



Western Michigan University
ScholarWorks at WMU

Western Michigan University Course Catalogs
(1904-present)

Western Michigan University

1945

Bulletin: Catalog and Announcements Western Michigan College 1945-1946

Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/course_catalogs



Part of the Higher Education Commons

WMU ScholarWorks Citation

Western Michigan University, "Bulletin: Catalog and Announcements Western Michigan College 1945-1946" (1945). *Western Michigan University Course Catalogs (1904-present)*. 119.
https://scholarworks.wmich.edu/course_catalogs/119

This Catalog is brought to you for free and open access by the Western Michigan University at ScholarWorks at WMU. It has been accepted for inclusion in Western Michigan University Course Catalogs (1904-present) by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.



Catalog + Announcements

1945-1946



Bulletin

WESTERN MICHIGAN COLLEGE

BULLETIN

Western Michigan College of Education
KALAMAZOO, MICHIGAN

Vol. 40

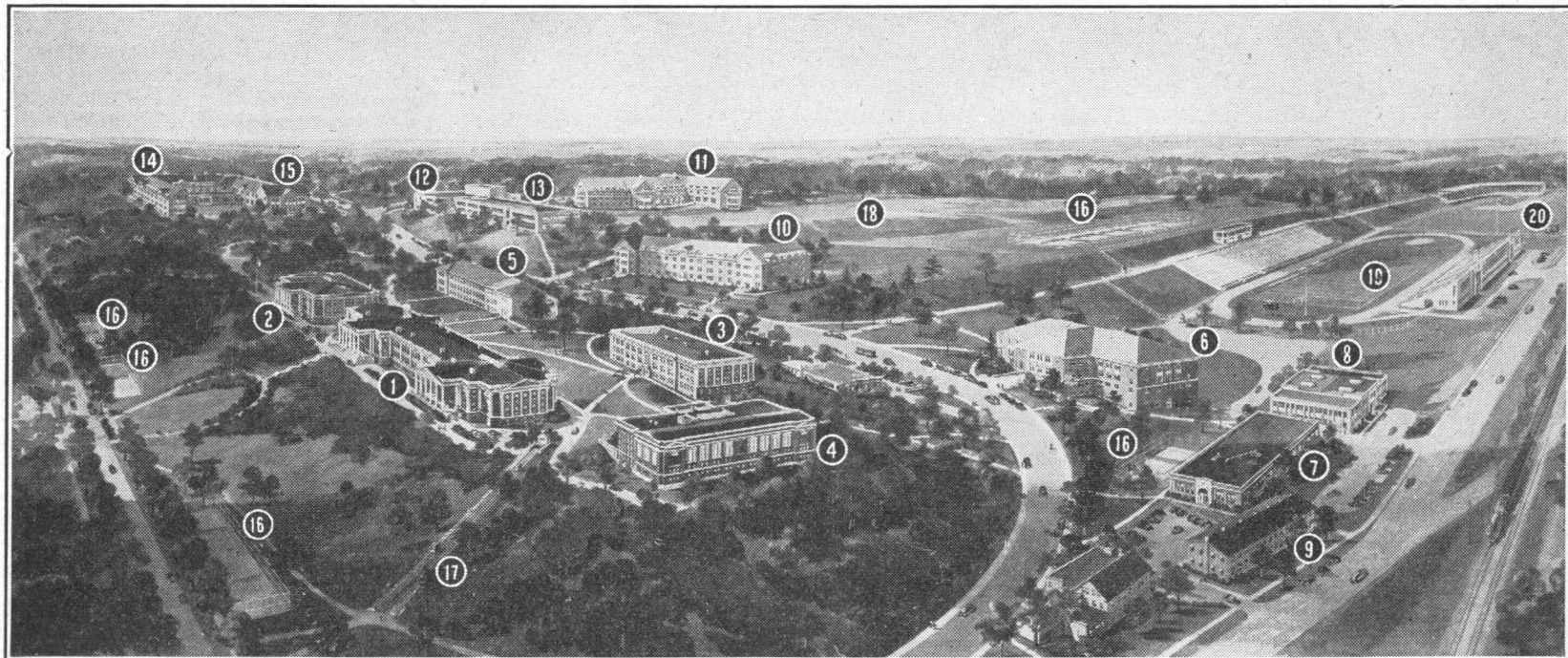
Issue of Spring Quarter, 1945

No. 4

Published Quarterly by the Western Michigan College of Education

Entered as Second Class Matter, Jan. 5, 1905, at the Post Office at Kalamazoo,
Michigan, Under Act of August 24, 1912.

