*Milwaukee*
Seybold, Sayda Ernestine	*Forest Junction*
Teske, Lucille Justine tc	*Princeton*

—10

Adult Specials

Four Year Course

Beck, Cora Lucile	*Lake Geneva*	Freshman
Burke, Agnes Mary	*Madison*	Junior
Falk, Clarence Albert	*Kenosha*	Freshman

—3

Supervisors' Course

Darrin, Josephine Nellie	*Madison*	Sophomore

—1

Unclassified

Beane, Alice May	*Madison*
Beane, Ellen E.	*Madison*
Campbell, Lucille Eleanor	*Madison*
Gilman, Flora Moseley	*Madison*
James, Mary Ventura	*Madison*
Jerdin, Pearl Genevieve	*Madison*
Klassy, Ernst Wilbert	*Belleville*
Lathrop, Blanche M.	*Madison*
McKenzie, Kate Roberts	*Madison*
Magee, Glenn George	*Evansville*
Moore, Mae L.	*Madison*
Mowry, Jean J.	*Madison*
Olson, Alma L.	*Malta, Ill.*
Onstad, Agnes Bernice	*Madison*
Petersen, Max	*Dundee, Ill.*
Roberts, Morris	*Madison*
Sparks, Bertha Evangeline	*Madison*
†Tuttle, Clifton Milton	*Madison*
Tyrrell, Gladys D.	*Madison*
West, Gladys Cartwright	*Milton Junction*

—20

MEDICAL SCHOOL

Second Year

Axley, Harold, B.S., g	*Cleveland*
†Bauer, Carl Philip ls	*Madison*
†Borsack, Karl Jasper, B.A., g	*Fond du Lac*
Brown, Ernest James ls	*Madison*
†Chipman, Willard Alonzo ls	*Stoughton*
†Cole, Arthur Vincent ls	*Mauston*
†Dehne, Willard Oliver ls	*Waupun*
†Driver, Camilles Ogden ls	*Racine*
Escabi, José ls	*Mayaguez, P. R.*
Focke, William John ls	*Chicago, Ill.*
†Freymiller, Ernest Fred ls	*Woodman*
Goldberg, Benjamin ls	*Antigo*
†Gough, James Arthur ls	*Sugar Bush*
†Green, Walter Elmer ls	*Milwaukee*
†Hatleberg, Clarence Nels Bugge ls	*Madison*
Howard, Margaret ls	*Portland, Ore.*
†Hoyer, George Henry Christian ls	*West Bend*
†Johnson, Nicholas Stanislaus ls	*Ohio, Ill.*
Larkin, William James ls	*Madison*
†Lieberthal, Eugene Paul ls	*Chicago, Ill.*
†Littig, Lawrence Victor ls	*Iowa City, Iowa*
†McIntosh, Roscoe Lyle ls	*Edgerton*
Marsh, Harry Gilmore ls	*Madison*
†Meyer, Charles Alois ls	*Unity*
†Montgomery, Robert Bresee ls	*Madison*
†Murphy, James Henry ls	*Chilton*
†Patterson, George Hill ls	*Chicago, Ill.*
†Puestow, Karver Louis ls	*Oshkosh*
†Pullen, Richard Woollard ls	*N. Fond du Lac*
†Roberts, Rob Roy ls	*Ft. Atkinson*
†Rogers, Ezra Hazelton ls	*Hartford*
Schmidt, Herbert Glueck ls	*Milwaukee*
Schneiders, Edwin Frank, B.S., g	*Marathon*
†Sevringhaus, Elmer Louis, M.A., g	*New Albany, Ind.*
†Shimpa, Joe Frank ls	*Boscobel*
Sonnenburg, Willard Michael ls	*Sheboygan*
Sotirakos, Spiros D. ls	*Chicago, Ill.*
†Stolze, Joseph Ariel ls	*Wausau*
Sutton, Robert Mage ls	*Peoria, Ill.*
†Tilleman, John Francis ls	*Madison*
†Vivian, Robert Stansmore ls	*Madison*
†Watson, Allen Smith ls	*Madison*
†Weber, Carl Joseph ls	*Hartford*

Whelan, Anna ls	*Mondovi*
†White, Cleveland J., B.A., g	*Shullsburg*
†Woodward, King Grier ls	*Peoria, Ill.*

—46

First Year

Adams, Robert Warren, Ph.B.	*Madison*
†Altschwager, Edwin Henry ls	*Sheboygan*
†Bach, Clarence Edwin ls	*Milwaukee*
†Bemis, George Gordon ls	*Antigo*
†Brickbauer, Ben George ls	*Elkhart Lake*
†Burdick, Allison Lovelle, B.A., g	*Milton*
Cirlin, Marcus Bernarr ls	*Staten Island, N. Y.*
†Cochems, Kenneth ls	*Ft. Anthony, Idaho*
Connell, John William ls	*Fond du Lac*
Coon, George Wayland ls	*Milton Jct.*
†Dahle, Artman Hovey ls	*Madison*
Dimond, Dorothy Sara ls	*Albany, Ill.*
Donald, Ernest ls	*Madison*
Engel, Adolph Charles ls	*Milwaukee*
Evans, Edward Thompson ls	*La Crosse*
†Falstad, Clarence Henry ls	*Eau Claire*
†Finsky, Morris ls	*Lake Geneva*
Furst, Frances Evelyn ls	*Kalamazoo, Mich.*
†Gorder, Arne Christian ls	*La Crosse*
Gueguierre, Jacques Pierre ls	*Madison*
†Haberland, Erwin John ls	*Verona*
Harper, Francis Donald ls	*Chicago, Ill.*
Hipke, Lucius Warrington ls	*Milwaukee*
†Hittner, Vernon James ls	*Seymour*
Holford, Frances Elizabeth ls	*Cassville*
†Horwitz, Lazarus Herman ls	*Sheboygan*
Huber, Herman Harry ls	*Milwaukee*
†Huston, John ls	*Richland Center*
†Irvine, Robert Kenneth ls	*Manawa*
Ivey, Everett D. ls	*Millston*
Jewell, Ernest Lemon ls	*Hillsboro*
†Kidder, Earle Elton ls	*Madison*
Krembs, Ferdinand Richard ls	*Stevens Point*
†Krohn, Irwin Kjelland ls	*Black River Falls*
†Krumm, John Frederick ls	*Chicago, Ill.*
Leach, Albert Edgar ls	*New Boston, N. H.*
†Lieberthal, Paul Ralph ls	*Ironwood, Mich.*
†Luban, Simon ls	*Milwaukee*
†McGarty, Michael Edmund ls	*Mauston*
MacNaughton, Leslie, B.S. g	*Madison*
†Machlis, Samuel Arthur ls	*Madison*
†Markley, Paul Lewis Jr. ls	*Rockford, Ill.*
†Millard, Robert Dinsmore ls	*Antigo*

Moore, Thomas Francis ls	*Watertown*	
Morris, Francis Joseph ls	*Timothy*	
†Nebel, Harold ls, vt	*Milwaukee*	
Nelson, Frankie, B.S.	*Canton, Ill.*	
Nelson, Mark Snowden ls	*Canton, Ill.*	
†Overton, Orrin Van ls	*Beloit*	
Palmer, Paul Whitney, B.A.	*Columbus, Ohio*	
Peterson, Leo Willis ls	*Granton*	
†Quisling, Sverre ls	*Madison*	
†Raube, Herbert Albert ls	*Waupun*	
Reid, Dorothy Emma, B.A.	*Oconomowoc*	
Ronzone, Ethel M.A., g	*Madison*	
†Schlomovitz, Elias Herman ls	*Milwaukee*	
Schlomovitz, Harry Herman ls	*Milwaukee*	
†Seybold, Erwin George ls	*Forest Jct.*	
Silverman, Maurice ls	*Chicago, Ill.*	
†Smuckler, Robert Henry ls	*Milwaukee*	
†Stern, William ls	*Kenosha*	
*Stoeber, Mary Margaret ls	*Madison*	
Swanson, Cleary Neil ls	*Marinette*	
Teschner, Paul August ls	*Milwaukee*	
†Tierney, Edward Frederick ls	*Portage*	
†Urberg, Sofus Emanuel ls	*Blair*	
†Werba, Daniel Richard ls	*Milwaukee*	
†Wright, Herbert Beach ls	*Milwaukee*	

—68

COLLEGE OF ENGINEERING

†Enrolled in Students' Army Training Corps.

Seniors

Bagemihl, Walter Michael	*Milwaukee*	M. E.
Barker, George, Jr.	*Madison*	Min. E.
†Bayle, Francis Lawrence	*Glen Falls, N. Y.*	M. E.
Behrens, Ray Emil	*West Allis*	C. E.
†Bellack, Willard Bernhard	*Columbus*	M. E.
Blattner, David Jones	*Sulphur, Okla.*	E. E.
Blau, Herman Adolph	*Washington, D. C.*	C. E.
†Brenner, Erwin Charles	*Milwaukee*	Ch. E.
Buchholz, Rudolph Otto	*St. Maries, Idaho*	C. E.
Burgess, Carlyle William	*Duluth, Minn.*	M. E.
Collins, Carl Harold	*Madison*	E. E.
†Fisbeck, Finley Leland	*Terre Haute, Ind.*	C. E.
†Glaettli, Herbert	*Milwaukee*	C. E.

*Died December 14, 1918.

Hansen, Waldo G.	*Beloit*	M. E.
†Hanson, Maurice Miller	*Madison*	C. E.
Haubrich, Alfred Frederick	*Kenosha*	M. E.
Hayden, Carl Frederick	*Milwaukee*	Ch. E.
†Holmes, Presley Dixon	*Southwest Harbor, Me.*	Ch. E.
Huntzicker, Paul	*Greenwood*	C. E.
†Ives, Clifford Elihu	*Sharon*	M. E.
King, Tower Wadsworth	*Madison*	E. E.
Koehler, Walter Allos	*Mishicot*	Ch. E.
†Kurtz, Henry William	*Sheboygan*	C. E.
Liu, Kuh Tsen	*Changsha, China*	C. E.
Lucas, Frank B.	*Madison*	Ch. E.
†Lyman, Alfred Tileston	*Milwaukee*	M. E.
†Mantonya, William George	*Chicago, Ill.*	M. E.
Marshall, Oren Herbert, Jr.	*East Troy*	M. E.
†Mertes, John Peter	*Calvary*	Ch. E.
Miller, Ivan Chessbrough	*Madison*	Ch. E.
Mueller, Emmet John	*Milwaukee*	M. E.
Negley, William Henry	*Dayton, O.*	Ch. E.
Newton, Jay Earl	*Ft. Atkinson*	E. E.
Peters, Leo James	*Edgemont, S. D.*	E. E.
Peterson, Lynnford Lawrence	*Deming, N. Mex.*	E. E.
Puerner, Russell Edward	*Jefferson*	M. E.
Schmidt, Ethan Warner	*Chicago, Ill.*	M. E.
Schwartz, Ernest Henry	*Mayville*	Min. E.
Smith, Robert Evans	*Milwaukee*	C. E.
Staidl, Joseph Arnold	*Shawano*	Ch. E.
Stern, Emil Fred	*West Allis*	M. E.
Townsend, John Banes	*St. Joseph, Mo.*	E. E.
†Warren, Glenn Barton	*Girard, Kans.*	M. E.
Werba, Edward Otto	*Milwaukee*	Min. E.
Wichnovitz, Peter Ernest	*Marinette*	E. E.
Williams, Edward Barnes	*Milwaukee*	M. E.
Wise, Edmund Merriman	*Fond du Lac*	E. E.
Wolverton, Fred Melville	*Oshkosh*	Min. E.
†Works, Lawrence Perry	*Madison*	E. E.
Zarse, Clarence Henry	*Milwaukee*	Ch. E.

—50

Juniors

†Adams, Edward Ernest	*Phoenix, Ariz.*	C. E.
Albers, Walter Leland	*Prairie du Sac*	Min. E.
†Amidon, George Wallace	*Wauwatosa*	Ch. E.
†Avery, Norman Kirk	*Peoria, Ill.*	E. E.
†Barth, Karl Peter	*Milwaukee*	C. E.
†Baumann, Walter Otto	*Medford*	Ch. E.
†Bergman, Miles Joseph	*Bark River, Mich.*	E. E.
Campbell, Lawrence Franklin	*Oshkosh*	M. E.

Coleman, Joseph Arthur	*Chicago, Ill.*	M. E.
Cretney, Robert Wesley	*Madison*	Ch. E.
Day, Harold Paton Scott	*Madison*	E. E.
Drake, Ronald Irwin	*Mendota*	Ch. E.
Dresen, Joseph Herman	*Madison*	M. E.
†Emanuel, Walter Arthur	*Fall Creek*	Min. E.
†Emmerling, Hans Frederick	*Milwaukee*	Ch. E.
†Fabian, Philip Joseph	*Hurley*	C. E.
†Fiedler, Elmore Walter	*Sheboygan Falls*	M. E.
Fourness, Earl Edward	*Milwaukee*	Ch. E.
Frank, Reimar August	*Milwaukee*	M. E.
Frater, George Gordon	*Elkhorn*	C. E.
†Fulton, Franklin Davis	*Baltimore, Md.*	E. E.
†Gardner, Arthur Otto	*Milwaukee*	M. E.
†Gaubatz, Arthur William	*Chilton*	M. E.
†Guessenhainer, Frederick William	*Sheboygan*	Ch. E.
Gray, Charles Richardson	*Washington, D. C.*	E. E.
Greenslade, Irving Jones	*Milwaukee*	E. E.
†Griswold, Frank Lynn	*Madison*	Ch. E.
†Griswold, Henry Farnam	*Madison*	M. E.
Hamilton, Ray Ezra	*Cadott*	E. E.
†Hanson, Clarence Ferdinand	*Waupaca*	M. E.
Hantzsch, Ralph Eugene	*Milwaukee*	E. E.
Hasenpflug, John Leroy	*Geneva, O.*	E. E.
Hawkins, Andrew B.	*Cameron*	M. E.
Heffernen, Raymond Arthur	*Madison*	C. E.
Hiestand, Francis Hall	*Madison*	C. E.
†Karger, Frank	*Milwaukee*	C. E.
†Kerler, Ernest Alfred	*West Allis*	E. E.
†Kidder, Charles Pomeroy	*Madison*	C. E.
†Klann, Alvin Rietbrock	*Milwaukee*	E. E.
Knapp, Harold Clark	*Milwaukee*	Ch. E.
Knudsen, Sven Aage	*Copenhagen, Denmark*	M. E.
†Krez, Frederick William	*Sheboygan*	C. E.
†Kuebler, George Benjamin	*Wausau*	M. E.
La Due, Russell Morseby	*Luverne, Minn.*	M. E.
Ladwig, William John	*Juda*	E. E.
†Lamont, Dallas Ralph	*Oregon*	E. E.
†Liebert, Arthur Eugene	*Milwaukee*	M. E.
Lillesand, Lynn Norman	*Stoughton*	E. E.
†Lindemann, Herbert Eddie	*Milwaukee*	M. E.
Link, Marcus William	*Madison*	Min. E.
†McConnell, James David	*Stevensville, Mont.*	E. E.
†McKinlay, Marcellus James	*Dodgeville*	Min. E.
Mann, Louis R.	*Muskegon, Mich.*	E. E.
†Maurer, Eugene Dickens	*Madison*	M. E.
†Maxson, Rolland Horatio	*Milton*	E. E.
†Meyer, Royal Lewis	*Kewaunee*	M. E.
Miller, Chester Joseph	*Milwaukee*	Ch. E.

†Morice, Elton Knight	*Madison*	Ch. E.
Morsell, Curtis B.	*Milwaukee*	M. E.
†Neel, Merville Charles	*Des Moines, Ia.*	C. E.
Nelson, Delmar Wood	*Peshtigo*	M. E.
Peterson, Clarence William	*Salem*	M. E.
Potter, Rusk Philetus	*Antigo*	E. E.
Prince, Earl Samuel	*Downer's Grove, Ill.*	Min. E.
Quimby, Frank Kendall	*Sheboygan*	C. E.
†Radke, Orville Edward	*Madison*	E. E.
†Ragatz, Roland Andrew	*Madison*	Ch. E.
†Ray, Otto Adolph	*Fish Creek*	Min. E.
†Rheingans, William Jacob	*Jackson*	C. E.
†Rice, Alex	*Milwaukee*	E. E.
†Richardson, Claude Irving	*Dane*	E. E.
Romig, Paul William	*Madison*	M. E.
Schaal, Norbert James	*Princeton*	M. E.
Schaper, Harold Henry	*Milwaukee*	M. E.
†Schmidt, Ray Otto	*Davenport, Ia.*	Ch. E.
†Schrage, Charles Thayer	*Sheboygan*	E. E.
†Schutte, Albert George	*Wausau*	Ch. E.
†Scott, Kenneth Loyal	*Madison*	E. E.
†Sherburne, Lewis Raymond	*Fremont*	C. E.
Sherr, Joe Robert	*Milwaukee*	E. E.
†Sickert, Otto Leonard	*Milwaukee*	M. E.
Siegel, Robert Charles	*Madison*	E. E.
Slaker, Donald Valentine	*Freeport, Ill.*	Min. E.
†Snider, William Herbert	*Davenport, Ia.*	E. E.
†Spafford, Allen	*Morrison, Ill.*	Ch. E.
Stelle, Will Robert	*Lodi*	C. E.
Stewart, Duncan James	*Rockford, Ill.*	E. E.
†Stiles, Dwight Hawthorne	*Lake Mills*	C. E.
†Switzer, Raymond Albert	*Madison*	E. E.
†Timm, Harold Daniel	*Grand Rapids*	M. E.
†Turneaure, Frederick Stewart	*Madison*	Min. E.
†Valguth, Waldemar	*Milwaukee*	Ch. E.
†Walraven, Peter	*Kenosha*	C. E.
†Walters, Warren Weir	*Madison*	Min. E.
†Walton, Joseph Levi	*Moorestown, N. J.*	Ch. E.
†Wiepking, Christopher Armin	*Milwaukee*	C. E.

—96

Sophomores

Aanesen, Finn	*Christiana, Norway*	M. E.
†Andersen, Carl John	*Milwaukee*	E. E.
Ayton, Thomas William	*Kenosha*	E. E.
Baker, Loyal Southwick	*Evansville*	E. E.
†Barlow, Millard Merrill	*Arcadia*	Ch. E.
†Beardsley, George Lee	*Westcliffe, Colo.*	E. E.

†Benton, Dwight Fahrig	*Washburn*	Ch. E.
†Bespalow, Eugene Frederick	*Chicago, Ill.*	C. E.
Blatter, Rudolf Hans	*La Crosse*	C. E.
Bramlette, Milton Nunn	*Chicago, Ill.*	Min. E.
Brittingham, Thomas Evans Jr.	*Madison*	C. E.
†Brown, Freeman Harding	*Cashton*	E. E.
†Brown, Harold Hasley	*Neenah*	E. E.
Bruden, Clifford O.	*Eau Claire*	C. E.
Bryn, Harold Bonnevie	*Christiana, Norway*	E. E.
†Butterman, Ernest	*Chicago, Ill.*	Ch. E.
Christensen, Martin	*Milwaukee*	E. E.
†Chudacoff, Henry	*Peshtigo*	M. E.
†Clarenbach, Ralph Emil	*Sheboygan*	C. E.
†Clark, Manley Haynes	*River Falls*	Ch. E.
†Clark, Richard Constantine	*Basco*	M. E.
†Cole, John Walter	*Independence*	E. E.
†Collins, Sidney Raymond	*Reedsburg*	E. E.
†Connell, Walter James	*Menomonee Falls*	C. E.
Cook, Owen Shepard	*Marinette*	E. E.
†Coomber, Howard Merton	*Kansas City, Mo.*	M. E.
Cummings, Willis Bachelder	*Chicago, Ill.*	E. E.
†Dean, Horace Kleffler	*Milwaukee*	M. E.
DeLong, Fayette Oran	*Edgar*	M. E.
Dodge, Elizabeth	*Devils Lake, N. D.*	C. E.
†Donovan, Edward Thomas	*Milwaukee*	M. E.
†Eklund, Oscar Adolph	*Tomahawk*	M. E.
†Erickson, Cyril Lambert	*Mondovi*	M. E.
Felber, Edward Richard	*Chippewa Falls*	M. E.
†Flom, Mervin Obert	*Madison*	M. E.
†Ford, Henry Michael	*Janesville*	C. E.
†Gerhardt, Adelbert Paul	*Neenah*	M. E.
Getchell, Herbert H.	*Madison*	M. E.
†Gladden, Alfred Howard	*Manitowoc*	C. E.
†Goddard, Merrill Beecroft	*Madison*	M. E.
Gould, Archie Hiram	*Nekoosa*	E. E.
†Gray, Frank Winchester	*Whitewater*	Min. E.
†Grimstad, Reuben Charles	*Mt. Horeb*	E. E.
Grubb, Everett Lorraine	*Indianapolis, Ind.*	Min. E.
Gruppe, Alfred Henry	*West Milwaukee*	C. E.
Guenther, Felix Gustave	*Port Washington*	E. E.
†Hahn, Lawrence Hugo	*Reedsburg*	Min. E.
Hamblen, Jennings Bryan	*Franklin, Ind.*	Ch. E.
†Hanley, Edward Vincent	*Milwaukee*	M. E.
†Hanson, Earl Parker	*Milwaukee*	E. E.
†Hanson, Frederick Raymond	*Milwaukee*	Min. E.
†Hanson, Paul Edward	*Mondovi*	C. E.
†Hanson, Peter	*Washburn*	Ch. E.
†Harvey, Lyle Clifford	*Oconto*	Ch. E.
Hawkins, Raymon Nelson	*Milwaukee*	Ch. E.

Head, Guerdon Herbert	*Platteville*	Ch. E.
†Hiestand, Richard Jacob	*Madison*	Min. E.
Humel, Lars K.	*Fond du Lac*	Min. E.
†Hunziker, Chester Earl	*Tomahawk*	M. E.
Ihlen, Alfred	*Christiana, Norway*	M. E.
Ihlen, Joakin Lund	*Christiana, Norway*	E. E.
†Jackson, Morris Dunn	*Oregon*	E. E.
†Jaeger, Walter Carl	*Cleveland*	C. E.
†Johnson, Elmer Dewey	*Ashland*	E. E.
†Jourdan, Ralph Louis	*Evansville, Ind.*	Min. E.
Kates, Willard Anthony	*Arlington Heights, Ill.*	E. E.
†Keller, Oswald Lewin	*Madison*	M. E.
†Kelly, Pennell Clarke	*Ft. Atkinson*	Ch. E.
†Kemler, Herbert James	*Platteville*	Min. E.
†Kirst, Leland Avery	*Dodgeville*	Ch. E.
†Klapproth, Walter Henry	*Racine*	C. E.
†Klement, Elmore Frederick	*Ft. Atkinson*	C. E.
†Knapp, Edwin John	*Milwaukee*	M. E.
†Koenecke, Paul M.	*Reedsburg*	Ch. E.
Kroncke, Earl Alfred	*Foley, Ala.*	C. E.
†Kurtz, Chester Mott	*Milwaukee*	Ch. E.
Lambeck, Walter Nicholas	*Milwaukee*	E. E.
†Lammert, Ray Ferd	*Chicago, Ill.*	M. E.
†Larsen, Bernard Marvin	*Hayward*	Ch. E.
†Leinfelder, Cyril Lawrence	*La Crosse*	M. E.
†Lindner, Herbert George	*Milwaukee*	E. E.
Lundberg, Gustaf Movitz	*Superior*	Min. E.
Lyman, George Clement	*Chicago, Ill.*	E. E.
†McAdams, Frank Clarence	*Madison*	E. E.
†McLenegan, David Wallace	*Milwaukee*	M. E.
†Mansfield, Herbert Stanley	*Okauchee*	E. E.
†Manthey, Rollin Henry	*Ablemans*	Ch. E.
†Margoles, Harry	*Milwaukee*	C. E.
†Merriam, Jesse Roger	*Columbus*	M. E.
†Miller, Karl Christiansen	*Oshkosh*	C. E.
†Mitchell, Malcolm	*Beloit*	Ch. E.
†Montgomery, Alvin Eugene	*Brooklyn*	Ch. E.
Moon, Parry Hiram	*Beaver Dam*	E. E.
†Mueller, Emil Arthur	*Baraboo*	E. E.
†Murdock, Harell Alexander	*Chicago, Ill.*	C. E.
†Muth, Herbert Julius	*Milwaukee*	E. E.
†Neumeister, Carl Louis	*Sheboygan*	Ch. E.
Nogueira, Frederico P.	*Rio de Janerio, Brazil*	E. E.
†Olson, John Hjalmar	*Hurley*	M. E.
Paddack, Rychen Mayhew	*Wyoming, O.*	Ch. E.
†Parsons, Cecil Paul	*Sparta*	E. E.
Paul, Edmund Louis	*Milwaukee*	M. E.
Paul, George	*Hurley*	M. E.
†Pauly, John Otto	*Milwaukee*	C. E.

†Pekofsky, Philip	*Milwaukee*	E. E.
†Pesch, Anthony William	*West Bend*	Ch. E.
†Peterson, Halmer Alfred	*Courtenay, N. D.*	E. E.
Phillips, Harry A.	*Chicago, Ill.*	M. E.
†Pidcoe, Weston William	*Madison*	M. E.
†Pinkerton, De Witt Van Ostrand	*Neenah*	Min. E.
†Pitzner, Alwin Fredrich	*Johnson Creek*	Ch. E.
†Pope, Frederich George	*Ablemans*	Ch. E.
†Posz, Howard M.	*Winona, Minn.*	Ch. E.
Pryor, George Russel	*West Allis*	M. E.
Rafeld, Ernest August	*Green Bay*	M. E.
Rashid, Jacob Karl	*Avoca*	E. E.
Reading, Clyde William	*Oak Park, Ill.*	M. E.
†Reed, Philip Dunham	*Milwaukee*	E. E.
Rhapstock, Carl Gordon	*Plainfield*	Ch. E.
†Rogers, Ross Walter	*Lisle, Ill.*	E. E.
†Rosenau, Merville Joseph	*Highland*	E. E.
Rotter, Israel	*Milwaukee*	C. E.
†Rubenstyne, Jack	*Chicago, Ill.*	M. E.
Rush, John Courtney	*Joplin, Mo.*	M. E.
†Scadden, Francis Herbert Clive	*Madison*	Min. E.
Schlimgen, Lucian George	*Madison*	M. E.
Schmitt, Francis Herman	*Milwaukee*	C. E.
†Schneider, Roy John	*Arcadia*	C. E.
†Schroeder, Gilbert William	*Milwaukee*	E. E.
†Schulte, Ernest Charles	*Colby*	E. E.
Schulz, Thomas Norberg	*Christiana, Norway*	M. E.
†Scofield, Lloyd Milton	*Sturgeon Bay*	Min. E.
†Seder, Willard James	*Madison*	C. E.
Shapiro, Morris	*Milwaukee*	E. E.
†Shoemaker, Milton Jackson	*Philadelphia, Pa.*	Ch. E.
Siebken, Herman Peter	*Elkhart Lake*	M. E.
Silverstone, Leon	*Milwaukee*	Ch. E.
†Slezak, Gustine	*Racine*	M. E.
†Smith, Forrest Ernest	*Blue Mounds*	M. E.
†Solberg, Clarence M.	*Ashland*	Min. E.
Sorenson, Helmer	*Whitefish Bay*	E. E.
†Sternlieb, Hyman Alfred	*Milwaukee*	E. E.
†Strong, Thomas Foster	*Madison*	C. E.
Taranger, Aksel	*Christiana, Norway*	E. E.
†Taynton, Mark	*Madison*	Min. E.
Terhorst, Willis	*Milwaukee*	M. E.
†Terry, Elton Howard	*Forest City, Ia.*	E. E.
†Terry, Owen Rockefeller	*Stoughton*	E. E.
Terry, Ralph Hooper	*Madison*	E. E.
†Touton, Rush Donwell	*Edgerton*	E. E.
Travers, Joseph Hill	*St. Louis Mo.*	C. E.
Tzao, Shing Kueh	*Shanghai, China*	Min. E.
Vobach, Arnold Charles	*Madison*	Ch. E.

†Wakeman, Arthur Goodhue	*Oshkosh*	M. E.
†Wegner, Karl Harold	*Wausau*	Ch. E.
Weitmann, Waldemar Ernest	*Milwaukee*	Ch. E.
Westmont, Oscar B.	*Beloit*	Ch. E.
Whelan, William Miller	*Mondovi*	M. E.
Willson, Clarence Ardry	*Des Moines, Ia.*	C. E.
Wolfe, Frank Tisch	*Kenosha*	M. E.
†Zadeck, Sam	*Gunnison, Miss.*	E. E.
Zaumeyer, Robert John	*Milwaukee*	Ch. E.
†Zuege, David Clarence	*Milwaukee*	Ch. E.
Zwicker, Michael H.	*Madison*	Min. E.

—164

Freshmen

†Abrams, Ralph Bernard	*Milwaukee*	Ch. E.
†Ainsworth, Percy Francis	*Beloit*	E. E.
†Anderson, Carl Roy	*Weyerhauser*	C. E.
†Andree, Clarence Alois	*Milwaukee*	E. E.
†Axelberg, George Willard	*Washburn*	C. E.
Bader, Earl Delbert	*Lynden Station*	E. E.
Baker, James Stannard	*Amherst, Mass.*	E. E.
†Bancroft, George Stanley	*Madison*	M. E.
†Barland, George Clarence	*Eau Claire*	E. E.
Barnes, Ernest Merrill	*Madison*	C. E.
Barriage, Chester George	*Janesville*	E. E.
†Bartlett, Harold C.	*Cameron*	E. E.
Beardsley, Edward Huggett	*Chicago, Ill.*	M. E.
†Beck, Herbert Henry	*Fond du Lac*	E. E.
†Beglinger, Richard Theodore	*Oshkosh*	Ch. E.
°Behrens, Herbert C.	*Woodstock, Ill.*	C. E.
Bell, Lewis Farnum	*McGregor, Ia.*	M. E.
Below, Cornelius Comstock	*Marinette*	M. E.
†Bethke, Raymond Philip	*Elkhart Lake*	C. E.
Birkenwald, Emil S.	*Milwaukee*	C. E.
†Bittner, Theophilus Valerius	*Mayville*	M. E.
Björnson, Björn Gudmundson	*Reykjairk, Iceland*	E. E.
†Black, Roe Robert	*Thedford, Nebr.*	M. E.
Blair, John Portwood	*Chicago, Ill.*	M. E.
†Boebel, Paul Peter	*Fennimore*	E. E.
†Bollinger, Paul E.	*Sharon*	C. E.
†Borgman, George John	*Milwaukee*	Ch. E.
†Bowman, Philip George	*De Pere*	E. E.
†Brady, Harry William	*Peoria, Ill.*	E. E.
†Brandau, Earl Randolph	*Milwaukee*	M. E.
†Britzmann, Herbert Clarence	*Beaver Dam*	M. E.
Bruce, Robert Hart	*Milwaukee*	M. E.
Bruemmer, Carl William J.	*Milwaukee*	M. E.
Buckstaff, Sherwood	*Oshkosh*	C. E.

Buese, Frank Anthony	*Kilbourne*	M. E.
Campbell, Claude Wesley	*Beloit*	M. E.
†Chase, Leon Everett	*Viroqua*	C. E.
Chase, Sherman	*Madison*	E. E.
†Cherry, James Crowe	*Kenilworth, Ill.*	M. E.
†Christenson, Alvin Herbert	*Viroqua*	M. E.
†Clawson, Donald Garrett	*Harvard, Ill.*	E. E.
†Coddo, William Elmer	*Antigo*	Ch. E.
†Colony, Martin Pratt	*Evansville*	E. E.
†Comey, Frank Aubrey	*Milwaukee*	C. E.
Connell, Daniel Richard, Jr.	*Beloit*	M. E.
†Cooper, Albert William	*Quincy, Ill.*	M. E.
†Cooper, Charles Theodore	*Bellaire, Ohio*	E. E.
†Cooper, Humphrey John	*Quincy, Ill.*	M. E.
Corriveau, Allen Le Tendre	*Port Edwards*	Ch. E.
†Cotton, Alfred Robert	*Milwaukee*	E. E.
Cowpland, Elliott McLane	*Fayville, Ill.*	Ch. E.
†Cox, Edward Lorenz	*Madison*	M. E.
†Cox, Irving Knapp	*Milwaukee*	M. E.
Cram, Kenneth Blaisdell	*Chicago, Ill.*	M. E.
†Daugherty, Robert Lancil	*Boscobel*	E. E.
†Davis, George Perrin	*Bloomington, Ill.*	M. E.
†Dewire, Donald Stevens	*Sharon*	E. E.
†Donnelly, Daniel Wilfred	*Appleton*	M. E.
†Drew, Everett Glen	*Dubuque, Ia.*	Ch. E.
†Drewry, Montrose Keller	*Madison*	M. E.
†Ebentier, Albert Frank	*Sutton, N. D.*	Ch. E.
†Edgerton, Emerson William	*Beaver Dam*	M. E.
†Edwards, Arthur Wesley	*Highland*	M. E.
Egan, Wilfred Martin	*Highland*	C. E.
Eisele, Karl Anthony	*Madison*	E. E.
†Elstad, Edward Melvin	*Whitehall*	Min. E.
†Emmons, Lawrence Earle	*Quincy, Ill.*	C. E.
†Enders, Le Roy Louis	*Delafield*	E. E.
Erickson, Robert	*Cashton*	E. E.
Ewald, Sterling Donald	*Louisville, Ky.*	E. E.
†Feddersen, Alfred Lund	*Racine*	E. E.
Fehrmann, Harold Albert	*New London*	C. E.
†Fellows, Frank Samuelson	*Algoma*	E. E.
†Feltman, Carl Howard	*Peoria, Ill.*	E. E.
Fischer, William Henry	*Madison*	M. E.
†Foote, Perry Albert	*Erie, Pa.*	Ch. E.
†Frank, Charles Walter	*Milwaukee*	M. E.
Franklin, Harry Gerald	*Milwaukee*	E. E.
†Garrity, Leo Valentine	*Hudson*	C. E.
†Gates, Claude Allan	*Walworth*	E. E.
Gauntlett, Ward Jackson	*Chicago, Ill.*	M. E.
Geiger, George	*Milwaukee*	E. E.
Gettle, Rollin Brown	*Madison*	E. E

Giddings, William Werner	*Mendota*	Ch. E.
†Golley, Frank Benjamin	*Milwaukee*	E. E.
†Goodrich, Charles Victor	*Lone Rock*	E. E.
†Gotham, Donald Emerson	*Mazomanie*	C. E.
†Granberg, Henry Silas	*Oshkosh*	Min. E.
†Graves, Spencer Fred	*Wausau*	M. E.
†Gregg, John Wyatt	*Milwaukee*	Ch. E.
†Greiling, Winford Walter	*Green Bay*	M. E.
†Grimshaw, Robert Bayard	*Elroy*	Ch. E.
†Grosskopf, Milton William	*Pella*	Ch. E.
Guillemin, Ernst	*Milwaukee*	Ch. E.
Gundersen, G. Gunnar	*Christiana, Norway*	E. E.
†Hahn, Leonard William	*Clinton*	Min. E.
†Hanson, Raymond Frederick	*Milwaukee*	C. E.
Harris, Richard Charles	*Cando, N. D.*	E. E.
Harris, Robert Austin	*Oak Park, Ill.*	M. E.
*Haseltine, Ivan Warren	*Mazomanie*	E. E.
Hawks, Ralph Eli	*Horicon*	C. E.
†Hedstrom, Lowry Henry	*Kenosha*	E. E.
Heins, Rudolf Jacob	*Madison*	E. E.
Held, Henry Jacob	*Milwaukee*	Ch. E.
†Hensey, Earl William	*Ft. Atkinson*	Ch. E.
†Herrick, Roswell Harry	*Freeport, Ill.*	E. E.
†Hill, George Amos	*Baraboo*	E. E.
Hirshberg, Maurice Arthur	*Milwaukee*	Ch. E.
†Hoffman, Harry Willis	*Ft. Atkinson*	Ch. E.
†Hogue, Bernard Elias	*Greenwood*	E. E.
†Homstad, Erwin Edgar	*Black River Falls*	C. E.
†Hornibrook, Francis Crary	*Marinette*	E. E.
Hubbard, Honore Clinton	*Evansville*	Ch. E.
Hubbard, Warren Sydney	*Shabbona, Ill.*	C. E.
†Huebner, Bernard William	*Madison*	M. E.
Hummel, Jesse Edwin	*Delavan*	E. E.
†Hurley, John Timothy	*Friendship*	E. E.
Hyzer, Arthur Sorge	*Barron*	E. E.
†Ingebretsen, Henry Percival	*Greenwood*	E. E.
†Johnson, Norman Lincoln	*New Ulm, Minn.*	C. E.
Jones, T. Delbert	*Wales*	C. E.
†Karas, Leland Lewis	*Chicago, Ill.*	M. E.
†Kaasa, Orin Gordon	*Merrill*	Ch. E.
Kasiska, Raymond John	*Baraboo*	Ch. E.
Kelhofer, Leon Martin	*Sharon*	E. E.
†Kellett, William Richard	*Neenah*	Ch. E.
†Kellogg, Rolland Francis	*Edgerton*	Ch. E.
†Kerwin, Joseph James	*Madison*	E. E.
Kerz, Paul Anthony	*Galena, Ill.*	E. E.
Kircher, Ralph Nuel	*Merrill*	M. E.

*Died October 14, 1918.

†Kirk, Cecil Humphrey	*Lewistown, Mont.*	E. E.
Klossner, Walter John	*Rice Lake*	M. E.
Knollin, Albert Jason, Jr.	*Pocatello, Idaho*	C. E.
†Kortebein, Arthur J.	*Milwaukee*	E. E.
Kozina, Frank	*Kewaunee*	E. E.
†Kraus, Harold Lester	*Elkhorn*	E. E.
†Krause, Elmer George	*Milwaukee*	C. E.
†Krenz, Samuel Alfred	*Jefferson*	Ch. E.
Kreps, Francis Howard	*Kendall*	M. E.
Krotz, Alva S.	*Janesville*	M. E.
†Krumheuer, Sidney Frederick	*Ft. Atkinson*	Ch. E.
†Laflin, John Montgomery	*Milwaukee*	E. E.
†Lallier, Wesley Charles	*Madison*	E. E.
†Lamboley, Julian Joseph	*Belleville*	E. E.
Lang, Paul Minor	*Chippewa Falls*	Ch. E.
†Lanning, Brown Clifford	*Black River Falls*	C. E.
†Larson, Oscar William	*Ashland*	M. E.
Ledin, Theodore Axel	*Kenosha*	Ch. E.
Lippert, Erick William	*Marinette*	C. E.
†Long, David Ernest	*Surgeon Bay*	C. E.
Lord, George Curtis	*Cando, N. D.*	E. E.
Love, Merrill De Witt	*Emerald*	E. E.
Lovejoy, Roy Mitchell	*Kenosha*	C. E.
Loverud, Earl K.	*Stoughton*	C. E.
†Lyons, Edward Eugene	*La Crosse*	M. E.
†McCabe, Eugene Horace	*Madison*	M. E.
†McComb, Donald Walter	*Lima Center*	M. E.
†McConnell, Philip Swain	*La Crosse*	E. E.
†MacFadden, Robyn Kimball	*Wilmette, Ill.*	Min. E.
†McGraw, Ernest Andrew	*Lake Geneva*	Ch. E.
†McKaig, Willard Hulick	*Eatontown, N. J.*	Ch. E.
McLaughlin, Raymond Brannon	*Kiefer, Okla.*	M. E.
†McMurran, Marshall John	*Windsor*	E. E.
†Magann, Joseph Wilbur	*Madison*	E. E.
†Mayhew, Anson Bostwick	*Milwaukee*	E. E.
Meinik, Morris	*Milwaukee*	E. E.
†Meverden, Leon Leslie	*Sturgeon Bay*	E. E.
Miller, Birney Frank	*Omaha, Nebr.*	Min. E.
†Mills, Dudley John	*Black River Falls*	E. E.
Mohr, Ernst John	*Milwaukee*	E. E.
Morgan, Lloyd Charles	*Madison*	Min. E.
†Morris, Charles William, Jr.	*Chicago, Ill.*	M. E.
†Moulding, Joseph Watkins	*Delavan*	M. E.
Muhlenberg, Charles Henry, Jr.	*Reading, Pa.*	E. E.
†Myers, Charles	*Glen Haven*	E. E.
Nason, Charles Seymour	*Kenilworth, Ill.*	Ch. E.
Nelson, Floyd Elmer	*Kenosha*	E. E.
†Nelson, George William	*Racine*	C. E.
†Nemetz, Victor Wenzel	*Kewaunee*	E. E.