WESTERN MICHIGAN COLLEGE OF EDUCATION KALAMAZOO, MICHIGAN



- | | | | |
|----------------------------------|-------------------------------|--|---|
| 1. Administration Building | 6. Men's Gymnasium | 10. Vandercook Residence Hall for Men | 14. Walwood Residence Hall for Women |
| 2. Campus Training School | 7. Industrial Arts Building | 11. Lavina Spindler Residence Hall for Women | 15. Union Building |
| 3. Science Building | 8. Mechanical Trades Building | 12. The Theatre | 16. Tennis Courts |
| 4. Library | 9. The Temporary Building | 13. Fine Arts Building (Proposed) | 17. Cable Cars |
| 5. Health and Personnel Building | | | 18. Women's Physical Education Playground |
| | | | 19. Waldo Stadium |
| | | | 20. Hyames Baseball Field |

FORTY-FIRST CATALOG

1944 - 1945

WITH

ANNOUNCEMENTS

FOR 1945 - 1946



WESTERN MICHIGAN COLLEGE OF EDUCATION
KALAMAZOO, MICHIGAN

*This college is a member of the American Association of Teachers Colleges.
It is fully accredited by the North Central Association of Colleges and
Secondary Schools and is on the approved list of the Association
of American Universities.*



DIRECTIONS FOR CORRESPONDENCE WITH WESTERN MICHIGAN COLLEGE OF EDUCATION

Correspondence with Western Michigan College of Education should be addressed as indicated below.

- a) Requests for catalogs, bulletins, blanks for recording high-school credits, and other literature—*The Registrar.*
- b) Concerning the adjustment of credits—*The Registrar.*
- c) Concerning board, rooms, and remunerative work for men—*The Dean of Men.*
- d) Concerning board, rooms, and remunerative work for women—*The Dean of Women.*
- e) Concerning rural life and education—*The Director of the Department of Rural Life and Education.*
- f) Concerning extension work and in-service education—*The Director of the Extension Division.*
- g) Concerning educational research—*The Director of the Bureau of Educational Measurements and Research.*
- h) Concerning student personnel and guidance matters—*The Director of Student Personnel and Guidance.*
- i) Concerning graduate work—*The Director of the Graduate Division.*
- j) Concerning veterans' matters—*The Veterans' Counselor.*
- k) Concerning vocational education—*The Director of Vocational Education.*
- l) Other general inquiries—*The Registrar.*

INFORMATION FOR NEW STUDENTS

A student applying for admission should

- a) Have a certified copy of his high-school credits mailed to the registrar by the high school from which he graduated.
- b) If entering with advanced standing from any county normal, normal school, college, or university, have mailed to the registrar complete official statements regarding the work for which credit is sought.
- c) Have credits sent in at as early a date as possible.

TABLE OF CONTENTS

	Page
Map of Campus	2
Directions to New Students	4
Calendar	6
College Calendar	7
Officers of Administration	8
Faculty	9-31
Faculty Council	31
Faculty Committees	32-33
General Information	34-65
Student Activities	66-75
Undergraduate Curricula	76-113
Graduate Division	114-119
Details of Departmental Courses	120-234
Index	235-238