†Neumann, Herbert Paul	*Milwaukee*	C. E.
Nienaber, Theodore George	*Kenosha*	E. E.
†Noble, Henry Harnden, Jr.	*Chicago, Ill.*	Ch. E.
Nolte, Frederick William	*Wauwatosa*	E. E.
†O'Conner, William Donald	*Hancock*	M. E.
†Odekirk, Wallace Eugene	*Trempealeau*	C. E.
†Olson, Goldie Raymond	*Preston, Minn.*	E. E.
Ott, Elmer Albert	*Forest Junction*	E. E.
†Oyen, Hjalmer S.	*Stoughton*	M. E.
Parker, George MacDonald	*St. Louis, Mo.*	Ch. E.
†Pashka, Edward John	*Kewaunee*	E. E.
†Paulus, Raymond Lawrence	*Milwaukee*	E. E.
†Petersen, Robert Gerehard	*Warren*	E. E.
†Peterson, Sterling Donald	*Milwaukee*	Ch. E.
†Pfeffer, Oscar	*Milwaukee*	Min. E.
Poppert, Russell Linstead	*Milwaukee*	Min. E.
†Powell, Robert Bruette	*Wausau*	C. E.
†Powers, Milton Alden	*Cudahy*	M. E.
†Prideaux, Gwilyn Fremont	*Dodgeville*	E. E.
†Pritchard, Frank Cary	*Chicago, Ill.*	C. E.
Radley, Harmon Monroe	*Wild Rose*	C. E.
†Rau, Irving Julius	*North Milwaukee*	Ch. E.
†Read, Philip Chester	*North Milwaukee*	M. E.
†Richardson, Nels C.	*Sioux Falls, S. D.*	Ch. E.
†Rickmeier, Carl H.	*Sheboygan*	E. E.
†Riek, Forest Otto	*Rhinelander*	Ch. E.
†Rittenburg, Glen Fitch	*Whitewater*	Min. E.
†Robar, Garret Dewey	*Aurelia, Ia.*	E. E.
Roberts, Richard Alexander	*Pittsburgh, Pa.*	C. E.
†Robertson, Richard Chamberlain	*Milwaukee*	C. E.
†Robinson, Warren Jethro	*Granton*	C. E.
Roettiger, Warren Louis	*Fountain City*	C. E.
†Rohlfing, Anthony Ferdinand	*Milwaukee*	C. E.
†Rosenberg, Bernard Winfield	*Milwaukee*	E. E.
†Rove, Olaf Norberg	*Milwaukee*	C. E.
Ruhland, Lester Charles	*Baraboo*	E. E.
Rummler, Edgar Royle	*Milwaukee*	M. E.
Ruppa, Nathan	*Milwaukee*	Ch. E.
†Rynders, Francis Arthur	*Antigo*	M. E.
†Sabin, Alfred Buell	*Node, Wyo.*	Min. E.
†Schlueter, Theodore Ludwig M.	*Watertown*	C. E.
†Schmidt, Arnold Wilbur	*Madison*	E. E.
†Scott, Edwin Irving	*Ft. Thomas, Ky.*	Ch. E.
†Seitz, Ole H.	*Marengo*	E. E.
†Shapiro, Leo Henry	*Marshfield*	C. E.
†Sharp, Howard Melbourne	*Oconto Falls*	E. E.
Silverman, Henry Weide	*Milwaukee*	E. E.
Skala, Edward John	*Kewaunee*	E. E.
†Slichter, Donald Charles	*Madison*	M. E.
†Smith, Clarence Carl	*Rib Lake*	M. E.

Smith, Fred Gund	*Freeport, Ill.*	M. E.
Smith, William Lee	*Racine*	Ch. E.
†Snider, Elmer Newton	*Alden, Ia.*	C. E.
Sobey, James Henry	*Dodgeville*	E. E.
†Soll, Rolland Hugo	*Milwaukee*	Ch. E.
†Spetz, Ralph Ferdinand	*Milwaukee*	C. E.
†Spielman, Harold Joseph	*Park Ridge, Ill.*	Ch. E.
Stack, Earl Langford	*Milwaukee*	M. E.
†Staehle, Karl Arthur	*Manitowoc*	E. E.
†Stegeman, Henry Randall	*Ft. Thomas, Ky.*	Ch. E.
†Stein, Howard Allen	*Annapolis, Md.*	M. E.
†Stephens, Leon Benjamin	*Bear Springs, Mont.*	E. E.
†Stewart, Robert Dewey	*Cambridge*	E. E.
†Stickle, Theodore E.	*Cottage Grove*	M. E.
†Stocker, Alfred Elmont	*Western Springs, Ill.*	C. E.
Stokes, Paul Prisk	*Elkhorn*	E. E.
†Strang, George Henry	*Richland Center*	E. E.
†Stumpf, Walter Peter	*Madison*	M. E.
†Terry, Eugene John	*Baraboo*	E. E.
†Thiel, Walter Conrad	*Schleisingerville*	C. E.
Thompson, Gilman	*Mount Horeb*	M. E.
†Thorpe, Noel Carlton	*Stanley*	C. E.
Tjomsland, Eli Hans	*Milwaukee*	C. E.
Traub, Walter Gustav	*Milwaukee*	Ch. E.
Trayser, Anthony Chester	*New London*	E. E.
†Trebus, Erwin Henry	*Eau Claire*	M. E.
†Trueblood, Wilson David, Jr.	*Detroit Harbor*	M. E.
†Turner, Roy William	*Milwaukee*	E. E.
Uhler, William Herbert	*Houston, Texas*	Min. E.
†Vitcenda, Theodore J.	*Cashton*	C. E.
†Walker, Shores Adelbert	*Duluth, Minn.*	M. E.
†Walsh, James Eugene	*Richland Center*	C. E.
†Warren, Howard Vincent	*Antigo*	M. E.
Watts, Wilbur Edmund	*Lomira*	E. E.
†Wegner, Gilbert Walter	*Wausau*	C. E.
Weis, Charles Lewis, Jr.	*La Crosse*	Ch. E.
Weisse, Harold Hayen	*La Crosse*	C. E.
Wengel, Ray William	*Madison*	Ch. E.
Wessely, Edward Arthur	*Kewaunee*	E. E.
Wieland, Edwin Leo	*Milwaukee*	M. E.
Wille, Clarence Wilkins	*Milwaukee*	Ch. E.
†Wilson, Lawrence John	*Orangeville, Ill.*	M. E.
†Wolters, Herbert Henry	*La Crosse*	Min. E.
†Wolverton, Robert Farrow	*Oshkosh*	Min. E.
†Wrend, Ben	*Madison*	C. E.
†Zelonky, Benjamin	*Milwaukee*	C. E.
†Zervas, Walter Otto	*Milwaukee*	C. E.

—276

Adult Specials

Branks, Joseph Orrin	*Janesville*	M. E.	Freshman
Flatman, George James	*Madison*	E. E.	Senior
†Knoerr, Rudolph Robert	*Milwaukee*	E. E.	Junior
Sandler, David Henry	*Madison*	E. E.	Sophomore
Ubbink, Joseph John	*Pt. Washington*	C. E.	Sophomore

—5

LAW SCHOOL

Third Year

Altenhofen, Roland Frederick	*Cedarburg*
Biart, Nathaniel Paul, B.A.	*Madison*
Brendemuehl, Alvin G.	*Watertown*
Caradine, Mahlon Humphrey ls	*Monroe*
De Witt, Roy Martin	*Madison*
Forehand, Harry Verne	*Madison*
Gross, John, B.A.	*La Farge*
Johnson, Russell Lowell, B.A.	*Madison*
Langer, Harold Myron, B.A.	*Waterloo*
Marsh, Carl James, B.A.	*Madison*
Newman, John Logan, B.A.	*Madison*
Raeder, Lester William	*Cedarburg*
†Rosenblum, Harry Maurice	*Clinton, Ind.*
Shannon, Frank John, B.A.	*Madison*
Stevenson, William Henry	*Onalaska*
Thauer, Wallace	*Watertown*
Thiele, Arthur Albert, B.A.	*Green Bay*
Torphy, Thomas Emmett	*Milwaukee*
Winton, Eugene Ward	*Appleton*

—19

Second Year

Conway, Paul Hoffmann	*Watertown*
Duff, Joseph Pomford	*Superior*
Fischer, Robert Harrison	*Two Rivers*
Grubb, Kenneth Philip	*Mauston*
Higson, Francis Delmar, B.A.	*Madison*
Jenkins, Lyel Newton	*Blue River*
Laus, R. Curtis	*Madison*
Peters, Robert LeRoy, B.A.	*Blue River*
Pile, John Charles, B.A.	*Dodgeville*
†Richardson, Chester Dee, B.A.	*Madison*

†Enrolled in Students' Army Training Corps.

Riley, Harry William	*Winneconne*
Schweichler, Lothar Adolph, B.A.	*Milwaukee*
Trottman, Joseph Stafford, B.A.	*Milwaukee*
Villanueva, Guillermo Zosimoo	*Bais, P. I.*
Wheeler, Sylvester Lawrence, B.A.	*Wauwatosa*

—15

First Year

Bradford, Alfred Stearns	*Appleton*
Burlingame, Leroy James, B.A.	*Madison*
Burmeister, Roy Frederick, B.A.	*Gratiot*
Crawford, Robert Storey, B.L.	*Madison*
Dinkwitz, Oscar	*Marinette*
Duncan, Francis Willard	*Green Bay*
Genrich, Fred William, Jr.	*Wausau*
Gilbertson, Victor Gilbert	*Eau Claire*
Harrington, Richard	*Madison*
Haugan, Addison	*Elkhorn*
Lee, Francis Knute, B.A.	*Elroy*
Levin, Tillie Cecile	*Wausau*
Loberg, Jesse Dewey, B.A.	*Nelsonville*
Rogers, Alfred Moore, B.A.	*Chicago, Ill.*
Sharp, Malcolm Pitman, B.A. g	*Madison*
Sweeney, Charles Victor	*Edgerton*
Thieme, Cyrus Charles, B.A.	*S. Milwaukee*
Waller, Theodore Adolph	*Spring Valley*
Warner, John Clement, B.S.	*Madison*

—15

Specials

Davis, Dudley Hopkins	*Madison*	First
Doyle, John Patrick	*Sparta*	First
King, Erdman Wilfred	*Oak Park, Ill.*	First
Monk, Robert William	*Neillsville*	Second
Robinson, Harry William	*La Crosse*	Second
Sapira, I. Edith	*Milwaukee*	Third
Wharfield, Aubrey Charles	*Marshfield*	First

—7

Students in Letters and Science Electing Law

Gaveney, Stanleigh Keyes	*Arcadia*
Gratz, Marion Clevenger	*Pemberton, N. J.*
Hall, Laurence Waterbury	*Madison*
Hyzer, Leland	*Janesville*
Kearns, Edward Peter	*Pardeeville*
Noer, Harold Rolf	*Waubeno*
Olson, Oscar Albert	*Madison*
Perrigo, Burton Richardson	*Oconomowoc*

Smith, Herbert Herald	*Milwaukee*	
Spengler, Silas Llewellyn	*Menasha*	
Spohn, George Daniel	*Janesville*	
Weldon, Charles William Temple	*Milwaukee*	—11

COLLEGE OF AGRICULTURE

LONG COURSE

†Enrolled in Students' Army Training Corps.

Seniors

Ayres, Paul Kester	*Madison*
Baldwin, Cornelius Hammett	*Tulsa, Okla.*
Behling, Fred Louis tc	*Johnson Creek*
Chipman, Harold Robert	*Morrisonville*
Clark, Elmer Russell tc	*Lodi*
Colville, Clarence Le Roy	*Rogers, N. D.*
Conger, Paul Sidney tc	*Prairie du Sac*
Dally, Walter Robert	*Milwaukee*
†Dexter, Stephen Torrey tc	*Ashland*
Dreier, Allman Vernon tc	*Norwalk*
Drips, William Edward	*Madison*
Edler, Raymond Charles	*Chippewa Falls*
Fargo, John Merrill	*Mt. Horeb*
Griem, Milton Emil	*New Holstein*
Hills, Carroll Cody	*Evanston, Ill.*
Hitchcock, Morris Leroy	*Edgerton*
Hood, Robin	*Chicago, Ill.*
Liddle, Earl Laren	*Mifflin*
†Nelson, Nels Theodore tc	*Cambridge*
Reid, Duncan Henry	*Montello*
Reid, William Herbert Eddy tc	*La Crosse*
Remsberg, Oscar Zachariah	*Madison*
Shepard, Gordon Hastings	*Mineral Point*
†Stemmler, William, Jr.	*Milwaukee*
Stokdyk, Ellis Adolph tc	*Chicago, Ill.*
Stoltenberg, Hugo Adolph	*Manitowoc*
Sullivan, Francis Thomas	*Arena*
†Turner, Charles Wesley, Jr. tc	*Madison*
Tuttle, Thomas Westley	*Verona, N. J.*
Vennus, Elizabeth Mary	*Madison*
Wallin, Franklin Whittelsey	*Chicago, Ill.*
Wertz, Virgil Roe	*Madison*
Weslow, Joseph A.	*Green Bay*
†Wilcox, Arthur Noble	*Madison*
†Williams, Judson Sparks	*Bristol*
Wilson, Joseph Orin	*Oshkosh*

—36

Juniors

†Albrecht, Harold Taylor	*Merrill*
†Ballantine, George Neal	*Bloomington*
Ballantine, James Rolland	*Bloomington*
Brandon, William McKinley	*Mazomanie*
†Burr, Allen Russel	*Waterloo*
Caldwell, Thomas B.	*New Orleans, La.*
†Cartter, Bruce Lanpher	*Black River Falls*
Cole, Harold Harrison	*Marshall*
Crandall, George Washington	*Madison*
Cremer, Herbert Lyle	*Mendota*
†Drewry, Charles Bemrose	*Madison*
†Emerson, Hugh Robert	*Ashland*
Gifford, Glen Holley	*Milwaukee*
Hamlin, John Francis	*Lula, Miss.*
Hayes, William Platt	*N. Asheville, N. C.*
Heep, Herman Fred	*Buda, Texas*
Hembre, Helmer John	*Greenwood*
†Hipke, Gilbert Jacob	*New Holstein*
Hoard, William D.	*Fort Atkinson*
Johnstone, Mary Cecilia	*Richland Center*
King, Charles Howard	*Madison*
†Koehler, Walter Bernard Paul	*Menomonee Falls*
Kornreich, Eugene Frederick	*Milwaukee*
Kubier, Julius Edwin tc	*Akaska, S. D.*
La Due, Charles Mayo	*Luverne, Minn.*
†Leaper, Vern Clayton	*Green Bay*
†Lepkovsky, Samuel	*Kenosha*
Mathews, Edward Washington	*Wheeling, W. Va.*
Meacham, Elmer Reynolds	*Downing*
Megeath, Jessie	*New York City*
Murat, Sidney Parkman	*Scandinavia*
O'Connell, Francis Joseph	*Montello*
†Olson, Sigurd Ferdinand	*Ashland*
†Oosterhuis, Lester John	*Sheboygan Falls*
Pancok, Louis Henry	*St. Louis, Mo.*
†Pfahler, Joseph Andrew	*Madison*
Post, William John	*Milwaukee*
Ruhl, Rebecca Louisa	*Clarksburg, W. Va.*
Runkel, Clay Orson	*Madison*
†Sayre, Baxter Page	*Edgerton*
†Smith, Wyman Sydney	*Brandon*
Stumpf, Harry A.	*Menasha*
†Suits, Fredrick Walter	*Milwaukee*
†Toolajian, Joseph Hanné	*Madison*
†Uhl, Allan Philip	*Galesville*
Van Hagen, George	*Barrington, Ill.*
†Wall, Floyd Russell	*Highland*

Weinfurther, Irving Detrich	*Mishicot*
†Weller, Walter Trowbridge	*Fond du Lac*
†Zellmer, Robert George	*Oshkosh*

—50

Sophomores

†Allin, Bushrod Warren	*Cleburne, Texas*
Bailey, Edwin Argyle	*Temple, Texas*
Baldwin, Robert Donald	*Brooklyn*
†Boerner, Robert Louis	*Dallas, Texas*
†Breuer, Herman Martin	*Manitowoc*
†Brothers, Wellington	*Evanston, Ill.*
†Brown, Francis Percival	*Cleveland, O.*
Clark, Thomas Collier	*Evanston, Ill.*
Doolan, William Lee, Jr.	*Louisville, Ky.*
Fix, Alois Ashley, Jr.	*Reedsburg*
†Frank, Hobart John	*Neenah*
†Frost, Russell Elwell	*Madison*
Gerling, Pauline	*St. Louis, Mo.*
Goldman, Samuel	*Milwaukee*
Hanousek, John Joseph	*Antigo*
Jackson, Lyman Edson	*Madison*
†Kayser, Paul Adolph	*Madison*
†Knoll, Roy Phil	*So. Milwaukee*
†Koch, William Frederick	*West Point, Nebr.*
Kuckuk, Harold Morse	*Wausau*
Logie, James Milner	*Wilmette, Ill.*
†Luther, Melvin Eddy	*Madison*
†Martin, George Wimpfheimer	*New York, N. Y.*
†Mitchell, William Kenneth	*Lake Beulah*
†Newman, George Ingham	*Chicago, Ill.*
†Pfrang, Lloyd L.	*Edgar*
†Pierre, William Henry	*Brussels*
Pusey, Ernest Nichols	*Providence, Ky.*
†Rieck, Chester Emil	*Chicago, Ill.*
†Roewekamp, Frederick William	*Oshkosh*
†Stauss, Walter Charlie	*Thiensville*
†Stearns, Russell Benjamin	*Madison*
†Stranahan, Benjamin Farrand	*Fort Benton, Mont.*
†Toepfer, George Otto	*Madison*
Tompkins, Hazel Myrtle	*Phoenix, Ariz.*
Watkins, John Dupuy	*Asherton, Texas*
†White, Cecil Everett	*Beaver Dam*

—37

Freshmen

†Barclay, Samuel Sloan	*Pittsburgh, Pa.*
†Bean, Walter David	*De Soto*
†Beier, Edwin Adolph	*Rockford, Ill.*

Bemis, James Rosborough	*St. Louis, Mo.*
†Bloecher, William	*Wittenberg*
Boerner, Alfred Löhren	*Markesan*
†Brandt, George Semlow	*Cleveland, O.*
Campbell, Frances Wadsworth	*Madison*
†Chapman, Homer Dwight	*Darlington*
Conway, David Gabriel	*Waunakee*
†Craik, Edward Whitney	*Anchorage, Ky.*
Crawford, Joseph Forrest	*Beloit*
Cronk, Wilmot Burton	*Menomonie*
Day, Ernest Everett	*Madison*
†Didier, Andrew Peter	*Port Washington*
†Edwards, Harry Lloyd	*Cambria*
†Ferris, Paul Bennett	*Princeton, Ill.*
Frazier, Harry Stucky	*Louisville, Ky.*
Gahr, Joseph Abraham	*Madison*
†Gibson, Edward Harold	*Adams*
†Grant, Herbert Emerson	*Milwaukee*
†Hanson, Roy Ephraim	*Chippewa Falls*
†Harris, Forest Datus	*Cuba City*
Hathaway, Charles Thomas	*Duluth, Minn.*
Hayes, Sarah Romona	*Madison*
†Heller, Herman George	*Boscobel*
†Holzbog, Walter Charles	*Milwaukee*
†Jones, Arthur Lyle	*Madison*
Juday, Dean James	*Rhinelander*
†Kaiser, Harvey Meinrad	*Fond du Lac*
†Katz, Henry Joseph	*Milwaukee*
Kellett, Jay Cummings	*Neenah*
†Kleinheinz, Frank Alex	*Madison*
Klosterman, Adolph Henry	*Shawano*
†Klussendorf, Raymond Clarence	*Milwaukee*
Kuehn, Edwin Frederick William	*Burnett*
†Langer, Joseph Edward	*Eau Galle*
†Lindow, Carl Warning	*Elkhorn*
Link, Karl Paul Gerhardt	*La Porte, Ind.*
†McConnell, Clark	*Oshkosh*
McCrary, Ward Randolph	*Merrill*
†Mackensen, Ernest Herman	*Houston, Texas*
Madeiros, Joaquin de Rocha	*Alcobaca, Bahia, Brazil*
Mahorney, Florence Hathaway	*Madison*
†Mallow, Lewis Campbell	*Madison*
†Metcalf, Harold Harris	*Merrill*
Opgenorth, Louis Theodore	*Kewaskum*
†Pabst, Frederick August	*Oconomowoc*
†Petersen, Ralph Ernst	*Chicago, Ill.*
†Portman, Leo James	*Ladysmith*
†Portman, Raymond Joseph	*Ladysmith*
†Potts, Truman Robert	*Waupaca*

†Powell, Hector Minelaus	*Island Lake*
†Ramsay, Wayne	*Madison*
†Rewey, Oliver Wendell	*Rewey*
Russell, Eldon Babcock	*Madison*
†Schneider, Earl Edward	*Ft. Atkinson*
†Schueler, Milford William	*Fredonia*
†Sears, Verlyn Fred	*Neillsville*
Shepherd, Harry Richard	*Hartland*
†Shreve, Raymond Gerald	*Evansville*
†Sly, Keith Chester	*Sechlerville*
Strommen, Deloris Alfred	*Cambridge*
Taylor, Lewis Walter	*Milwaukee*
Vidal, José Manuel	*Ponce, Porto Rico*
Virchow, Edward	*Waterloo*
†Weavers, Harvey	*Cedar Grove*
Weinman, Isaac	*Brooklyn, N. Y.*
†Wilson, Edward Malcolm	*Bayfield*

—69

MIDDLE COURSE

Second Year

Coleman, Clement John	*Milwaukee*
Hawn, Ruby tc	*Ruby*
†Hewett, Walter William	*Arlington, S. D.*
†Mereness, Lawrence David	*Walworth*
Sills, William Arthur	*Lake Geneva*
†Simonson, Archie Fletcher	*St. Croix Falls*
†Witte, John Griffith	*Sheboygan*

—7

First Year

†Allison, Andrew Beardsley	*Durand*
†Barry, Lawrence Griffith	*Oconomowoc*
†Browne, Edward Leland	*Waupaca*
†Casperson, Helmer Cornelius	*Baldwin*
Ebling, Walter Henry	*Richfield*
†English, Donald John	*Wyocena*
†Friday, Francis James	*Kendall*
†Jellema, Charles	*Milwaukee*
†Kolb, Edwin Siegle	*Berlin*
†Kull, Adelbert Clarence	*Lake Geneva*
†Lamb, Stuart James	*Janesville*
†Last, John August	*Watertown*
†Lewis, John W.	*Dodgeville*
†Magistad, Oscar Conrad	*Forestville*
Massey, George Frederick, Jr.	*Walworth*
†Meek, Louis Frank	*Peoria, Ill.*

†Montieth, J. Robert	*Madison*
Morris, Edith Marjorie	*Madison*
Napiecinski, Angeline Rose	*Two Rivers*
†Palmer, Otis Wilcox	*Mauston*
†Peacock, Carson Ellis	*Fennimore*
Price, Edward Ernest	*Mauston*
†Roberts, William Thurlow	*Bangor*
†Sabin, Dewey James	*Hayward*
Sayre, Ruth Ann	*Hampton, Va.*
†Smith, Albert Fulton	*Manitowoc*
Smith, Charles Marion	*Macon, Ga.*
†Whitson, Kenneth Fitch	*Madison*
†Woelffer, Elmer August	*Watertown*

—29

COURSE IN HOME ECONOMICS

Seniors

Barry, Grace Maurine tc	*Richland Center*
Beardsley, Olive Maude tc	*Chicago, Ill.*
Beattie, Marguerite Reno tc	*Des Moines, Ia.*
Beatty, Florence Esther tc	*Davenport, Ia.*
Bigelow, Vieva Marion tc	*Madison*
Black, Marjorie Helen	*Flint, Mich.*
Blum, Olga Hefty	*Monticello*
Bogan, Eleanore Mary tc	*Mackinac Island, Mich.*
Bollenbeck, Ida Kathryn tc	*Madison*
Boyce, Marion Fern tc	*Milwaukee*
Braun, Anna Gertrude	*Wahpeton, N. Dak.*
Burke, Edith Eleanor tc	*Madison*
Carpenter, Rachel Jane tc	*Iron River, Mich.*
Coffman, Ruth Eugene	*Pana, Ill.*
Coldwell, Vera Iris tc	*Mazomanie*
Cooley, Ray (Miss) tc	*Chicago, Ill.*
Danforth, Mary Florence tc	*Washington, Ill.*
Dunwiddie, Martha Jennette tc	*Delavan*
Faville, Laura Elizabeth	*Lake Mills*
Feeney, Regina Mary	*Madison*
Fernald, Mable Grace tc	*Madison*
Ferris, Margaret Fraser tc	*Osage, Ia.*
Finucane, Grace Rosalind tc	*Antigo*
Fitzmaurice, Mary Teresa	*Beaver Dam*
Fricke, Ethel	*St. Louis, Mo.*
Fritschel, Margaret Eleanore	*Milwaukee*
Gough, Genevieve Elizabeth tc	*Boonville, Ind.*
Graber, Elsie Dorothy tc	*Mineral Point*
Graper, Florence Marie tc	*Ft. Atkinson*
Horton, Mae tc	*Pardeeville*
Hussa, Mildred Marie tc	*La Crosse*

Hutton, Margaret Isabel tc	*Madison*
Jenswold, Marion Townsend	*Des Moines, Ia.*
Jones, Katherine tc	*Milwaukee*
Karlen, Marie Margaret	*Monroe*
Kyte, Gladys	*Grass Range, Mont.*
Lewis, Marion Lucile tc	*Milwaukee*
Lothe, Ada Belinda	*Stoughton*
Luther, Breta Marie tc	*Madison*
McNulty, Sadie Agatha tc	*Spring Green*
Nienaber, Katherine Mable tc	*Madison*
Olbrich, Marion Grace tc	*Harvard, Ill.*
O'Neil, Miriam Catherine tc	*Chippewa Falls*
Outhouse, Julia Pratt tc	*Madison*
Paine, Adelaide tc	*Milwaukee*
Phillips, Alice Emma	*Madison*
Pieh, Margaret Elizabeth	*Madison*
Piper, Ruth Hausche	*Racine*
Place, Nell Beatrice	*Marinette*
Portz, Mildred Helen tc	*Hartford*
Roehm, Ruth Madolyn	*Ashland*
Rogers, Mary Taylor	*Jonesboro, Ark.*
Rusch, Louise Annette	*Fargo, N. D.*
Schairer, Eva Sophia	*Madison*
Schneider, Veronica	*Madison*
Sell, Mariana Theresa tc	*Madison*
Severin, Gladys Marie tc	*Cedar Falls, Ia.*
Sister, Mary Evangeline Cleavland	*Madison*
Stanchfield, Eleanore Jean	*Fond du Lac*
Sturges, Agnes Lavinia	*St. Louis, Mo.*
Sutherland, Elizabeth tc	*Hudson*
Trickey, Dorothy May tc	*Berlin*
Tyler, Marion Esther	*Glidden*
Uzzell, Helen tc	*Denver, Colo.*
Wilson, Harriette tc	*Milwaukee*
Wolcott, Hazel Gertrude tc	*Milwaukee*
Woolery, Lucy	*Pasadena, Calif.*

—67

Juniors

Ayers, Dorothy Helen	*Dickinson, N. Dak.*
Baker, Elnora	*Rewey*
Baldwin, Marian Edith	*Lena, Ill.*
Barkow, Clara Henrietta	*Embarrass*
*Bauman, Mollie	*Kiel*
Bird, Mary Rebecca tc	*Madison*
Burnam, Anita	*Guthrie, Ky.*
Cleveland, Catherine Eloise	*Kensington, Md.*
Coates, Carrol Matilda	*Milwaukee*

*Died February 28, 1919.

Couton, Freda Marguerite	*Forsythe, Mont.*
Davis, Mary Lou	*Wharton, Texas*
Dernehl, Emma Martha tc	*Milwaukee*
Dickson, Margaret Mary tc	*Indiana Harbor, Ind.*
Elliott, Mary Katherine tc	*Superior*
Finnerud, Florence	*Watertown, S. D.*
Fitch, Elizabeth May	*Madison*
Gowdy, Leta Marie	*Tabor, Ia.*
Hargan, Mary Frances	*Madison, Ind.*
Harman, Helen Margaret	*Madison*
Heisig, Gertrude Mathilda tc	*Madison*
Helberg, Guinoir	*Madison*
Hottel, Agnes Elizabeth tc	*Norwalk, O.*
Hutton, Mary Kinlock	*Madison*
Johnson, Wilma Anna	*Detroit, Mich.*
Kimball, Marian	*Glencoe, Ill.*
King, Ruth Grace	*Racine*
Kirk, Alice Jeanette tc	*Madison*
Krueger, Dorothy A.	*Madison*
Kundert, Elizabeth	*Monroe*
Lamb, Cleo Eleanor tc	*Ridott, Ill.*
Lawson, Beulah	*Walworth*
Leavitt, Hazel Ruth tc	*Beloit*
Lees, Katherine Elna	*Milwaukee*
McLay, Christina Menzies	*Janesville*
McLay, Isabel Zuill	*Janesville*
Malm, Frances Eleanor	*Norfolk, Nebr.*
Miller, Ada Elizabeth	*Madison*
Patton, Stella Trout tc	*Madison*
Perkins, Helen Hope	*Princeton, Ill.*
Poundstone, E. Marie	*Mellen*
Powell, Ermine Dorothy	*Billings, Mont.*
Powell, Pauline Willard	*Billings, Mont.*
Rowley, Hyacinth	*Lewistown, Mont.*
Runkel, Jeanette Wheeler	*Burlington*
Schernecker, Mae Eleanor	*Madison*
Schroeder, Meta Louise	*Wausau*
Shepherd, Rosalie	*Springfield, Ill.*
Skinner, Vera	*Tomah*
Slininger, Gladys Lucille tc	*Des Moines, Ia.*
Smith, Helen	*Aurora, Ill.*
Stackhouse, Katharine Frances	*Indianapolis, Ind.*
Stauffer, Katharine Baldwin	*St. Louis, Mo.*
Tamblingson, Wava Beth tc	*Fort Atkinson*
Tenney, Ellen Mae tc	*Madison*
Tucker, Verna May	*Wilmette, Ill.*
Vail, Edna Cora	*Springfield, Ill.*
Van Ermen, Marie Antoinette	*Green Bay*
Walker, Annette Louise	*Milton*

White, Myrtle Maja tc	*Chicago, Ill.*
Wood, Dorothy Belle	*Milwaukee*
Woodruff, Margaret	*Mason City, Ia.*
Wuerpel, Lois	*St. Louis, Mo.*
Young, Frances Margaret	*Grand Rapids, Mich.*

—63

Sophomores

Ackley, Florence Davenport	*Beloit*
Bartholomew, Marguerite Louise	*Chicago, Ill.*
Bemis, Grace Mariette	*Antigo*
Bierbauer, Lillian Elsa	*Mankato, Minn.*
Bruhuke, Beatrice Bernice	*Milwaukee*
Chambers, Margaret Jane	*Steubenville, O.*
Chichester, Mildred Elizabeth	*Great Falls, Mont.*
Coulson, Ruth Antoinette	*St. Louis, Mo.*
Donaldson, Marjorie Brown	*Chicago, Ill.*
Forrest, Nellie	*Poynette*
Gildehaus, Ethel Marie	*St. Louis, Mo.*
Goessling, Evelyn Viola	*St. Louis, Mo.*
Hogan, Mildred Elsie	*Mt. Horeb*
Huffman, Edna Louise	*Richland Center*
Jones, Dorothy	*Black River Falls*
Kowalke, Gertrude Roth	*Sheboygan*
Krieger, Violet Evelyn	*Glenwood, Minn.*
Larson, Saline Olive	*Cambridge*
Leitzell, Kathryn Rebecca	*Benton*
Loomer, Gretchen Lana	*Delavan*
Metz, Marie Antoinette	*Madison*
Moss, Pearl Elizabeth	*Milwaukee*
Murray, Helen Hyacintha	*Madison*
O'Leary, Mary Catherine	*Appleton*
Pearson, Helen Elizabeth	*Bloomington*
Pine, Edith A.	*River Forest, Ill.*
Porter, Anna Maude	*Evansville*
Robertson, Esther Mildred	*Horicon*
Schmidt, Erna Marie Roslyn	*West Allis*
Schofield, Harriet Louise	*La Crosse*
Seeber, Vivien Adelaide	*Houghton, Mich.*
Sell, Elsie Josephine	*Madison*
Strock, Marjorie	*Des Moines, Ia.*
Swancutt, Ruth Elizabeth	*Evansville*
Weber, Elizabeth Leonore	*Keokuk, Ia.*
Weeks, Christina Mary	*Chilton*
White, Myrna	*Madison*
Yeomans, Clara Louise	*Madison*

—38

Freshmen

Babcock, Elizabeth	*Rock Island, Ill.*
Beitler, Rose Pearl	*Bloomington*
Bliss, Frances Evelyn	*Monrovia, Calif.*
Brooks, Mildred Louisa	*Sheldon, Ia.*
Bullock, Alice Fairfax	*Madison*
Butler, Margaret	*Berwyn, Ill.*
Campbell, Lucille Grace	*Madison*
Cheetham, Helen Cowan	*Milwaukee*
Crary, Alice	*Boone, Ia.*
Cretney, Mildred Emily	*Madison*
Ehr, Elizabeth Mary Catharine	*Minot, N. D.*
Fauerbach, Edith Gretchen	*Madison*
Fenn, Elvira	*Sheboygan*
Gallagher, Alice Elizabeth	*Wilmette, Ill.*
Gillette, Gertrude Helen	*Evanston, Ill.*
Gladfelter, Ruth Marion	*Ottawa, Ill.*
Heise, Esther Bertha	*Green Bay*
Heisig, Jennie Olive	*Madison*
Hermann, Vera Dorothea	*St. Louis, Mo.*
Hess, Elsie Elizabeth	*Madison*
Hoch, Mildred Lillian	*Huntington, Ind.*
Holzbog, Gertrude Dorothy	*Milwaukee*
Holzer, Janet Eunice	*Milwaukee*
Jaquith, Ellen Jane	*Green Lake*
Johnson, Helen Augusta	*Oak Park, Ill.*
Kersten, Luella	*Hartford*
Kingston, Olive	*Mountain*
Koetter, Elinor Ann	*Clinton, Ia.*
Kroncke, Dorothea	*Madison*
Kuehn, Anita Emma	*Milwaukee*
Leitch, Mardelle Janet	*Mendota*
Lockwood, Bessie	*Washington, Ind.*
Maag, Viola Anna	*Milwaukee*
Martin, Hester Lucy	*Michigan City, Ind.*
Meiselwitz, Gertrude Elizabeth	*Kiel*
Oestreich, Caroline Mina	*New London*
Oestreich, Lorena Elizabeth	*New London*
Parkinson, Caryl McCoy	*Madison*
Pattee, Helen Alden	*Pueblo, Colo.*
Pettigrew, Ardis Marcia	*Flandreau, S. D.*
Phillips, Doris Edna	*Madison*
Piper, Inez Luella	*Whitewater*
Pope, Margaret	*Chicago, Ill.*
Raymond, Lois Wasson	*Troy, N. Y.*
Rogers, Mabelle	*Portales, N. Mex.*
Sauer, Gertrude Pauline	*Girard, Kans.*

Schlieker, Florence Isabel	*East Chicago, Ind.*
Seaver, Leona Gertrude	*Clinton*
Shoninger, Dorothy Viola	*Chicago, Ill.*
Smiley, Mary	*Albany*
Smith, Florence Marie	*Milwaukee*
Stinson, Frances Eliza	*Kendallville, Ind.*
Stockdale, Ethol Wegner	*Milwaukee*
Switalski, Katharine Marie	*Owen*
Taylor, Ardys Marie	*Madison*
Townsend, Georgia Daw	*Cambridge*
Vallette, Frances May	*Wheaton, Ill.*
Varney, Elsie Clara	*Delavan, Ill.*
Waffle, Naomi Emily	*Fond du Lac*
West, Dorothy Grace	*Madison*
West, Myrtle Lucille	*Wilmette, Ill.*
Whelan, Dorothy Elizabeth	*Springfield, Ill.*
White, Helen	*Madison*
Williams. Margaret Ann	*Bristol*
Wright, Leona Francene	*Detroit, Mich.*

—65

Adult Special Students

Long Course

Anderson, John Arlington	*Racine*	Junior
†Duffy, Walter Aloysius	*Moquah*	Junior
Erwin, Charles Ward	*Oak Park, Ill.*	Freshman
Kirsch, William	*Madison*	Junior
Maldaner, Theodore	*Watertown*	Freshman
Matthews, Etta Lane	*Madison*	Freshman
Moller, Edward Johannes	*Thorso, Fredriksstad, Norway*	Freshman
Nelson, August	*Madison*	Junior
Stader, Otto	*Frankville, N. Y.*	Junior

—9

Middle Course

Bacchus, Thomas Walley, Jr.	*Wilmington, Del.*	Freshman
Blomquist, John Joel	*Ashland*	Freshman
Harrington, Louis Burns	*Milwaukee*	Freshman
Morris, Beatrice Green	*Chicago, Ill.*	Freshman
Warner, Philip Washburn	*Duluth, Minn.*	Freshman

—5

Home Economics Course

Burkhardt, Gertrude Eleanor	*Milwaukee*	Freshman
Sperry, Agnes	*Edgerton*	Freshman
Steen, Nels	*Christiania, Norway*	Freshman

—3

WISCONSIN LIBRARY SCHOOL

Askew, Mary M.	*Cincinnati, Ohio*
Barnes, Clara M.	*Albia, Ia.*
Beale, B. Rosalie	*Chicago, Ill.*
Corson, Mary E.	*Stillwater, Minn.*
Doll, Corinne	*New Orleans, La.*
Frost, Alice A.	*Burlington, Ia.*
Harrington, Julia A.	*Hurley*
Kamps, Patience M.	*Marshfield*
Klingholz, Joanna	*Manitowoc*
Lewis, Winifred	*Chisholm, Minn.*
O'Connell, Florence	*Clinton, Ia.*
Osborn, Evelyn M.	*Ashland*
Roulston, Margaret E.	*Boulder, Col.*
Sexton, Jean M.	*Waukegan, Ill.*
Solheim, Olea M.	*Sioux Falls, S. D.*
Wendell, Esther A.	*Aberdeen, S. D.*
Wyman, Mignon	*Des Moines, Ia.*

—17

Joint Course

Bernardo, Gabriel A.	*Malolos, Bulacan, P. I.*
Beveridge, Gladys Maurine	*Lake Mills*
Gross, Alma Eleanor	*Duluth, Minn.*
Johnson, Gladys	*Waterloo, Ia.*
Kennedy, Dorothy Elizabeth	*Ashland*
Keyes, Mary	*Madison*
Lowell, Mary Ann	*Ballston Spa, N. Y.*
Marshall, Jane Ramsay Grant	*Lake Forest, Ill.*
Munda, Jose M.	*Salasa, Pangasinan, P. I.*
Perez, Cirilo B.	*Santa Maria, Bulacan, P. I.*
Rodriquez, Eulogio B.	*Orani, Bataan, P. I.*
Smith, Carol Josephine	*Grinnell, Ia.*

—12

STUDENTS ARMY TRAINING CORPS

(Not included in other lists.)

Abell, George Walworth	*Clinton Junction*	A Mid 2
Abramofsky, Edward August	*Kenosha*	L S 1
Accola, Victor Herman	*Pittsville*	A Mid 1
Adams, Harold Edward	*Fox Lake*	C C 1
Adler, Oscar Lewis	*Dodgeville*	L S 1
Ahern, Thomas Leo	*Fond du Lac*	E 1
Albrecht, Gerold Robert	*Beaver Dam*	E 1
Allen, Daniel Lawrence	*Oshkosh*	C C 1
Alvis, Henry C.	*Madison*	E 1
Amadon, Harry Clifford	*Watertown*	E 1
Amundson, Clarence Bernhardt	*Stoughton*	E 1
Amundson, Edward Willman	*Stoughton*	E 1
Andersen, Harry Albert	*Lake Geneva*	E 1
Andersen, Oscar W.	*Butternut*	E 1
Anderson, Brady Morris	*Eau Claire*	L S 1
Anderson, Clarence	*Minocqua*	C C 1
Anderson, Irvin Ralph	*Waukegan, Ill.*	C C 1
Anderson, Orrin Alexander	*Eau Claire*	C C 1
Anderson, Paul Marcus	*Hudson*	E 1
Anderson, Randolph Gayhard	*Independence*	E 1
Anderson, Steve Wallace	*Moline, Ill.*	L S 1
Anthes, Clarence Alvin	*Ft. Atkinson*	E 1
Archie, Arthur James	*Watertown*	L S 1
Archie, Kenneth Hoffman	*Watertown*	C C 1
Ariens, Mando Stephen	*Brillion*	E 1
Arvidson, Reuben Dewey	*Marinette*	E 1
Aschenbrener, Edmund Lawrence	*Park Falls*	C C 1
Aschenbrener, Willard George	*Park Falls*	C C 3
Augustine, Harry Ferdinand	*Sturgeon Bay*	C C 1
Augustine, Waldemar Herbert R.	*Eau Claire*	C C 1
Ayen, Gilford Abner	*Mt. Horeb*	C C 1
Baker, Harland Russell	*Odanah*	E 1
Baldwin, William Starr	*Lena, Ill.*	C C 1
Bandow, Charles Rudolph	*Peshtigo*	E 1
Backhaus, Henry	*Manitowoc*	Ch C 3
Bacon, Merrit Milton	*Milwaukee*	E 1
Bade, Carl Alfred	*Milwaukee*	L S 1
Baeschlin, Neal	*Greenwood*	A Mid 1
Baggott, Gerald Patrick	*Kilbourne*	C C 1
Bagley, Burton Bogardus	*Mason City, Ia.*	L S 3
Bagley, Earl Carlisle	*Cambridge*	A 1
Bailey, Robert Downing	*Richland Center*	E 1
Barager, Miles Emerson	*Owen*	L S 1
Bartel, August John	*Lake Mills*	C C 1

Barth, Arthur Emil	*Milwaukee*	C C 1
Barth, Chester Albert	*Cedar Rapids*	A 1
Bartholomew, Joseph Fletcher	*Lodi*	E 1
Bartlett, Glenn A.	*Eau Claire*	E 1
Bass, Floyd Kellogg	*Merrimac*	E 1
Bast, Michael Oscar	*Colby*	E 1
Bauch, Clement Frederick	*Freeport, Ill.*	L S 1
Bauer, John Henry	*Ft. Atkinson*	E 1
Beach, Maurice Eugene	*Melrose*	E 1
Beale, George Edward	*Madison*	E 1
Beaugrand, Marshall Eugene	*Racine*	C C 1
Becker, Roland Frederick	*Milwaukee*	C C 1
Becker, Roland Henry	*Milwaukee*	E 1
Beeching, Charles Gill	*Kokomo, Ind.*	L S 1
Beglinger, Fred F.	*Superior*	L S 1
Behling, Arthur William	*Johnson Creek*	C C 1
Below, Martin Paul	*Oshkosh*	C C 1
Benbow, Robert Leslie	*Watertown, S. D.*	E 1
Bennet, William Joseph	*Marinette*	C C 1
Benson, Irving Milton	*Iola*	E 1
Bentzen, Robert Whelpley	*Warrens*	C C 1
Berard, Ovid Raphael	*Nekoosa*	A 1
Berens, Alphonse Jacob	*Kaukauna*	C C 1
Berg, Clifford Jennings	*Rhinelander*	E 1
Berg, Paul Irving	*Mt. Horeb*	E 1
Bergen, James Miner	*Iola*	Ph II 1
Bergmann, Alfred Edward	*Eau Claire*	E 1
Bernard, John Raymond	*Necedah*	C C 1
Bertleson, Ben John	*Oconomowoc*	E 1
Betzer, Cecil E.	*Kenosha*	E 1
Beust, Carl	*La Crosse*	L S Grad
Bienstadt, Benjamin	*Milwaukee*	E 1
Billings, Leonard Noble	*Cobb*	L S 1
Birkett, Paul J.	*Hazel Green*	C C 1
Birkrem, Otto Alexander	*Deerfield*	A 1
Bitters, Wallace William	*Oconto*	C C 1
Blackney, Clarence William	*Mifflin*	L S 1
Bladon, Cuthbert William	*Janesville*	C C 1
Blahnik, Vance Louis	*Ashland*	E 1
Blain, William Claude	*Weyerhauser*	E 1
Blake, Harold Lawton	*Boscobel*	E 1
Blanchet, Kenneth	*So. Kaukauna*	E 1
Blasing, Erny Ewald	*Westfield*	C C 1
Blizard, Leslie	*Verona*	E 1
Blomstrom, Carl August	*Waukegan, Ill.*	C C 1
Bluhm, Herbert William	*Chicago, Ill.*	A 1
Blystone, Jasper Kepler	*Eau Claire*	E 1
Bogan, Weldon T.	*Knox, Ind.*	C C 1
Boggers, Ralph Vernon	*Catlin, Ill.*	L S 3

Bondi, Edwin William	*Madison*	C C 1
Borchardt, Clarence Emil	*Milwaukee*	C C 1
Borgers, Norton Derk	*Greenwood*	E 1
Bork, Rudolph Albert Frank	*Beaver Dam*	E 1
Borland, Oliver Wendell	*Milwaukee*	E 1
Borowick, Jacob Stanislaus	*Thorpe*	C C 1
Borst, William Joseph	*Brooklyn*	A Mid 1
Boynton, Nathan Russell	*Oshkosh*	E 1
Bradley, Glen Patrick	*Mukwonago*	E 1
Brady, John Donald	*Bloomington*	Ch C 1
Brand, Raymond Bernard	*Sheboygan*	E 1
Brann, August Franklin	*Sturgeon Bay*	C C 1
Brenaman, Errol	*Waupun*	Ch C 1
Brenzel, Gerard Silas	*Kaukauna*	C C 1
Bresnahan, George Thomas	*Ida Grove, Ia.*	L S Grad
Bridenhagen, Clement William	*Sturgeon Bay*	A 1
Broezel, Verne Leo	*Milwaukee*	E 1
Brogan, John James	*Green Bay*	C C 1
Broitzman, Theodore Alfred	*Reeseville*	E 1
Brosowsky, Ernest	*Milwaukee*	E 1
Broughton, Clyde Gleason	*Marinette*	Ch C 1
Brown, Andrew Barnes	*Eau Claire*	C C 1
Brown, Lyle, Jr.	*Marshall*	A 1
Buckbee, Milton Vernie	*Tigerton*	E 1
Buckman, George Allen	*Marinette*	Ch C 1
Budde, McKinley	*Ontario*	A Mid 1
Bulfer, Augustine Joseph	*Peru, Ill.*	Ch E 2
Bull, Benoyt Sidney	*Chicago, Ill.*	E 1
Bull, Warren L.	*Sun Prairie*	A Mid 1
Bullard, Charles Ellsworth	*Evansville*	C C 1
Bunde, Leo Frederick	*Grand Rapids*	E E 2
Burdick, Sylvester Orson	*Edgerton*	C C 1
Burns, James Patrick	*Green Bay*	L S 1
Burns, William Waggoner	*Marshfield*	L S 1
Bush, Henry	*Fond du Lac*	C C 1
Bybuth, Engvold Oliver	*Eau Claire*	E 1
Cahill, Eugene Gannon	*Dixon, Ill.*	E 1
Cairns, George Walter	*Madison*	L S 1
Calloway, Clarence Weston	*Boscobel*	C C 1
Calloway, Lester Ray	*Viola*	E 1
Campbell, Lester Curtis	*Oconto*	E 1
Candee, Kenneth	*Milwaukee*	L S 1
Cannon, Dallas Earl	*Knox, Ind.*	L S 1
Capron, Chester Allen	*Portage*	E 1
Carew, Rexford John	*Chippewa Falls*	A 1
Cargill, William Albert	*Clifton, Ky.*	E 1
Carlson, Van Stuart	*Ashland*	E 1
Carnachen, Robert William	*Bruce*	E 1
Carroll, Cyrus Kryder	*Kenosha*	L S 1

Carson, William Kenneth	*Washburn*	E 1
Carswell, Benjamin Frederick	*Richland Center*	L S 1
Casey, James Matthew	*Madison*	L S 1
Caspersen, Victor Harvey	*La Crosse*	L S 1
Chaffee, Percival Vern	*Delton*	E 1
Chambers, John Albert	*Monroe*	L S 1
Chandler, Sheldon Stephen	*Oregon*	E 1
Chapman, Donald Earl	*Lake Mills*	L S 1
Christianson, Arthur William	*Cambridge*	L S 1
Christianson, Carl Bernard	*Stevens Point*	Ch E 2
Churn, James Eduards	*Wauwatosa*	L S 2
Claflin, Foster Charles	*Mondovi*	A 1
Clapp, Spencer Lyman	*Grand Rapids*	L S 1
Clark, Lloyd Shills	*Fond du Lac*	L S 1
Cleary, Louis Francis	*Elroy*	L S 1
Clift, Delbert Laal	*Viola*	E 1
Cohen, George	*Michigan City, Ind.*	L S 1
Coleman, Paul Jerome	*Chicago, Ill.*	L S 1
Collins, David Heaton	*Mitchell, S. D.*	L S 1
Congdon, Claire Cressey	*Delavan*	C E 3
Conklin, Robert Louis	*Wauwatosa*	L S 1
Conley, Paul Bernard	*Darlington*	L S 1
Conrad, Clifford Dewey	*Baldwin*	L S 3
Cook, Benjamin Franklyn	*Compton, Ill.*	L S Grad (Med)
Cooks, Harry B.	*Eau Claire*	E 1
Cooper, Leonard Glover	*Bloomington*	A 1
Cooper, Melvin William	*Glen Haven*	A 2
Covell, Arnold Benedict	*North Hudson*	E 1
Craine, Earl	*Antigo*	E 1
Crawford, George Gaver	*Kenosha*	E 1
Crocker, Walter Claire	*Spooner*	L S 2
Crockford, Welby Harold	*Hastings, Mich.*	L S 1
Croll, Melvin William August	*Manitowoc*	E 1
Cronin, John Richard	*Lake Geneva*	E 1
Cronin, Paul T.	*Lake Geneva*	E 1
Cruger, John Harold	*Watertown*	E 1
Cuff, Robert Justin	*Portage*	Ch C 1
Cummings, Harold William	*Racine*	L S 1
Cummings, Roy Gaylord	*Dousman*	A 1
Cunningham, Evans S.	*Berlin*	E 1
Cunningham, Michael Hayes	*Camp Douglas*	E 1
Curtis, Frank Clayton	*Sauk City*	L S 1
Curtis, Harold Conway	*Kenosha*	E 1
Dahl, Walter Earl	*De Forest*	E 1
Dake, Claude Alfred	*Wild Rose*	L S 1
Dale, Norval Clarence	*Galesville*	E 1
Dana, Walter Duncan	*Wausau*	C C 3
Danielson, Adolph Conrad	*Madison*	C C 2
Dates, Grant Leo	*Merrillan*	C C 1

Davies, Clinton William	*Racine*	E 1
Davison, Edgar Thomas	*Beaver Dam*	C J 1
Dawley, Don E.	*Cresco, Ia.*	E 1
Dawson, Frederick John	*Stambough, Mich.*	C C 1
Dawson, Thomas Bainbridge	*Benton*	A 3
Delaney, Denis J.	*Avoca*	E 1
Denzer, William Albert	*Kaukauna*	C C 1
De Swarte, Lawrence Crockett	*Wauwatosa*	C C 3
Dewey, Bartlett George	*Hazel Green*	E 1
De Young, Audley Mearl	*Baldwin*	E 1
Dick, Adolph Anthony	*Middleton*	L S 1
Dick, Waldo Christ	*Monticello*	L S 1
Diehl, Val Cary	*Mitchell, S. D.*	L S 1
Dillon, Fred Griffin	*Mondovi*	A 1
Docka, Thoralf Christopher	*Goodman*	C C 1
Dodd, John Morris, Jr.	*Ashland*	L S 1
Dodge, Leonard Harry	*Cambria*	L S 1
Doehler, Arnold William	*Two Rivers*	C C 1
Dolliver, Ardin Joseph	*Berlin*	E 1
Donahue, James Arthur	*Waukegan, Ill.*	Ch E 2
Donaldson, Clarence William	*Milwaukee*	E 1
Donaldson, Clifford S.	*Geneva, Ill.*	L S 1
Donnelly, Leslie James	*Rhinelander*	L S 1
Donovan, Carroll Timothy	*Chippewa Falls*	E 1
Dooly, James Francis	*Monticello*	L S 1
Dorsey, George Allen	*Kenosha*	E 1
Dorwin, Milan Murray	*Minocqua*	C C 1
Dosch, Eldon Lloyd	*Cashton*	E 1
Dougherty, Lawrence Vaughn	*Eau Claire*	C C 1
Dowling, William Jasper	*Dodgeville*	E E 2
Doyle, Arthur Francis	*Sparta*	L S 1
Drajeske, William Henry	*Menasha*	C C 1
Drekmeier, Albert Charles	*Beloit*	Ph II 1
Dresen, Oswald Mathew	*Sauk City*	L S 1
Drewry, Bemrose William	*Milwaukee*	Ph II 1
Drews, Harold Max Otto	*Marshfield*	E 1
Drives, Roy Bernhard	*Madison*	C C 1
Drott, Arnold Martin	*Park Falls*	C C 2
Dudgeon, Sidney Ball	*Madison*	A Grad
Duecker, Hubert Carl	*Kiel*	L S 3
Duff, James Elmer	*Cedarville*	L S 1
Dunin, Stanislaw Niecislaw	*Milwaukee*	A 2
Dunne, John Joseph	*Cedarburg*	L S 1
Dupuis, Leonard	*Peshtigo*	E 1
Duval, Albion John	*Genoa, Ill.*	C C 1
Eames, Claude Francis	*Elkhorn*	L S 1
Eastman, Kenneth Starrett	*Kenosha*	L S 1
Ebbert, Ezra Eugene	*Morrisonville*	E 1
Ecke, Reuben Henry	*Plymouth*	E 1

Edwards, Charles Arthur	*Lewistown, Mont.*	C	C	4
Egan, Lawrence Thomas	*Fond du Lac*		A	1
Ehle, George Henry	*Darlington*		E	1
Eller, Linn Russ	*Janesville*		E	1
Ellestad, Giles Judean	*Madison*		E	1
Elliott, Harry Temple	*Benton*		E	1
Ellos, Simon Francis	*Hurley*	L	S	1
Elmer, Wilbert D.	*Monticello*	L	S	1
Elsea, Stanley M.	*Milwaukee*		E	1
Engle, Stanley D.	*Pepin*		E	1
Engler, Hugo Fred	*Waukesha*		E	1
Erickson, Milo Theodore	*Cameron*		E	2
Erickson, Robert Earl	*Marinette*	Ch	C	1
Erspamer, Otto Joseph	*Hurley*	C	C	1
Esch, Hugo Edward	*Manitowoc*	L	S	2
Evans, Burton Webb	*New Lisbon*	L	S	1
Evans, George Donald	*Alma*		E	1
Evans, John Robert	*Racine*	Ch	C	3
Evanson, Joseph Frank	*Oconomowoc*		E	1
Evenson, Charles Robert	*Baraboo*		E	1
Evison, Willard Arthur	*Stanley*		A	1
Ewing, William Cornelius	*Homestead, Fla.*		E	1
Fadness, Nels Lewis	*Poynette*	L	S	1
Fancher, Clair A.	*Corliss*		A	1
Fanslau, August Herman	*Two Rivers*	C	C	1
Feirn, William H.	*Janesville*		E	1
Fellows, Charles Lewis	*Algoma*		E	1
Fenner, Edwin Chester	*Portage*	C	C	1
Fenske, Elmer Edward	*Endeavor*	Ph	II	2
Fiedler, Stewart Otto	*Whitewater*		E	1
Field, Remey Adelbert	*Leadmine*		A	1
Fischer, Harvey Christian	*Milwaukee*		L	2
Fischer, John Fred	*Grand Rapids*	C	C	1
Fish, Lawrence Harry	*Eau Claire*	L	S	2
Fleck, William Carl	*De Pere*	Ch	C	1
Flood, George Henry	*Elroy*	C	C	1
Ford, Raymond	*Highmore, S. D.*		E	1
Foren, Francis J.	*Fond du Lac*		E	1
Forman, Abraham William	*Milwaukee*	C	C	1
Fortney, Nordahl O.	*Viroqua*		A	1
Franklin, Nathan	*Milwaukee*	C	C	1
Frawley, James Russell	*St. Croix Falls*	C	C	1
Frazier, Arthur H.	*Manitowoc*		E	1
Freeman, Phillip Drew	*Hinsdale, Ill.*	A	Mid	1
Freese, Fred John	*Sioux Falls, S. D.*		E	1
Freiberg, Walter Erwin	*Merrill*	C	C	1
French, Newell Ellsworth	*Racine*		E	1
French, Philip Adams	*Kansas City, Mo.*	L	S	1
Fricke, William Henry	*Boscobel*		E	1

Friday, Albert Carlton	*Beaver Dam*	C	C	1
Friedman, Abe	*Milwaukee*		E	1
Fritsche, Oscar Otto	*Bridgeport*		E	1
Fritz, Ralph Everett	*Durand, Ill.*	C	C	1
Fritz, Virgil Floyd	*Fennimore*		E	1
Frost, Sidney Irvine	*Merrillan*		E	1
Fruland, Chester E.	*Ottawa, Ill.*	C	C	1
Frye, Emmett Russel	*Eau Claire*	C	C	1
Fuchs, Thomas B.	*Whittlesey*	C	C	1
Fuchs, Walter Theobald	*Sauk City*	L	S	1
Funk, Arthur Clarence	*Mondovi*		A	1
Gaffron, Edgar Byron	*Plymouth*	Ch	C	1
Gallum, Edwin Alfred	*Milwaukee*	M	E	4
Gangstad, Roy Arthur	*Deerfield*	A	Mid	1
Gannon, Roy A.	*Madison*	C	C	1
Garlid, Anthon P.	*Baldwin*	L	S	1
Gasper, Walter Bernard	*Milton Junction*	C	C	1
Gates, Harold Carl	*Racine*	C	C	1
Gates, Lloyd Eugene	*Albertville*		A	1
Gausewitz, Walter Herman	*Milwaukee*	L	S	1
Gehler, Erwin John	*Waterloo*	C	C	1
Gehler, Harvey Frank	*Waterloo*		E	1
Gerhardt, Oscar	*Lancaster*		E	1
Gesell, Harold Lewis	*Lodi*		E	1
Geurkink, Walter	*Baldwin*		A	1
Gierach, Raymond John	*Thiensville*		E	1
Giese, Jerome Victor	*Milwaukee*	L	S	1
Giese, Walter Edward	*Milwaukee*	C	J	1
Gilbert, Alex Carl	*Kewaskum*	C	C	1
Gilbert, Harry S.	*Delavan*	C	E	2
Gilbertson, Edgar Marshall	*Black River Falls*	C	C	1
Giles, Claude Raymond	*Madison*		E	1
Giles, Merritt Albert	*Peoria, Ill.*	M	E	2
Gill, Harold Arthur	*Madison*	L	S	3
Gillmann, Herman Jack	*Mineral Point*		E	1
Gillum, John Eldridge	*Monroe*		E	1
Girouard, Arthur G.	*Black River Falls*	C	C	1
Gleason, Albert Frances	*Burlington*	C	C	1
Glynn, Neal Ash	*Oconto*	L	S	1
Goellner, Walter Herman	*Butternut*		E	1
Goettsche, Fred Frank	*Rice Lake*	C	C	1
Goldberg, Irving	*Milwaukee*	C	C	1
Golden, Reginald Charles	*Wonewoc*	L	S	1
Goldstein, Leonard	*Milwaukee*	C	C	1
Gore, Ward Alfred	*Chippewa Falls*		E	1
Gorsuch, Stuart Freeman	*Pardeeville*		E	1
Goshaw, Harold David	*Chippewa Falls*		E	1
Gottschalk, John Black	*Milwaukee*	C	C	2
Govin, Merrick Franklin	*Elk Mound*		A	1

Graf, Elmer Alfred	*Sun Prairie*	E	1
Grandy, William Norman	*South Wayne*	E	1
Gray, Paul L.	*Watertown, S. D.*	E	1
Gray, Wendell Anderson	*Huntingburg, Ind.*	C J	1
Greiling, Reuben Henry	*Green Bay*	E	1
Greve, Elmer John	*Kiel*	C C	1
Gribble, Samuel Worth	*Linden*	C J	1
Griffeth, Stewart Dean	*Chicago, Ill.*	E	1
Grokosky, Leonard Henry	*Oconomowoc*	E	1
Grossberg, Ralph Edwin	*Chicago, Ill.*	C C	1
Grossfeld, Julien Arthur	*Chicago, Ill.*	C J	2
Grota, Benjamin Stillman	*Berlin*	E	1
Grotkin, Melvin Sylvester	*Benton*	E	1
Groves, Alba Jay	*Viroqua*	L S	1
Gruett, Erwin William John	*Merrill*	L S	1
Gruhle, Arthur Herman	*Kiel*	L S	1
Guenther, Felix Herman	*Port Washington*	E E	2
Guess, Pearl Glenn	*Blue River Falls*	L S	1
Gunderson, Earl Lionel	*Chippewa Falls*	C C	1
Gunneson, John Pliney	*North Freedom*	C C	1
Gustman, Ellsworth Albert	*Cadott*	E	1
Haasch, Clarence	*Wauwatosa*	A	1
Haberland, William Paul	*Verona*	L S	1
Hagen, Arthur Enoch	*Mauston*	E	1
Hahn, Alfred John	*Menasha*	C C	1
Haidle, Arthur J.	*Milwaukee*	E	1
Haight, Roy Joseph	*Portage*	C C	1
Halbman, Harold L.	*Merrimac*	C C	1
Hall, Edward Daniel	*Oconto*	E	1
Hall, Herbert Parmley	*Plymouth*	L S	1
Hall, Stanley Orlando	*Western Springs, Ill.*	E	1
Halverson, Leonard Severt	*Stanley*	E	1
Hamilton, Henry Huntington	*Two Rivers*	C C	1
Hanlon, Raymond James	*So. Milwaukee*	E	1
Hansen, Oscar Philip	*New Lisbon*	L S	1
Hanson, Lloyd Foster	*Dawson, Minn.*	E	1
Harker, Charles Alford	*Verona*	A Mid	1
Harman, Frank Starr	*Kenosha*	E	1
Harman, John Claire	*Sparta*	L S	3
Harrington, Clifford Ormsby	*Cadott*	E	1
Harris, Lawrence Elroy	*Mayville*	E	1
Harrison, Chester Thomas	*Waldo*	E	1
Hartwell, Donald Eugene	*Elkhorn*	A Mid	1
Hartzell, Lester Sterl	*Edgerton*	E	1
Hassett, Cecil James	*Madison*	E	1
Haswell, Clement Dodge	*Windsor*	A Mid	1
Haubrich, Edmund	*Kenosha*	L S	1
Hawkes, Julian Hamilton	*Rio*	L S	1
Hayner, Lewis T.	*Antigo*	A	1

Hazen, William McKinley	*Eau Claire*	E	1
Head, Franklin Gilbert	*La Valle*	L S	1
Heberlein, Clyde Edward	*Lancaster*	E	1
Heddles, Donald Fred	*Paonia, Colo.*	A Mid	1
Heilemann, Lewis Carl	*Helenville*	L S	1
Heilemann, Merlin F.	*Jefferson*	C C	2
Hein, George Lyle	*Sun Prairie*	E	1
Hendee, John Hollister	*Milwaukee*	C C	1
Hendrickson, Lewis Prideaux	*Dodgeville*	C C	1
Henkel, Leo Lemuel	*Lancaster*	E	1
Herbert, Oscar Adolph	*Fond du Lac*	C C	1
Herhein, Martin Alvin	*De Forest*	C C	1
Heser, Frederick Daniel, Jr.	*Tomah*	A	1
Hettgar, Earl	*Hartford*	E	1
Heyer, Henry Albert	*Darien*	E	1
Hill, Evan Victor	*La Farge*	C C	1
Hill, Milo Luther	*Tomah*	A	1
Hiller, Raymond Pries	*Milwaukee*	C C	1
Hilliker, Baldin L.	*Tunnel City*	E	1
Hinckley, George Churchill	*Blue Island Ill.*	E	1
Hipke, Elmer N.	*New Holstein*	C C	1
Hlavachek, Joseph Anton	*Brillion*	A	1
Hocking, Joseph Preston	*Dodgeville*	C C	1
Hodson, Elliott Wilford	*Chicago, Ill.*	E	1
Hoesly, Howard Stanley	*Belleville*	A Mid	1
Hoff, Guy Ebert	*Stanley*	C C	1
Hoffman, Frank Adolph	*Clintonville*	E	1
Hoffman, Gilbert Bernhardt	*Madison*	E	1
Hoffman, Walter Arthur	*Darlington*	E	1
Hogseth, Helmer	*Chippewa Falls*	C C	1
Holloway, John	*Green Bay*	E	1
Holm, Gerald Winfield	*Ft. Atkinson*	C C	1
Holm, Tracy Clarean	*Rockdale*	C C	1
Holman, Solomon Bernard	*Sheboygan*	C C	1
Holstein, Benjamin Milton	*Milwaukee*	L S	1
Holt, Clarence Udell	*Maiden Rock*	L S	1
Hommersand, Edwin Almer	*Arlington, S. D.*	A	1
Hopp, Alvin John	*Tomah*	C C	1
Horne, Alfred Dewey	*Fairmont, Minn.*	E	1
Horne, Daniel Otto	*Stevens Point*	E	1
Horswill, Cecil Burns	*Madison*	C C	1
Horton, Horace Brighton	*Waukegan, Ill.*	M E	2
Hotton, Howard Sidney	*River Forest, Ill.*	C C	1
Hovde, Paul Victor	*Westby*	A Mid	1
Howes, Merwin Hayden	*So. Milwaukee*	C E	2
Howland, Gerald Bert	*Merrill*	C C	1
Hubbard, Carlton Frank	*Merrill*	E	1
Hubbard, Henry Stiles	*Madison*	E	1
Huber, Clemens Henry	*West Bend*	A	2

Huber Lawrence Joseph	*West Bend*	C	C	1
Hubert, Elmer George	*Sheboygan*	C	C	1
Huemmer, Frank Raymond	*Madison*	C	C	1
Huff, Whitford L.	*Boscobel*		A	1
Humleker, Lars	*Fond du Lac*	C	E	2
Humphrey, Glen Maxwell	*Northfield*	C	C	1
Hunt, Herbert Arthur	*Marinette*		E	1
Hunter, James Peyton	*Dallas, Texas*	L	S	1
Hyatt, Frank Byron	*Sheboygan*		A	1
Ibenthal, John Charles	*Middleton*	L	S	1
Jack, James Arthur	*Madison*		E	1
Jackson, Amos Henry	*Independence*	C	C	1
Jacobson, Herman Leslie	*Mt. Horeb*	L	S	1
Jacobson, Hugo John	*Republic, Mich.*	L	S	1
Jacobus, Delwin C.	*Wauwatosa*		E	1
Jamison, Elgie Bernie	*Beetown*	L	S	1
Janeck, William	*Bloom City*		A	1
Jankoviak, Anton John	*Bessemer, Mich.*	L	S	1
Jaquish, Robert Irving	*Madison*		E	1
Jeanneret, Tom Edwin	*Ligonier, Ind.*		E	1
Jensen, Harold William	*Woodstock, Ill.*		E	1
Jilik, James Benedict	*Antigo*	Ch	C	1
Joerg, Harold Phillip	*Janesville*		E	1
Johnson, Albert Douglas	*Wausau*		E	1
Johnson, Alfred Lewis	*Waupaca*	Ch	E	2
Johnson, Alfred Walter	*Morrisonville*		E	1
Johnson, Allan Alfred	*Madison*	L	S	1
Johnson, Carl	*Ashland*		E	1
Johnson, Clarence Leo	*Eau Claire*	L	S	2
Johnson, Clarence Norman	*Deerfield*	C	C	1
Johnson, David Adolph	*Ashland*		E	1
Johnson, Halvor	*Hollandale*		E	1
Johnson, Harold Eugene	*Conde, S. D.*	L	S	1
Johnson, Harry Kenneth	*Knox, Ind.*	C	C	1
Johnson, John B., Jr.	*Darien*		E	1
Johnson, Marvin Lee	*Brodhead*	C	C	1
Johnson, Miles Rhilander	*Whitehall*		E	1
Johnson, Millard Wallace	*Racine*	L	S	1
Johnson, Neill Parkhurst	*Columbus*	L	S	1
Johnson, Oliver	*Eau Claire*	C	C	1
Johnson, Oscar Edwin	*Silver Lake*		E	1
Johnson, Robert Harold	*Ashland*		E	1
Johnston, Willard Albert	*Mineral Point*		E	1
Jones, Charles Edward	*Kirkland, Ill.*		E	1
Jones, Claude Bruce	*Shell Lake*		E	1
Jones, Russell William	*Spring Green*		A	1
Jordan, Cecil Fred	*Monticello*	L	S	1
Jordan, Clarence Allen	*Logansport, Ind.*	Ch	C	1
Kalk, Bernard Richard	*Chippewa Falls*		E	1

Kalvelage, George Albert	*Janesville*	C C 1
Karlen, Royal Walter	*Monticello*	L S 1
Katte, Martin	*Sheboygan*	C C 1
Kaufmann, Frederick Gustav	*Suring*	E 1
Kautz, Leo Charles	*Moline, Ill.*	L S 1
Keller, Erwin George	*Mukwonago*	E 1
Kellogg, Horace Edward	*Appleton*	E 1
Kelsey, Carl Hammond	*Stevens Point*	Med 2
Kennedy, Thomas Hart	*Normal, Ill.*	C C 1
Keppler, Franz William	*Watertown*	L S 1
Kesser, Edward Frederick	*Ashland*	L S 1
Kessler, Louis George	*Evansville, Ind.*	Ch C 1
Ketterer, Armand Frederic	*Hayward*	L S 1
Kewin, Edwin Alex	*Camp Douglas*	E 1
Keyes, Edward Alexander	*Winona, Minn.*	E E 2
Kidd, Clare	*Pepin*	E 1
Kiel, William	*Moline, Ill.*	L S 1
Kienow, Erwin Clifford	*Fond du Lac*	E 1
King, Donovan Sumner	*Eau Galle*	E 1
Kircher, John Emerson	*Kaukauna*	C C 1
Kleeberger, George Stanton	*Warren, Ill.*	E 1
Klenert, William Wallace	*Portage*	Ph IV 1
Kletzien, Elmer Abraham	*New Holstein*	Ch C 1
Kletzien, Seymour William F.	*New Holstein*	Ch C 1
Klotsch, Harvey William	*Sheboygan*	C C 1
Kluetz, Edward Karl	*Merrill*	Ph II 1
Klug, Lylas Paul	*Merrill*	E 1
Knapp, Miner McKinley	*Bloomington*	A Mid 1
Knapp, Walter Adelbert	*Evansville*	Ch C 1
Knauss, Benjamin E.	*Merrill*	C C 1
Knoblauch, Carl George	*Madison*	Ph II 1
Knoblauch, George Francis	*Ashland*	E 1
Knott, William Morgan	*Antigo*	E 1
Knowles, D. Russell	*Lawrence, Mass.*	A 1
Knutson, Roy John	*Park Falls*	Ch C 3
Koebke, Edwin John	*Manitowoc*	E 1
Koenig, Herbert George	*Sauk City*	C E 2
Koenig, Louis A.	*Fifield*	L S 1
Koenig, Ralph Cooper	*Manitowoc*	L S 1
Koenig, Robert Franklin	*Freeport, Ill.*	L S Grad
Kohasky, Arthur Bernard	*Eland*	E 1
Kollath, Alvin	*Mt. Horeb*	C C 2
Kolman, Myron Joseph	*Muscoda*	Ch C 1
Korrison, Clarence Levi	*Morrisonville*	Ph II 1
Koss, John Edward	*Algoma*	C C 1
Koutnik, Edward John	*Manitowoc*	C C 1
Krause, George Washington	*Genoa Junction*	A Mid 1
Kremer, Donald Gilbert	*Minong*	Ch C 1
Kremers, Gerhard R.	*Milwaukee*	E 1

Kreps, James Theron	*Kendall*	M	2
Kreul, Harry Leroy	*Fennimore*	E	1
Kreul, Otto John	*Highland*	C C	1
Kreutzer, George	*Athens*	L S	1
Kropp, Carl	*Winona, Minn.*	C C	1
Krueger, Benjamin Richard	*Watertown*	C C	1
Krueger, Raymond Arthur	*Merrill*	E	1
Kruse, Orwin Henry	*Middleton*	C C	2
Kuehlthau, Earl Rix	*West Bend*	E	1
Kuehn, Walter Louis	*Milwaukee*	C C	2
Kuhlman, Milton Herbert	*Lowell*	A	1
Kuranz, Alfred Lawrence	*Bangor*	Ch C	1
Kurtz, Lester Wilbert	*Muscoda*	Ch C	1
Kurtz, Maynard Lynn	*Ft. Atkinson*	E	1
La Ganke, Nelson Paul	*Cleveland, O.*	Ch C	2
Laing, Stanley Glenn	*Hixton*	E	1
Lambeau, Oren Anthony	*Marinette*	Ch C	1
Lami, Herbert Jacob	*Sharon*	E	1
Langan, Edward Francis	*Kenosha*	E	1
Langdell, Harold Austin	*Eau Claire*	L S	1
Lange, Karl Ferdinand	*Watertown*	E	1
Langill, Addison William	*Chippewa Falls*	C C	1
Lanka, Leo Alouis	*Prairie du Chien*	E	1
Lannoye, Lorraine Modest	*Waldo*	E E	1
Larson, Arvid Oliver	*Ironwood, Mich.*	Gen C	1
Larson, John Rudolph	*Independence*	E	1
Larson, Kenneth Nordell	*Cashton*	E	1
Lathrop, Wallace Richmond	*Fennimore*	E	1
Laufenberg, Veron Henry	*Avoca*	E	1
Laycock, Russell Dana	*Racine*	E	1
Leach, Harold Christian	*Elkhorn*	L S	1
Le Clair, Clarence Joseph	*Gaastra, Mich.*	L S	1
Le Claire, Algercy Cook	*Missoula, Mont.*	E	1
Lee, Harold Rudolph	*Superior*	E E	3
Lee, Oliver Clarence	*Hudson*	Ch C	1
Leiser, Fred E.	*Milwaukee*	E	1
Lenz, Herbert S.	*Kenosha*	L S	1
Leonard, Aubrey Chayce	*Watertown, S. D.*	E	1
Leslie, Charles Edward	*Fifield*	E	1
Lessler, Montague J. R.	*New York, N. Y.*	L S	1
Lester, George Edwin, Jr.	*Madison*	C C	1
Leverenz, Howard John	*Waldo*	A Mid	1
Lewis, Clarence E.	*Florence*	C C	1
Libby, Elzie Burton	*Evansville*	E	2
Lichtenberger, Arthur Carl	*Oshkosh*	L S	1
Lindall, John Waldemar	*Florence*	C C	1
Lindbloom, Albin	*Stambaugh, Mich.*	E	1
Lindgren, Elmer Ludwig	*Ashland*	E	1
Lindquist, Charles Rudolph	*Thorp*	E	1

Lindquist, Louis Theodore	*Wausaukee*	C C 1
Lingard, David Wilford	*La Porte, Ind.*	L S 1
Lium, John Leonard	*Westby*	L S 1
Livingston, Loren Cocklin	*Livingston*	E 1
Livingston, Penn	*Elk Mound*	E 1
Loftus, Gerald William	*Dodgeville*	L S 1
Long, John Russell	*Williamsville, N. Y.*	E 1
Lord, Harold H.	*Ontario*	A 1
Lotwin, Harry Hirsch	*Menomonie*	L S 1
Luce, Francis A.	*Pleasant Hill*	E 1
Luedtke, Arthur Albert	*Princeton*	A 1
Luetscher, Frederick Jacob	*Madison*	C C 1
Lund, Alvah Burdell	*Dawson, Minn.*	E 1
Lund, Myron Palmer	*Dawson, Minn.*	L S 1
Lundgren, Clifford Leonard	*Marshfield*	C C 1
Lyden, Paul Franklin	*La Crosse*	E 1
Lynch, David Clayton	*Pardeeville*	C C 1
Lyon, Charles Hollis	*Stoughton*	L S 1
Lyons, Frank William	*Brodhead*	E 1
MacBride, Douglas	*Granton*	L S 1
McCallen, Clayton Barrington	*National Home*	C C 1
McClay, Edward	*Eau Claire*	C C 1
McConaghy, Dana W.	*Beaver Dam*	E 1
McCormick, George Boniface	*Waterloo*	L S 1
McCue, Francis Donald	*Janesville*	C C 1
*McDermott, Francis Edward	*Portage*	L S 4, Med 2
MacDonald, Archie Winfred	*Peshtigo*	E 1
McDonald, Forrest Ronald	*Green Bay*	E 1
McDonald, John Francis	*Ashland*	C C 1
McDonell, John Francis	*Montreal*	E 1
MacDougall, Russell Kenneth	*La Porte, Ind.*	C C 1
McFarland, Robert James	*Minocqua*	L S 1
McGrath, John Edward	*Ashland*	C C 1
McGraw, Vincent George	*Racine*	C E 4
McGuire, Harry Joseph	*Waunakee*	L S 2
McKnight, Clair	*South Wayne*	
McLandress, Smith	*Stevens Point*	Ch E 2
McLane, Francis Leo	*Browning*	E 1
McLaughlin, John L.	*Rice Lake*	E 1
McMaster, Robert Fisher	*Oak Park, Ill.*	C C 2
McMurtrie, Robert Harold	*Superior*	C C 1
McNown, G. Harold	*Mauston*	A 1
McNutt, Reginald Rabanah	*Tomah*	C C 1
McVey, Vane Howard	*La Farge*	Ph II 1
Mabie, Edmund Lyon	*Chicago, Ill.*	E 1
Mackmiller, George Gilbert	*Ashland*	C C 1
Maechtle, Dewey Le Roy	*Cedarburg*	L S 1

*Died December 7, 1918.

Mahan, Frank Edmund	*Superior*	E E 3
Mallery, Joseph Burton	*Berlin*	E 1
Marcks, Elgie Chester	*Black Creek*	L S 1
Marshall, David Lancy	*Omro*	C C 1
Martel, Clyde Wesley	*Montfort*	A 3
*Martini, John William	*Stevens Point*	L S 4, Med 2
Maso, Clarence E.	*Fennimore*	E 1
Mason, Ralph Alva	*Bloomer*	E 1
Massey, Earl William	*Walworth*	A Mid 1
Massey, Eugene Aloysious	*Walworth*	A 2
Mathison, Leon Jennings	*Madison*	L S 1
Matteson, Cyrus P.	*Delavan*	E 1
Matthes, Charles Dewey	*Viola*	A Mid 1
Matts, Leslie Hawes	*Verona*	E 1
Maxwell, Donald Reginald	*Madison*	C C 2
Maxwell, Jack Douglas	*Merrillan*	L S 1
Mayhew, Lester Owen	*Milwaukee*	C C 1
Mears, Claud Axtell	*Pepin*	E 1
Meder, John O'Connor	*Chicago, Ill.*	C C 2
Megorden, George Chester	*River Falls*	E 1
Meier, Emil John	*Sauk City*	L S 1
Menick, Harold Silsby	*Berlin*	E 1
Mero, Sanford George	*Livingston*	A 2
Metcalf, Clifford Wallis	*Portage*	E 1
Miedke, Ralph August	*Moline, Ill.*	L S 1
Milks, Merel Thomas	*Brodhead*	C C 1
Miller, Donald William	*Madison*	E 1
Miller, Harry Irwin	*Wyocena*	C C 1
Miller, Henry Burton	*Fond du Lac*	L S 2
Miller, Juin Ian	*Chetek*	E 1
Milligan, Robert William	*Evansville*	C C 1
Mills, Harry E.	*Antigo*	E 1
Montgomery, Leo Christopher	*Tomahawk*	C C 1
Mootz, Raymond Phillip	*Milwaukee*	Ch E 2
Moran, Harry Emmett	*Stoughton*	E 1
Moratti, Louis Frank	*Stambaugh, Mich.*	E 1
Morehouse, Linden Husted	*Milwaukee*	C C 1
Morgan, Charles James	*Mineral Point*	Ch E 2
Morlan, Lewis	*Knox, Ind.*	Ph II 1
Moroney, John Rodgers	*Dallas, Texas*	L S 3
Morris, Chester	*Oconto*	L S 1
Morrissey, John F.	*Antigo*	E 1
Mors, Melvin Anderson	*Osseo*	C C 1
Morse, Birney Kellogg	*Fond du Lac*	L S 2
Mortenson, Einer	*Racine*	C C 1
Morter, Emil Willmer	*Okee*	E 1
Moss, Harry Edward	*Antigo*	E 1

*Died December 10, 1918.

Muegge, Walter Henry Adam	*Lake Geneva*	E 1
Mueller, Louis Charles	*Tigerton*	E 1
Mullen, Glen Edward	*Viroqua*	E 1
Mullen, Robert A.	*La Crosse*	L S 1
Multer, Louis Mathas	*Hayton*	E 1
Munson, Norman Benjamin	*London*	C C 1
Nankivil, Richard Merton	*Cuba City*	C C 1
Nappe, Edgar Harman	*Elkhorn*	E 1
Nash, Clyde Lester	*Eau Claire*	Ch E 3
Nehrbass, Harry Lester	*Milwaukee*	C C 3
Neitman, Hubert Charles	*Waupun*	A Mid 1
Nelsen, Harold Norman	*Prentice*	E 1
Nelson, Alvie Gehard	*Stoughton*	A 2
Nelson, Charles Raymond	*Mondovi*	C C 1
Nelson, Chester William	*Racine*	C C 1
Nelson, Glenn	*Aurelia, Ia.*	C E 2
Nelson, Karl Oscar	*Lindsborg, Kans.*	L S Grad
Nelson, Milford Herman	*Edgerton*	E 1
Nelson, Russell H.	*Mondovi*	A Mid 1
Nelson, Wayne Ellis	*Sawyer*	A 1
Neubergen, Charles Abraham	*Ridott, Ill.*	E 1
Neuendorf, Edward Christ	*Medford*	E 1
Neuman, Oscar William	*Elroy*	E 1
Neumann, Robert Louis	*Kokomo, Ind.*	C C 1
Neupert, Paul Beno	*London*	A 1
Newberg, Melvin Richard	*Rice Lake*	C C 1
Newman, Emanuel David	*Milwaukee*	C C 1
Nichols, Lee Brownell	*Milwaukee*	C C 1
Nickodem, John Victor	*Princeton*	E 1
Nickolay, John Louis	*Shattuc, Ill.*	E 1
Niemer, Arthur William	*Cassville*	E 1
Nodurft, Joseph Rudolph	*Wausaukee*	C C 1
Nohl, Raymond Frederick	*Ashland*	E 1
Nolan, Grant John	*Woodstock, Ill.*	E 1
Nolen, Verl Vivian	*Rewey*	A 1
Nolte, Clifford Simpson	*Wauwatosa*	C C 1
Norby, Perry Albert	*Neillsville*	E 1
Noren, Herbert Leonard	*Upson*	C C 1
Norman, Byron Ernest	*Gile*	E 1
Norness, Rector Deland	*Oregon, Ill.*	E 1
Norris, Russell Lee	*Frankfort, Ind.*	A 1
Norriss, Albon Jitty	*Viroqua*	E 1
Northey, Walter W.	*Palmyra*	A 1
Nott, William Asa	*Elkhorn*	A 2
Nyman, G. William Frederick	*Marinette*	C C 1
O'Brien, Henry John	*Montfort*	E 1
O'Brien, James Augustinian	*Superior*	L S 1
O'Brien, Richard Daniel	*Janesville*	C C 1
Oehrlein, George Leslie	*Sun Prairie*	C C 1

Olds, Walter Marston	*Chippewa Falls*	E		1
O'Leary, Foster Joseph	*Tomah*	L	S	1
Olm, Henry William	*S. Kaukauna*	C	C	1
Olmstead, Lloyd	*Clintonville*	E		1
Olson, Carl Maurice	*Viroqua*	C	C	1
Olson, Charles Dewey	*Rockford, Ill.*	E		1
Olson, Charles Watt	*Madison*	A		1
Olson, Harold D.	*Madison*	E		1
Olson, Herbert Eliot	*Ironwood, Mich.*	C	C	1
Olson, Oscar Melvin	*Hixton*	E		1
O'Malley, William Patrick	*Waunakee*	E		1
O'Malley, Francis John	*Minocqua*	E		1
Opitz, Harold Ferdinand	*Elkhorn*	E		1
O'Rourke, Bernard Thomas	*Fond du Lac*	E		1
Orsburn, Oscar Dunward	*Floydada, Texas*	C	C	2
Orvis, George Carl	*Waukesha*	C	C	1
Ott, Hans Waldemar	*Watertown*	L	S	4
Ourada, James C.	*Marinette*	E		1
Ouweneel, William Anton	*Milwaukee*	E		1
Owen, Harvey Lloyd	*Duluth, Minn.*	C	C	1
Owens, Leo Francis	*Rockford, Ill.*	E		1
Palmer, Herbert Pierce	*Lodi*	A		1
Paradis, William Gerard	*Bessemer, Mich.*	A		1
Parke, Kenneth Nelson	*Kirkland, Ill.*	E		1
Parkin, Charles Arleigh	*Evansville*	Ch	C	1
Partridge, Wilbur Arthur	*Freeport, Ill.*	A		1
Pastoret, Lewis Harry	*Duluth, Minn.*	E		1
Paull, Harry James	*Ridgeway*	L	S	2
Paulsen, Chester Wilfred	*Westby*	E		1
Paulson, Clifton Ardell	*Granton*	A		1
Paynter, Sampson Josiah	*Mineral Point*	E		1
Peacock, Bennie Noyes	*Big Bend*	E	E	2
Peacock, Harold Irving	*Cuba City*	E		1
Pearsall, Merton Claire	*Marshall*	A		1
Pearson, Carl Eli	*Chippewa Falls*	E		1
Pehrson, Alvin Oscar	*Peshtigo*	E		1
Penberthy, Francisco	*Menominee, Mich.*	E		1
Penfield, Ainsworth Andrew	*Waupun*	C	C	1
Perschke, Chester Howard	*Unity*	E		1
Peters, Chester Leroy	*Edgerton*	C	C	1
Peters, Raymond D.	*Brillion*	E		1
Petersen, George Chandler	*Racine*	E		1
Peterson, Howard Bailey	*Milwaukee*	E		1
Peterson, Lars Peter	*Hollandale*	E		1
Peterson, Ralph Willard	*Baldwin*	C	C	1
Peterson, Willard Oscar	*Westby*	E		1
Petsch, Herbert August	*Neosho*	E		1
Phelps, Ivan D.	*Milwaukee*	Ch	C	3
Philps, Cyril Arnold	*Camp Douglas*	Ph	II	1

Picker, Paul Frederick	*Kenosha*	E 1
Pierce, Frederick Owen	*Merrillan*	C C 1
Pierick, Urban John	*Highland*	L S 1
Pierson, Elmer	*Williams Bay*	E 1
Pietzner, Verner William	*Columbus*	C C 1
Pinchart, Peter Joseph	*Casco*	A Mid 1
*Piper, Purcell William	*Milwaukee*	L S 4 Med 2
Polzin, Albert Louis	*Merrillan*	E 1
Pope, Robert Layton	*Madison*	E 1
Porterfield, John Allen	*Oconto*	E 1
Postel, John Carl	*Muscoda*	Ph II 1
Potter, James Le Roy	*Wauwatosa*	E 1
Potter, Raymond Joseph	*Elkhorn*	A 1
Poull, Leroy Michael	*West Bend*	E 1
Powers, George Eli	*Cresco, Ia.*	C C 1
Powers, Patrick Gerald	*Mauston*	C C 3
Pratt, Leroy John	*Genoa, Ill.*	C C 1
Pray, Clarence Edward	*Edgar*	E 1
Prescott, Claude E.	*Tunnel City*	L S 1
Price, Leo James	*Boscobel*	E 1
Proulx, Eugene Joseph	*Chippewa Falls*	A 1
Pugh, Christopher Edward	*Racine*	C C 2
Purinton, Stewart Maxwell	*Lyons*	E 1
Putnam, Robert John	*Madison*	M E 2
Quinn, Edward William	*Janesville*	C C 1
Raeder, Valentine Ludwig	*Elkhart Lake*	C C 1
Ramsey, Yuille Ward	*Gilman, Ia.*	C C 1
Randall, Earl Allen	*Kenosha*	E 1
Rankin, Eugene Joseph	*Forestville*	A 2
Rautio, Edwin William	*Hurley*	E 1
Rawson, Charles Albert	*Portage*	L S 1
Read, Harry Silas	*Oakfield*	C C 1
Reed, Clarence	*Chippewa Falls*	A 1
Reed, Carl Victor Roland	*Rockford, Ill.*	E 1
Reeves, Harry Milton	*Columbus*	E 1
Regez, Walter August	*Hixton*	C C 1
Reichenbaum, Dore	*Milwaukee*	L S Grad
Reichert, George Joseph	*Kennan*	E 1
Reilly, Clement Hugh	*Milwaukee*	C C 1
Reinhold, Fred Edward	*Merrill*	C C 1
Remol, William Benjamin	*Chippewa Falls*	C C 1
Renard, Earl Joseph	*Green Bay*	E 1
Rennicke, Karl Henry	*Kaukauna*	C C 1
Reppen, Arthur Cyrus	*Dane*	A Mid 1
Reuter, Florian John	*Sauk City*	L S 1
Reynolds, Donald Wagener	*Sturgeon Bay*	A 3
Reynolds, James Alden	*Centerville, Ind.*	L S 1
Reynolds, Karl Storris	*Sturgeon Bay*	L S 1

*Died December 9, 1918.

Reynolds, Roy Theodore	*Tomah*	A 1
Rezek, Roy Herman	*Antigo*	E 1
Richards, Glenn Ellsworth	*Baraboo*	C C 2
Richards, Lloyd Bernard	*Peshtigo*	E 1
Richardson, Elmer Earl	*Milwaukee*	E 1
Richardson, Jesse Leonidas	*Dodgeville*	A Mid 1
Rieder, Glenn L.	*Madison*	C C 1
Rieder, Oscar W.	*Milwaukee*	C C 1
Riehle, Felix Anthony	*Athens*	C C 1
Rietz, Herman Erwin	*West Allis*	E 1
Riley, Peter Edward	*Chicago, Ill.*	C C 1
Ringdahl, Harry James	*Stoughton*	C C 1
Risberg, Harold Nels	*La Crosse*	C C 2
Robb, Edward John	*Sun Prairie*	C C 1
Roberts, Arthur O.	*Superior*	E 1
Roberts, Gaige Samuel	*Madison*	L S 1
Rodgers, Howard James	*Racine*	E 1
Roegner, Harold Edward	*Milwaukee*	Ch C 1
Roetzer, Alfred George	*Milwaukee*	E 1
Roherty, Lewis Frances	*Evansville*	L S 1
Rolleston, Leonard Parker	*Portage*	E 1
Roschi, Lester Earl	*Cassville*	E 1
Rose, Rupert Edward	*Tomah*	C C 1
Rosenow, Henry John Carl	*Menasha*	C C 1
Ross, George Albert	*Merrill*	E 1
Roth, Paulus Anton	*Monroe*	L S 1
Rounds, Harold Boyd	*Eau Claire*	L S 2
Rowbotham, Morris	*Walworth*	E 1
Rowell, Lewis J.	*Madison*	C C 1
Ruhsam, Milton Otto	*New London*	E 1
Rundorff, Robert Link	*Burlington, Ia.*	E 1
Runkel, Herbert Frederick	*Reeseville*	E 1
Ruskauff, Bertram Anthony	*Cazenovia*	C C 1
Ruth, Marshall Willard	*Marshalltown, Ia.*	C C 1
Salmon, Lysle Audley	*Richland Center*	Ph II 1
Samelius, William Rogers	*Chicago, Ill.*	E 1
Samp, Arthur Martin	*Cecil*	M E 2
Sanders, Harry Wayne	*Milwaukee*	C J 1
Schaefer, Josef Leo	*Madison*	C C 1
Schaefer, Michael Eric	*West Allis*	A 1
Schickel, Edward John	*Milwaukee*	C C 1
Schiedlo, Raymond Arthur	*Westfield*	L S 1
Schiller, Rudolph Francis	*Sun Prairie*	E 1
Schirmer, Joseph Robert	*Ft. Thomas, Ky.*	E 1
Schmidt, Alfred	*Milwaukee*	Ch C 2
Schmidt, Allen Jack	*New Holstein*	L S 2
Schneider, Howard Stang	*Madison*	A 2
Schoellig, John George	*Boscobel*	L S 1
Schofield, Ira Perry	*Chetek*	E 1
Schomisch, Norman Nicholas	*Appleton*	C C 2

Schowalter, Norman Andrew	*Jackson*	C	C	1
Schreiner, Fred Jacob	*Glen Haven*		E	1
Schryver, George Lind	*Lake Geneva*		E	1
Schubring, George Frederick	*S. Milwaukee*	C	E	2
Schulman, George Joseph	*Marinette*	C	C	1
Schujahn, Alvin D.	*Fond du Lac*	C	C	1
Schultz, Emil Otto	*La Crosse*	C	C	3
Schultz, Eric Julius	*Fond du Lac*	C	C	1
Schultz, Raymond Clarence	*West Allis*	C	E	2
Schulz, Hugo Harry	*Oakdale*		E	1
Schwartz, Frank	*Bryant*		A	1
Schwartz, Myron Edward	*Two Rivers*	C	C	2
Schwartz, Raymond Joseph	*Prairie du Sac*		E	1
Schwartz, William	*Waukegan, Ill.*	C	C	4
Schwenker, Harry Raphael	*Madison*	L	S	1
Scott, Clifford Orrin	*Belleville*	C	C	1
Scott, George Walter	*Monroe*		E	1
Seelbach, Alfred Conrad	*Buffalo N. Y.*	L	S	1
Seibold, Raymond William	*Camp Douglas*	L	S	1
Seideman, Englebert Herman	*Sturgeon Bay*	Ph	II	1
Seipp, Ernest Walter	*Columbus*		E	1
Sery, Ralph J.	*Monroe*	E	E	2
Shattuck, Lyle Donald	*Genoa, Ill.*	C	C	1
Shaughnessy, Rodney James	*Madison*	C	C	1
Sheldon, Jack Gilbert	*Chicago, Ill.*	L	S	2
Shepard, Floyd R.	*Racine*		E	1
Sherer, John D.	*Milwaukee*		E	1
Shok, Miles Ryland	*Stanley*		E	1
Siewert, Frank George	*Cleveland*	L	S	1
Sikir, William F.	*Avoca*		E	1
Simon, Mike Thomas	*Rib Lake*	L	S	1
Simpson, Alexander Lewis	*Shullsburg*	L	S	3
Sinex, G. Nelson	*Richmond, Ind.*		E	1
Skelly, Willard Dan	*Janesville*	C	C	1
Slama, Elmer	*Racine*	C	C	1
Smith, Clyde Wilbur	*Wausau*	C	C	1
Smith, James William	*Madison*	C	C	1
Smith, Ralph Raymond	*Ashland*	L	S	1
Smith, Sheldon J.	*Eau Claire*	C	C	1
Smongeski, Paul Peter	*Two Rivers*		E	1
Snyder, Albert G.	*Merrillan*	C	C	1
Sontag, Wesley George	*Mlwaukee*	L	S	1
Soref, Sam Meyer	*Milwaukee*	C	E	2
Spear, Marvin Selwyn	*Menomonie*	C	C	1
Spettel, Marcus Joseph	*La Crosse*	C	C	2
Spilman, Carl Jonathan	*Edgerton*		E	1
Sprague, Murray Hugh	*St. Joseph, Mo.*	C	C	3
Sprester, Clarence Francis	*Black River Falls*		E	1
Spring, Charles Edward	*Superior*		E	3
Stallman, Carl Adolph	*Watertown*		E	1

Stam, John E.	*Merrillan*	L S 1
Stanley, Frederick James	*Baraboo*	E 1
Stanton, Clifford Michael	*Ft. Atkinson*	C C 1
Steele, Lloyd McCully	*Highmore, S. D.*	E 1
Stehn, Randolph Fred	*Mishicot*	C C 1
Stehn, Richard John	*Chicago, Ill.*	A 3
Steinberger, John Frederick	*Madison*	C C 1
Steinmetz, George Michael	*Brillion*	A Mid 1
Stenehjem, Lyle Clare	*Rhinelander*	E 1
Stevens, Ralph Waters	*Beloit*	L S 3
Stevens, Robert James	*Janesville*	C C 1
Stevenson, John Howard	*Des Moines, Ia.*	E 1
Stiles, Hugh Raymond	*Lake Mills*	E 1
Stoneman, Nicholas Joseph	*Mishicot*	C C 1
Stoneman, William F.	*Mishicot*	E 1
Strand, Harry E.	*Strum*	C C 1
Strand, James Leroy	*Iola*	C C 1
Strand, Joseph Gerhard	*Strum*	C C 1
Strathearn, Frederick Dean	*Sioux Falls, S. D.*	A 1
Strokecker, Warren Dale	*Freeport, Ill.*	A 1
Strong, Walter E.	*Menasha*	E 1
Suda, George Matthew	*Muscoda*	E 1
Sullivan, Lloyd Daniel	*Friendship*	A Mid 1
Sundby, Clifford Arthur	*Eau Claire*	E 1
Sutherland, Elias Alexander	*Minong*	A Mid 1
Sweeny, Harry Lambert	*Kokomo, Ind.*	C C 1
Sweet, Donald Joseph	*Dubuque, Ia.*	C J 1
Swenson, Severn Hugh	*Story City, Ia.*	L S Grad
Swinson, Edwin Albert	*Galesville*	E E 3
Talbot, Harry Audley	*Rib Lake*	E 1
Tannehill, Harry Ellsworth	*Knox, Ind.*	L S 1
Taylor, David	*Downing*	E 1
Taylor, Earl Arland	*Baronette*	Ch C 1
Taylor, Francis	*Milwaukee*	L S 2
Taylor, Francis Nightingale	*Byron*	Ch C 3
Taylor, Harold Patrick	*Ashland*	C C 1
Taylor, Herbert Charles	*Iola*	A 1
Taylor, Kenneth Gordon	*Lancaster*	E 1
Tebo, Artie Henry	*Cassville*	A Mid 1
Te Hennepe, Cecil Alvin	*Baldwin*	E E 2
Tenney, Paul Harper	*Madison*	E 1
Teske, Harry Oswald	*Princeton*	E 1
Tetzlaff, Karl Edward	*Madison*	C C 1
Thal, Alfred Alexander	*Lakota, N. D.*	A 1
Thibert, Francis Vincent	*Florence*	E 1
Thiede, Joe Arthur	*Montello*	L S 1
Thielman, Edward	*West Bend*	C C 1
Thomann, Albert Jacob	*Pleasant Plain, Ia.*	L S 3
Thompson, Alvin John	*Toronto, S. D.*	C C 2
Thompson, Arthur Henry	*Blair*	L S 1

Thompson, Edward Grant	*Milwaukee*	L S 1
Thompson, George Trenery	*Greenwood*	L S 1
Thompson, John Eldert	*Sun Prairie*	A Mid 2
Thompson, Leigh Newell	*Waterford*	E 1
Thompson, Myles Tilden	*Ogdensburg*	Ch E 2
Thompson, William Edgar	*Clintonville*	L S 1
Thomson, Maurice S.	*Edgerton*	E 2
Thorsen, Martin	*Ashland*	C C 1
Tibbitts, John Wilson	*Melrose*	A Mid 2
Tiernan, George Henry	*Milwaukee*	L S 1
Tiller, Palmer	*Eau Claire*	L S 1
Timms, Charles Henry	*Rib Lake*	E 1
Timmins, Basil James	*Benton*	E 1
Tipple, Erwin Russell	*Oregon*	C C 3
Tjoflat, Gerald Benjamin	*Ettrick*	E 1
Tomczyk, Ludwig	*Manitowoc*	L S 3
Toomey, F. Elmer	*Shullsburg*	L S 1
Torke, Ralph Liebenstein	*Waldo*	L S 1
Torphy, Michael Bryan	*Milwaukee*	L 1
Treat, Raymond Chelcie	*Wyeville*	L S 1
Tresner, Lloyd Fred	*Darlington*	E 1
Trier, Celestin Joseph	*Hurley*	M E 2
Trier, Francis Michael	*Hurley*	Ch C 1
Trock, Leo Abraham	*Benclay, Russia*	M E 1
Tucker, Charles Edgar	*Lodi*	A 1
Tufts, Henry Frank	*Sturgeon Bay*	L S 1
Ubbelohde, Paul Raymond	*Glenbeulah*	E 1
Uglow, Willard Luther	*Palmyra*	C C 1
Uhl, Arthur Hoyt	*Galesville*	L S 2
Uhl, Wilford Henry	*Sheboygan*	L S 1
Usher, Edison	*Stoughton*	E 1
Valentine, Joseph Perry	*Stoughton*	E 1
Valiquette, Clarence Henry	*Prentice*	C C 1
Valker, Clarence Arthur	*Minot, N. D.*	C C 2
Van Bergen, Curtis Edson, Jr.	*Duluth, Minn.*	C C 1
Van Roo, James Archie	*Milwaukee*	E 1
Van Uxem, Elmer Walter	*Wauwatosa*	C C 1
Van Vuren, Floyd Stanley	*Seymour*	L S 1
Vance, Earl Raymond	*Viroqua*	E 1
Vandervest, Walter Louis	*Casco*	A 1
Van de Repe, Abraham Cornelius	*Sheboygan*	L S 1
Vanderhoof, Clarence Ellsworth	*Waldo*	Ch C 1
Van der Kodde, William Fred	*Sheboygan*	C C 1
Vennes, Leon Angus	*Wheeler*	E 1
Viergutz, Frederick Herman	*Marion*	A 1
Vieth, Fred Lewis	*Norwalk*	E 1
Vits, Albert Leslie	*Manitowoc*	C C 1
Vits, Henry William	*Manitowoc*	C C 1
Voge, Carl Ingman	*Stevens Point*	C C 1
Wade, Gerald Charles	*Wauwatosa*	A 1

Wade, Irving Luther	*Wauwatosa*	A 1
Wadsworth, Harold Vivian	*Mitchell, S. D.*	L S 1
Wall, Mark Henry	*Eau Claire*	L S 2
Wall, William Leslie	*Albany*	C C 1
Wallace, John, Jr.	*Ontario*	A Mid 1
Wallau, Ernst Carl	*Milwaukee*	L S 3
Walser, Richard George	*Sauk City*	L S 1
Warnecke, Ernest George	*Madison*	E 1
Warner, William Everett	*Platteville*	C E 2
Warren, Carl Adam	*Portage*	E 1
Webb, Douglas Jeubeyn	*Evansville*	L S 1
Webster, Lyle Wesley	*Rice Lake*	E 1
Weddig, Harvey William	*Withee*	Ph II 1
Wegemann, Alvin August	*Watertown*	L S 1
Wegener, Arnold Fred	*West Bend*	A 1
Wegner, Arthur Edward	*Tomah*	L S 1
Weisel, Hans Henry	*Milwaukee*	C C 1
Weiss, Armand Charles J.	*Milwaukee*	M E 2
Weiss, Richard Glenn	*Madison*	Ch E 2
Welch, Thomas Dale	*Peru, Ind.*	C C 3
Welch, W. Roy	*Mellen*	C C 1
Wells, Ralph Arthur	*Baraboo*	C C 1
Wemple, Leonard Coe	*Marinette*	C C 1
Wenz, Carl	*Baraboo*	A 1
Werner, George McKinley	*New Lisbon*	A 2
Wernig, Charles Mathey	*Madison*	C C 1
West, John Carl	*Merrill*	C C 1
Westcott, Ray Delos	*Milwaukee*	Ch C 3
White, Paul Benjamin	*Madison*	L S 2
White, Richard J., Jr.	*Milwaukee*	L S 1
Whitnall, Edward Francis, Jr.	*Milwaukee*	E 1
Whitnall, George Reynold	*Milwaukee*	E 1
Wicks, Orvin Day, Jr.	*Salem*	C C 1
Wicks, Wilbur James	*Ashland*	C C 1
Widman, John, Jr.	*Jefferson*	L S 1
Widmer, Robert John	*Racine*	E 1
Wiedrich, Floyd George	*Sharon*	A Mid 1
Wilcox, Raymond	*Rockford, Ill.*	E 1
Wiley, Earl Julien	*Soldiers Grove*	E 1
Wilhelm, Ward Harlan	*Knox, Ind.*	C C 1
Wilke, Marcus Frank	*Madison*	E 1
Wilke, Marvin Frank	*Sheboygan*	C C 1
Will, Charles Francis	*Durand*	E 1
Will, John Charles	*Durand*	E 1
Willey, Howard Ellsworth	*Lake Mills*	C C 1
Williams, Alwin Winfred	*Poynette*	A Mid 1
Williams, Carl Emerson	*Geneva Junction*	A Mid 1
Williams, David Charles	*Cambria*	L S 3
Williams, Harvey Hall	*Clintonville*	E 1

Williams, Leroy	*Rewey*	E 1
Willigrod, George Edward	*Marshalltown, Ia.*	E 1
Willink, George James	*Baldwin*	E 1
Willmarth, Frank Judkins	*Sun Prairie*	A Mid 1
Wilson, James Walter	*Belleville*	A 1
Winner, Harry Ulysses	*Black River Falls*	L S 1
Winter, Wayland Vaughan	*Augusta*	L S 1
Wirth, Homer Smith	*Augusta*	L S 1
Wiseman, John Wesley	*Benton*	A 1
Wittenberg, Carl Theodore	*Cedarburg*	C C 1
Wittenberg, Harold Walter	*Grand Rapids*	E 1
Witwen, Newton Gaudenz	*Plain*	E 1
Wojahn, Kenneth	*Plymouth*	C C 1
Wolter, Elmer Arthur	*Sheboygan*	E 1
Wood, Harold C.	*Evansville*	E 1
Wood, William Melvin	*Logansville*	E 1
Wright, Harold Emerson	*Walworth*	E 1
Young, Vilas Devald	*Galesville*	E 1
Zamzow, William Herbert	*Baraboo*	E E 2
Zander, Karl Levenhagen	*Manitowoc*	C E 2
Zeller, Delvigne Raymond	*Detroit, Mich.*	C C 1
Zembrosky, Abe Leo	*La Farge*	E 1
Ziegler, George Dewey	*Tomahawk*	C C 1
Zimani, Nicholas	*Kenosha*	L S 1
Zimmerman, Fred Edward	*Neillsville*	C C 1
Zimmerman, Rudolph Charles	*Carrollville*	M E 2
Zimmerman, Wallace Raymond	*Beaver Dam*	M E 3
Zipperlin, William Dale	*Arcanum, O.*	C C 2
Zischke, Walter Carl	*Horicon*	L S 1
		—2254

Students receiving training under the direction of The Federal Board for Vocational Education

Anderson, Sigurd A.	*Norway*	Agr.
Brock, William F.	*New York*	Agr.
Cramer, L. W.	*Milwaukee*	C. C.
Davies, David R.	*Pickett*	Agr.
Eggerding, Theodore H.	*Evansville, Ill.*	Agr.
Ewald, John F.	*Chicago, Ill.*	Agr.
Hofer, W. C.	*Oconomowoc*	Agr.
Holloway, Clyde C.	*Hopeston, Ill.*	Agr.
Hayford, Arthur S.	*Robbins*	Agr.
Humbert, Edward	*Dwight, Ill.*	Agr.
Johnson, Arnold W.	*Chicago, Ill.*	Agr.
Ladd, Boyd C.	*Milwaukee*	Ch. C.
McCauley, H. W.	*Tomah*	Agr.
McKeen, John C.	*Bear Lake, Mich.*	Agr.
Marchesseau, Paul	*Elkhart, Ind.*	Engr.
Michels, Jacob P.	*Jump River*	Agr.
Peterson, Victor H.	*Kibbie, Mich.*	Agr.
Rockwell, Leslie H.	*Whitewater*	Agr.
Sheehan, James H.	*Naperville, Ill.*	Agr.
Treece, Buren W.	*Mt. Carmel, Ill.*	Agr.
Schwartzberg, Ben	*Chicago, Ill.*	Agr.
Vose, Lyman Red	*Macomb, Ill.*	C. C.
Wright, George B.	*Geneva, Ill.*	Agr.
		—23

Students enrolled in regular courses

Greco, Charles	*Chicago, Ill.*	L. S.
McCoy, Frank A.	*Sterling, Ill.*	C. C.
Nebel, Harold	*Milwaukee*	L. S., Med.
O'Keefe, Alexis Wyckoff	*Madison*	C. C.
Rath, Floyd Cecil	*Cataract*	Ph IV
Stroman, Govan N.	*Uralde, Texas*	Grad. (Agr.)
Wood, George Emery	*Cottage Grove*	C. C.
		—7

SUMMER SESSION OF 1918

GRADUATES

Abbett, Hazel Evalin — *Franklin, Ind.*
B.A., Franklin College

Achtenberg, Henrietta Lorraine — *Madison*
B.A., University of Wisconsin

Acton, Hul-Cee Marcus — *Glasgow, Ky.*
B.A., Georgetown College, Ky.

Adams, Edna Smith — *Galva, Ill.*
B.S., University of Wisconsin

Adams, Robert Warren — *Madison*
Ph.B., University of Wisconsin

Addington, Anne Cornelia — *St. Louis, Mo.*
B.A., Vassar College

Alderman, William Elijah g — *Madison*
M.A., Hiram College

Allen, Lucy C. — *East Cleveland, Ohio*
B.A., Western Reserve University

Allen, Ruth Marguerite — *Chelsea*
B.A., University of Wisconsin

Altman, Cora Dell — *Huntington, Ind.*
B.A., Wooster College, Ohio

Ames, Walter Ray g — *Madison*
Ph.M., University of Wisconsin

Anderson, Anna Marie — *Madison*
B.A., University of Wisconsin

Anderson, Elizabeth Neely — *Madison*
B.S., University of Pennsylvania

Anderson, Elna Constance — *North Crandon*
B.A., University of Wisconsin

Anderson, William Tait — *Madison*
Ph.B., University of Wisconsin

Anderson, Zeta Hester — *Epworth, Iowa*
B.A., Cornell College, Mt. Vernon, Iowa

Anthony, Mabel — *Holland, Mich.*
B.A., Albion College

Armstrong, Margaret Lucretia — *Princeville, Ill.*
B.A., Northwestern University

Armstrong, Susan Naylor — *Madison*
B.A., University of Wisconsin

Ashdown, Genevieve B.S., Knox College	*Port Byron, Ill.*
Atanasoff, Dimitar g B.S., Michigan Agricultural College	*Madison*
Augustus, Anne Heard M.A., University of Mississippi	*Macon, Miss.*
Ault, Otho Clifford g B.A., Defiance College	*Gainesville, Fla.*
Baker, Bess B.A., University of Michigan	*Hudson, Mich.*
Baker, Sarah Alice Ph.B., University of Wisconsin	*Eagle*
Balcke, Minnie Dorothea B.S., Iowa Wesleyan College	*Jacksonville, Ill.*
Ball, Rebecca Whitman M.A., Cornell University	*Harrisburg, Pa.*
Bamford, Dotha B.A., Beloit College	*Plymouth*
Bancroft, Helen Louise B.S., Hiram College, Ohio	*Hiram, Ohio*
Banks, Mabel L. B.A., University of Missouri	*St. Louis, Mo.*
Barnett, Edith Edna Ph.B., University of Chicago	*Kansas City, Mo.*
Barry, Alfred Glen B.A., Albion College	*Manistique, Mich.*
Bates, Clyde Eugene B.A., Wheaton College	*Elgin, Ill.*
Batty, Helen Margaret B.A., University of Wisconsin	*Madison*
Bauman, Lillian K. B.A., University of Wisconsin	*Mendota, Ill.*
Bayer, Ruth Helen B.A., Cornell University	*Toledo, Ohio*
Beach, Sarah Morlhouse Ph.D., University of Wisconsin	*Bridgeport, Conn.*
Bell, Donald Chesbrough B.A., University of Wisconsin	*Madison*
Bell, Willis James M.A., University of Wisconsin	*Madison, S. D.*
Belt, Kathryn Margaret B.A., Morningside College	*Sturgis, S. D.*
Belt, Laurance James B.A., Morningside College	*Sturgis, S. D.*
Bennett, James Percy Ph.D., University of Wisconsin	*Madison*
Benton, Alva Hartley M.S., Pennsylvania State College	*Mendon, Ohio*

Bigford, Roger Collins — *Manawa*
B.A., University of Wisconsin

Bird, Lavisa Elizabeth — *Madison*
B.S., Milwaukee Downer College

Birdsell, Dorothea Elizabeth — *Antigo*
B.A., St. Mary-of-the-Woods College, Indiana

Bishop, Charles Clyde — *Portage*
B.A., University of Wisconsin

Bitterman, Ruth Genevieve — *Madison*
B.A., University of Wisconsin

Black, John Donald — *St. Paul, Minn.*
M.A., University of Wisconsin

Blackburn, Lura — *Oak Park, Ill.*
B.A., University of Wisconsin

Blanchard, Pearl Ethel — *Colby*
B.A., University of Wisconsin

Blank, Laura — *Cincinnati, Ohio*
M.A., University of Cincinnati

Bohn, Leonora — *Marshall, Mo.*
B.A., Missouri Valley College

Bohstedt, Elise — *Victor, Iowa*
B.A., Drake University

Bohstedt, Emma Christine — *Victor, Iowa*
B.A., Iowa State University

Bolton, Berlie — *Bonham, Texas*
B.S., Carlton College

Bomier, Cora Martha — *Appleton*
B.A., Lawrence College

Bonfoey, Jennie — *Milwaukee*
Ph.B., University of Wisconsin

Borden, Mary Alice — *Milton*
B.A., Beloit College

†Borsack, Karl Kasper g, m — *Fond du Lac*
B.A., University of Wisconsin

Bosch, Frances Marie — *Holland, Mich.*
B.A., Hope College

Boucher, Nattalie Harriet — *Oshkosh*
Ph.B., University of Wisconsin

Bowden, Bernard Ray — *Madison*
Ph.B., University of Wisconsin

Bowden, Beulah May g — *Madison*
Ph.B., University of Wisconsin

Bowler, Joseph L. — *Wichita, Kan.*
B.A., Kansas University

Brabant, Josephine Mary — *Madison*
B.A., University of Wisconsin

Bramhall, Edith Clementine — *Rockford, Ill.*
Ph.D., University of Pennsylvania

Brandt, Walther Immanuel g — *Madison*
M.A., University of Wisconsin

Branegan, Gladys Alee — *Madison*
B.S., University of Wisconsin

Bridges, Alice — *Inverness, Miss.*
B.S., Mississippi Industrial Institute and College

Briggs, Rosa Fitch — *E. Grand Forks, Minn.*
B.S., University of Wisconsin

Bross, Isabel A. — *Chicago, Ill.*
B.A., Vassar College

Brough, Marianne — *Western Springs, Ill.*
B.S., Lewis Institute

Brown, Benjamin Franklin — *Bryan, Texas*
B.S., Northwestern University

Brown, Emma Marie — *Denver, Colo.*
B.A., Denver University

Brown, Frank Lacy — *Noblesville, Ind.*
B.A., University of Colorado

Brown, Harry Gilbert — *Green Lake*
B.A., Ripon College

Brown, Other Dwight — *Hellyard, Wash.*
B.A., Ohio Wesleyan University

Brown, Paul Murphy — *Laona*
B.S., University of Wisconsin

Brown, Sarah Edith — *Madison*
B.S., University of Wisconsin

Browning, Ethel — *Linden, Ind.*
B.A., De Pauw University

Bruins, Rose Wagner — *Racine*
M.A., University of Wisconsin

Buell, Mary Van Rensselaer g — *Madison*
M.A., University of Wisconsin

Bullock, Mary — *Milwaukee*
B.A., Lawrence College

Bunge, Gerhard Richard — *Dubuque, Iowa*
B.A., Wartburg College

Bunker, Maude Ethel — *Lodi*
Ph.B., University of Wisconsin

Burdick, Adelaide Bartholf g — *Milton*
B.A., Milton College

†Burdick, Allison Lovelle g, m — *Milton*
B.A., Milton College

Burk, Emma Louise — *Philadelphia, Pa.*
B.S., University of Pennsylvania

Burrage, Dwight Grafton — *Crete, Nebr.*
M.A., Amherst College

Bybuth, Matilda — *Eau Claire*
B.A., University of Wisconsin

Cade, Xena — *Viroqua*
B.A., Lawrence College

Campbell, Gertrude Ord — *Cleveland, Ohio*
B.A., Western Reserve University

Canan, Cuba Quincy — *La Crosse*
B.A., University of Wisconsin

Caradine, Elva Jane — *Monroe*
B.A., University of Wisconsin

Cargill, George MacMillan — *Madison*
B.A., University of Wisconsin

Carlson, Charles G. g — *Fargo, N. D.*
B.S., North Dakota Agricultural College

Carr, Muriel Bothwell — *Montreal, Can.*
M.A., Radcliffe College

Carter, Fred Gay — *Madison*
B.A., University of Wisconsin

Cary, Marie — *Madison*
B.A., University of Wisconsin

Cass, Alta — *Sauk Center, Minn.*
Ph.B., Hamline University

Cate, Florence Marilla — *Winfield, Kansas*
M.A., University of Michigan

Chapman, Charles King — *Toledo, O.*
B.A., Dennison University

Child, Bertha — *Gary, Indiana*
B.L., University of Minnesota

Chrisman, Dorothy — *Topeka, Kansas*
B.A., Baker University

Clark, Grace Winifred — *Farragut, Iowa*
B.A., Tabor College

Clark, Margaret Edwards — *Wausau*
B.A., Carroll College

Clarke, Mary Virginia — *Kansas City, Mo.*
B.A., Missouri Valley College

Clements, Dudley Murfee — *Paris, Tenn.*
B.S., Alabama Polytechnic Institute

Clevenger, Clinton B. g — *Madison*
M.S., Ohio State University

Clugston, Phil R. g — *Crawfordsville, Ind.*
B.A., Wabash College

Coats, Roscoe Jesse — *Ft. Wayne, Ind.*
B.A., Indiana University

Coburn, Elizabeth Mary g — *Chicago, Ill.*
B.A., St. Clara College

Cole, Blanche Genevieve — *Cleveland, O.*
Ph.B., Western Reserve University

Coleman, Anne Beatrice — *Holland, Mich.*
B.A., Alma College

Colton, Louise Alden — *Toledo, Ohio*
B.A., Ohio State University

Conover, Marion Clark — *Madison*
B.A., University of Wisconsin

Conrad, Agnes g — *Madison*
B.S., University of Arizona

Conrad, Elisabeth — *Madison*
M.A., University of Wisconsin

Conway, Alice — *Helena, Mont.*
Ph.B., Montana Normal

Cook, Benjamin Franklyn S.A.T.C. — *Compton, Ill.*
B.S., Beloit College

Cooper, Anna Pearl — *Beloit*
M.A., Leland Stanford University

Cooper, Evelyn Marie — *Cameron, W. Va.*
B.A., West Virginia University

Cooper, Harry Perkins — *Bayfield*
B.A., Upper Iowa University

Copp, Eillen A. g — *Madison*
M.A., Hillsdale College

Cotterill, Robert Spencer — *Westminster, Md.*
M.A., University of Virginia

Coumbe, Camille — *Richland Center*
B.A., Lawrence College

Cowles, May Louise — *Sibley, Kansas*
B.S., Kansas State Agricultural College

Cowper, Mary Octavine — *Madison*
M.A., University of Kansas

Cragoe, Edward J. — *Oakfield*
M.A., University of Wisconsin

Craven, Avery Odelle — *Milwaukee*
B.A., Simpson College, Iowa

Craven, Frances — *Indianola, Iowa*
B.A., Simpson College, Iowa

Crawford, Chrissie Louise — *Baraboo*
B.A., Beloit College

Cunningham, Bert — *Durham, N. C.*
M.A., Trinity College

Curtis, Florence Myrle — *Columbus Jct., Iowa*
B.A., Iowa State Teachers College

Damkoehler, Emma Clara — *Milwaukee*
B.A., University of Wisconsin

David, Jessie Lucille — *Montfort*
B.A., University of Wisconsin

Davis, Geneva Katharine — *Liberty, Mo.*
B.A., University of Missouri

Davis, Harriet Katharine — *East Los Vegas, N. M.*
B.A., University of New Mexico

Davis, Helen Emma *Sioux Falls, S. D.*
B.A., University of Wisconsin
Davis, Ira Cleveland g *Madison*
B.A., Ripon College
Davis, Jean Scobie *Princeton, N. J.*
B.A., Bryn Mawr College
Davis, Marion Koss *Stronghurst, Ill.*
B.A., Drury College
Davis, Melvin Grant *Wyandotte, Ind.*
B.A., Indiana University
Davis, Sabena Herfurth *Madison*
M.A., University of Wisconsin
Davis, Stanley Forrest *Stephenville, Texas*
B.S., Texas Agricultural and Mechanical College
Decker, Charles Ernest *Walnut, Ill.*
B.A., Aurora College
Decker, Venora *Walnut, Ill.*
B.A., Aurora College
Dehde, Lucile Meta *Oshkosh*
B.S., Northwestern University
Delbridge, Helen Gertrude *Oconto Falls*
B.A., Lawrence College
Deloria, Ella Cora *Wakpola, S. D.*
B.S., Columbia University
Deneen, Ezra Amos *Mineral Point*
B.A., University of Michigan
Denneen, Marie Beatrice *New Richmond*
B.A., University of Minnesota
Dennis, Olive Wetzel *Baltimore, Md.*
M.A., Columbia University
Denzler, Anna Verena *Indianapolis, Ind.*
B.A., Baldwin-Wallace College
Devin, Juliette Chambers *Des Moines, Iowa*
B.A., Drake University
Dexter, Elise Forsythe g *Madison*
M.A., University of Wisconsin
Dickoré, Marie Paula *Cincinnati, Ohio*
M.A., University of Cincinnati
Dilley, Mary Taylor *Limaville, Ohio*
B.A., Ohio Wesleyan University
Dillman, Julia Ann *Middletown, Ohio*
B.A., Cornell University
Ditty, Eleanor *Plymouth, Pa.*
B.A., Goucher College
Dodge, Florence Adele *Madison*
M.A., University of Wisconsin
Dodge, Helen Josephine *Monroe*
B.S., University of Wisconsin

Dodge, Mary Louise — *Madison*
B.A., University of Wisconsin
Doherty, William Thomas — *Cape Giardeau, Mo.*
B.S., Cape Giardeau Normal
Dolch, Edward William, Jr. — *Madison*
B.A., Washington University, St. Louis
Dolch, Isabel Scherer — *St. Louis, Mo.*
B.A., Washington University, St. Louis
Donley, Marie Dorothy — *Peoria, Ill.*
B.A., Northwestern University
Donoho, Pearl — *Omaha, Neb.*
B.A., University of South Dakota
Dorris, Jonathan Truman — *Salem, Ill.*
B.A., Illinois College
Dougherty, Miriam W. — *Monmouth, Ill.*
B.S., Monmouth College
Doughty, Lela Agatha — *East Los Vegas, N. M.*
B.A., University of Missouri
Doyle, Belle — *Henry, Ill.*
B.A., Northwestern University
Dubach, Clotilde Emma — *Sabetha, Kansas*
B.A., Colorado College
Du Four, Laura Edna — *Racine*
B.A., University of Wisconsin
Dumont, Bess Inez — *Omaha, Neb.*
B.A., University of Nebraska
Durbrow, Frances Wilson — *Madison*
B.A., University of Wisconsin
Durland, Alice Harriet — *La Grange, Ill.*
B.A., University of Illinois
Dwyer, Ellen Frances — *Charleston, Ill.*
B.A., University of Illinois
Eddy, Ralph Lynn — *Eveleth, Minn.*
B.S., Beloit College
Edmonds, Charles Crawford — *Watertown, Mass.*
B.A., University of Wisconsin
Edwards, Ann Elizabeth — *Madison*
B.A., University of Wisconsin
Egnew, Lelah O. — *Lafayette, Ind.*
B.A., De Pauw University
Elliott, Charlotte — *Dell Rapids, S. D.*
M.A., Leland Stanford Jr. University
Erskine, Esther — *St. Louis, Mo.*
B.A., University of Missouri
Erwin, Josephine — *Milwaukee*
B.A., University of Wisconsin
Essinger, Anna g — *Madison*
M.A., University of Wisconsin

Eubank, Myrtle Ann — *Richmond, Va.*
B.A., University of Wisconsin

Evans, Julia Farwell — *Oak Park, Ill.*
B.A., Northwestern University

Evans, Mary Margaret — *Spring Green*
B.A., University of Wisconsin

Fargo, Jennie Ethelyn — *Mt. Horeb*
B.S., University of Wisconsin

Favorite, Nell Grace — *Huntington, Ind.*
B.S., Michigan Agricultural College

Ficke, Hermann Styles — *Dubuque, Iowa*
Ph.B., Lafayette College

Fife, Ray — *Columbus, Ohio*
B.S., Ohio Northern University

Fisse, Edna — *St. Louis, Mo.*
B.A., Wellesley College

Fleming, Ida Julia — *Rensselaer, Ind.*
B.A., Indiana University

Flint, Rebecca Punchard — *Madison*
B.A., Wellesley College

Foley, Marcella — *Madison*
Ph.B., University of Wisconsin

Foote, Lucy Dodds — *St. Louis, Mo.*
B.A., Park College

Frantz, Ruth g — *Elgin, Ill.*
B.A., Pomona College

Fraser, Nettie May — *Rydal, Kansas*
B.A., Kansas State University

French, Louisa — *Huron, S. D.*
B.A., University of Michigan

Fuhrmann, Frederick William — *Dubuque, Ia.*
B.A., University of Wisconsin

Fuller, Hazel Marguerite — *Beloit*
B.A., Beloit College

Gapen, Clara Marie — *Whitewater*
B.A., University of Wisconsin

Gardner, Clara — *Joplin, Mo.*
B.S., University of Missouri

Garner, Mary Virginia — *Macon, Ga.*
Ph.M., University of Chicago

Gassaway, Mary Eleanor g — *Cairo, Ill.*
B.L., University of California

Gath, Helen Dorothy — *Madison*
B.A., University of Wisconsin

Gath, Josephine Myrtle — *Madison*
B.A., University of Wisconsin

Gault, Bernie Harrison — *West Palm Beach, Fla.*
B.A., Central College, Fayette, Mo.

Geiger, Maibelle — *Holland, Mich.*
Ph.B., Kalamazoo College

Gerberich, John Adam — *Danville, Ohio*
Ph.B., College of Wooster

Gerhart, Arthur R. — *Memphis, Tenn.*
B.S., Pennsylvania State College

Gerlach, Elna R. — *Union Mills, Ind.*
B.A., Winona College

Gibbens, Mary Alice — *Cando, N. D.*
B.S., North Dakota Agricultural College

Gibbens, Olga Charlotte — *Hutchinson, Kansas*
B.A., Fairmont College

Gibbons, Martha — *Akron, Ohio*
B.A., Pennsylvania College for Women

Giddings, Nahum James — *Morgantown, W. Va.*
M.S., University of Vermont

Gillet, Marjorie Burnton — *Madison*
B.A., University of Wisconsin

Gleason, Pauline — *Oak Park, Ill.*
B.A., University of Chicago

Gleeson, Jennie Adele — *Cleveland, Ohio*
Ph.B., Western Reserve University

Goggins, Charles — *Reno, Nevada*
M.A., University of Wisconsin

Goudie, Jean Hunter — *Ironwood, Mich.*
B.A., University of Michigan

Grams, William T. — *Watertown*
B.S., University of Wisconsin

Gray, Nellie Naomi — *Central City, Nebr.*
B.A., Nebraska Wesleyan University

Green, Edna — *Youngstown, Ohio*
M.A., Syracuse University

Green, Zella Maude — *Morning Sun, Iowa*
B.A., Grinnell College

Greene, Louise McMynn g — *Milwaukee*
B.A., University of Wisconsin

Greene, Mary Elizabeth — *Evansville*
M.A., University of Wisconsin

Greiner, Martha Nathalie — *Pelle, Iowa*
M.A., University of Michigan

Groesbeck, Gladys Lillian — *Ripon*
B.A., Ripon College

Gross, Erwin George g — *Merrimac*
B.S., University of Wisconsin

Grover, Alice Mary — *Madison*
B.A., University of Wisconsin

Gummersheimer, Cordelia Elizabeth — *Belleville, Ill.*
B.A., Knox College

Gummersheimer, Meta Johanna *Belleville, Ill.*
B.A., Illinois College
Gunn, John Levis *Lafayette, Ind.*
M.A., University of Kentucky
Hacker, Emil Frederic *Arcadia*
M.A., University of Wisconsin
Hadlow, Sarah Gertrude *Cleveland, Ohio*
Ph.B., Western Reserve University
Haessler, Mildred Barnes *Lansing, Mich.*
M.A., University of Illinois
Hahn, Ada Alma *Jefferson*
B.A., Lawrence College
Haley, Lillian Claire *Madison*
B.A., University of Wisconsin
Halfhead, Nellie Evangeline *Brodhead*
B.A., Beloit College
Halik, Glen William g *La Crosse*
B.A., University of Wisconsin
Halley, Charles Robert Lee, Jr. *Sheridan, Wyoming*
B.A., University of Missouri
Hammond, Aileen Spaulding *Manhattan, Kan.*
M.A., University of Wisconsin
Hammond, Edith Lucy *St. Louis, Mo.*
B.A., Washington University, St. Louis, Mo.
Hammond, Mallie Belle *Pawnee City, Nebr.*
B.A., Nebraska University
Haner, Helen Sara *Sun Prairie*
B.A., University of Wisconsin
Haner, Reba Cordelia g *Sun Prairie*
B.S., University of Wisconsin
Hansen, Allen Oscar g *Madison*
M.A., Culver Stockton College
Hansen, Grace Maybelle g *Madison*
M.A., Culver Stockton College
Hansen, Harold Norman *Madison*
B.A., University of Minnesota
Hardy, Edith Faith *Joliet, Ill.*
B.A., Knox College
Harnden, Ruth Coe *Kansas City, Mo.*
B.S., University of Missouri
Harris, Beulah Wilson *Salisbury, Md.*
B.A., Western Maryland College
Harry, Gwyneth Mary *Elwood, Ind.*
B.A., Butler College
Harvey, Walter Worth *W. Terre Haute, Ind.*
B.A., Indiana State Normal
Hawkins, Hildred M. g *Madison*
B.A., University of Wisconsin

Hawley, Villetta I. *Oregon*
B.S., University of Wisconsin
Hayes, Augustus Washington *Pleasant Plains, Ill.*
M.S., University of Wisconsin
Healy, Hazel Marie *Muscatine, Iowa*
B.A., Simpson College
Hefty, Leo Paul *New Glarus*
B.S., University of Wisconsin
Heidbreder, Edna *Quincy, Ill.*
B.A., Knox College
Heidner, Edith Butzke *West Bend*
B.A., University of Wisconsin
Heise, Anna *Ripon*
B.A., University of Wisconsin
Helland, Marie Julie Elfrieda *San Antonio, Texas*
B.A., Trinity University
Helmich, Florence Margaret *Sturgeon Bay*
B.A., Ripon College
Hemenway, Mary *Carlstad, N. M.*
B.A., University of Wisconsin
Henry, M. Louise *Basking Ridge, N. J.*
B.A., Wellesley College
Hermann, Alma Alfaretta *St. Louis, Mo.*
M.A., Washington University, St. Louis, Mo.
Heron, Grace *St. Louis, Mo.*
B.A., Washington University, St. Louis, Mo.
Herzog, Emily E. *Massillon, Ohio*
B.A., Ohio Wesleyan University
Heuring, Edith Mary *New Harmony, Ind.*
B.A., De Pauw University
Higgins, Catherine Romana *Madison*
B.A., University of Wisconsin
Hildebrand, Louis Ernest *Evanston, Ill.*
M.A., Northwestern University
Hill, George Cornelius g *Youngstown, Ohio*
B.A., Columbia University
Hilleboe, Gertrude Miranda *Northfield, Minn.*
B.A., St. Olaf College
Hilsmeyer, Gladys Marie *Welectka, Okla.*
B.A., Oklahoma University
Hixon, Leila Lucile *Michigan City, Ind.*
B.A., Olivet College
Hodge, Willard Wellington *Waunakee*
M.A., University of Wisconsin
Hoffman, Minnie May *Akron, Ind.*
B.A., Indiana University
Hoffman, Nicholas Joseph *Madison*
B.A., University of Wisconsin

Hogarth, Robert Mackie — *Long Beach, Cal.*
B.A., Hobart College
Hollander, Lee Milton — *Madison*
Ph.D., Johns Hopkins University
Hollis, Harriet Frances — *Chicago, Ill.*
B.A., University of Chicago
Holmes, Henry Bert — *Shelbyville, Ind.*
B.A., Indiana University
Hook, Ethel — *Kirksville, Mo.*
B.S., Kirksville State Normal School
Hooper, Clara Belle — *Laurium, Mich.*
B.A., Olivet College
Hornbeak, Samuel Lee — *Waxahachie, Texas*
Ph.D., Cumberland University
Hospers, Della Cornelia — *Holland, Mich.*
B.A., Hope College
Hospes, Cecelia Lizette — *St. Louis, Mo.*
M.A., Washington University, St. Louis, Mo.
Houghland, Janet Berry — *Evansville, Ind.*
B.A., Leland Stanford Jr. University
Householder, Frederick Clinton — *Fargo, N. D.*
B.A., Kansas University
Howe, Joseph Edwin — *Cannelton, Ind.*
B.A., Winona College
Huffaker, Vivien Faye — *Green Bay*
B.A., University of Colorado
Hughes, Corinne Sharp — *Waverly, Ill.*
B.A., Illinois Woman's College
Hughes, Grace Dorothy — *Avalon, Pa.*
B.S., Carnegie Institute of Technology
Hunley, Martha Jane — *Wilmington, Ohio*
B.S., Ohio University, Athens
Hutchison, Mary Hamilton — *Toledo, Ohio*
B.A., Toledo University
Ide, Herbert Paist — *Webster, S. D.*
B.A., Hamline University
Inomata, Tsunao g — *Nagaokashi, Japan*
B.A., Waseda University
Irwin, Keith Gordon — *St. Louis, Mo.*
M.S., Knox College
Isormann, Letha Gracetta — *Streator, Ill.*
B.A., Wheaton College
Ivins, Benjamin Franklin Price — *Kalamazoo, Mich.*
B.A., Valparaiso University
Jackson, Berta — *Sandusky, Ohio*
B.S., Ohio State University
Jacobson, Esther Helen — *Madison*
University of Wisconsin

Jakes, Clara Elma — *LaFayette, Ind.*
B.A., DePauw University
James, Henry Francis — *Kilbourn*
Ph.B., University of Wisconsin
James, John Ambrose — *Madison*
B.S., University of Wisconsin
Jamieson, Laura Belle — *Poynette*
B.A., University of Wisconsin
Jensen, Gail Libby g — *Madison*
B.A., University of Wisconsin
Jerome, Harry — *Madison*
Ph.D., University of Wisconsin
Johnson, Dorothea Pearl — *Belleville, Ill.*
B.A., McKendree College, Lebanon, Ill.
Johnson, Ida Petrine — *Onalaska*
M.A., University of Wisconsin
Johnston, Thomas William — *Virginia, Ill.*
B.S., Columbia University
Jones, Esther Henry — *E. St. Louis, Ill.*
Ph.B., Shurtleff College, Alton, Ill.
Jones, Jessie E. — *Janesville*
Ph.B., University of Wisconsin
Jones, Kathlyn Janette — *Fond du Lac*
B.A. Universiy of Wisconsin
Jones, Lester Martin — *Cameron, Mo.*
M.A., Columbia University
Jones, Sarah Van Hoosen g — *Chicago, Ill.*
Ph.B., University of Chicago
Jordan, Annie Ala — *Pheba, Miss.*
B.S., Mississippi Industrial Institute and College
Karr, Louis — *Indianola, Iowa*
B.A., Simpson College
Keblinger, Lucile Amelia — *San Antonio, Texas*
B.A., Trinity University
Kellum, Edna — *Camby, Indiana*
B.S., Bradley Institute
Kemp, Margaret Stanley — *Jamestown, N. D.*
B.L., Carleton College
Kennan, Ruth Richmond — *Medina, Ohio*
B.A., Western Reserve University
Kent, Sophronia May — *Jacksonville, Ill.*
B.L., Ohio Wesleyan University
Kentzler, Ruth Purdy — *Spring Harbor*
B.A., University of Wisconsin
Kind, Elsbeth — *Madison*
Ph.D., University of Wisconsin
King, Mary Louisa — *Ironwood, Mich.*
B.A., University of Wisconsin

King, Ruth Woodbridge — *Peoria, Ill.*
B.S., Rockford College
Kleeman, Eleanor — *Kansas City, Mo.*
M.A., University of Missouri
Klem, Mary Jeanette — *St. Louis, Mo.*
M.A., Washington University, St. Louis, Mo.
Klingholz, Oscara — *Manitowoc*
B.A., University of Wisconsin
Knaplund, Paul g — *Madison*
M.A., University of Wisconsin
Knauer, Sophia Adeline — *Brooklyn, N. Y.*
B.S., Northwestern College
Kohl, Clarence Elmer — *Hurley*
Ph.B., University of Wisconsin
Kraemer, Elmer Otto g — *Madison*
B.S., University of Wisconsin
Krotzer, Fred Wilhelm — *Milwaukee*
B.S., Kansas State College
Krueger, Ernest Frederick — *Sioux Falls, S. D.*
Ph.B., Sioux Falls College
Krumbine, Miles Henry — *Dayton, Ohio*
B.A., Pennsylvania College
Kuhns, Ruth Cordelia — *Madison*
B.S., University of Wisconsin
Kurrie, Majel Irene — *Madison*
B.A., Indiana University
Lamey, Mildred — *Onslow, Iowa*
B.S., Coe College
Lamont, Agnes Dalzell — *Mooresville, Ind.*
B. A., Earlham College
Langmade, Ferne — *N. Baltimore, Ohio*
B.A., Wells College
Larner, Ella Frances — *Oskaloosa, Kansas*
B.A., Baker University
Larson, Myrtle Otelia — *Fairfield, Iowa*
B.A., Augustana College
Lathrop, Elizabeth Adams — *Madison*
B.A., Milwaukee-Downer College
Laughlin, Mary — *Marshall*
Ph.B., Missouri Valley College
Leary, Julia Lenore — *Madison*
B.A., University of Wisconsin
Leary, Mary Cecil — *Madison*
B.A., University of Wisconsin
Lee, John Robert Edward — *Sequin, Texas*
B.A., Bishop College
Lewis, Cora Cole — *Boscobel*
B.A., University of Wisconsin

Lewis, Edith Olive — *Liberty, Mo.*
B.A., University of Missouri
Lewis, Florence Elizabeth — *Madison*
B.A., University of Wisconsin
Lewis, Nellie Rowena — *Elyria, Ohio*
Ph.B., Hiram College
Liang, Wen Paul g — *Hongkong, China*
B.S., University of Wisconsin
Lindsley, Alice Louise — *Marshall, Minn.*
B.A., Macalester College
Link, Margaret — *Superior*
B.A., Carroll College
Linkfield, Hazel Frances — *Elgin, Ill.*
B.A., University of Wisconsin
Lins, Hildegarde Margaret — *Spring Green*
B.A., University of Wisconsin
Litchfield, Beulah Glendale — *Flanagan, Ill.*
B.A., Beloit College
Lockwood, Hattie Roxanna — *Canton, Mo.*
B.A., Christian University
Lockwood, Mary Eleanor — *Baldwin, Kansas*
B.A., Baker University
Loomis, Cornelia Frances
B. A., University of Wisconsin
Laughlin, Rosemary — *Madison*
M.S., University of Wisconsin
Love, Estelle Boggs — *Danville, Ill.*
B.A., DePauw University
Loverud, Hilda Caroline — *Viroqua*
B.A., St. Olaf College
Lowe, Grace Elizabeth — *Sterling, Colo.*
B.A., State Teachers College of Colorado
Ludwig, Ethel Lenore — *St. Louis, Mo.*
B.A., University of Illinois
Lyons, Esther — *Baldwin, Ill.*
B. A., Wheaton College
MacArthur, Mary — *Superior*
Ph.B., University of Wisconsin
McCarrel, Fred — *Stillwater, Okla.*
M.S., Oklahoma Agriculture and Mechanical College
McCarrel, Virgia — *Stillwater, Okla.*
B.S., Oklahoma Agricultural and Mechanical College
McCarthy, Lucile g — *Madison*
B.A., University of Wisconsin
McCarthy, Margaret Mary — *Mellen*
B.A., University of Wisconsin
McClintock, Helen Elizabeth g — *Meadville, Pa.*
M.A., Allegheny College

McCorker, Agnes May — *Holton, Kansas*
B.S., Kansas State Agricultural College
McCracken, Harlan Linneus — *Oskaloosa, Iowa*
M.A., Penn. College
McCrory, Raymond John — *Milwaukee*
B.A., University of Wisconsin
McEwen, Mildred — *Huron, S. D.*
B. S., Huron College
McKennan, Rachel L. — *Quincy, Ill.*
B.A., University of Wisconsin
McKennan, Ruth — *Madison*
B.A., University of Wisconsin
McKenzie, Katherine — *Sioux City, Iowa*
B.A., Morningside College
McKinney, Harold Hall g — *Madison*
B.S., Michigan Agricultural College
McKnight, Emma Marie — *South Wayne*
B.A., University of Wisconsin
†MacNaughton, Leslie g m — *Madison*
B.S., University of Wisconsin
Mackey, Walter Curriden — *Madison*
B.S., University of Wisconsin
MacNaughton, Ariel Marguerita g — *Montreal, Canada*
M.A., McGill University
Magee, James Edward — *Iowa Falls, Iowa*
M.A., New York University
Main, Edna Ruth — *Albion, Nebr.*
B.A., Illinois Womans College
Mangold, John Frederic — *Rock Island, Ill.*
C.E., State University of Iowa
Marston, Violet Elizabeth — *Postville, Iowa*
B.A., Cornell College
Martin, Alice May l s 4 — *Hartford*
P.B., Michigan State Normal College
Martin, Ella May g — *Milwaukee*
B.A., Lawrence College
Marvin, Elizabeth — *Madison*
B.A., University of California
Machett, Lucile — *Greenville, Ohio*
B.A., University of Michigan
Mathewson, Chester Arthur — *Brooklyn, N. Y.*
Ph.D., Columbia University
Matthias, Wilda Grace — *North Benton, Ohio*
B.A., Mt. Union College
Meanwell, Walter Ernest — *Columbia, Mo.*
D.P.H., University of Wisconsin
Mehl, Paul — *Madison*
M.S., University of Wisconsin

Meisekothen, Hildegarde Mary — *Madison*
B.A., University of Wisconsin
Metzinger, Leon — *Fargo, N. D.*
Ph.D., University of Chicago
Meyer, Harrison A. — *Milwaukee*
B.A., University of Wisconsin
Michael, Louis Guy — *Hastings, Mich.*
M.S., University of Wisconsin
Millard, Jennie Florence — *Appleton*
B.A., Lawrence College
Miller, Howard Stephens — *Macon, Mo.*
B.A., Westminster College
Miller, John C. — *Cicero, Ill.*
B.A., University of Wisconsin
Mills, Lucy Marland — *St. Louis, Mo.*
B.A., University of Missouri
Minsart, Anton Peter — *Green Bay*
B.A., University of Wisconsin
Moe, Anna Cordelia — *Canton, S. D.*
B.A., University of South Dakota
Morgan, Rose Ruth — *Lawrence, Kansas*
M.A., University of Kansas
Morrisey, Laurette Isabelle — *Grand Rapids, Mich.*
B.S., Columbia University
Morrison, Ralph Newton — *Madison*
B.A., University of Wisconsin
Morrow, Ethel — *St. Louis, Mo.*
Ph.B., University of Chicago
Morse, Edna Lucretia — *Ripon*
B.A., Ripon College
Moses, Helen Frasier — *Westerville, Ohio*
B.A., Otterbein College
Moyer, Celia Louise — *St. Marys, Kan.*
B.A., Baker University
Muckelroy, Renzo Edmond — *Carbondale, Ill.*
B.S., University of Illinois
Murley, Eva Iola — *Shullsburg*
B.A., University of Wisconsin
Murphy, Samuel Alfred — *Madison*
B.S., University of Wisconsin
Nagle, Elizabeth Katherine — *Brookline, Mass.*
B.S., Simmons College
Nash, John William — *Juneau*
B.A., University of Wisconsin
Nebel, Catherine Elizabeth — *Milwaukee*
B.A., University of Wisconsin
Nelson, Harriet — *Revere, Mo.*
B.P'd., Kirksville Normal School

Nelson, Mark Snowden ls — *Canton, Ill.*
B.A., Lombard College
Neumann, John Xavier — *Madison*
B.S., University of Wisconsin
Newell, Jane Isabel — *Philadelphia, Pa.*
M.A., University of Wisconsin
Newman, John Logan l — *Milwaukee*
B.A., University of Wisconsin
Newton, Joseph Stanley g — *Milnore, N. D.*
B.A., Wooster College
Niemeyer, Marguerite L. — *Berlin*
B.A., Des Moines College
Nordlie, Herman Clarence — *Moorhead, Minn.*
M.A., University of Wisconsin
North, Kate Stockton — *Tulsa, Okla.*
B.S., Oklahoma Agricultural and Mechanical College
Norton, Ruth Reid — *Elgin, Ill.*
B.A., University of Wisconsin
Nourse, Mary A. g — *Fayetteville, Ark.*
Ph.B., University of Chicago
Oakey, Arthur Frederick — *South Wayne*
B.L., University of Wisconsin
O'Keefe, Mary Calixta — *Portage*
B.A., University of Wisconsin
Oldfather, Charles Henry — *Crawfordsville, Ind.*
B.A., Hanover College
Onsgard, Henry Adolph — *DeForest*
B.A., Luther College, Decorah, Iowa
Orcutt, Allie Julia — *Madison*
B.L., Carleton College
Outhouse, Meroe J. — *Loup City, Nebr.*
B.A., University of Nebraska
Owen, Ralph Albert Dornfeld — *Milwaukee*
M.A., Harvard University
Packard, Eva Lorena — *Kansas City, Mo.*
B.A., University of Missouri
Pagelsen, Henriette — *Detroit, Mich.*
B.S., University of Michigan
†Parker, Frank Wilson g — *Madisonville, Ky.*
B.S., Alabama Polytechnical Institute
Parmelee, Maude Alberta — *Elyria, Ohio*
B.A., Oberlin College
Parr, Thad Cassius — *Greenwood*
B.A., University of Wisconsin
Pearson, Norma Lenys — *Bloomington*
B.A., University of Wisconsin
Peck, Laura Augusta — *Syracuse, Neb.*
B.A., Doane College

Penberthy, Mary Cora B.A., Oberlin College	*Cleveland, Ohio*
Penney, Edith May M.A., Columbia University	*Minneapolis, Minn.*
Perin, Carrie May B.A., University of Cincinnati	*Cincinnati, Ohio*
Perkins, Lillian Alida B.A., University of Wisconsin	*Dodgeville*
Pesark, Marguerite Helen B.A., University of Wisconsin	*Superior*
Peter, Lorraine B.A., Ripon College	*Milwaukee*
Pfeiffer, Laura B. Ph.D., University of Nebraska	*Lincoln, Nebr.*
Pflueger, Luther Appel g M.A., University of Indiana	*Trevorton, Pa.*
Phetzing, Amelia Caroline Ph.B., University of Chicago	*Lexington, Mo.*
Pierlé, Chester Arthur g M.S., Lehigh University	*Koshkonong, Mo.*
Pinney, George Graham B.A., University of Minnesota	*Sturgeon Bay*
Pomeroy, Mildred Almina B.A., Hedding College	*Abingdon, Ill.*
Porter, Theodora B.A., Ohio Wesleyan University	*Winnebago, Ill.*
Price, Sterling Elliott B.S., Utah Agricultural College	*Provo, Utah*
Publow, Henry Lantz B.S., Michigan Agricultural College	*East Lansing, Mich.*
Putcamp, Fannie Elizabeth B.A., Leland Stanford Junior University	*Grand Forks, N. D.*
Putney, Fred Silver M.S., Pennsylvania State College	*State College, Pa.*
Pyle, Frank James B.A., West Virginia University	*Morgantown, W. Va.*
Raetzmann, Hilda Marie M.A., University of Wisconsin	*Reedsburg*
Raney, William Francis g B.A., Oxford University	*Madison*
Rasmussen, Frank B.A., University of Utah	*Fillmore, Utah*
Reece, Raymond Jacob B.A., Indiana State Normal	*Cresco, Ia.*
Reed, Helen Agnes B.A., Lenox College, Iowa	*Fulton, Mo.*
Reed, Helen Frances Ph.B., University of Colorado	*Denver, Colo.*

Reed, Nayne — *Attica, Ind.*
B.A., Indiana University
Reeves, Maude Barbara — *Meridian, Miss.*
B.S., Mississippi Industrial Institute and College
Reid, Dorothy Emma m — *Oconomowoc*
B.A., University of Wisconsin
Reid, Dwight Logan — *Montello*
M.S., University of Wisconsin
Reid, Martha Elisabeth — *Huron, S. D.*
Ph.B., College of Wooster
Richards, Bert Louis g — *Madison*
M.S., Utah Agricultural College
Rieder, Rudolf Theodore — *Milwaukee*
B.A., University of Wisconsin
Ritter, George J. g — *Madison*
Ph.M., University of Wisconsin
Roark, Eugene Washburn — *Madison*
Ph.D., University of Wisconsin
Roberts, Dorothy Bradley — *Chicago, Ill.*
Ph.B., University of Chicago
Roberts, Rachael Mary — *Keokuk, Iowa*
B.A., Rockford College
Robinson, Ethel Juanita — *Carlinville, Ill.*
M.A., University of Illinois
Robinson, Mildred — *Salina, Kansas*
B.S., Kansas State Agricultural College
Roderic, May — *Brodhead*
B.A., Lawrence College
Rogers, Emma — *Farina, Ill.*
B.A., Milton College
Rogers, Maera Carlock — *Mechanicsburg, Ill.*
B.A., Eureka College
Rogers, William Henry — *Danville, Ky.*
B.S., Kentucky State University
Rojas, Hilda — *Santiago, Chile*
M.A., University of Wisconsin
Rooney, Ellen — *Omaha, Neb.*
B.A., University of Nebraska
Rose, Besse Mahan — *Williamsburg, Ky.*
B.A., Georgetown College
Ross, Ada Esther — *Decatur, Ill.*
B.A., James Millikin University
Ross, Flora Emma — *Decatur, Ill.*
B.A., James Millikin University
Rossberg-Leipnitz, Elizabeth — *Milwaukee*
M.A., University of Wisconsin
Rowson, Laura Lowella — *Grand Rapids, Mich.*
B.S., Columbia University

Rubado, Clarence Arthur — *Plymouth*
B.A., University of Wisconsin
Rueggemeier, Cora Mary — *Waukon, Iowa*
B.A., Upper Iowa University
Ruihley, Pearl Augusta — *Archbold, Ohio*
B.A., Western College
Rupp, Claude Earl — *La Crosse*
B.S., University of Wisconsin
Rusk, Hester Mary — *Brooklyn, N. Y.*
M.A., Columbia University
Ryan, Gertrude Eva — *Dubuque, Iowa*
M.A., University of Wisconsin
Safford, Helen Louise — *Bloomington*
B.A., Wheaton College
Salter, Jennie May — *Unity*
Ph.B., University of Wisconsin
Sasman, Louis Milton — *Black Creek*
B.A., University of Wisconsin
Sattre, Alfred Melvin — *Moorhead, Minn.*
B.S., St. Olaf College
Saunders, Otis Warren — *Oconto Falls*
B.S., University of Wisconsin
Sawyer, Helen — *Racine*
B.A., Milwaukee-Downer College
Schacke, Martha Alvina — *Reedsburg*
B.A., University of Wisconsin
Schaper, Lydia — *Plymouth*
B.A., Ripon College
Schirmir, Mariele — *Milwaukee*
M.A., University of Wisconsin
Schmidt, John Henry g — *Saginaw, Mich.*
M.S., University of Michigan
Schneider, Clara Beth — *Canton, Ohio*
B.L., Western Reserve University
Schneider, Flora Ruth — *Canton, Ohio*
B.A., Western Reserve University
Schneiders, Edwin Frank g m — *Marathon*
B.S., University of Wisconsin
Schubring, Selma Langenhan g — *Madison*
M.A., University of Wisconsin
Schuler, Dominic H. — *Milwaukee*
B.S., University of Wisconsin
Schultz, Gertrude Marguerite — *Lafayette, Ind.*
B.A., DePauw University
Schultz, Henry David — *Madison*
Ph.B., University of Wisconsin
Schulze, Emma Johanna — *Portage*
B.A., University of Wisconsin

Schuster, Clara Otelia — *Platteville*
M.A., University of Wisconsin
Schuster, Edith Emma — *Middleton*
B.A., University of Wisconsin
Schutz, Elmer Rudolph — *Naperville, Ill.*
B.S., Northwestern College, Naperville, Ill.
Schwerdt, Mathilde Angela — *Madison*
Ph.B., University of Wisconsin
Scrutchfield, Irene — *Excello, Mo.*
M.A., University of Wisconsin
Sechrist, Edith Rachel — *Garrettsville, Ohio*
B.A., Cornell University
Sellar, Georgina Susannah — *Paris, Ill.*
B.A., DePauw University
Severance, Luada Eleanor — *Wichita, Kansas*
B.A., Friends University
†Sevringhaus, Elmer Louis g m — *Madison*
B.A., University of Wisconsin
Seybolt, Ottilie g — *Madison*
M.A., University of Wisconsin
Shafer, Mary Hurt — *Marshall, Mo.*
B.A., Missouri Valley College
Sharp, Mary Nathalie — *Kansas City, Mo.*
B.A., B.S., University of Missouri
Shatto, Ethel — *Pasadena, Cal.*
B.A., University of Wisconsin
Shelton, Evalyn — *Canton, Ohio*
Ph.B., Mount Union College
Shidaker, Mary Elizabeth — *Wilmington, Ohio*
B.A., Wilmington College
Shipp, May Louise — *Indianapolis, Ind.*
B.A., Butler University
Shirley, Edah Mildred — *La Crosse*
B.A., St. Clara College
Shrum, Lillian Edith — *Omaha, Nebr.*
B.A., University of Nebraska
Simpson, Herbert Downs — *Athens, Ohio*
M.A., Princeton University
Sister Camillus — *Sinsinawa*
B.A., Washington University, St. Louis, Mo.
Sister Mary Ellen O'Hanlon, O. S. D. — *Sinsinawa*
B.S., St. Clara College
Sister Mary Laurentina Boyle — *Sinsinawa*
B.A., St. Clara College
Sliker, Katherine Lillian — *Wilmington, Ohio*
B.A., Wilmington College
Smith, Anis Josephine — *Buffalo, Wyoming*
Ph.B., Penn College

Smith, Arthur Frederick — *Ford City, Mo.*
B.A., Missouri Wesleyan College
Smith, David William g — *Mazomanie*
B.S., University of Wisconsin
Smith, Dorothy Jane — *Moberly, Mo.*
B.A., Vassar College
Smith, Grace Bruce — *Princeton, Ill.*
B.L., Knox College
Smith, Jessica Minerva — *Wichita, Kansas*
M.A., University of Wisconsin
Smith, Kathryne Claire — *Carthage, Mo.*
B.S., University of Missouri
Smith, Mary Edith — *Rochester, Ind.*
Ph.B., University of Chicago
Smith, Mavis Viola — *Fort Washakie, Wyom.*
B.A., University of Wyoming
Smith, Maxwell Austin — *Madison*
B.A., University of Wisconsin
Smith, Paul Tincher — *Lafayette, Ind.*
B.A., De Pauw University
Smith, Pearl Mabry — *Madison*
M.A., University of Wisconsin
Smith, Una B. — *Mitchell, S. D.*
M.S., University of California
Smith, Willard Mallalian g — *Chicago, Ill.*
B.A., Lawrence College
Snell, Hazel F. — *Lincoln, Nebr.*
M.A., University of Nebraska
Snyder, Andrew Joseph g — *Waukesha*
M.S., University of Wisconsin
Soerens, Sue — *Oostburg*
B.A., Hope College
Sollie, Clara Georgine — *Ashland*
B.A., University of Wisconsin
Sorensen, Hildur Marie — *Webster, N. D.*
B.S., North Dakota Agricultural College
Spanswick, Mable Pearl — *Rockton, Ill.*
B.S., Beloit College
Sprague, Frank Arthur g — *Madison*
B.A., Tulane University
Sprung, Annetta Mabel — *Lincoln, Nebr.*
B.A., University of Nebraska
Stagg, Theodore Herman — *Alberta, Canada*
B.A., Highland Park College, Des Moines
Staines, Florence May — *Eldora, Iowa*
B.A., Grinnell College
Standley, Hortense Otia — *Norborne, Mo.*
B.A., Missouri State Normal

Starch, Amy H. *Madison*
B.A., University of Wisconsin
Steensland, Lohra g *Madison*
B.A., University of Wisconsin
Steinfort, Meta Mary *Watertown*
B.A., University of Wisconsin
Stephany, Carl Otto *Milwaukee*
B.S., University of Chicago
Stephens, Stephen De Witt *Peoria, Ill.*
B.A., University of Wisconsin
Stewart, Alban *Tallahassee, Fla.*
Ph.D., Harvard University
Stoddard, Cora Louise *Whitewater*
B.A., University of Michigan
Stoker, Frank Wesley *West Jefferson, Ohio*
B.S., Ohio Northern University
Stone, Edith Adrienne *Madison*
B.A., University of Wisconsin
Stormzand, Martin James g *Madison*
B.A., Alma College
Strang, Louise L. g *Denver, Colo.*
B.A., Colorado College
Strowd, Lorraine Spencer *Superior*
B.A., University of Wisconsin
Strowd, Wallace Headen g *Madison*
M.S., University of Wisconsin
Stutesman, Mary Ruth *Peru, Ind.*
B.A., De Pauw University
Sudro, William Frederick *Fargo, N. D.*
B.S., University of Michigan
Sullivan, Angela Hope *Dubuque, Iowa*
B.A., University of Wisconsin
Sutherland, Margaret *Eau Claire*
Ph.M., University of Wisconsin
Sutherland, Sarah Augusta *Madison*
B.S., University of Wisconsin
Swanson, Lumetta Gladys *Owatonna, Minn.*
B.A., Carleton College
Tarrell, Anne Martin *Madison*
B.A., University of Wisconsin
Tarrell, Arch L. *Platteville*
B.A., University of Wisconsin
Tassaro, Mayme *Norborne, Mo.*
B.S., University of Missouri
Taylor, Ferne *Fredericksburg, Iowa*
B.S., Iowa State College
Taylor, Gertrude D. *Delavan*
B.A., University of Wisconsin

Taylor, Susan Shelby — *Madison*
B.S., University of Missouri
Thomas, Stephen Miles Waterbury — *Lodi*
Ph.B., University of Wisconsin
Thompson, Emma Marie — *Topeka, Kansas*
B.A., Washburn College
Thompson, Joseph Edmund — *Ashland*
B.A., Lawrence College
Thomsen, Frederick Lundy g — *Hyattsville, Md.*
B.S., Maryland State College
Titterington, Beryl — *Rock Island, Ill.*
B.A., Oberlin College
Torrance, Bessie May — *La Crosse*
B.A., Milwaukee-Downer College
Trautmann, William John g — *Madison*
Ph.M., University of Wisconsin
Treakle, Helen E. — *Madison*
B.A., University of Wisconsin
Treat, Isabel Glenn — *Indianapolis, Ind.*
B.A., University of Wisconsin
Trevathan, Pearl — *Paris, Tenn.*
B.S., Southern Normal
Trost, Frances Helen — *Urbana, Ill.*
B.A., University of Illinois
Trowbridge, Dorothy — *Viroqua*
B.A., University of Wisconsin
Trueblood, Charles Kinkley — *Richmond, Ind.*
M.A., Harvard University
Tubbs, Myrtle Laura — *Kirkwood, Ill.*
B.S., Upper Iowa University
Turnbull, Julia Isabella g — *Nashville, Tenn.*
B.S., Vanderbilt University
Turner, Cora Belle — *Mantua, Ohio*
B.S., Hiram College
Tweedy, Lena — *Wabash, Ind.*
B.A., DePauw University
Umbreit, Allen George — *Nevada, Iowa*
B.A., North-Western University
Underwood, Lena Ruth — *Lincoln, Nebr.*
B.S., University of Nebraska
Underwood, Lucy Annis — *Montello*
B.A., University of Wisconsin
Urberg, Sofus — *Blair*
B.A., Concordia College
Vaas, Marie Herfurth — *Madison*
M.A., University of Wisconsin
Van Antwerp, Nellie — *Huntington, Ind.*
B.A., Indiana University

Van Den Berg, William John — *Menominee, Mich.*
B.S., University of Wisconsin
Vander Bie, Chauncey Learen — *Blair*
B.A., University of Wisconsin
Van Dyke, Eugene Nelson — *Renovo, Pa.*
B.A., Princeton University
Van Hise, Mary Janet g — *Madison*
B.A., University of Wisconsin
Van Lone, Grant Ellsworth — *Milwaukee*
Ph.B., Lawrence College
Van Patter, Frances — *Glen Flora*
B.A., Lawrence College
Varson, Nina Frank — *Laurium, Mich.*
B.A., University of Michigan
Vivian, Robert Evans — *Los Angeles, Calif.*
B.A., University of Southern California
Voigt, Luella Frances — *Oconomowoc*
Ph.B., University of Wisconsin
Volkmann, Hilda Caroline — *Madison*
B.A., University of Wisconsin
Wackman, Charline Marie g — *Oregon*
B.A., University of Wisconsin
Wagg, Frank Ernest g — *Oregon*
B.A., University of Manitoba
Walser, Dora May — *Madison*
B.A., University of Wisconsin
Walter, Edra Leah — *Spencer, Iowa*
B.A., State University of Iowa
Walters, Blanche Black — *Madison*
B.A., Iowa State Teachers College
Walters, Ramona Ruth — *St. Louis, Mo.*
B.A., University of California
Warner, Esther — *Lincoln, Nebr.*
B.A., University of Nebraska
Watts, Claude Harrison — *Saunenim, Ill.*
B.A., University of Illinois
Way, James Earl — *New Lexington, Ohio*
B.S., Ohio Northern University
Weaver, Andrew Thomas g — *Whitewater*
M.A., University of Wisconsin
Wedel, Sylvia Carmen — *St. Louis, Mo.*
B.A., University of Wisconsin
Weems, Caroline Lucile — *Worthington, Ind.*
B.A., Indiana University
Wentworth, Lillian Adele — *Edgerton*
B.A., Lawrence College
Wessel, Iona Johene — *Madison*
B.A., University of Wisconsin

White, Della Maude — *Rhinelander*
B.A., University of Wisconsin

White, Lucile Mary — *Monmouth, Ill.*
B.A., Monmouth College

White, Madeline Gertrude — *Eau Claire*
B.S., Carroll College

Wickersham, Lulu E. — *McPherson, Kansas*
B.A., University of Kansas

Wied, Katherine MacMurtery — *El Paso, Texas*
B.A., University of Wisconsin

Wild, Julianna Marie — *Chicago, Ill.*
Ph.B., University of Chicago

Wildberg, Madelon R. — *Pittsburgh, Pa.*
B.A., Wellesley College

Willemsen, Jennie — *St. Louis, Mo.*
Ph.B., University of Chicago

Williams, Ann Frances — *Madison*
B.A., University of Wisconsin

Williams, Garvin Daniel — *Cambria*
B.S., University of Wisconsin

Williams, Mary Morris — *Rushville, Ind.*
M.A., Indiana University

Willis, Henry Stuart — *High Point, N. C.*
B.A., University of North Carolina

Wilson, Helen — *Baldwin, Kansas*
B.A., Baker University

Wilson, Wenona — *Baldwin, Kansas*
B.A., Baker University

Wise, Cora Elizabeth — *Lead, S. D.*
M.A., University of Nebraska

Wisewell, George Ellas — *Madison*
M.A., Johns Hopkins University

Wood, Ruth — *Sedalia, Mo.*
B.S., Maryland College

Woodworth, Clyde Melvin g — *Canton, Ill.*
M.S., University of Wisconsin

Wright, Christine Ramsay — *Baraboo*
B.L., University of Wisconsin

Wright, Grace Anne — *Duluth, Minn.*
M.A., University of Wisconsin

Wright, Marie Louise — *Fort Dodge, Iowa*
B.A., University of Wisconsin

Wyatt, Emily — *St. Joseph, Mo.*
B.A., University of Missouri

Young, Margaret C. — *Chicago, Ill.*
M.S., University of Chicago

Young, Marie Dorothy — *Newman Grove, Nebr.*
B.S., Iowa State College

Youngblood, Bonney — *College Station, Texas*
M.S., Agricultural and Mechanical College of Texas
Zanoni, Elizabeth Corinne — *Cincinnati, Ohio*
B.A., University of Cincinnati
Ziegler, Mabelle Gertrude — *Adell*
B.A., University of Wisconsin
Zimmerman, Elisabeth Tabita — *Kalamazoo, Mich.*
M.A., University of Wisconsin
Zimmerman, Marie — *Chicago, Ill.*
Ph.D., University of Chicago
Zürcher, Emilie — *Canton, Ohio*
M.A., Western Reserve University

—674

UNDERGRADUATES AND TEACHERS

Letters and Science

Abercrombie, Fern Darling — *Madison*
Adams, Grace A. — *Omro*
Adams, Waldo — *Dubuque, Iowa*
Agnew, Mabel Johannah — *Milton Jct.*
Agramonte, Roberto — *Arequipa, Peru*
Albertz, Ella — *Watertown*
Albertz, Max Henry ls — *Watertown*
Albrecht, Ralph Waldo — *Milwaukee*
Alcivar, Ernest — *New York City, N. Y.*
Alexander, Trent ls — *Madison*
Allen, Harriet Ethel — *Waverly, Ill.*
Allen, Lila Mabel — *Augusta*
Allen, Marjorie Strong ls — *Oshkosh*
Allyn, Louise ls — *Madison*
Altpeter, Ophelia Anna — *Milwaukee*
Alway, Martha Marie ls — *Aberdeen, S. D.*
Andersen, Ruth Marion ls — *Madison*
†Andersen, Victor Sigurd ls — *Madison*
Anderson, Alice Deborah Jean — *Milwaukee*
Anderson, Mae — *Madison*
Anderson, Thomas Augustine — *Mayville, N. D.*
Andes, Leeta Ferne — *Adrian, Mo.*
Anspach, Charles Jacob — *Milwaukee*
Anstey, Helen Belinda — *Beetown*
Appleman, George Mordecai — *Minocqua*
Armstrong, Faith Nina ls — *Winnebago, Ill.*
Arvidson, Josephine Hannah — *Marinette*
Ashley, Mary — *Chippewa Falls*

Aspin, Wilma Williamson	*Tulsa, Okla.*
Atkins, Irma ls	*Bristol, Ind.*
Aucutt, Lucile Katherine ls	*Aurora, Ill.*
†Bach, Clarence Edwin ls, m	*Milwaukee*
†Bachman, Charles Haskell ls	*Milwaukee*
Bachmann, Louise Catherine	*Genoa, Ohio*
Bacon, Franklin James ls	*New London*
Bacon, Lee Fairchild ls	*Madison*
Bailey, Grace Edith	*Ripon*
†Bainbridge, Thomas Mason ls	*Platteville*
†Baker, Herbert Miller ls	*Zanesville, Ohio*
Ballentine, Will Gray	*Jefferson*
Bard, Carrie M.	*Waynetown, Ind.*
Bardon, Anna Roy ls	*Superior*
Barganz, Ida	*Watertown*
†Barr, Wallace Andre ls	*Milwaukee*
Barry, Justin McCarthy	*Madison*
Barry, Margery Johanna ls	*Oconomowoc*
Bartholf, Winifred ls	*Glencoe, Ill.*
†Bartlett, George William ls	*Racine*
Bartlett, Harriet Dorothy ls	*Minneapolis, Minn.*
Barton, Marcia Helen	*Anderson, Ind.*
Bartz, Mildred Barbara ls	*Bozeman, Montana*
Batz, Zita Barbara ls	*Sun Prairie*
†Bauer, Carl Philip ls, m	*Mandan, N. D.*
Beasley, John Otis	*Fairmount, Ind.*
Beaucage, Louise Harriet ls	*Fond du Lac*
Beck, Catherine Marie	*Indianapolis, Ind.*
Becker, Lillie	*Cincinnati, Ohio*
Beckett, Florence Elisabeth	*Indianapolis, Ind.*
Beglinger, Harold Fred	*Oshkosh*
Belgum, Bernard N.	*Manitowoc*
Belknap, Margaret Knowlton ls	*Waukesha*
†Bemis, George Gordon ls, m	*Antigo*
Benisek, Helen Annette ls	*Antigo*
Bennett, Elizabeth Rhea ls	*Aberdeen, S. D.*
Bennett, Ruth Carrie	*Grand Rapids*
Bensberg, Jere Holdeman	*St. Louis, Mo.*
Benson, Edward Rockwell	*Madison*
Berg, Benita D.	*Marshfield*
Bergaus, Bertha	*La Crosse*
Berger, Elsa ls	*Milwaukee*
Berglund, Agnes	*Indiana Harbor, Ind.*
Berning, Dorris Margaret	*Kilbourn*
Bertram, Grace Ione	*Belleville, Ill.*
Beveridge, Gladys Maurine ls	*Lake Mills*
Bibby, Mary Edna	*Galesville*
Bice, Edwin Stanton	*Marquette, Mich.*
Billings, Edwin Sidell	*Neillsville*

Bingham, Esther Malcolm ls	*Madison*
Bird, Mary Rebecca a	*Madison*
Bjornson, Björn Bergmann	*Chicago, Ill.*
Blackburn, Charles Pillsbury	*Lockland, Ohio*
Blades, Charles Camden	*Elizabeth City, N. C.*
Blaine, Anna	*Boscobel*
Blaine, Helen Madeline ls	*Boscobel*
Blanchette, John Joseph	*Anoka, Minn.*
Blied, Garry Russel	*Madison*
Blinston, Ruth Mary	*La Crosse*
Block, Isadore Meyan	*Oshkosh*
†Blum, Bruce Marty ls	*Monroe*
Blum, Walter Leo	*New Orleans, La.*
Bohnert, Elmer Robert	*Juneau*
Boies, Addella ls	*Waterloo, Iowa*
Born, Lucile Dorothy M. ls	*Toledo, Ohio*
Bottomley, Gladys	*Darlington*
Bower, Leona Clair	*Ainsworth, Nebr.*
Bowstead, John Edelston	*Toronto, Ontario, Can.*
Boyd, Helen Harrington	*Toledo, Ohio*
Braatz, Arthur Otto	*Merrill*
Brashear, Hazel Anderson ls	*Moline, Ill.*
Braun, Alma Martha	*Merrill*
Bray, Grace Catherine ls	*Elkhorn*
Breazeale, Norvil	*Meridian, Miss.*
Breen, Mildred Helen	*Ashland*
Brennan, Agnes Marcella ls	*Madison*
Bribach, Carrie Patience	*St. Louis, Mo.*
Brickels, Dorothy Jessie	*Waukesha*
Briner, Herbert Frederick	*St. Louis, Mo.*
†Brinkerhoff, Charles James ls	*Neenah*
Bronson, Alice Maren	*Milwaukee*
Brookins, Medora Clarke	*Madison*
Brown, Allan G.	*Redgranite*
Brown, Althea	*Madison*
Brown, Ernest James ls, m	*Madison*
Brown, Gladys Elsie	*Peoria, Ill.*
Brown, Kathryn Kent ls	*Rhinelander*
Brown, Mary Blackledge	*St. Louis, Mo.*
Bruce, Marshall Everett	*East St. Louis, Ill.*
Brunkow, Esther Martha ls	*Monroe*
†Brunner, Anton William ls	*Durand*
Bruns, Eleanor Copeland ls	*Lake Mills*
Buckley, Mary Louise	*Baraboo*
Buckmaster, Sada Eleanor ls	*Madison*
Buell, Helen DeYoe	*Madison*
Buell, Martha Merry ls	*Madison*
Burch, Helen Upton ls	*Madison*
Burke, Joseph P.	*Oconto*

Burnham, Constance Olds	*Waupaca*
Burnham, Pluma Ellis	*Carrington, N. D.*
Burns, Frances Elizabeth	*Charleston, Mo.*
Burwell, Consuelo ls	*Madison*
Butterfield, Algernon Sidney, Jr.	*Evansville, Ind.*
Butz, Helen Anita	*Wilmette, Ill.*
Byrom, Katherine Estelle	*Green Bay*
†Campbell, Everette Lowell ls	*Madison*
Campbell, Leota Mae ls	*Toledo, Ohio*
Campbell, Mary Helen ls	*Milwaukee*
†Cance, John Webb ls	*Galesville*
Candy, Mildred Roselund	*St. Louis, Mo.*
Cannon, Eula	*South Bend, Ind.*
Carley, Verna Adeline ls	*Appleton*
Carlock, Dorothy Mabel ls	*Mechanicsburg, Ill.*
Carlson, Helen Ovidia ls	*LaSalle, Ill.*
Carlyle, Tomsyna	*La Crosse*
Carney, Margaret ls	*S. Kaukauna*
Carpenter, Mildred Grace	*Cincinnati, Ohio*
Carter, Lurene	*Beloit*
Cary, Jessie Phoebe	*Webb City, Mo.*
Case, Eva Warner	*Kansas City, Mo.*
Ceaser, Carl Frederick	*Boise, Idaho*
†Chamberlain, Joseph Nourse ls	*Des Moines, Iowa*
Chapin, Olive Katherine	*Evansville*
Chapman, Mabel Elinor	*Tecumseh, Nebr.*
Chase, Lenox Elspeth	*Amesbury, Mass.*
Chatelain, Barbara Alphonsine	*Omaha, Nebr.*
Cheetham, Harold Cowan ls	*Milwaukee*
†Chipman, Willard Alonzo ls, m	*Stoughton*
Christianson, Emma Marie	*Stanley*
Chu, Keats Synn ls	*Ningpo, China*
Church, Emeline A.	*Walworth*
Churchill, Norma Eleanor ls	*Monroe*
Cisne, Willis Gerard	*Carbondale, Ill.*
†Clark, Burton Jr. ls	*Oshkosh*
Clark, Mildred Elizabeth ls	*Janesville*
Clarke, Ernest E. ls	*Madison*
Clarke, Helen May	*La Crosse*
Clarke, Isabella Jane	*Kansas City, Mo.*
Clauson, Elizabeth Bertha	*Red Wing, Minn.*
Coates, Charles P. ls	*St. Louis, Mo.*
Coats, Amy Lindemuth	*Ft. Wayne, Ind.*
Coble, Opal Katherine	*Elwood, Ind.*
†Cochems, Kenneth ls, m	*St. Anthony, Idaho*
Coe, Orpha ls	*Barron*
Conger, Lester William	*Greenbush*
Conine, Mary Belle ls	*Nowata, Okla.*
Conklin, Katherine Mary ls	*Madison*

Conlin, Ruth Margaret ls	*Madison*
Conn, Hazel Margaret	*Edgerton*
Conn, Russell Archibald	*Edgerton*
Connell, Beulah Martha ls	*Menomonee Falls*
Conover, Daphne Grace ls	*Madison*
Cook, Mary Elizabeth Cordula	*Burlington*
Coon, George Wayland ls, m	*Milton Jct.*
Coplin, Bernice	*Taylorville, Ill.*
Cordell, Elizabeth Miller J. ls	*Madison*
Cornell, May	*Grand Rapids, Mich.*
Corsau, Florence	*Union Center*
Cowles, Marjorie Blakeslee	*Oak Park, Ill.*
Cox, Helen Bickford	*Oak Park, Ill.*
Coye, Mary Ethel	*Medford*
Craig, Helen	*Jacksonville, Ill.*
Crain, Carroll Francis	*Redfield, S. D.*
Crawford, Lois Lettie	*Boone, Iowa*
Cretors, Carolyn Elizabeth	*Pittsburgh, Pa.*
Crickett, Myma Dale	*Kansas City, Mo.*
Croskey, Marguerite Isabel ls	*Madison*
Crow, Josephine	*Evansville*
Crugar, Fanny Barker	*Cincinnati, Ohio*
Cunha, Leopoldo Jr.	*Amparo, Brazil*
Curtis, Alice	*Madison*
Dahle, Ella	*Madison*
Dahm, Irene Lancaster ls	*Madison*
Dale, Daisy M.	*Cayuga, Ind.*
Darling, Gracia Jo	*Manawa*
Darling, Lorenzo Lyman	*Manawa*
Darling, William Thomas	*Two Rivers*
Darrah, Elizabeth Jane	*Freeport, Ill.*
Davenport, Mary Marguerite	*Carlinville, Ill.*
Davey, Samuel Gerald	*Eau Claire*
Davis, Bessie	*Portage*
Davis, Mary Corwin	*Portage*
Day, Alice Marie ls	*St. Louis, Mo.*
Dean, Ora Henrietta	*Grand Rapids, Mich.*
Decker, Harold Robert	*Menomonie*
Delaney, William Francis ls	*Milwaukee*
Denman, George Edmund	*Glenwood City*
Dennis, Henry Charles	*Cortland, N. Y.*
Dent, Harold Roy ls	*Tigerton*
DeVilbiss, Bess Beatrice	*Ft. Wayne, Ind.*
Diamond, Thomas	*Madison*
Dickens, John Shannon	*La Crosse*
Dickie, Ethel Adeline	*Black River Falls*
Dickie, Frederick T.	*St. Louis, Mo.*
Diebold, Carrie Elise	*Milwaukee*
Dieter, Earl Welton ls	*Richland Center*

Dimond, Dorothy Sara ls, m	*Albany, Ill.*
Dodson, Elsie Jane	*Carlyle, Ill.*
†Doege, Paul Frederick ls	*Marshfield*
Doeringsfeld, Clara Lois	*Fennimore*
Dolan, Edith Agatha	*Cincinnati, Ohio*
Donacelske, Florence Agatha ls	*Preston, Iowa*
Donaghey, Ivan Paul	*Madison*
Donahue, Von	*Superior*
Donaldson, Ruth Elizabeth ls	*Webster City, Iowa*
Donovan, Margaret	*Madison*
Doran, Blanche	*Belvidere, Ill.*
Doyle, Mary Eileen	*Oshkosh*
†Dredge, Thomas Joseph ls	*Green Bay*
Dretzka, Albert W.	*Cudahy*
†Driver, Camillus Ogden ls, m	*Racine*
Driver, Hazel	*Milton Junction*
Duggan, Philomena	*Dubuque, Iowa*
Dunaway, Gretchen Marie ls	*Sikeston, Mo.*
Dunlap, Ellen Mae	*Fond du Lac*
Dunn, Evelyn Constance	*St. Louis, Mo.*
Dürst, Marie	*Dayton, Ohio*
Dwight, Frances Elizabeth ls	*Madison*
Dykesten, Emma Amanda	*Madison*
Dysart, Dorothy Ross	*Cincinnati, Ohio*
Dysart, Isabel Neil	*Cincinnati, Ohio*
Eaglesfield, Virginia ls	*Indianapolis, Ind.*
Ede, Olive Hoyt	*Chicago, Ill.*
†Ede, Richard Hoyt ls	*Chicago, Ill.*
Egan, Howard Edward	*Lodi*
Egan, Marcella Catherine ls	*Highland*
Eggleson, Lillian Theodora	*Madison*
Eilers, Florence Marie	*Chicago, Ill.*
Ellis, Bessie De Etta	*Endeavor*
Elmendorf, Mary	*San Antonio, Texas*
Elsom, Bernardo Whitfield ls	*Madison*
Emmerling, Ottelie Leonore	*Milwaukee*
Engel, Martha Sophie ls	*Sun Prairie*
Engle, Alice N.	*Detroit, Kansas*
Erickson, Edith Thelma	*West Allis*
Ersig, Katherine Alice	*Ft. Wayne, Ind.*
Escabi, Jose ls, m	*Magaquez, Porto Rico*
Eschweiler, Elaine Katherine ls	*Madison*
Eslinger, Charles Edward	*Menomonie*
Farrell, Mae Josepha	*Chicago, Ill.*
Fauerbach, Louis Jr.	*Madison*
†Feldman, Joseph George ls	*Madison*
Fellows, Gladys ls	*Racine*
Felsher, Augusta Rose ls	*Madison*
Feng, Wen Chian	*Chin Chow, China*

Ferguson, James Clyde	*Fennimore*
Fetter, Russell Manion ls	*Kendallville, Ind.*
Field, Harold Mandel ls	*Oelwein, Iowa*
Finger, Alice Carol	*Milwaukee*
Finner, Lucy Louise ls	*Dodge*
Fisher, Margaret ls	*Hubbard Woods, Ill.*
Fitzgerald, Alva Mary	*Tomahawk*
Fitz-Gerald, Charlotte ls	*Richland Center*
Flatt, Nelle B.	*Champaign, Ill.*
Fleckenstein, Joseph Arthur	*Marshfield*
†Flogaus, William Albert	*Chicago, Ill.*
Florine, Frank C.	*Cuba*
Foard, Joseph Langan	*Marquette, Mich.*
Focke, William John ls, m	*Chicago, Ill.*
Fogle, Sybil Margaret	*Kilbourn*
Foley, Frances	*Plymouth, Ill.*
Ford, Mae Bernadette	*Escanaba, Mich.*
Forsythe, Ethel Gladys	*Oconomowoc*
Foss, Arthur Rolf	*Onalaska*
Foust, Harry Lewis	*Fargo, N. Dak.*
Frazier, Mildred Lucile ls	*Madison*
Frederick, Roland Hubbard	*Milwaukee*
Freitag, Nelda	*Waukegan, Ill.*
†Freymiller, Ernest Fred ls, m	*Woodman*
Frick, Lois Waitstill	*Higginsville, Mo.*
Froehlich, David Edward, Jr.	*Shawneetown, Ill.*
Frye, Margaret	*Highland*
Fuchs, Harry Sigmund ls	*Janesville*
Fuehring, Laura Anne	*Evansville, Ind.*
Gall, Dorothy Frieda	*Chicago, Ill.*
Galvin, Irene Emma ls	*Benton, Ill.*
Garwood, Ruth Emma ls	*Staten Island, N. Y.*
Gates, John Ferdinand	*Madison*
Gebhardt, Anna Laura ls	*Madison*
Geerts, Elsie Wilhelmina	*Muscatine, Iowa*
Gehr, Bertha ls	*Madison*
George, Caddie Gertrude	*Gays Mills*
Gerds, Huldah Hedwig ls	*Milwaukee*
Germer, Gertrude Emily	*Chicago, Ill.*
Gernon, Ella Sargeant	*Madison*
Gettle, Rollin Brown e	*Madison*
Gilbert, George Gale	*Mt. Vernon, Ill.*
Gilbert, Otto Gustav	*Milwaukee*
Gillum, John SATC	*Monroe*
Girard, Bernadine	*Edgerton*
Glassner, Rose Ruth ls	*Milwaukee*
Glessner, Kate Selma	*Topeka, Kansas*
Glindinning, Maude M.	*Shullsburg*
Gnagi, Will Bender ls	*Monroe*

Goddard, Grace Clemans ls, mu	*Madison*
Goepper, Dorothy	*Indianapolis, Ind.*
†Goerlitz, Frederic Omar ls	*Sheboygan*
Goetz, Otto Emil	*St. Louis, Mo.*
Golden, Jennie Alberta	*Marinette*
Goldmann, Madelaine Henriette ls	*Milwaukee*
Goodyear, Charles Stewart	*Madison*
†Gorder, Arne Christian ls, m	*La Crosse*
Gotschalk, Pauline Mary Ellen	*Chicago, Ill.*
†Gough, James Arthur ls, m	*Sugar Bush*
Gould, Violet Elizabeth ls	*Norwalk*
Grace, Dorothy Patterson ls	*Oak Park, Ill.*
Grady, Marian Frances	*Miami, Mo.*
Graf, Blanche Loretta	*Merrillan*
Grafeman, Adele	*St. Louis, Mo.*
Graham, Corinne Alberty	*Muskogee, Okla.*
Gratz, Marion Clevenger ls	*Pemberton, N. J.*
Grauman, Edna Jeanette	*Louisville, Ky.*
Gray, Helen	*Manitowoc*
Green, Belle Rankin	*Eagle*
†Green, Walter Elmer ls, m	*Milwaukee*
Gregg, Scranton Hugh	*Milwaukee*
Gribble, Lelah Linnet	*Mineral Point*
Griffin, Tella Francis	*Albany*
Griffith, Mary Phebe	*Carthage, Mo.*
Gronberg, Clarence Oscar	*Elgin, Ill.*
Gross, Alma Eleanor ls	*Duluth, Minn.*
Grueb, Marie Madeline	*Eureka*
Guequierre, Jacques Pierre ls, m	*Milwaukee*
Hadley, Edith Jane ls	*Stoughton*
Hadley, Ella Josephine ls	*Stoughton*
Haessler, Dorothy ls	*Milwaukee*
Haines, Clara Lydia	*Merrimac*
Halbert, Frances	*Chicago, Ill.*
Halbert, Howard Valmore	*Chicago, Ill.*
Haley, Irene Wilson ls	*Tulsa, Okla.*
Halford, Eunice Uberta	*Cassville*
Halligan, Esther Marie	*Chicago, Ill.*
Hamilton, Harriett Peake	*Oak Park, Ill.*
Hamilton, Phyllis Brayton ls	*Madison*
Hamilton, William James	*Oak Park, Ill.*
†Hammond, Reginald Wilmot ls	*Manitowoc*
Hanley, Katherine Margaret	*Racine*
Hanna, Edith Joyce	*Kansas City, Mo.*
Hansen, Edwin Carsten	*Chicago, Ill.*
Hansen, Segrae ls	*Rhinelander*
Hanson, Anna Kirstin	*New Lisbon*
Hanson, Helma Engelene	*Stoughton*
Hanson, Lillian Christine ls	*Superior*

Hanson, Louis	*Madison*
†Harding, Raymond Oscar ls	*McFarland*
Harker, Myra Susan ls	*Shullsburg*
Harrington, Hannah Truesdale	*Rock Creek, Ohio*
Harris, Irene Lillian	*Macomb, Ill.*
Harrison, Lilian Mauro	*St. Louis, Mo.*
Hart, Bertha Marie	*Madison*
Hart, Margaret	*Wauwatosa*
Hartmeyer, Helen Ann Elizabeth ls	*Madison*
Hatfield, Hazel M.	*Madison*
†Hatleberg, Clarence N. B. ls, m	*Madison*
Haugen, Jeannette Clara	*Blanchardville*
Hauk, Helen Celia ls	*Madison*
Haussmann, Olga Kuhlmeyer	*Madison*
Hawley, Harriet Rosalia	*Superior*
Hayden, Marjory Alice-Lee	*Shell Lake*
Hayssen, Irma Charlotte ls	*Madison*
Head, Dorothy Brandon	*Madison*
Healy, Marie C.	*Cincinnati, Ohio*
Healy, Jean Margaret	*Ironwood, Mich.*
Heckmann, Michael William	*Kiel*
Heddles, Rena ls	*Madison*
Heffernan, Clarissa Anna	*Wilton*
Heffernon, Marjorie Blanche	*Berlin*
Hegel, Clara J.	*Madison*
Heiliger, Ella Catherine ls	*Madison*
Heilmann, Eleanor B.	*Tomah*
Hein, Albert Francis	*Madison*
Helfaer, Bertram	*Milwaukee*
Helm, Ella Florence	*Webb City, Mo.*
Helm, Martha Lena	*Webb City, Mo.*
Henderson, Thomas Edgar	*Neillsville*
Hendra, Philippa Jane	*Mineral Point*
Henkel, Albert John	*Lodi*
†Hentzen, Erwin Albert ls	*Milwaukee*
Heron, Ruth	*St. Louis, Mo.*
Herrman, Pearl Bertha	*Sparta*
Herrmann, Dorothy	*Lansing, Mich.*
Hertzman, Alrich Brunjolf	*Ashland*
Hesse, Lucie S. ls	*Madison*
Hessing, Hazel Pauline	*Windsor*
Hessler, Frances Bernice	*Chicago, Ill.*
Hessmann, Mary Lena	*Madison*
Hibarger, Leon Pearle	*Yakima, Wash.*
Hicks, Marion Adah ls	*Madison*
Hicks, Myldred Amy	*Battle Creek, Mich.*
Hill, Florence May	*Platteville*
Hill, Harry Sylvester	*Milbank, S. D.*
Hill, Lydia Alice	*Lake Geneva*

Hindman, Harry Hingston ls	*Madison*
Hines, Ada Schnabele	*Geneseo, Ill.*
Hirsch, Everett Charles	*Park Falls*
Hjermstad, Marie Emily ls	*Red Wing, Minn.*
Ho, Teh Kuei ls	*Kinghwa, China*
Hobbs, Merville Kummer ls	*Platteville*
Hock, Clara Marguerite	*Oak Park, Ill.*
Hock, Helen Anna	*Oak Park, Ill.*
Hodge, Alice M.	*Yakima, Wash.*
Hodge, Edith Elizabeth	*Waunakee*
Hodgins, Gerald Burgh ls	*Moscow, Idaho*
Hoffman, Alice Emily ls	*Madison*
†Hoffman, Arthur Louis ls	*Madison*
Hoffman, William Edward	*Lyndhurst*
Hoffmann, Agnes Marie Emily	*Dickens, Iowa*
Hoffmann, Ella Marguerite	*Clintonville*
Hollensteiner, Viola Martha ls	*Milwaukee*
Hollis, Eva Belle	*Janesville*
Holmes, Gordon Arthur	*Wittenberg*
Holscher, Maude Marie ls	*McFarland*
Holton, Stanley William	*Nevada, Mo.*
Holz, Carolyn Pauline	*Fort Wayne, Ind.*
Hood, Leona Beatrice	*Minneapolis, Minn.*
Hood, Sadie Elizabeth	*Racine*
Hooper, Elizabeth Jane ls	*Elkhorn*
Hopkins, Viola Elizabeth Barbara	*Madison*
Hoppin, Edith	*Milwaukee*
Hosmer, Mary Rosebrugh	*Freeport, Ill.*
Houg, Hannah Marie	*Spring Valley*
Houston, Walter Charles	*Milwaukee*
†Hoyer, George Henry C. ls m	*West Bend*
Hoyt, Grace Lucile	*Lake Mills*
Hoyt, Katherine Louise	*Rosendale*
Huber, Herman Harry ls m	*Milwaukee*
Huebler, Louis Joseph	*Cudahy*
Huegel, Lillian Elizabeth	*Madison*
Hueter, Martin F.	*Clinton, Iowa*
Hughes, Margaret Mary	*Madison*
Hunt, William Edwin	*Cleveland, Ohio*
Huntting, Helen Elizabeth	*Minneapolis, Minn.*
†Huston, John ls, m	*Richland Center*
Hyde, Mary Backus	*Brooklyn, N. Y.*
Hyde, Mary Marie Elizabeth	*La Crosse*
Ibberson, William Henry	*Saskatoon, Canada*
Ingli, Irene Gwendolen	*Ellsworth*
†Irish, Frederick Walker ls	*Williamsfield, Ill.*
Iversen, Agnes Mathilda ls	*Stoughton*
Ivey, Everett D. ls m	*Millston*
Jackson, Edna Louise	*Ortonville, Minn.*

Jackson, Stella Marion	*Ortonville, Minn.*
Jacobi, Florence Ethel	*Mondovi*
Jacobs, Gertrude Margaretta ls	*Chicago, Ill.*
James, Marion Elizabeth	*Madison*
Jameson, Anna Cordelia ls	*Fulton, Mo.*
Jameson, Eleanor	*Fulton, Mo.*
Jankel, Clara Augusta	*Sparta*
Jantz, Edward Frank	*Oshkosh*
Jay, Dorothy E.	*Kansas City, Mo.*
Jefson, Ruby Henrietta	*Westby*
Jensen, Dagmar Christine ls	*Racine*
Jillson, Mary Esther	*Fond du Lac*
Johnson, Agnes Hansena	*Markesan*
Johnson, Avis Joan	*Gladstone, Mich.*
Johnson, Cora Louella	*Eau Claire*
Johnson, Helen Sophia	*Woodville*
Johnson, Imogene Hess ls	*Kahoka, Mo.*
†Johnson, Nicholas Stanislaus ls, m	*Ohio, Ill.*
Johnston, Cassie	*Richland Center*
Johnston, Mae Elizabeth	*Michigan City, Ind.*
Johnston, Willard Albert satc	*Mineral Point*
Jones, Celia	*Pittsburg, Pa.*
Jones, Doris Elizabeth	*Madison*
Jones, Edna ls	*Spring Green*
Jones, Fay Agnes	*Boone, Iowa*
Jones, Harrison J.	*Platteville*
Jones Jessamine Barbara	*Madison*
Jones, Lila Genevieve	*Dodgeville*
Jones, Marguerite Edwards ls	*Fort Atkinson*
Jones, Ruby Elizabeth	*Winnetoon, Neb.*
Jones, Thelma Fay ls	*Madison*
Jones, Wesley Warren	*Madison*
Jordan, Clara Emma	*Waterloo*
Jorgensen, Nina	*Mt. Hope*
Joyce, Nellie	*Richland Center*
†Jung, Frederic Theodore ls	*Sheboygan*
Karker, Lucia Martha	*Milwaukee*
Karlson, Gideon O.	*Milwaukee*
Kaufmann, Hazel Melissa	*Cassville*
Kearns, Edward Peter ls	*Pardeeville*
Kearns, Ida Mae	*Chicago, Ill.*
Keeler, Cordelia	*Brookville, Ind.*
Keen, Sarah Edith	*Mt. Pleasant, Mich.*
Kell, Herman Frederic ls	*Grand Rapids*
†Keller, Daniel Hamilton ls	*Warren, Ill.*
Kelley, Harold James ls	*Tomah*
Kellogg, Lucy Mary	*Janesville*
Kelly, Marion	*Everett, Mass.*
Kemp, Gertrude Elizabeth	*Cincinnati, Ohio*

Kempton, Elizabeth	*Madison*
Kendall, Anna N.	*La Moille, Ill.*
Kennedy, Thomas Hart satc	*Normal, Ill.*
Kepple, Carrie Anne	*Sycamore, Ill.*
Ketchpaw, Kathryn Hazel	*Janesville*
Keyes, Arthur Lee	*Hopedale, Ill.*
Keyes, Mary ls	*Madison*
Kiekhefer, Hilda Louise ls	*Milwaukee*
Kiefer, Emma Emily	*Ft. Wayne, Ind.*
King, Katherine Gladys	*Marshall*
Kingston, Agnes Ann	*Three Lakes*
Kinnear, Helen Greenaway	*Lake Luzerne, N. Y.*
Kinnear, Kenneth Maxwell	*La Crosse*
Kirshner, Charlotte Rebecca	*Kansas City, Md.*
Kissner, Florence E.	*St. Louis, Mo.*
†Kitowske, John Edward ls	*Berlin*
Kixmiller, Helen Gould	*Bickwell, Ind.*
Kletzien, Hobart Henry ls	*Madison*
Knappen, Laurence Stevens ls	*Brookings, S. D.*
Knight, Marion Armstrong	*Dallas, Tex.*
Knoll, Alma Marie	*Milwaukee*
Koltes, Lucille Cecelia	*Dane*
Koons, Ida S.	*Ft. Wayne, Ind.*
Kost, Cassie Elizabeth	*Chicago, Ill.*
Kountz, William Bryan	*Saxton, Mo.*
Krause, Alvina Eloise	*New Lisbon*
Krembs, Ferdinand Richard ls, m	*Stevens Point*
Kress, Mae Christine	*Tomah*
†Krohn, Irwin Kjelland ls, m	*Black River Falls*
Krueger, Hattie Ottelia	*Stevens Point*
Kuehner, Herman William	*Cedarburg*
Kung, Fan Yi	*Nanking, China*
Kupfer, Harriet Angeline ls	*Kenosha*
Kupperman, Frances Victoria ls	*Milwaukee*
Kurz, Martha ls	*Madison*
Kutz, Russell Merrill	*Jefferson*
Lacy, Marjorie Helen mu	*South Wayne*
Laird, Harold Remington	*Madison*
Lambeck, Lester Arthur	*Milwaukee*
Lamberson, Winifred ls	*Whitehall*
Lambertus, Reo Frederick	*Prairie du Sac*
Lamont, Marion Elizabeth ls	*Madison*
Lang, Marcella	*Spokane, Wash.*
Langmade, Ruth	*North Baltimore, Ohio*
Lanz, Arthur ls	*Monroe*
Larson, Muriel Estelle	*Neenah*
Lasley, Lois	*Kansas City, Mo.*
Lasley, Mabel Anna	*Kansas City, Mo.*
Lathrop, Francis Child, ls, mu	*Madison*

Lavin, Axel	*Duluth, Minn.*
Lawler, Mildred Marie	*Gordon*
Layde, Joseph Bernard	*Seneca*
Le Clerca, Edith	*Paris, Texas*
Lee, Margaret Irene ls	*Madison*
Lehmann, Jane Schrumpf ls	*Madison*
Lehrbas, Lucille Emma	*Wausau*
Lemmer, Lulu Rose	*Jeffris*
Lentz, Robert Carl ls	*Mayville*
Leuchtenberg, Frederic	*Milwaukee*
Levey, Edna	*Indianapolis, Ind.*
Lewis, Grace Abbott	*Paris, Tenn.*
Lewis, Grace Ann	*Milwaukee*
Lewohl, Francis Herman ls	*Madison*
Lieberg, Marjory Caroline	*Minot, N. D.*
†Lieberthal, Eugene Paul ls, m	*Chicago, Ill.*
†Lieberthal, Paul Ralph ls, m	*Ironwood, Mich.*
Lien, Clara Georgiana	*River Falls*
Lindley, Lynnette Isabelle	*Appleton*
Lippert, Stella	*Burlington, Iowa*
†Littig, Lawrence Victor ls, m	*Madison*
Little, Theresa	*Peshtigo*
Livingston, Lois Barber	*Platteville*
Livingston, Sadie B.	*Platteville*
Loan, Ruth	*Appleton*
Lock, Pearl Sharpe	*Arkansas City, Kan.*
Loeb, Hamilton Moritz	*Chicago, Ill.*
Lohrie, Robert Fulton	*New Richmond*
Loomis, Mary L.	*Madison*
†Loomis, Porter Lawrence ls	*Madison*
Loos, Elsie Elenore	*Milwaukee*
†Lorfeld, Gerhard William ls	*Cleveland*
†Loven, Leo Clayton ls	*Rio*
Lowe, John Worthie ls	*Sheboygan*
Lowry, Lucille Lillian ls	*Fond du Lac*
†Luban, Simon ls m	*Milwaukee*
Luedeking, Louise Betty	*St. Louis, Mo.*
†Lugoff, Leonard Seymour ls	*Duluth, Minn.*
Lund, Bertha Theresa	*Mt. Horeb*
Lund, John A.	*Reedsburg*
Lyman, Helen Johnson	*Kansas City, Mo.*
Lytle, Laura Holman	*Byron, Ill.*
Lytle, Mildred Iona	*Byron, Ill.*
MacAnanny, Dorothy Mabel ls	*Madison*
McArthur, Julia Campbell	*Superior*
†McCabe, Lester Follett ls	*Duluth, Minn.*
McCahill, Marie	*Pittsburg, Pa.*
McCain, Katherine Louise ls	*Carrollton, Miss.*
McCormick, Elizabeth Rosalia	*Superior*

McCoy, Margheritta Saloma	*Lancaster*
†McCray, Joe Whiting ls	*Oshkosh*
McCray, Sim Thaxter ls	*Oshkosh*
McCrory, Raymond John	*Waterford*
McDermott, Francis Edward satc	*Portage*
McDonald, Marguerite Helen	*Marshfield*
MacGarr, J. Katherine Llewellyn	*Madison*
†McGarty, Michael Edmund ls, m	*Mauston*
McGinnis, Frances Elizabeth	*Chicago, Ill.*
McGowan, Gladys H.	*Madison*
McGuigan, Mary	*Chaffee, N. D.*
McGuire, Margaret Agatha	*Superior*
†McIntosh, Roscoe Lyle ls, m	*Edgerton*
McIntyre, Darrell Donald	*Avoca*
McKay, Janie	*Arp, Texas*
McKee, Florence Evelyn	*East Jordan, Mich.*
McKennan, Esther	*Madison*
McKenney, Addell	*Suring*
McKinley, Lorenzo Ellis	*Bryan, Ohio*
McKitrick, Mildred Marie ls	*Madison*
McMahon, Rolla James	*Kewaunee*
McLain, Lenore Edythe	*Marinette*
MacLean, Margaret Elizabeth	*Beloit*
McNamee, Shurly Lawrence ls	*Madison*
MacNees, Edith Ellen	*Richland Center*
McNutt, Lila Elizabeth	*Hortonville*
Maas, Frank A.	*Algoma*
Mackeye, Florence May	*Plankinton, S. D.*
Mackin, William Nelson	*Madison*
Magoon, Herbert Arthur	*Whitewater*
Main, Mary Elyda	*Madison*
Marbut, Helen	*Columbia, Mo.*
†Marsden, Wendell Herbert ls	*Fennimore*
Marsh, Hannah Lucile	*Waupun*
Marshall, Elizabeth	*Madison*
Marshall, Lillian Ruth	*Dayton, Pa.*
Martin, Fred Charles	*Whitehall*
Martin, Neva	*Darlington*
Martin, Theodore John	*Merrimack*
Martineau, Mary Lenore ls	*Green Bay*
Martini, John W.	*Stevens Point*
Martins, Jalma Varella	*Champaign, Ill.*
Mason, Glenna Pearl	*Kendallville, Ind.*
Mathison, Herbert Waldemar	*Shawano*
Matney, Margaret	*St. Joseph, Mo.*
Matravers, Chester Harold ls	*Oconto*
Matsunami, Taigan	*Chicago, Ill.*
Matthews, Annie Laura	*St. Louis, Mo.*
Mattice, Ellen Helena	*Aurora, Ill.*
Matzen, Herbert James ls	*Milwaukee*

Maupin, Ray Coats	*St. Joseph, Mo.*
Maurer, Clara	*Medford*
Maw, Dora Elizabeth ls	*Madison*
†Mayer, Chester Justin ls	*Milwaukee*
Meeks, Grace	*Muncie, Ind.*
Meidell, Alice ls	*Madison*
Melcher, Hazel Claire	*Delavan*
Meyer, Harvey G.	*West Allis*
Michaels, Etta May ls	*Milwaukee*
Michie, Catherine Martin	*Milwaukee*
Milbank, George Edward	*Chillicothe, Mo.*
†Millard, Robert Dinsmore ls, m	*Antigo*
Miller, Alice E.	*St. Louis, Mo.*
Mills, Helen Dashiell	*Philadelphia, Pa.*
Minnis, Louise Eleene	*Chicago, Ill.*
Mitchel, Mira Louise ls	*Madison*
Mitchell, Prescott Talman	*Cincinnati, Ohio*
Molander, Edith Marie	*Marinette*
Montague, Theodore Giles ls	*La Crosse*
†Montgomery, Robert Bresee ls, m	*Madison*
Moore, Alice Louise ls	*Milwaukee*
Moore, Ellen Bertha ls	*Great Divide, Colo.*
Moore, Maude Myrtle ls	*Elwood, Ind.*
Moore, Vivian June	*Stockton, Ill.*
Moreau, Fred	*Casco*
Morin, Pomala Orda	*Almont, Mich.*
Moroney, John Rodgers	*Dallas, Tex.*
Moroney, William Joseph Jr.	*Dallas, Tex.*
Morrisey, Vangie	*Chicago, Ill.*
Morse, Edith Elizabeth	*St. Louis, Mo.*
Morse, Mabel Ellen	*Beloit*
Morse, Richard Irving	*Alney, Ill.*
†Moss, Walter King ls	*Milwaukee*
Moss, Winifred ls	*Milwaukee*
Muellenschlader, Helen Augusta	*Milwaukee*
Muldowny, Sylvester William	*La Crosse*
Mullane, Alice H.	*Louisville, Ky.*
Mullen, Bernard Parker	*Sturgeon Bay*
Mulloy, Helen Anne	*Lincoln, Kansas*
Mulvey, William Henry	*Bear Creek*
Mungavin, Katherine Leonissa	*Superior*
Murphy, Brynhilde Josephine ls	*Madison*
†Murphy, James Henry ls, m	*Hayton*
Murphey, Jessis Atkin	*Philadelphia, Pa.*
Murphy, Loretta Mary	*Waunakee*
Musgrove, Gertrude	*Racine*
Myers, Charles Albert	*Laurium, Mich.*
Myhre, Geda Otillie	*Frederic*
Mykel, Kahryn Ciperlie	*Weyauwega*
Neprud, Marion Catharine	*Coon Valley*

Neprud, Martha	*Westby*
Neubauer, Paul Frederick	*Milwaukee*
†Newcomb, Alvah ls	*Pepin*
Newland, Harriet Helen	*Galva, Iowa*
Newlun, Chester Otto	*Sauk City*
Newman, Rose Katherine ls	*Madison*
Newsome, Verna Louise	*Waupaca*
Neyhart, Ethel Mae	*Arkansaw*
Nichols, Anna King	*St. Louis, Mo.*
Nicolai, Fred Ernest	*Milwaukee*
Niedermeyer, Sara J.	*Omaha, Nebr.*
Nielson, Anna Christine	*Chicago, Ill.*
Niemeyer, Lambert	*Berlin*
Nitzsche, Francelia	*Maquoketa, Iowa*
Nohr, Grace Madelyn	*Stevens Point*
O'Brien, Katharine Helen	*Fond du Lac*
O'Connor, John Peaslee	*Superior*
†O'Connor, William Donald E.	*Hancock*
Odegard, Ethel Jannette ls	*Merrill*
Oden, Constantine Luther A.	*Belvidere, Ill.*
O'Donnell, Margaret	*Beloit, Kansas*
O'Keefe, Aileen Elizabeth ls	*Waunakee*
O'Laughlin, Eleanor Margaret ls	*Madison*
Olds, Mary Livia	*Duluth, Minn.*
Oleson, Jennie Bertina	*Spring Green*
Oliphant, Hazel Leora	*Vincennes, Ind.*
Oliver, Anna Louise	*Jackson, Missouri*
Olsen, Lucille Eleanor	*Madison*
Olson, Alvin Bennett	*Reedsburg*
Olson, Clara Josephine	*Marinette*
Olson, Lila Belle ls	*Madison*
O'Neil, Margaret Ethel	*Chippewa Falls*
O'Neil, Veronica Grace	*Aurora, Ill.*
O'Neill, Isabelle Frances	*Hersey*
Oppel, Catherine	*Madison*
Orear, Pauline O'bob	*Kansas City, Mo.*
O'Rourke, Timothy Everett	*Madison*
Orr, Alice De Ette	*Omaha, Nebr.*
Osborn, Eighmy-bell ls	*Madison*
Osborn, Frances Willard	*Winnebago, Ill.*
Osgood, Mary Eloise	*Chicago, Ill.*
Osgood, Willard Palmer	*Decatur, Ill.*
Owen, Leona Frances ls	*Dodgeville*
Owen, Gertrude B.	*Chicago, Ill.*
Oyaas, Einar Bernhardt ls	*Eau Claire*
Padley, Grace ls	*Lodi*
Parker, Louisa ls	*Clinton*
Parkhill, Frances Margaret ls	*Rochester, Minn.*
Parmelee, Abbie Neal ls	*Madison*
Patchin, Nelle E.	*Wyocena*

Patterson, Clarrissa Estella ls	*Canton, Mo.*
Patterson, Grace ls	*Wahpeton, N. D.*
Patterson, Marguerette ls	*Wahpeton, N. D.*
†Patterson, William Francis ls	*Madison*
Patton, Helen Myrtle	*Juda*
†Paul, Harold Henry ls	*Milwaukee*
Paulu, Emanuel Marion	*Madison*
†Pellow, Chauncey James ls	*Mineral Point*
Pennefeather, Florence Valene	*Kenosha*
Perkins, Edward L.	*Joliet, Ill.*
†Perlman, Jacob ls	*Madison*
Peterman, Mynie Gustav	*Merrill*
Peterson, Katharine Lois	*Chicago, Ill.*
Peterson, Nettie D.	*Brooklyn*
Peterson, Ruth Agnes	*Wausau*
Pfeiffer, Lydia Marie	*Plymouth*
Phelps, Clarence Henry Jr.	*Milwaukee*
Phelps, Gladys Southworth	*Poynette*
Phillips, Herbert Lester	*Spring Valley, Ill.*
Pickerel, Marie Traylor	*Springfield, Ill.*
Pieh, Addie Emma ls	*Madison*
Pierce, Cordelia Clement	*Waukesha*
Piper, Purcell William satc	*Milwaukee*
Pirie, Amelia ls	*Milwaukee*
Polk, Ralph Weiss	*St. Joseph, Mo.*
Pollard, Austin W.	*Houston, Texas*
Pollard, Mary Fuqua	*Houston, Texas*
Pond, Grace Elizabeth	*Virginia, Ill.*
Poole, Ethel	*Molusk, Va.*
Porter, Adelaide Grace	*Holcombe*
Porter, Hazel Evelyn	*Portage*
Porterfield, Alice Viola ls	*Omaha, Nebr.*
Potter, Mildred Margaret Alleane	*Stanley*
Powell, Lady May Seelye	*Madison*
Powles, F. Stanley	*Berlin*
Prasser, Leona Lenore ls	*Milwaukee*
Pressler, Susie Marie	*Carlinville, Ill.*
†Puestow, Karver Louis ls, m	*Oshkosh*
†Pullen, Richard Woolard ls, m	*Fond du Lac*
Pulver, Hazel Marie	*Merrillan*
Quade, Alice A.	*Waterloo*
Quan, Blanche Brereton	*Madison*
†Quarberg, Lincoln Andrew ls	*Mondovi*
Quinnette, Stella Catherine	*Morrison*
Radford, Ruth Marie ls	*Madison*
†Ramsey, Ronald West ls	*Rock Rapids, Iowa*
Ramstad, Olinda	*Superior*
Ranck, Flora	*Madison*
Ranger, Katharine	*Indianapolis, Ind.*
Rankin, Gertrude	*Munhall, Pa.*

Rauch, William Anthony	*Hayton*
Rawlings, Charles Alford	*Rochester, N. Y.*
Ray, Jesse Edgar	*Menomonie*
Reed, Katharine Fessenden	*Milwaukee*
Rees, Edith Winifred	*Johnstown, Pa.*
Rees, Hazel Dell	*Greenfield, Ind.*
Reese, Marion Gayle	*Spring Green*
Regan, Michael Patrick ls	*Milwaukee*
Reid, Velma Agnes ls	*Hurley*
Reif, Herman Peter g	*Madison*
Reimensnyder, Effie	*Harrisburg, Pa.*
Reim, Clara Palmina	*Stoughton*
Rendleman, Adelaide Elizabeth	*Cairo, Ill.*
Rendleman, Ruth	*Cairo, Ill.*
Reynolds, Myron Bausman	*Anderson, Ind.*
Richards, Willis	*Quincy, Ill.*
Richardson, Alice Mary	*Sioux City, Iowa*
Riddering, Della John	*Grand Rapids, Mich.*
Ridgman, Mrs. Chester Page	*Grand Rapids*
Riley, Georgia	*Pittsburgh, Pa.*
Risdon, Helen Inslee	*West De Pere*
Roache, M. Fay	*Milwaukee*
Roberts, Hallie Frank	*Independence*
†Roberts, Rob Roy ls, m	*Ft. Atkinson*
Robinson, Hester Douglas ls	*Madison*
Rodes, Beulah	*Webster Groves, Mo.*
Rodes, Leona Williams	*Webster Groves, Mo.*
Roe, Helen R.	*Bloomington, Ill.*
Rolfe, Jean Francis	*New Lisbon*
Roll, Elizabeth	*Hamilton, Ohio*
Roller, Edith Isidore Sophia	*Milwaukee*
Rollins, Aaste Lohner	*Chicago, Ill.*
Rondou, John Louis	*Green Bay*
Rooney, Frances Vera	*South Bend, Ind.*
Rose, Austin T.	*North Canton, Ohio*
Roseman, Max	*Green Bay*
Rosenthal, Blanche Florence	*Indiana Harbor, Ind.*
Roth, Marion Regula ls	*Rock Island, Ill.*
Ruegsegger, Laura Emma	*Monroe*
Ruehl, Wilbur H.	*Beaver Dam*
Ruenzel, Hans Christian	*Middleton*
Ruggles, Mary Ruth	*Baraboo*
Rummele, Dorothy Sarah	*Sheboygan*
Rundell, Oliver Samuel	*Madison*
Russell, Frances	*Mackinaw, Ill.*
Russett, Jessie Theresa ls	*Madison*
Ryan, Catherine Veronica	*Quincy, Ill.*
Ryan, Helena Margaret	*Quincy, Ill.*
Sager, Edna	*Kansas City, Mo.*
Salzmann, Loure Ethel	*Ainsworth, Nebr.*

Samuels, Agnes Helen ls	*Madison*
Sannes, Ingeborg Marie ls	*Madison*
Sarles, Agnes Bowen ls	*Madison*
Saylor, Esther ls	*Wellington, Kansas*
Scarcliff, Hazel Vivian	*Holden, Mo.*
Schalk, Ella Martha	*Berlin*
Schapiro, Saul ls	*Milwaukee*
Scheinpflug, Marie M.	*Boscobel*
†Schenck, Edwin William ls	*Madison*
Scheu, Katherine	*St. Louis, Mo.*
Schilling, Elisabeth Magdalen	*Waupun*
Schilling, Ethel Florence	*Green Bay*
Schilling, Louise Eleanor	*Green Bay*
Schleck, Leo Peter	*Madison*
Schlosser, Francis F.	*Whitewater*
†Schlotthauer, Daniel Eugene ls	*Madison*
Schmidt, Gladys Marie ls	*Superior*
Schmidt, Herbert Glueck ls, m	*Milwaukee*
Schneider, George Benjamin	*Hartland*
Schneider, Lydia	*Columbus, Ohio*
Scholz, Matilda Augusta	*Grand Rapids, Mich.*
Schroeder, Elinor Marie ls	*Cleveland, Ohio*
Schroeder, Ella Luise	*Milwaukee*
†Schuknecht, Ray John ls	*Port Washington*
Schuldt, Ella Cora	*Platteville*
Schuler, Catharine Ellen ls	*Milwaukee*
Schultz, Alma	*Birnamwood*
Schwab, Esther Rose	*Pittsburgh, Pa.*
Schwab, Ruth Ida	*Pittsburgh, Pa.*
Schwartz, Myron Edward satc	*Two Rivers*
Schwebs, Lorena Elizabeth ls	*Madison*
Seanor, Virginia Alice	*Creekside, Pa.*
Searing, Henrietta Casterline	*Dover, N. J.*
Sebastian, Stephen Edward	*Cincinnati, Ohio*
Sechrist, Esther Margaret	*Cincinnati, Ohio*
Seideman, Elva Wolff	*Sheboygan*
Seielstad, Albert Norman	*La Crosse*
Seim, Alma	*Hartington, Nebr.*
Senti, Bertha Leonora	*Milwaukee*
Sexton, Marjorie Jean	*Marshfield*
†Seybold, Erwin George ls, m	*Forest Jct.*
Shakshesky, W. Merrill	*Jefferson*
Shea, Edith ls	*Ashland*
Shepard, Marguerite Eugenia ls	*Madison*
Shepperd, Enola	*Port Arthur, Texas*
Sherrod, Anna	*Covington, Tenn.*
Sherwood, Emma Thornton	*Reedsburg*
†Shimpa, Joe Frank ls, m	*Boscobel*
Shipley, Helen Virginia	*Lafayette, Ind.*
Shirey, Hazelbelle ls	*Madison*

Shoemaker, Ethel Alberta	*Kansas City, Mo.*
Short, Robert Wright	*Elkhart, Ind.*
Short, Thelma	*Salina, Kansas*
Sichler, Margaret Xentha ls	*Madison*
Sickenberger, Laura	*Chicago, Ill.*
Siebert, Anna Marguerite	*Philadelphia, Pa.*
Simenson, Oscar Carl	*La Crosse*
Simmons, William Francis	*Milwaukee*
Sinaiko, Herman Harvey	*Madison*
Sinaiko, Isabel Jean ls	*Madison*
Singler, Margaret May	*Shiocton*
Sipple, George Emory	*Menomonie*
Sister Mary Gertrude	*Bloomington, Ill.*
Sister Mary Samuela	*Milwaukee*
Sister Mary Sebastian	*Fond du Lac*
Sister Mary Virginia Geimer ls	*Manitowoc*
Sister Mary Virginia	*Sinsinawa*
Sitterly, Ada Martha	*Spring Valley, Ill.*
Skinner, Vera a	*Tomah*
Slade, Katherine H.	*Washington, D. C.*
Smith, Bertha Mae	*Soldiers Grove*
Smith, Bessie Jenkins ls	*Milwaukee*
Smith, Elizabeth Q.	*Northfield, Minn.*
Smith, Harriett McCune ls	*Superior*
Smith, Helena Grace	*Toledo, Ohio*
†Smith, Herbert Herald ls	*Milwaukee*
Smith, Loretta Leone	*Superior*
Smith, Ruth Estelle ls	*Madison*
Snowfleet, Marie Edna	*Muskegon, Mich.*
Sperry, Margaret ls	*Madison*
Spickard, Leland William ls	*Richland Center*
Spielmacher, Margaret	*Superior*
Spry, Mary Elizabeth	*Ft. Atkinson*
†Stabo, Nils Eivind ls	*Decorah, Iowa*
Staehling, Augusta Marie	*Danforth, Ill.*
Stafford, D. Grace	*Edgerton*
Stahl, Julia Florence	*Cleveland, Ohio*
Stanley, Bonnye Lucile	*St. Francis, Ark.*
Starr, Beulah	*Boaz*
Starr, Ella	*Osage, Iowa*
Statz, Carolyn Agnes ls	*Madison*
Statz, Eleanor Carissa ls	*Madison*
Stearns, Margaret Louise	*Freeport, Ill.*
Stearns, Rachel Elizabeth ls	*Madison*
Steckbauer, Joseph William	*Oshkosh*
Stecker, Edith Delphine	*Clayton, Mo.*
Steeholm, Hardy ls	*Madison*
Steinberg, Gerhard Theodore ls	*Madison*
Steiner, Herbert R.	*Stevens Point*
†Stern, William ls, m	*Kenosha*

Steve, Fannie Mason	*Madison*
Stevenson, Jessie H.	*Grand Rapids, Mich.*
Stewart, Mrs. Robert B.	*Madison*
Stivers, Grace Helen	*Dayton, Ohio*
Stock, Irene Elizabeth	*Madison*
†Stolze, Joseph Ariel ls, m	*Wausau*
Stone, Elizabeth Warrant	*Madison*
Storlie, Carolyn Nelson	*Minneapolis, Minn.*
Stormzand, Leila Elizabeth ls	*Madison*
Straight, Earl	*Richland Center*
Stryker, Edith M.	*Oak Park, Ill.*
Stupp, Lillian Laura	*St. Louis, Mo.*
Sueltz, Alma Marie	*Groton, S. D.*
Suess, Elisabeth Clara	*Negaunee, Mich.*
Sugg, Maxey Moss	*Atlanta, Ill.*
Sullivan, Katherine Foley	*Madison*
Sullivan, Mary Margaret	*Freeport, Ill.*
Sullivan, Winifred Irene ls	*N. Fond du Lac*
Summers, Lorne Ambrose	*Chicago, Ill.*
Sumner, Catherine Clawson ls	*Madison*
Suter, Maud	*Menomonie*
Sutton, Henry Francis	*Green Bay*
Sutton, James	*Herculaneum, Mo.*
†Sutton, Robert Mage ls, m	*Peoria, Ill.*
Swan, Jessie	*Waupaca*
Swan, Mary Florence ls	*Wauwatosa*
Swanson, Cleary Neil ls, m	*Marinette*
Swendson, James Jay	*Amherst*
Swiggum, Mary Elmira	*Blanchardville*
Sylvester, Adelene	*Chicago, Ill.*
Szeliski, Victor von	*Madison*
Taber, Jessie	*Chrisman, Ill.*
Tarney, Clyde Harold	*Wonewoc*
Taylor, Bessie Lillis ls	*Glen Haven*
Taylor, Florence Josephine	*Chicago, Ill.*
Teare, Ellen Jane	*Augusta*
Teckom, Edna Alva	*Middleton*
Tegatz, Bertha Margaret	*Rhinelander*
†Terry, Halstead Coleman ls	*Lowell*
Thomas, Charlotte B.	*Lafayette, Ind.*
Thomas, Helene Stratman ls	*Dodgeville*
Thomas, Katharine Ruth	*River Falls*
Thompson, Bernice	*Racine*
Thompson, Dora Belle ls	*Waupaca*
Thompson, Emma Charlesworth	*Topeka, Kansas*
Thompson, John Abbott	*Madison*
Thompson, Leo Vera	*Edgerton*
Thompson, Olga Christiane	*River Falls*
Thoms, Mildred Florence	*Appleton*
†Thomson, John Norman ls	*Centerville, S. D.*

Thornton, David Howard ls	*Atchison, Kans.*
Thwaits, Mabel ls	*Milwaukee*
Tiefenthaler, Gustave Edward	*Milwaukee*
†Tierney, Edward Frederick ls, m	*Portage*
Tierney, Katharine Bird ls	*Niagara Falls, N. Y.*
†Tilleman, John Francis ls, m	*Madison*
Tinkham, Myra Edith	*Baraboo*
Toler, Edward Blackburn	*West Plains, Mo.*
Tompkins, Hazel a	*Phoenix, Ariz.*
Torrey, Eleanor	*Duluth, Minn.*
Trewartha, Glenn Thomas	*Hazel Green*
Tsai, Feng ls	*Peking, China*
Turney, Antoinette	*Galesburg, Ill.*
Tye, Paul Farrell ls	*West Chicago, Ill.*
Uebele, Eunice Rosina ls	*Tomah*
Urban, Ruth Marie ls	*Wauwatosa*
Van Hise, Alice Ring ls	*Madison*
Van Hyning, Irene Malissa	*Barberton, Ohio*
Van Laanen, Phoebe	*Green Bay*
Van Natta, Jesse Allan	*Dodgeville*
Vaughn, Maurine Ella ls	*Des Moines, Iowa*
Verhulst, John ls	*Madison*
Vernon, Mabel Dorothy	*Kenosha*
Verst, Herbert Earl ls	*Chicago, Ill.*
Vesey, Marian Elizabeth ls	*La Crosse*
Vlilland, Elsie Mary	*River Falls*
Vrooman, Maud Ogilvie	*Detroit, Mich.*
Wacek, William Harold	*Madison*
Waddell, John Frank	*Evansville*
Wagner, Elizabeth Anne	*Michigan City, Ind.*
Wagner, Margaret Louise ls	*Freeport, Ill.*
Wainwright, Helen Anna	*Norristown, Pa.*
Waite, Fanny Maud	*Beloit*
Walker, Catherine Orina	*Bethany, Mo.*
Walker, Frances Nell ls	*Algoma, Iowa*
Walkup, Helen	*Crawfordsville, Ind.*
Walley, Edith Gray	*Decatur, Ill.*
Walter, Marion Veantine	*Grand Rapids, Mich.*
Walton, Ann Lucile	*Des Plaines, Ill.*
Walton, Ruby LaVerna ls	*Scales Mound, Ill.*
Wanner, Esther Juliette ls	*Chicago, Ill.*
Ward, Elizabeth Lane	*Madison*
Warden, Anna Vashti	*Caruthersville, Mo.*
Ware, Ruth Isabel	*Portage*
Warner, Elizabeth Dale ls	*Madison*
Warner, Elizabeth Esther	*Lake Mills*
Warner, Vivian	*Chicago, Ill.*
†Weber, Carl Joseph ls, m	*Hartland*
†Wegener, James Hugo ls	*Marshfield*
Weidenfeller, Eleanor Eva	*Highland*

Weigt, Walter O.	*St. Paul, Minn.*
Weinert, Mary Apollonia	*Rose Creek, Minn.*
Weiser, Irma ls	*Waunakee*
†Weisman, Jacob Mathew ls	*Racine*
Weisse, Harvey Jenning	*Sheboygan Falls*
†Weisse, Lester Charles ls	*Sheboygan Falls*
Welch, Elizabeth Brownlee	*Cedar Rapids, Iowa*
Weldon, Charles William Temple ls	*Milwaukee*
Welsh, Daniel Scott, ls	*Madison*
Wendt, Emma	*Milwaukee*
West, Muriel Elizabeth	*Oak Park, Ill.*
Whalen, Lillian Catherine	*Lincoln, Kansas*
Wharton, Wayne Thompson	*Moline, Ill.*
†White, Cleveland J. g, m	*Shullsburg*
White, Dora Marguerite ls	*Mineral Point*
White, Katharine Frances	*Algoma*
White, Lillian Alice	*Chicago, Ill.*
White, Mabel Florence	*Rhinelander*
Whittle, Mary Ruth	*Blue Mountain, Miss.*
Whitty, Eliza Gertrude	*Reedsburg*
Wickern, Bernice Erna	*Baraboo*
Wickwire, Gail	*Clyde, Ohio*
Wied, Elizabeth Christiana	*Waupaca*
Wigton, Roberta Kathryn	*La Grange, Ind.*
Wiley, Earl Julian satc	*Richland Center*
Wilgus, Alva Curtis ls	*Platteville*
Wilkins, Velma Maude	*Livingston*
Wilkinson, Irma	*La Valle*
Williams, Ada Griswold ls	*Oshkosh*
Williams, Della	*Ridgeway*
Williams, May O.	*Milwaukee*
Williams, Sarah	*Cincinnati, Ohio*
Williston, Horace Hays ls	*Billings, Mont.*
Wilson, Elma Jane	*Morris, Ill.*
Wilson, Lois Josephine	*Morris, Ill.*
Wilson, Margaret Curtis ls	*Madison*
Wilson, Sanford Vaughters	*Hebron, Ill.*
Winn, Rachel	*Houston, Texas*
Winter, Mabel ls	*Madison*
Wise, Carl Tipton	*Madison*
Wise, Elizabeth R.	*Madison*
Witter, Catharine Maurer ls	*Madison*
Woldenberg, Rose Lillian ls	*Madison*
Woldstad, Dorothy Mellen	*Oak Park, Ill.*
Wolfe, Seth August ls	*Madison*
Wolff, Marie Brandstater ls	*Butternut*
Wood, Frances McKay	*Madison*
Wood, Iva Justine	*Richland Center*
Woodstock, Charles Blhum	*Lamoni, Iowa*
†Woodward, King Grier ls, m	*Peoria, Ill.*

†Wright, Herbert Beach ls, m	*Milwaukee*
Wunsch, Hilda	*Lead, S. D.*
Wyman, Mary	*Omaha, Nebr.*
Wynkoop, Doris De Nard	*Rochester, N. Y.*
Yabroff, Bertha D. ls	*Horicon*
Young, Faith	*St. Louis, Mo.*
Young, Georgina Lilley	*Pittsburgh, Pa.*
Young, Martha Grace ls	*Memphis, Tenn.*
Zahl, Else	*Milwaukee*
Zeininger, Caroline Frederica	*Janesville*
Ziemann, Arthur Herman ls	*Bloomer*
Zillmann, Ruth ls	*Thorpe*
Zook, Sigrid Constance Johnson	*Madison*

—1129

Music

Beane, Alice May mu	*Madison*
Briggs, Ann mu	*E. Grand Forks, Minn.*
Cadby, Verna Glanville	*Madison*
Campbell, Lucille Eleanor mu	*Madison*
Darrin, Josephine N. mu	*Madison*
Dennett, Dorothy Dixon mu	*Sheboygan*
Estvad, Anna Gudrun Christensen	*Madison*
Feisst, Annette Mary	*Watertown*
Felschow, Edith Odella	*Green Bay*
Gardner, Harriet Madeline	*Bloomington, Ill.*
Gilman, Flora Moseley mu	*Madison*
Glynn, Maude Elizabeth	*Superior*
Haggerty, Marie Della	*Pittsburgh, Pa.*
Higley, Frances L. mu	*Waukegan, Ill.*
Houser, Helen Margaret	*Cedar Rapids, Iowa*
Kiefer, Dorothy Wallace	*Peoria, Ill.*
Kraemer, Eleanor Catherine mu	*Milwaukee*
Lee, Julia Karine	*Stoughton*
Levitan, Ethel ls	*Madison*
Lindegren, Esther V.	*Superior*
Marden, Rosa Fling	*Negaunee, Mich.*
Pfisterer, Alice Dorothy	*Arkansas City, Kan.*
Randall, Anna	*Ambia, Ind.*
Richardson, Helen Belle	*Sioux City, Iowa*
Ristow, Lillian Mable	*Hustler*
Roller, Gabrielle	*Milwaukee*
Rubado, Marie Powell	*Plymouth*
Sammis, Marguerite mu	*Madison*
Schlagenhauf, Ruth Zinn	*Farina, Ill.*
Schmitt, Ruby Pearl	*Madison*
Schneider, Esther Irene	*Madison*
Schult, Verna May	*Juneau*
Simonson, Doris Marion mu	*Madison*

Sperle, Sara Ortina	*McFarland*
Sweeney, Nanelou	*Arkansas City, Kan.*
Tillotson, Mary Elizabeth mu	*Waupun*
Timlin, Violet Loraine mu	*Phillips*
Tyler, Laura Claire	*Hurley*
Tyrrell, Bessie Florilla	*Madison*
Tyrrell, Gladys Dorothy mu	*Madison*
Watson, Honor Jess	*Kohoka, Mo.*
Wigton, Rebecca M.	*La Grange, Ind.*
Willman, Madelon C. mu	*Madison*
Wilson, Frances Augusta	*Grand Rapids, Mich.*

—44

Engineering

Blackmur, Arthur George	*Madison*
Borelli, Aurelio	*Campinas, Brazil*
†Brenner, Erwin Charles e	*Milwaukee*
†Brown, Hasley Harold e	*Neenah*
Buchholz, Rudolph Otto e	*Lemmon, S. D.*
†Buroker, Donald Jasper ls	*Madison*
Campbell, Lawrence Franklin e	*Oshkosh*
Clarenbach, Ralph Emil	*Sheboygan*
Congdon, Claire Cressey satc	*Delavan*
Cook, Owen Shepard e	*Marinette*
†Fabian, Philip Joseph e	*Hurley*
†Fisbeck, Finley Leland e	*Terre Haute, Ind.*
Gardner, Arthur Otto	*Milwaukee*
†Glaettli, Herbert e	*Milwaukee*
†Grimstad, Reuben Charles e	*Mt. Horeb*
†Griswold, Frank Lynn e	*Madison*
†Hanley, Edward Vincent e	*Milwaukee*
†Hanson, Clarence Ferdinand e	*Waupaca*
†Hanson, Maurice Miller e	*Madison*
Hart, Bernard Ellis	*College Station, Ark.*
Head, Guerdon Herbert e	*Platteville*
†Hiestand, Richard Jacob e	*Madison*
†Holmes, Presley Dixon e	*Southwest Harbor, Me.*
Jackson, George Stephenson	*De Pere*
Johnson, Alfred Louis satc	*Waupaca*
Kaiser, Frank Andrew	*Milwaukee*
†Karger, Frank e	*Milwaukee*
†Keller, Oswald Lewin e	*Madison*
†Kelly, Pennell Clarke e	*Ft. Atkinson*
†Kidder, Charles Pomeroy e	*Madison*
Kinzie, Morris Joseph	*Avoca*
Koehler, Walter Allos e	*Mishicot*
†Kurtz, Henry William e	*Sheboygan*
La Due, Russell Morseby e	*Luverne, Minn.*

†Lammert, Ray Ferd e	*Chicago, Ill.*
Lenck, Arthur Roy	*Milwaukee*
Loomis, Harlow Henry	*Madison*
†McKone, Earl John ls	*Green Bay*
†Mackensen, Ernest Herman a	*Houston, Texas*
Maercker, Alexander Carl	*Milwaukee*
†Maxson, Rolland Horatio e	*Milton*
†Mertes, John Peter e	*Eden*
Negley, William Henry e	*Madison*
Nogueira, Frederico Pupo e	*Campinos, Brazil*
Oberly, John Joseph	*Milwaukee*
Paul, Edmund Louis e	*Milwaukee*
Paul, George John e	*Hurley*
†Pidcoe, Weston William e	*Madison*
Platt, Edward Vilas	*Manitowoc*
Puerner, Russell Edward e	*Jefferson*
Quimby, Frank Kendall e	*Sheboygan*
Rabinovitz, Isidor	*Milwaukee*
†Rheingans, William Jacob e	*Jackson*
†Rice, Alex e	*Milwaukee*
†Riek, Forest Otto e	*Rhinelander*
†Rodems, Leo Sanford ls	*Baraboo*
†Rosenau, Joseph Merville e	*Highland*
Samp, Arthur Martin	*Cecil*
Schlimgen, Lucian George e	*Madison*
†Schmidt, Ray Otto e	*Davenport, Iowa*
†Schutte, Albert George e	*Madison*
†Segel, Joe ls	*Laurel, Miss.*
†Sherburne, Lewis Raymond e	*Fremont*
†Sickert, Otto Leonard e	*Milwaukee*
†Smith, Forrest Ernest e	*Blue Mounds*
Steele, William Robert e	*Lodi*
†Stiles, Dwight Hawthorne e	*Lake Mills*
Storer, Richard Milton	*Des Moines, Iowa*
†Turneaure, Frederick Stewart e	*Madison*
†Walraven, Peter e	*Kenosha*
†Walton, Joseph L. e	*Moorestown, N. J.*
Whittlinger, Charles Edward	*Waukesha*
†Wiepking, Christopher Armin e	*Milwaukee*
Zimmerman, Wallace Raymond satc	*Beaver Dam*

—74

Agriculture

Abbott, Marguerite Frances	*Adrian, Mich.*
Allen, Lura Edna	*Waverly, Ill.*
†Altschwager, Edwin Henry ls, m	*Sheboygan*
Aul, Dorothy Hamilton	*Kenosha*
Baldwin, Cornelius Hammett a	*Tulsa, Oklahoma*

Beardsley, Olive Maude a	*Chicago, Ill.*
Beggs, Leonora Jeannette	*Waucoma, Iowa*
Blanchard, Bertha Florence	*Fennimore*
Block, Hilda Beneta	*Milwaukee*
†Boerner, Robert Louis Stevenson a	*Markesan*
Bollenbeck, Ida Kathryn a	*Madison*
Brick, Erhardt Charles	*Manitowoc*
Brumstad, Hanna Sirene	*Chippewa Falls*
Burke, Edith Eleanor a	*Madison*
Butzin, Charles Julius	*Madison*
Canavan, Helen Norene	*Milwaukee*
Cardiff, Jessie Beatrice	*Galva, Ill.*
Christie, Martha Elizabeth	*Superior*
Coffman, Ruth Eugene a	*Paua, Ill.*
Conner, Edith Hay	*Lyons*
Cooley, Ray a	*Chicago, Ill.*
Coon, Beulah Isabelle	*Sheboygan*
Dally, Walter Robert a	*Milwaukee*
Davis, Katharine	*Greenville, N. C.*
DeVilbiss, Laurinda May	*Ft. Wayne, Ind.*
†Dexter, Stephen Torry a	*Ashland*
Deyó, Carolyn Dora	*Port Edwards*
Dolan, Winifred	*Cashton*
Duncan, Myron George ls	*Wausau*
Dunham, Lucy Wills	*Griggsville, Ill.*
Dyer, Porter Smith	*De Soto*
Ela, Emily Elizabeth	*Rochester*
Enloe, A. Louise	*New Bloomfield, Mo.*
Farwell, Ann	*Dodgeville*
Fellows, Augusta Wilhelmina	*Racine*
Fernald, Mabel Grace a	*Madison*
Ferris, Margaret Fraser a	*Osage, Ia.*
FitzMaurice, Mary Theresa a	*Beaver Dam*
Foust, Sadie May	*Fargo, N. D.*
Frome, Marie Norma	*Sheboygan*
Gaffney, Edward James	*Madison*
Gahagan, John Martin	*Milton Junction*
Gerling, Pauline a	*St. Louis, Mo.*
Gibson, Marie Elizabeth	*Oshkosh*
Glynn, Charlotte Annette	*Superior*
Graham, Flo Jean	*Spring Green*
Gray, Mary Winifred	*Madison*
Gunderson, Esther Margaret	*Marinette*
Gunn, Bessie Mae	*Kearney, Nebr.*
Haggarty, Kittie	*E. Cleveland, Ohio*
Hale, Wealthy Maria	*S. Kaukauna*
Hamerski, John Anton	*Plover*
Hamlin, John Francis a	*Lula, Miss.*
Harrop, Earl Webster	*Arena*

Hatch, Carlisle Campbell	*Madison*
Hayes, Martha Durham	*Pleasant Plains, Ill.*
Heins, Melitta Clasina	*Wittenberg*
Hill, John Orenzo	*Rockton*
Hogan, Mildred Elsie a	*Mt. Horeb*
Host, Colette Bernadine	*Milwaukee*
Huegel, Allen DeGoris	*Canton, Mo.*
Hussa, Mildred Marie a	*La Crosse*
Hutton, Margaret Isabel a	*Madison*
Johnstone, Mary Cecelia a	*Richland Center*
Jones, Dorothy Evans	*Egan, Ill.*
Jones, Katherine a	*Milwaukee*
Jordan, Esther V.	*Waterloo*
Kayser, Francesca Eleanor	*Madison*
Kimball, Marian a	*Glencoe, Ill.*
King, Josephine Helen	*Omro*
Kingston, Olive a	*Mountain*
Krueger, Dorothy Adelaide a	*Madison*
Kundert, Elizabeth a	*Monroe*
Lawrence, Lucile	*Wausau*
Lawson, Beulah a	*Walworth*
Lee, Eleanor	*Osseo*
Lewis, Marion Lucile a	*Milwaukee*
Lothe, Ada Belinda a	*Stoughton*
Lurvey, Harold Franklin	*Oakfield*
Luther, Breta Marie a	*Madison*
Lynch, Rachel Rosalie	*West Bend*
McCormick, May L.	*Green Bay*
McGinnis, Dorothy Ellen	*Kansas City, Mo.*
Maxwell, Geraldine Elizabeth	*Merrillan*
Meinschock, Erna Lucille	*West Bend*
Merrill, Bessie Esther	*Fond du Lac*
Miller, Mary Helen	*La Harpe, Ill.*
Mooney, Mary Brigetta	*Wausau*
Moore, Genevieve Downs	*Joliet, Ill.*
Morris, Beatrice Green a	*Chicago, Ill.*
Morris, Edith Marjorie a	*Madison*
Morse, Mariam Sarah	*Wild Rose*
Nelson, August a	*Madison*
Nelson, Dott Edith	*Bethany, Mo.*
Nelson, Margaret May	*Bethany, Mo.*
†Nelson, Nels Theodore a	*Cambridge*
Nienaber, Katherine Mable a	*Madison*
Nimwegen, Wilhelmina van	*Pella, Iowa*
Olbrich, Marion Grace a	*Harvard, Ill.*
Oliver, Marie Arnold	*Maywood, Ill.*
O'Neil, Miriam Catherine a	*Chippewa Falls*
Outhouse, Julia Pratt a	*Madison*
Palmer, Lora ls	*La Crosse*

Pancok, Louis Henry a	*St. Louis, Mo.*
Patton, Stella Trout a	*Madison*
Pieh, Margaret Elizabeth a	*Madison*
Place, Nell Beatrice A.	*Marinette*
Portz, Mildred Helen a	*Hartford*
Post, Winfred Luscombe	*Carthage, Mo.*
Procknow, Bernice Margaret	*Chicago, Ill.*
Reid, Duncan Henry a	*Madison*
†Rieck, Chester Emil a	*Chicago, Ill.*
Roark, Dorothy Rose	*Bushnell, Ill.*
Roehm, Ruth Madalyn a	*Ashland*
Rogers, Mary Taylor a	*Jonesboro, Ark.*
Rosebrough, Augusta Severson	*St. Louis, Mo.*
Ruhsam, Erwin Henry	*New London*
Schairer, Eva Sophia a	*Saline, Mich.*
Schernecker, Mae Eleanor a	*Madison*
Schroeder, Meta Louise a	*Wausau*
Seideman, Cora Margaret	*Sheboygan*
Shugart, Grace Margaret	*Princeton, Ill.*
Sister Mary Magdalen	*Fond du Lac*
Smith, Katharine	*Chicago, Ill.*
Spiker, Isyl Blondella	*Bushnell, Ill.*
Starks, Marie	*Madison*
Stauffer, Katherine Baldwin a	*St. Louis, Mo.*
Steiner, Frances Wilmet	*Milwaukee*
Sterling, Sophia Witzel	*Oshkosh*
Stokdyk, Ellis Adolph a	*Madison*
Stoner, Rosella Celestia	*Rochester, Ind.*
Taintor, Kathreae Knapp	*Ripon*
Thieman, Caecilia Magdalen	*Baraboo*
Todd, Mary Margaret	*Cincinnati, Ohio*
Tosteurd, Martin	*Caledonia, Minn.*
Tucker, Verna May a	*Wilmette, Ill.*
Tyler, Marion Esther a	*Glidden*
Vennus, Elizabeth Mary a	*Menasha*
Walker, Elizabeth Frances Clary	*Mineral Point*
Wallace, Clemma	*Oakland City, Ind.*
Walsh, Wilfred Wallace	*De Pere*
Weeks, Christina Mary a	*Hayton*
Wertz, Virgil Roe a	*Madison*
Whalen, Elizabeth Vernal	*Fond du Lac*
White, Florence Flora	*Campbellsport*
Wilkins, Ethel Mae	*Sharon*
†Williams, Judson Sparks a	*Bristol*
Wilson, Harriette a	*Milwaukee*
Wing, Neva Eleanor	*Kansas City, Mo.*
Wolfe, Margaret Josephene	*Madison*
Wunderlich, Irma Marie	*Antigo*

—151

LIBRARY SCHOOL

Course for Teacher-Librarians

Bangsberg, Myrtle Othilda	*La Crosse*
Butlin, Iva Marion, B.A.,	*Beloit*
Faber, Minnie Wilhelmina	*Marshfield*
Higgins, Vivian St. Clair	*River Falls*
Lien, Alma	*Eau Claire*
Mielke, Ruth, B.A.	*Shawano*
Murphy, Mary Kibben, B.A.	*Topeka, Kansas*
Plumb, Anna Jean, B.A.	*Milton*
Rosenberg, Fannie L., B.A.	*Beloit*
Smith, Bessie Ethel, B.A.	*Green Bay*

—10

Course for Library Apprentices

Abele, Marguerite E.	*Watertown*
Ahern, Margaret L.	*Madison*
Ayers, Louise	*Chicago, Ill.*
Babcock, Ione	*Oshkosh*
Brightman, Inez C.	*Milton*
Burlingame, Doris	*Great Falls, Mont.*
Burr, Caroline L.	*Beloit*
Dornfeld, Olive M.	*Watertown*
Dorpat, Norah E.	*Marshfield*
Henderson, Effie L.	*Edgerton*
Henning, Elsa K.	*Platteville*
Huth, Dorothy L.	*Watertown*
Ihrig, Esther L.	*Oshkosh*
Kreeland, Ella D.	*Galesville*
Landt, Rena ls	*Madison*
Larson, Luella C. ls	*Minot, N. D.*
Lewis, Caroline M.	*Madison*
Minch, Lillian	*Madison*
Moeser, Emily H.	*Janesville*
Moss, Margaret J.	*Antigo*
Perry, Glenn	*Oconto*
Stromer, Hedwig M.	*Marinette*
Wert, Imabia B.	*Stevens Point*

—23

STATISTICAL SUMMARIES

GRADUATES

		1918
Number of first degrees granted, 1854–1918.....	13,788	775
Present Courses:		
Courses leading to the degree of Bachelor of Arts, 1904–1918	4,541	413
(Included in the above is the Course in Commerce, 1904–1918, 594; 1918, 74; and the Course in Journalism, 1914–1918, 50; 1918, 9.)		
Course for Normal School Graduates, Ph.B., 1898–1918	550	31
Bachelor of Philosophy, General Course, 1917–1918	8	6
Chemistry Course, B.S., 1909–1918	119	19
Medical Science Course, B.S., 1909–1918...	205	42
Pharmacy Course, B.S., 1895–1918.....	58	3
Pharmacy Course, Ph.G., 1884–1918.....	351	14
Bachelor of Music, 1917–1918.....	6	5
Course for Supervisors of Music, 1910–1918	87*	12*
Course in Agriculture, B.S., 1878–1918.....	787	68
Home Economics Course, B.S., 1909–1918.	258	66
Course in Agriculture, (Middle Course), Ag.G., 1910–1918	142*	10*
Law Course, LL.B., 1869–1918.....	2,062	13
Civil Engineering Course, B.S., 1873–1918	687	20
Mechanical Engineering Course, B.S., 1876–1918	497	27
Electrical Engineering Course, B.S., 1892–1918	633	29
Chemical Engineering Course, B.S., 1903–1918	127	14
Mining Engineering Course, B.S., 1910–1918	37	4
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	
Civic Historical Course, B.L., 1893–1903...	383	

*Not included in totals.

		1918
General Science Course, B.S., 1886–1903...	722	
Geology, B.S., 1914	1	
School of Music, M.G., 1898–1916	134	
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	95	1
Higher Degrees on Examination, 1875–1918.....	2,309	136
Master, 1879–1918	1,596	105
Engineer, 1879–1918	340	7
(Included in the above is the Advanced Course in Engineering, 1910–1917, 79)		
Doctor of Public Health, 1912–1915.....	2	
Doctor of Philosophy, 1892–1918	371	24

DEGREES

Number of first degrees granted, 1854–1918.....		13,788
Bachelor of Arts, 1854–1918	5,011	
Bachelor of Philosophy, 1898–1918	558	
Bachelor of Letters, 1876–1903	1,398	
Bachelor of Science, 1873–1918	4,227	
Bachelor of Metallurgical Engineering, 1876–1896	16	
Bachelor of Laws, 1869–1918	2,062	
Bachelor of Music, 1917–1918	6	
Graduate in Music, 1896–1916	134	
Graduate in Pharmacy, 1884–1918	351	
Graduate in Agriculture, (Middle Course), 1910–1918	142*	
Normal Course, 1865–1868	25	
Course for Supervisors of Music, 1910–1918	87*	
Higher degrees on examination, 1875–1918.....		2,309
Master, 1879–1918	1,596	
Engineer, 1879–1918	340	
Doctor of Public Health, 1912–1915	2	
Doctor of Philosophy, 1892–1918	371	
Grand total of first and higher degrees granted, 1854–1918		16,097

207 war diplomas were granted to the class of 1918.

* Not included in totals.

FACULTY, 1918-19

President and Deans	10
Professors	103
Associate Professors	72
Assistant Professors	141
Lecturers (giving part time)	17
Instructors	206
Assistants (mainly half time, but a few more than half time, and a considerable number less than half time)	104
Student Assistants (small part of time)	29
	682
Deduct for leave of absence	74
Total in full or part service for whole year	608

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 or for the first, second or third quarters of 1918–19: Deans, 2; Professors, 26; Associate Professors, 18; Assistant Professors, 27; Lecturer, 1; Total, 74. The following have been in residence for a part of the year only, due to resignations and appointments: Instructors, 42; Assistants, 32; Student Assistants, 13; Total, 87.

There are eight *Emeritus* professors not included in the above summary.

STUDENTS

	Men	Women	Total
GRADUATE SCHOOL—			
Fellows	18	17	35
Scholars	6	17	23
Other Graduate Students	142	94	236
	166	128	294
(Not carried to totals because included in lists below.)			
COLLEGE OF LETTERS AND SCIENCE—			
Graduate Students	119	114	233
Seniors	171	297	468
Juniors	303	370	673
Sophomores	323	303	626
Freshmen	456	387	343

	Men	Women	Total
Adult Specials, Fourth Year	3	1	4
Adult Specials, Third Year.	1	4	5
Adult Specials, Second Year	1	9	10
Adult Specials, First Year..	11	11	22
	1,388	1,496	2,884
Enrollment by Courses:			
Course in Commerce:			
Seniors	38	4	42
Juniors	107	19	126
Sophomores	132	29	161
Freshmen	193	39	232
Adult Special, First Year ..	1	0	1
	471	91	562
Course for Normal School Graduates:			
Seniors	4	14	18
Juniors	4	8	12
	8	22	30
Course in Journalism:			
Seniors	2	7	9
Juniors	9	17	26
Sophomores	9	17	26
Freshmen	31	28	59
Adult Specials, Fourth Year.	1	0	1
Adult Specials, Second Year.	1	0	1
Adult Specials, First Year..	0	2	2
	53	71	124
Course in Pharmacy:			
Four Year Course:			
Seniors	2	1	3
Juniors	5	0	5
Sophomores	2	0	2
Freshmen	0	0	0
Two Year Course:			
Second Year	8	0	8
First Year	10	1	11
	27	2	29
Course in Chemistry:			
Seniors	11	6	17
Juniors	24	4	28
Sophomores	12	5	17
Freshmen	26	9	35
	73	24	97

Course without Foreign Language Requirement:	Men	Women	Total
Seniors	3	3	6
Juniors	4	0	4
Sophomores	4	2	6
Freshmen	0	0	0
	11	5	16
Course for Training of Teachers:			
Graduate Students	0	2	2
Seniors	3	84	87
Juniors	3	24	27
Adult Special, Fourth Year.	1	0	1
	7	110	117

(One senior woman is in both the Teachers' Training Course and the Course without Foreign Language Requirement; five senior women and one junior woman are in both the Teachers' Training Course and the Course for Normal School Graduates.)

Letters and Science Students not in Special Courses:			
Graduate Students	119	112	231
Seniors	108	178	286
Juniors	147	298	445
Sophomores	156	250	406
Freshmen	196	310	506
Adult Specials, Fourth Year	1	1	2
Adult Specials, Third Year..	1	4	5
Adult Specials, Second Year.	0	9	9
Adult Specials, First Year..	10	9	19
	738	1,171	1,909
COLLEGE OF ENGINEERING—			
Graduate Students	8	0	8
Seniors	50	0	50
Juniors	96	0	96
Sophomores	163	1	164
Freshmen	276	0	276
Adult Special, Fourth Year	1	0	1
Adult Special, Third Year..	1	0	1
Adult Specials, Second Year	2	0	2
Adult Special, First Year...	1	0	1
	598	1	599

Enrollment by Courses:

Civil Engineering Course:	Men	Women	Total
Seniors	10	0	10
Juniors	17	0	17
Sophomores	25	1	26
Freshmen	55	0	55
Adult Special, Second Year.	1	0	1
	108	1	109
Mechanical Engineering Course:			
Seniors	16	0	16
Juniors	25	0	25
Sophomores	42	0	42
Freshmen	65	0	65
Adult Special, First Year..	1	0	1
	149	0	149
Electrical Engineering Course:			
Seniors	10	0	10
Juniors	28	0	28
Sophomores	47	0	47
Freshmen	97	0	97
Adult Special, Fourth Year	1	0	1
Adult Special, Third Year.	1	0	1
Adult Special, Second Year	1	0	1
	185	0	185
Chemical Engineering Course:			
Seniors	10	0	10
Juniors	17	0	17
Sophomores	32	0	32
Freshmen	46	0	46
	105	0	105
Mining Engineering Course:			
Seniors	4	0	4
Juniors	9	0	9
Sophomores	17	0	17
Freshmen	13	0	13
	43	0	43

COLLEGE OF AGRICULTURE—	Men	Women	Total	
Graduate Students	39	11	50	
Graduate Students, Home Economics	0	3	3	
Seniors	35	68	103	
Juniors	47	66	113	
Sophomores	41	41	82	
Freshmen	92	71	163	
Adult Specials, Third Year	5	0	5	
Adult Specials, First Year	8	4	12	
	266	265		531
Long Course:				
Seniors	35	1	36	
Juniors	47	3	50	
Sophomores	35	2	37	
Freshmen	66	3	69	
Adult Specials, Third Year	5	0	5	
Adult Specials, First Year	4	1	5	
	192	10		202
Middle Course:				
Second Year	6	1	7	
First Year	26	3	29	
Adult Specials, First Year	4	1	5	
	36	5	41	
Home Economics Course:				
Seniors	0	67	67	
Juniors	0	63	63	
Sophomores	0	38	38	
Freshmen	0	65	65	
Adult Specials, First Year	0	2	2	
	0	235	235	
Course for Training of Teachers (included above):				
Graduate Students	1	0	1	
Seniors	9	40	49	
Juniors	1	14	15	
Second Year, Middle Course	0	1	1	
	11	55	66	

	Men	Women	Total	
LAW SCHOOL—				
Third Year	19	0	19	
Second Year	15	0	15	
First Year	18	1	18	
Specials, Third Year	0	1	1	
Specials, Second Year	2	0	2	
Specials, First Year	4	0	4	
Students in Letters and Science electing law studies.	11	1	11	
		69	3	72
MEDICAL SCHOOL—				
Second Year	44	2	46	
First Year	61	7	68	
		105	9	114
SCHOOL OF MUSIC—				
Four Year Course:				
Seniors	1	6	7	
Juniors	0	6	6	
Sophomores	0	9	9	
Freshmen	2	9	11	
Adult Special, Third Year	0	1	1	
Adult Specials, First Year	1	1	2	
Supervisors' Course:				
Second Year	0	15	15	
First Year	1	9	10	
Adult Special, Second Year.	0	1	1	
Unclassified Students	5	15	20	
		10	72	82
Course for Training of Teachers (included above):				
Seniors	0	2	2	
Juniors	0	2	2	
Sophomores	0	2	2	
Second Year, Supervisors' Course	0	13	13	
First Year, Supervisors' Course	0	5	5	
	0	24	24	

Students in other colleges electing music—70.

	Men	Women	Total	
WISCONSIN LIBRARY SCHOOL—				
Library Course	0	17	17	
Joint Course	4	8	12	
	4	25		29
TOTAL	2,441	1,870		4,311
Deducting twice enumerated	121	17		138
NET TOTAL	2,320	1,853		4,173

The item of 138 students twice enumerated occurs because of double classification in two colleges as follows:

Letters and Science and Medicine	103	7	110
Letters and Science and Law	13	1	14
Letters and Science and Wisconsin Library School	4	8	12
Letters and Science and Music	1	1	2
	121	17	138

STUDENTS ARMY TRAINING CORPS—				
College of Letters and Science:				
Graduate Students	13	0	13	
Undergraduates	1,204	0	1,204	
College of Engineering:				
Graduate Students	0	0	0	
Undergraduates	791	0	791	
College of Agriculture:				
Graduate Students	2	0	2	
Undergraduates	235	0	235	
Law School	4	0	4	
School of Music	5	0	5	
	2,254	0		2,254
GRAND TOTAL, REGULAR YEAR	4,574	1,853		6,427
Deducting S.A.T.C. Students in attendance during the second and third quarters	1,153	0		1,153
NET TOTAL, REGULAR YEAR	3,421	1,853		5,274

SUMMER SESSION OF 1918—	Men	Women	Total	
College of Letters and Science:				
Graduate Students	165	453	618	
Undergraduates and Teachers	359	770	1,129	
College of Engineering:				
Graduate Students	2	0	2	
Undergraduates	74	0	74	
College of Agriculture:				
Graduate Students	26	28	54	
Undergraduates	30	121	151	
School of Music	0	44	44	
(Students in other colleges electing music—34)				
Library School:				
Teacher Librarians	0	10	10	
Library Apprentices	1	22	23	
	657	1,448	2,105	
Deducting Students in attendance during the regular year	278	296	574	
	379	1,152		1,531
ADDITIONAL ENROLLMENT—				
College of Agriculture				
Short Course in Agriculture:				
Second Year	26	0	26	
First Year	107	5	112	
	133	5	138	
Dairy Course	32	3	35	
	165	8		173
GRAND TOTAL, EXCLUDING EXTENSION STUDENTS	3,965	3,013		6,978

EXTENSION DIVISION (EXTRA-MURAL COLLEGE)—
Correspondence-Study Department 10,174

This total enrollment comprises all those who have enrolled for correspondence instruction within the current year up to March 1st, and also those carried over who had enrolled prior to July 1st, 1918, but whose registrations were 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	3,063	1,776	4,839
Illinois	291	332	623
Iowa	81	128	209
Indiana	69	105	174
Missouri	33	131	164
Ohio	36	86	122
Michigan	45	57	102
Minnesota	42	55	97
South Dakota	42	31	73
Kansas	9	39	48
Pennsylvania	14	32	46
North Dakota	17	26	43
New York	22	18	40
Nebraska	6	31	37
Texas	20	16	36
Montana	13	22	35
Kentucky	13	8	21
Colorado	7	13	20
Massachusetts	6	11	17
Oklahoma	7	9	16
California	6	8	14
New Jersey	6	6	12
Maryland	7	4	11
Tennessee	3	8	11
District of Columbia	5	5	10
Idaho	6	4	10
Mississippi	4	6	10
West Virginia	5	4	9
Wyoming	2	5	7
Arkansas	2	3	5
Florida	4	1	5
New Mexico	1	4	5
North Carolina	4	1	5
Virginia	2	3	5
Washington	3	2	5
Louisiana	2	2	4
Utah	3	1	4
Arizona	1	2	3
Connecticut	1	2	3
Georgia	1	2	3
Oregon	1	2	3
Alabama	1	1	2
New Hampshire	1	1	2
Delaware	1	0	1

SUMMARY BY STATES, FOREIGN COUNTRIES, AND SEX—Continued.

	Men	Women	Total
Maine	1	0	1
Nevada	1	0	1
Vermont	0	1	1
China	16	0	16
Norway	9	0	9
Canada	5	3	8
Philippine Islands	6	0	6
Brazil	5	0	5
France	0	5	5
Japan	3	0	3
India	2	0	2
Porto Rico	2	0	2
Chile	0	1	1
Cuba	1	0	1
Denmark	1	0	1
Hawaii	1	0	1
Iceland	1	0	1
Peru	1	0	1
South Africa	1	0	1
Spain	1	0	1
	3,965	3,013	6,978
Students registered for regular year, 1918–1919:			
Resident	2,718	1,238	3,956
Nonresident	703	615	1,318
	3,421	1,853	5,274
Students registered in summer session of 1918 and not during the regular year:			
Resident	211	533	744
Nonresident	168	619	787
	379	1,152	1,531
Additional Enrollment, College of Agriculture:			
Resident	134	5	139
Nonresident	31	3	34
	165	8	173

INDEX

Absentia, work in
  Degrees and partial, 116, 133, 167, 173, 429, 432
  Rules governing, 432
Academic degrees, 119, 120
Academic year, 7, 8
Accounting, 160, 445
Accredited farm system, 344
Accredited high schools, 111
Accredited law offices, 398
Administration
  Officers, 14
    See also Business Administration
      Economics
Admission,
  Adult specials, 118
  Advanced standing, 113, 428
  Certificate, 111
  College courses, normal schools, 113
  Entrance requirements for, 98
  Examinations, 111
  Foreign languages, 97, 101, 107
  High schools, accredited, 111
  High schools, outside state, 112
  Language, 97, 101, 107
  Medical and physical examinations 91, 481
  Preparatory work, 103
  Teachers courses, normal schools, 114
  Undergraduates, 96
  Vocational courses, 110
    See also Advanced standing
      Degrees
      Entrance requirements
Adult special students, 118
  See also Special students
Advanced credits, 113
  English, 104
Advanced standing, 113
  Law School, 397
  Medical School, 406
Advertising
  Psychology, principles of, 215
  Retail and general, 160
Advisers
  Engineering College, 299
  Foreign students, 91
  Letters and Science, 90, 134
  Medical, 91
  Student, 90, 134
Aeronautics, instruction in, 319
Agricultural credits, 159, 359
Agriculture
  Accredited farm system, 344
  Admission requirements, 99
  Buildings, college, 341
  Certificates, 349
  Clubs, 343
  College of, 341
  Course outlines, 349
  Credits, 114, 159, 359
  Degrees, 348
  Departments of instruction, 355
  Experiment Association, 343
  Experiment Station, 375
  Experimental farm, 65
  Extension service, 376
  Farms of college, 343
  Farmers' Institute, 376
  Farmers' Week, 347
  Fellowships, 423
  Graduate courses, 345
  Home Economics, courses in, 347, 377
  Institutes, farmers', 376
  Laboratory fees, 72
  Library, college, 343
  Loan fund, 84
  Long Course, 345, 349, 355
  Mathematics, 207
  Middle Course, 346, 352, 354
  Physics, 222
  Preparatory work in, 110
  Publications, 375, 376
  Scholarships, 82
  Short Course, 346
  Summer session, 516
  Teachers Training Course, 285
  Thesis, 392
  Tuition and fees, 70
  Women's week in, 347
  Young people's week in, 348
Agronomy
  Instruction in, 363
  Summer session, 517
Algebra, *see* Mathematics
Alumni publications, 95
Anatomy
  Instruction in, 136, 414
  Summer session, 514
Animal husbandry, instruction in, 364
Applied Mechanics, *see* Mechanics
Arabic, instruction in, 246
Art, *see* Museums

Assistants, list of, 30
Astronomy
  Instruction in, 137
  Library, 68, 493
  Student Observatory, 493
  Summer session, 505
  Washburn Observatory, 492
Athletics
  Field, 65
  Football teams, regulations, 481
  Indoor sports, 486
  Physical education, 479, 485
  Swimming test, 479
  Tournaments and contests, 482
Auditors, 88, 503

Bachelors degree, *see* Degrees
Bacteriology
  Agricultural, 355
  Dairy, 356
  Food, 356
  Household, 356
  Medical, 212, 417, 514
  Soil, 356
Band, regimental, 472
Beekeeping, instruction in, 367
Biblical literature, 243
Biology
  Instruction in, 138
  Laboratory fees, 71
Blacksmithing, instruction in, 362
Board and room
  Average prices, 74, 77
  French House, 235
    See also Women students
Bookkeeping, 160, 506
Botany
  Instruction in, 138
  Laboratory fees, 71
  Lectures, special, 499
  Preparatory work, 106
  Summer session, 505
Breeding, experimental, *see* Genetics
Buildings
  Agricultural College, 341
  Barnard Hall, 75
  Chadbourne Hall, 75
  Engineering, 300
  Lathrop Hall, 64
  State Historical Society, 64
  University, 63
Bulletins
  Debating, Extension Division, 456
  Experiment Station, 375
  Farmers' Institute, 376
  University, 95
  Women's Farmers' Institute, 377
Business administration
  Business ethics, 215
  Correspondence-study, 445
  Cafeteria management, 394
  Farm management, 359
  Household management, 393
  Instruction in, 160
  Live stock management, 365
  Sales, law of, 402

Calendar, university, 7
Campus, description of, 63
Cardinal, Daily, 95
Certificates
  Entrance by, 111
  Supervisor of Music, 464, 470
  Teachers state, 284
  Teachers university, 134, 281
Chairmen of departments, 51
Cheese making, instruction in, 366
Chemical engineering
  Degrees, 305, 316
  Inspection trips, 307
  Instruction in, 320
  Summer session, 515
  Vacation work, 301
Chemistry
  Admission requirements, 99
  Agric. summer session, 516
  Agricultural, 254, 356
  Chemical collection, 65
  Correspondence-study courses, 446
  Course in, 249
  Degrees, 119, 130
  Food, 256
  Forest products, 498
  Industrial, 253
  Instruction in, 141
  Laboratory fees, 71
  Physiological, 224, 255, 419
  Preparatory work, 106
  Sanitary, 256
  Soil, 254
  Summer session, 505
City planning, instruction in, 322
Civic and Social Centers Bureau, 461
Civil Engineering Course, 310
Classics
  Instruction in, 145
  Summer session, 506
Climatology, instruction in, 209
Clinical medicine
  Instruction in, 415
  Summer session, 514
Clubs
  Agricultural, 343
  Band, 472
  Choral Union, 93, 472
  Debating, 92
  Dramatic, 93
  French, 235
  Glee, 472
  Graduate, 422
  Historical and Political Science Association, 93
  Honorary fraternities, 93
  Journal, 93
  Literary and scientific, 92
  Mathematical, 209
  Musical, 471

Orchestra, 471
Religious, 94
Romance languages, 235
Social, 94
See also Debates and Debating
Collections, 65
Colleges
Elections in other, 124, 306, 349, 381
Normal school credit, 114
Students from other, 116
University, 9
College courses
Normal school credit, 111
Commencement week, 7
Commerce, Course in
Admission requirements, 98
Degrees, 119, 130
Elective studies, 260, 318
Engineering, combined, 318
Summer session, 506
Commercial law, instruction in, 160
Committees
Standing, faculty, 48
Women's judiciary, 90
Comparative literature, instruction in, 149
Contracts and specifications, engineering, 327
Convocations, 519
Corporation finance, 162
Correspondence-Study Department
Courses, 445
Fee, 443
Information, 439
University credit, 443
Cost of living
Average school year, 77
Course in, 165
See also Economics
Expenses
Court, Student, 90
Credits
Advanced standing, 113
Agriculture, 113, 349, 352, 379
Bachelor of Arts, 125
Bachelor of Philosophy, 128
Chemical Engineer, 316
Civil Engineer, 310
Correspondence-study, 443
Definitions of, 121, 407
Degree requirements, 125, 128, 130, 131, 277, 310ff, 349ff, 353, 379ff, 409, 466ff
Economics, 152, 153
Electrical Engineer, 314
Engineering, 114, 319
Freshman year, 126, 128, 310ff, 349, 352, 379, 406, 466ff
Home Economics, 379
Law School, 114, 398
Letters and Science, 113, 121
Library School, 277
Mechanical Engineer, 313
Medical School, 114, 407
Music, 464
Normal schools, 113, 116, 131
Physical education, 479, 484
Political science, 226
Residence, minimum, 117, 133, 504
Students from other colleges, 116
Summer session, 117, 502
Teachers degrees, 114
Teachers Training, 280, 285ff
Dairy
Bacteriology, 356
Chemistry, 357
Husbandry, 366
Dairy courses
Admission, 100
Summer, 100, 347
Tuition, 70
Week's Special, 348
Winter, 348
Deans and directors
Colleges and schools, 9
Dean of men, 88
Dean of women, 89
Debates and Debating
Agricultural, 92, 343
Athena, 92
Bulletin questions for, 455
Castalia, 92
Extension Division, 455
Hesperia, 92
Inter-Collegiate, 92
Joint Debate League, 92
Loan material, 457
Philomathia, 92
Pythia, 92
Degrees
Absentia work, 117, 133, 167, 173, 432, 504
Academic, 113ff, 119
Agricultural, 119, 348
Bachelor of Arts, 113, 119, 121, 125, 262, 277
Bachelor of Laws, 119, 398
Bachelor of Music, 119, 464
Bachelor of Philosophy, 113, 114, 119, 128, 131
Bachelor of Science, 114, 116, 119, 251, 305, 348, 378, 406
Chemical Engineer, 305, 316, 431
Civil Engineer, 305, 310, 431
Conferred, Commencement, 523
Correspondence-study, 444
Deposit, doctor's, 435
Doctor, 120, 153, 173, 272, 407, 433
Doctor of Philosophy, 120, 272, 433
Doctor of Public Health, 120, 407, 436
Elective studies, 123
Electrical Engineering, 305, 314, 431
Engineering, 305, 306
Examinations, 434
Higher, 120, 167, 172, 173, 407, 431

Language requirements, *see* Languages
Library School, 277
Major study, 122
See Departments of Instruction
Master of Arts, 120, 153, 166, 172, 429
Master of Pharmacy, 272
Master of Philosophy, 120, 153, 167, 429
Master of Science, 120, 272, 429
Master's time requirement, 429
Mechanical engineer, 305, 313, 431
Music, 119, 465
Pharmacy, 119, 120, 271
Professional, 119
Residence requirements, 117, 133, 167, 173, 430, 504
Second, 120, 429
Summer session, 167
Supervisor of Music, 464, 468
Teachers, 281, 284
Technical, 119
Theses, 122, 435
See also Honors and Honorary Degrees
Department Chairmen, 51
Description of buildings and grounds, 63
Directories
Administrative officers, 9
Department chairmen, 51
Faculty, 14
Teaching staff, Wisconsin High School, 46
Instructors and assistants, 30
Laboratory of Hygiene, 46
Library staff, 45
Other officers, 47
Regents, 12
Rooming and boarding house, 88, 89
Doctor's degree, *see* Degrees
Domestic Science, *see* Home Economics
Dramatics
Clubs, 93
Dramatic personation, 232
See also Public Speaking
Drawing, instruction in, 202, 323
Drill, *see* Military Science

Economics
Accounting, 160
Agricultural, 159, 358
Agricultural credits, 159, 359
Agricultural summer session, 516
Engineering, 323
Entomology, 367
Instruction in, 151, 358
Preparatory work, 106
Summer session, 506
Teachers course, 287
Home, 377
Education
Agricultural, 360
Instruction in, 166
Physical, Department, 217, 477
Summer session, 511
See also Teachers Training Course
Efficiency, Business, *see* Business Administration
Elective studies
Agriculture, 351, 353
Engineering, 311, 313, 315, 316, 318
Home Economics, 381
Law School, 403
Letters and Science, 123
Library School, 277
Music, 210, 467
Electrical Engineering, instruction in, 325
See Engineering
Employment for students, 78
Engineering
Admission, College of, 100, 114
Adult special students, 118
Advisers, 299
Agricultural, 361
Apparatus, 300
Buildings, 63, 300
Chemical, 316, 320
Civil, 310
College of, 298
Course outlines, 310
Degrees, 305, 306, 310
Degrees, second, 431
Departments of instruction, 319
Electrical, 314, 325
Fees, 70
Graduate work, 306, 431
Graduation in more than one course, 318
Inspection tours, 307
Laboratories, 300
Laboratory fees, 72
Language requirements, 299
Lectures, 308
Library, 300
Loan fund, 84
Mathematics, 207, 298
Mechanical, 313
Mining, metallurgy, 317, 332
Shop practice course, 302, 335
Six year courses, 306
Steam, laboratories, 302
Summer session, 514
Summer vacation fee, 70
Surveying laboratory, 303
Thesis, 308
Tuition and fees, 70
Vacation work, 307
English
Degrees, 125, 128, 172, 173
Entrance requirements, 97, 103
Entrance examination, 103
Instruction in, 170
Preparatory, 103
Summer session, 507

Enrollment, *see* Summaries
Entomology, economic, instruction in, 367
Entrance requirements
  Adult special, 118
  Colleges, courses and schools, 98
  Foreign language, 101, 107
  Late registration, 73
  Library School, 275
  Preparatory work, 101, 103
  Registration days, 7, 8
  Time, 8, 96, 116
  Without foreign language, 101
  See also Admission Requirements
Eugenics, 163
Examinations
  Correspondence-study, 444
  Entrance, 111
  Medical, physical, 91, 481
  Thesis, 435
Exemptions from physical training, 480
Exhibits, Extension Division, 459
Expenses
  Average school year, 77
  Board and room, 74
  Correspondence-study, 443
  Extension Division lectures, 456
  Gymnasium locker, 72
  Gymnasium suit, women, 72
  Summer session, 70
  Women's dormitories, 75
  See also Tuition, Fees, and Deposits
Experiment Station, Agricultural, 375
Experimental breeding, *see* Genetics
Extension Division
  Bulletins, 456
  Civic and social centers, 461
  Correspondence-study, 439
  Courses, 445
  Debating, public discussion, 456
  Exhibits, 459
  Health instruction bureau, 462
  Instruction by lectures, 455
  Municipal Reference bureau, 460
  Music, community, 460
  Organization, 438
  Social service, 459
  University credit, 443
  Vocational institutes, 460
  Visual instruction bureau, 463

Faculty
  Committees, standing, 48
  Directory, 14
  Jurisdiction, 60
  Membership, 60
  Statistics, 545
Farmers' Course
  Agricultural week, 347
  Tuition, 70
Farms
  Accredited, 344
  Agricultural College, 343
  Experimental, 65
  Machinery for, 362
  Management, 359
Feed
  Forage crops, 363
  State license for, 344
Fees, *see* Tuition, Fees, and Deposits
Fellowships, 423
  See also Loan Funds and Student Aid
    Scholarships and Funds
Field work
  Engineering, 307
  Farm management, 359
  Fees, 70
  Geology, 183
  Hygiene, 416
    See also Vacation work
Fine Arts, instruction in, 178
Food
  Bacteriology, 356
  Chemist, course, 256
  Study, home economics, 393
Forest Products
  Assistantships, 428, 497
  Laboratory, 496
Forestry
  Farm, 368
  Forest Products course, 497
  Instruction in, 178, 499
  Wood technology, 328, 499
French
  Admission requirements, 97
  House, 235
  Instruction in, 233
  Preparatory work, 109
Freshmen
  Advisers, 90, 134
  Booklets of instruction, 88
  Lectures, 308
  Studies, 126, 128
Funds, *see* Loan Funds

Gardening, *see* Horticulture
Gas Engineering, instruction in, 336
Genetics
  Instruction in, 368
  Summer session, 517
    See also Animal Husbandry
Geodetic engineering, 339
Geography and geology, 178, 507
Geology
  Instruction in, 178, 317
  Laboratory fees, 71
    Summer session, 507
Geometry, *see* Mathematics
German
  Entrance requirements, 97
  Instruction in, 184
  Preparatory work in, 108
  Summer session, 508

Gifts, 59
Government
  Courses in, 227
  Student, 88
  University, 60
Grade point system, 87
Graduates
  Absentia, work in, 430, 432
  Agriculture, 345, 423
  Aims and methods, 421
  Circular for, 437
  Clubs and societies, 422
  Commerce Course, 262
  Courses
    See departments of instruction
  Deposit, doctor's degree, 435
  Engineering work, 306, 431
  Examinations, oral, 434
  Fees, 70, 429
  Fellowships, 423
  List of, 523
  More than one course, 318
  Normal, 113
  Scholarships, 426
  School, admission, 428
  Second degrees, 120, 429
  Seminaries
    See departments of instruction
  Summer session, 70, 503, 505
  Summary of, 543
  Theses, 72, 430, 435
  Tuition and fees, 70, 72
  See also Fellowships
    Scholarships
Graduation
  Honors, 87, 134
  Less than four years, 133
Greek
  Hellenistic, 243
  Instruction in, 145
  Preparatory work in, 107
  Summer session, 506
  Teachers course, 289
Grounds, *see* Campus
Gymnasium
  Men's, 64, 478
  Practice and military drill, 74
  Women's, 64, 478

Health
  Exercise, 482
  Instruction bureau, 462
  Medical adviser, 91
  Student, 91
Hebrew, instruction in, 243
Hellenistic Greek, 243
High schools
  Accredited, 111
  Advanced standing, 113
  Certificates from, 111
  Non-accredited, 112
  Outside state, 112
    See also Wisconsin High School
Highway engineering, instruction in, 312
Highways, *see* Roads and Pavements
Historical and Political Science Association, 93
History
  Advanced degrees, 192
  Entrance requirements, 97
  Instruction in, 191
  Preparatory work in, 106
  Summer session, 508
  Teachers course, 289
  University, 53
Holidays, legal, 8
Home Economics
  Courses, 377, 379, 390, 392
  Degrees, 378, 392
  Electives, 381
  Preparatory work in, 98, 111
  Summer session, 517
  Teachers course, 289
  Vocational teachers course, 390
  Woman's week, 347
Honorary fraternities, 93
Honors and honorary degrees
  Graduate Military Department, 490
  Graduation, 87, 134
  Letters and Science, 134
  Medals, 93
  Sophomore, 134
  Senior, 134
  Thesis, 87, 134
    See also Fellowships
      Scholarships and funds
Horticulture, instruction in, 369
Hydraulic engineering, instruction in, 328
Hygiene, instruction in, 415

Immigration
  Dynamics of population, 164
  Labor problems, 162
Indo-European philology, 196
Industrial education, *see* Manual Arts
Industrial scholarships, 296
Infirmary, students, 92
Information
  Bureau of, 458
  General, 70
  Municipal Reference department, 460
Insect control, instruction in, 367
Inspection trips
  Engineers, 307
  Hygiene, 415
Institutes
  Community, 462
  Farmers', 347, 376
  Social service, 459
  Vocational, 460
Instructors and assistants, 30
Insurance
  Economics, 161
  Labor problems, 162

Law, 401
Mathematics, 208
Inter-college
Athletics, 482
Debates, 92
International interests
American diplomacy, 228
American foreign service, 227
Commercial policies, 161
Contemporary relations, 229
Latin-American institutions, 228
Law, 401
Law and politics, 228
Modern internationalism, 228
Oriental politics, 228
Investments, instruction in, 163
Italian
Instruction in, 239
Summer session, 513

Joint Debate League, 92
Journalism
Advertising, 160
Agricultural, 200, 363
Course in, 263
Instruction in, 197
Laboratory, 265
Summer session, 508
Trade and technical, 264

Laboratories
Agricultural, 341
Engineering, 301
Fees, 71
Forest Products, 496
Summer session fees, 78
Land and land problems
Agric. land tenures, 359
Property rights, (law), 401
Soil bacteriology, 356
Soil chemist course, 254
Landscape gardening, instruction in, 370
Language and Literature Club, 93
Languages
Entrance requirements, 97ff
Entrance without foreign, 101
Preparatory work, 107
Requirements for degree, 125, 407
See also English
Greek
Indo-European
Latin
Romance
Scandinavian
Semitic
Lantern slides, *see* Visual instruction
Latin
Instruction in, 145
Preparatory work in, 107
Summer session, 506
Teachers course, 290
Vulgar, 241
Law School
Accredited law offices, 398
Admission requirements, 100, 114, 396
Bar, admission to State, 398
Courses, 399
Degrees, 398
Elective studies, 403
Fees and expenses, 70ff
Graduation, 398
Library, 68, 403
Practice courses, 402
Pre-legal courses, 397
Required courses, 402
Summer session, 513
Tuition and fees, 70ff
Lectures
Extension Division, 455
Engineering, 308
Forest Products, 499
Freshmen, 308
Public, 520
Special, 499
Legislation
Labor, 162
Theory and practice, 228
Legislative Reference Library, 67
Instruction in, 276
Legislative scholarships, 79
Letters and Science, College of
Admission requirements, 98, 113
Degrees, 119
Departments of instruction, 136
Election of studies in other colleges, 124
Electives, 123, 124
Graduation in less than four years, 133
Honors, award of, 134
Major study, 122
Required studies, 125, 128
Student advisers, 134
Summer session, 505
Thesis, 122
Tuition and fees, 70ff
Library and Libraries
Buildings, 64
Deposit, required, 70
Description, 67
University staff, 45
Library School
Catalogue, 278
Courses, 277
English, joint course, 172
Entrance requirements, 275
Special course, 276
Summer session, 508
Teacher librarians, course for, 278, 290
Tuition, 70

Literary societies, 92
Loan funds and student aids, 83

Machine design, instructions in, 330
Management, *see* Business Administration
Manual Arts
  Industrial education, 441
  Instruction in, 200
  Summer session, 509
  Teachers course, 291
Marketing
  Cooperation and, 159, 359
  Methods of, 160
  Milk problems, 366
  Poultry, 372
Masters' Degree, *see* Degrees
Mathematics
  Entrance requirements, 97, 100
  Instruction in, 204
  Preparatory work in, 105
  Summer session, 509
  Teachers course, 291
Mechanical drawing
  Instruction in, 323
  Summer session, 515
Mechanical Engineering
  Commercial, 322
  Course, 313
  Degrees, 305, 313
Mechanics, instruction in, 331
Medical adviser, 91
Medical School
  Admission requirements, 101, 114
  Certificate, 406
  Degrees, 119, 120, 406, 407, 411, 412
  Departments of instruction, 414
  Laboratory fees, 72
  Physicians' courses, 412
  Premedical work, 409
  Seven-year course, 411
  Six-year combined course, 410
  Summer session, 514
  Tuition and fees, 70
Metallurgy
  Courses in, 317, 332
  Elective studies, 318
  Instruction in, 332
Meteorology
  Instruction in, 209
  Summer session, 510
  Weather Bureau office, 494
Military Science and Tactics
  Drill, 74, 121, 489
  Exempt from drill, 491
  Honor rating, 490
  Instruction in, 491
  Reserve Officers Training Corps, 490
Milk, *see* Dairy Husbandry
Mineralogy, instruction in, 182
Mining Engineering
  Elective studies, 317, 318
  Instruction in, 317, 332
Mining and Metallurgy, instruction in, 332
Moving pictures, *see* Visual instruction
Municipal reference bureau, 460
Municipal Studies
  City milk supply and ice-cream making, 366
  City planning, 322
  Community recreation, 220
  Demography of cities, 165
  Electric railways, 326
  Functions, 227
  Government, 227
  Housing problems, 394
  Illumination and wiring, 325
  Problems, 227
  Public health, 416
  Public utilities, 163, 229
  Reference Bureau, 460
  Sewerage, drainage, irrigation, 329
  Water supply, 329
Museums
  Engineering, 305
  General, 65
  Historical Society, 66
  Paintings, 66
Music
  Admission, 99, 465
  Applied, 210, 471
  Band, 472
  Choral Union, 472
  Community, 460
  Courses in, 210, 466
  Degree, 119, 467, 468
  Instruction in, 210
  Glee clubs, 472, 473
  Orchestra, 471
  Public school, 468
  Recitals and concerts, 473
  School of, 464
  Summer session, 510
  Teachers course, 292
  Tuition and fees, 70, 472

Nonresidents
  Admission of, 112, 116
  Rooms for women, 75
  Tuition, 70
Normal Schools
  College courses in, 113
  Credits, university, 113
  Credits in residence, 117
  Degree requirements, 131
  Outside Wisconsin credits, 116
  Teachers courses, 114
Norwegian, instruction in, 241

Observatory, Washburn, 492
Officers, University of Wisconsin
  Administrative, 9
  Appointment of, 60
  Directory, 9
  Instructional, 14
Oratory, *see* Public Speaking

Orchestra, university, 471
Orchestration, modern, instruction in, 212
Organ, instruction in, 465
Organizations, *see* Clubs
Pathology
  Instruction in, 212, 417
  Plant, 371
Pavements, *see* Roads and pavements
Peace and War, *see* International interests
Pedagogy, *see* Education
  Teachers training courses
Pharmacology
  Instruction in, 213, 417
  Summer session, 514
Pharmacy
  Conrath Memorial Fund, 270
  Course, 268
  Degrees, 119, 130, 271
  Experiment Station, 273
  Instruction in, 213
  Laboratories, 270
  Laboratory fees, 72
  Research fund, 270
Philology, Indo-European, 196
Philosophy
  Instruction in, 214
  Summer session, 510
  Teachers course, 292
Physical education
  Instruction in, 217, 485
  Professional training, 483
  Requirements, 479
  Summer session, 511
  Teachers course, 292
Physical Geography
  Instruction in, 182
  Preparatory work in, 107
Physics
  Instruction in, 221
  Laboratory fees, 71
  Preparatory work in, 107
  Summer session, 293
  Teachers course, 511
Physiography
  Instruction in, 182
  Teachers course, 293
Physiology
  Instruction in, 224
  Preparatory work in, 107
  Teachers course, 294
Pianoforte, instruction in, 211
Plant pathology, instruction in, 371
Points, grade, 87
Political economy, *see* Economics
Political science
  Association, 93
  Instruction in, 225
  Summer session, 512
  Teachers course, 294
Portuguese, instruction in, 239
Poultry husbandry, instruction in, 372
Preparatory work, 103
Press, *see* Journalism
Prizes, 85
Professional instruction for teachers
  See Teachers training course
Psychology
  Education, 166
  Instruction in, 214
  Laboratory fees, 71
  Social, 164
  Summer session, 510
Public accountant, *see* Economics
Publications
  Alumni, 95
  Bulletins, debating, 456
  Committee, faculty, 48
  Experiment station, 375
  Extension Division, 456
  Student, 95
  University bulletins, 95
  Wisconsin Studies, 95
  Women's Bulletin (Farmers'), 377
Public Health
  Instruction in, 416
  Doctor of, 120, 436
Public Speaking
  Debates and discussion, 456
  Defects in speech corrected, 231
  Extension Division, 456
  Instruction in, 230
  Oratorical Association, 92
  Prize contests, 86
  Summer session, 512
  Teachers course, 294
Public Utilities
  Instruction in (Economics), 163
Public service companies (Law), 401
Railroads
  Engineering, special lectures, 500
  Rate and traffic problems, 163
  Transportation, 163
Railway Engineering
  Electric, instruction in, 325
  Instruction in, 333
Recesses, 8
Regents
  Authority, 60
  How chosen, 60
  List, 12
Registration
  Days for, 7, 8
  Late, additional fee, 73
  Military department, 490
  Summer session, 504
Religious organizations, 94
Requirements for admission
  See Admission requirements
    Entrance requirements
Requirements for degrees, *see* Degrees
Residence credits, 117, 133
Roads and pavements
  Country, 362
  Instruction in, 334

Romance languages
Clubs, 235
Instruction in, 233
Summer session, 512
Teachers course, 294
Room and board
Average prices, 74
Cafeteria, Lathrop Hall, 75
Directories, 75
French house, 235
Women's, 74, 75, 235
Reserve Officers Training Corps, 490
Sanitary chemist, course, 256
Sanitary engineering, 328
Sanitation, public, 416
Scandinavian languages
Admission requirements, 97
Instruction in, 241
Scholarships
Graduate, 426
Industrial, 296
Undergraduate, 79
See also Fellowships
Loan funds and student aid
Schurz, Carl, memorial foundation, 59
Science, College of Letters and
See Letters and Science
Science, preparatory work in, 106
Scientific societies, 93
Seeds and cereals, instruction in, 364
Self Government Association
Fund, 84
Scholarship, 81
Women's, 89
Self-support, 78
Seminary courses
See departments of instruction
Semitic languages
Hellenistic Greek, 246
Instruction in, 243
Seniors, class play loan fund, 83
Shop work, engineering, 335
Social centers bureau, 461
Social societies, 94
Societies, *see* Clubs
Sociology
Costume, 394
Instruction in, 163
Rural life, 359
Summer session, 506
Soils
Bacteriology, 356
Chemist course, 254
Instruction in, 373
Summer session, 518
Spanish
Admission requirements, 97
Instruction in, 239
Preparatory work in, 109
Special students
Adult, 118
Law, 397
Music, 464
Statistics
Instruction in, 165
University, 543
See also Summaries
Steam and gas engineering, 336
Structural engineering, 338
Students
Advisers, 90, 134
Court, 90
Drill, obligatory, 74, 489
Employment, 78
Examination, medical, 91
Expenses, 77
Fraternities, 94
Health, 91
Honors, award of, 87, 134
Infirmary, 92
List of, 542
Loan funds, 83
Medical adviser, 91
Physical education, 479
Prize contests, 85
Publications, 95
Registration week duties, 481, 490
Scholarships, 79
Self-Government Association, 89
Senate, 89
Summaries of, 543
Supervision of, 88
Swimming test, 479
Undergraduates, list of, 542
Withdrawal from University, 73
See also Admission requirements
Clubs
Credits and units
Entrance requirements
Graduates
Summaries
Women students
Studies, Board of Editors of, 48
Summaries
Faculty statistics, 545
Graduates, 543
Students, statistics, 545
Summer session
Admission requirements, 503
Courses, 505
Date, 502
Training Teachers Course, 282
Tuition and fees, 504
Summer vacation work, *see* Vacation work
Surveying
Instruction in, 339
Summer session, 516
Swedish, instruction in, 241
Swimming test, 479

Taxation, instruction in, 163
Teachers Training Course
  Admission, 279
  Agriculture, 285, 346, 354
  Certificate, 134, 280, 284
  Committee, faculty, 50
  Correspondence-study, 454
  Credits, 285ff
  Departments of instruction, 285
  Drawing, supervisory course, 470
  Education, requirements, 281
  Industrial scholarships, 296
  License, 284
  Music, 468
  Normal school graduates, 114
  Requirements, 281
  State license, 284
  Summer session, 282
  University certificate, 134, 280
  Wisconsin High School, 284
Telephony, *see* Electrical engineering
Terms, Agricultural College, 346
Theses
  Baccalaureate medal, 93
  Doctors', 435
  Doctors', publication, 435
  Engineers', 308
  Honors, 87, 134
  Law, 398
  Letters and Science, 122
  Masters, 430
  Medical science, 408
Topographic engineering, instruction in, 339
Toxicology, instruction in, 213, 417
Trigonometry, *see* Mathematics
Trusts
  Control, 161
  Law School, 402
Tuition, fees, and deposits, 70
Undergraduates
  List of, 542
  Scholarships, 79
    See also Students
      Summaries
      Women Students
United States Weather Bureau, 494
Unit, definition of, 96
University High School
  See Wisconsin High School
Vacations, 7, 8
Vacation work
  Engineering, 307
  Engineering fee, 70
  Geology, 183
Veterinary science, instruction in, 374
Vilas, William F., medal and prize fund, 85
Violin, instruction in, 471
Visitors, board of, 13
Visual instruction, 463
Vocational Institutes, *see* Institutes
Vocational subjects
  For admission, 98
  Preparatory work in, 110
Voice culture, 471
  Defective speech corrected, 231
War activities of University, 60
War and Peace, *see* International Interests
Washburn Observatory
  Gift to University, 59, 492
  Publications, 95
Water and Water Power
  See Hydraulic Engineering
Water Supply, 329
Weather Bureau, U. S., 494
Weed-control, *see* Agronomy
Welfare work, 458
Wisconsin High School
  General statement, 284
  Teaching staff, 46
  Tuition, 70
Wisconsin normal schools, *see* Normal Schools
Women students
  Athletic Association, 482
  Barnard Hall, 75
  Buildings for, 75
  Chadbourne Hall, 75
  Directory of rooms, 89
  Floriculture, instruction for, 370
  French house, 235
  Glee Club, 473
  Gymnastics, 485, 487
  Gymnasium suit, cost, 74
  Journalistic sorority, 94
  Judiciary committee, 89
  Lathrop Hall, 64, 89
  Loan funds, 83
  Physical education, course, 217
  Physical training, 122, 479
  Scholarships, 79
  Self-Government Association, 89
    See also Admission requirements
      Credits and units
      Degrees
      Entrance requirements
      Students
Wood technology, 499
Young People's week in Agriculture, 348
Zoology
  Instruction in, 247
  Laboratory fees, 71
  Preparatory work in, 107
  Summer session, 513
  Teachers course, 295