CALENDAR

July 1, 1945—June 30, 1946

1945								1946							
	Sun.	Mon.	Tues.	Wed.	Thu.	Fri.	Sat.		Sun.	Mon.	Tues.	Wed.	Thu.	Fri.	Sat.
Jul.	1	2	3	4	5	6	7	Jan.	...	...	1	2	3	4	5
	8	9	10	11	12	13	14		6	7	8	9	10	11	12
	15	16	17	18	19	20	21		13	14	15	16	17	18	19
	22	23	24	25	26	27	28		20	21	22	23	24	25	26
	29	30	31	...	...	...	...		27	28	29	30	31	...	...
Aug.	...	...	...	1	2	3	4	Feb.	...	...	...	...	...	1	2
	5	6	7	8	9	10	11		3	4	5	6	7	8	9
	12	13	14	15	16	17	18		10	11	12	13	14	15	16
	19	20	21	22	23	24	25		17	18	19	20	21	22	23
	26	27	28	29	30	31	..		24	25	26	27	28	...	...
Sep.	...	...	...	...	...	1	...	Mar.	...	...	...	...	...	1	2
	2	3	4	5	6	7	8		3	4	5	6	7	8	9
	9	10	11	12	13	14	15		10	11	12	13	14	15	16
	16	17	18	19	20	21	22		17	18	19	20	21	22	23
	23	24	25	26	27	28	29		24	25	26	27	28	29	30
30	...	...	...	...	...	...	31	...	...	...	...	...	...
Oct.	..	1	2	3	4	5	6	Apr.	..	1	2	3	4	5	6
	7	8	9	10	11	12	13		7	8	9	10	11	12	13
	14	15	16	17	18	19	20		14	15	16	17	18	19	20
	21	22	23	24	25	26	27		21	22	23	24	25	26	27
	28	29	30	31	...	...	...		28	29	30	...	...	...	...
Nov.	...	...	...	...	1	2	3	May	...	...	...	1	2	3	4
	4	5	6	7	8	9	10		5	6	7	8	9	10	11
	11	12	13	14	15	16	17		12	13	14	15	16	17	18
	18	19	20	21	22	23	24		19	20	21	22	23	24	25
	25	26	27	28	29	30	..		26	27	28	29	30	31	..
Dec.	...	...	...	...	...	1	...	June	...	...	...	...	...	...	1
	2	3	4	5	6	7	8		2	3	4	5	6	7	8
	9	10	11	12	13	14	15		9	10	11	12	13	14	15
	16	17	18	19	20	21	22		16	17	18	19	20	21	22
	23	24	25	26	27	28	29		23	24	25	26	27	28	29
30	31	...	...	...	...	...	30	...	...	...	...	...	...

COLLEGE CALENDAR

1945-1946

First Trimester (Term 25)

July 1 through October 19

July 2, Monday	Orientation Day
June 30, Saturday, and July 2, Monday	Registration of Graduate students
July 3, Tuesday	Registration and enrollment of all Civilian and V-12 students
July 4, Wednesday	Holiday
July 5, Thursday	Recitations begin
September 3, Monday	Labor Day recess
September 17, Monday	Training Schools open
October 19, Friday	First trimester (Term 25) ends

Second Trimester (Term 35)

October 30 through February 22

October 30 and 31, Tuesday and Wednesday	Orientation Days (Freshman Days for Civilian students)
October 31, Wednesday	Registration and enrollment of freshmen
November 1, Thursday	Registration and enrollment of Military Students and Civilian upperclassmen
November 2, Friday	Recitations begin
November 22, Thursday	Thanksgiving recess
December 21, Friday P. M. to December 27, Thursday A. M.	Christmas recess
January 1, Tuesday	Holiday
February 22, Friday P. M.	Second trimester (Term 35) ends

Third Trimester (Term 16)

February 28 through June 22

March 4, Monday	Orientation Day
March 5, Tuesday	Registration and enrollment of all Civilian and Military Students
March 6, Wednesday	Recitations begin
April 19, Friday noon through April 21, Sunday	Easter recess
May 30, Thursday	Memorial Day recess
June 14, Friday	Training Schools close
June 22, Saturday	Third trimester (Term 16) ends

Summer Sessions, 1945

Pre-Summer Session

May 28, Monday	Pre-Summer session begins
May 28, Monday	Registration of students
June 22, Friday	Pre-Summer session ends

Regular Summer Session

July 2, Monday	Summer session begins
July 2, Monday	Registration of students
July 3, Tuesday	Recitations begin
August 10, Friday	Summer session ends

Summer Sessions, 1946

May 27, Monday	Pre-Summer session begins
June 21, Friday	Pre-Summer session ends
July 1, Monday	Summer session begins
August 9, Friday	Summer session ends

THE STATE BOARD OF EDUCATION

MISS MARY FARNSWORTH	President
THE HON. WYNAND WICHERS	Vice-President
THE HON. EUGENE B. ELLIOTT	Secretary
THE HON. STEPHEN S. NISBET	Member

THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

DR. EUGENE B. ELLIOTT

THE OFFICERS OF ADMINISTRATION

PAUL V. SANGREN, Ph. D.	President
WYNAND WICHERS, L.L.D.	Vice President
JOHN C. HOEKJE, A. B., Ed. M.	Dean of Administration—Registrar
BERTHA S. DAVIS	Dean of Women
RAY C. PELLETT, A. M.	Dean of Men
LOFTON V. BURGE, Ph. D.	Director of Training Schools
KENNETH T. BORDINE, A. M.	Associate Director of Teacher Training
LOY NORRIX, Ph. D.	Associate Director of Teacher Training
ELMER H. WILDS, Ed. D.	Director of Summer Session and Graduate Division
GEORGE H. HILLIARD, Ph. D.	Director of Student Personnel and Guidance
LEONARD GERNANT, A. M.	Assistant Registrar

THE FACULTY

Year 1944-1945

The Department of Agriculture

HOWARD D. CORBUS, M. S.

B. S., Michigan State College; M. S., Cornell University; University of Michigan.

The Department of Art

LYDIA SIEDSCHLAG, A. M.

B. A. E., The Art Institute of Chicago; A. M., Teachers College, Columbia University; Chicago School of Applied Art; Mills College.

*HARRY HEFNER, A. M.

A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University.

JOHN G. KEMPER, A. M.

B. F. A., Ohio State University; A. M., Teachers College, Columbia University; The Chicago Academy of Fine Arts.

HAZEL I. PADEN, A. M.

B. S., Massachusetts School of Arts; A. M., University of Syracuse; Massachusetts Normal Art School; Boston University; Cornish School of Art; University of Oregon.

MARY E. SMUTZ, A. M.

A. B., Oberlin College; A. M., Teachers College, Columbia University.

ELAINE L. STEVENSON, A. M.

B. A. E., The Art Institute of Chicago; A. M., Ohio State University; Quint Studio of Pottery; Church School of Art; Columbus School of Art.

LOUISE F. STRUBLE, B. S.

B. S., Western Michigan College of Education; Chicago School of Applied Art; Michigan State Normal College; Pennsylvania State College; The University of Chicago; The Art Institute of Chicago.

The Department of Biology

LESLIE A. KENOYER, Ph. D.

A. B., Campbell College; A. M., University of Kansas; Ph. D., The University of Chicago; Ph. D., Iowa State College; Woods Hole Biological Station.

LAVERNE ARGABRIGHT, A. M.

Ph. B., The University of Chicago; A. M., Columbia University; University of California.

*WALLACE BORGMAN, M. D.

A. B., Kalamazoo College; M. D., Northwestern University Medical School; Butterworth Hospital, Grand Rapids.

RAYMOND C. DEUR, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan.

* Absent on war leave.

THEODOSIA H. HADLEY, S. M.

B. S., Packer Collegiate Institute; A. B., Vassar College; S. M., The University of Chicago; Cornell University; Teachers College, Columbia University; Sorbonne, Paris; Ecoles Orientales, Paris.

FRANK J. HINDS, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan; Northern Michigan College of Education; University of Michigan Biological Station.

ROY E. JOYCE, A. M.

A. B., Ohio Wesleyan University; M. S., Ohio State University; A. M., University of Michigan.

EDWIN B. STEEN, Ph. D.

A. B., Wabash College; A. M., Columbia University; Ph. D., Purdue University

**LEONARD P. WIENIER, A. M.

B. E., Winona State Teachers College; A. M., Teachers College, Columbia University; University of Michigan Biological Station.

*MERRILL R. WISEMAN, M. S. P. H.

A. B., Ohio Northern University; M. S. P. H., University of Michigan; Ohio University; Cornell University.

The Department of Business Education

*J MARSHALL HANNA, Ed. D.

B. S., University of Nebraska; A. M., Columbia University; Ed. D., New York University; Harvard University.

ARTHUR L. WALKER, M. A.

B. S., North Texas State Teachers College; M. A., Colorado State College of Education; Colorado State College; University of Southern California; The George Washington University.

AGNES E. ANDERSON, M. S.

B. S., Ferris Institute; M. S., University of Tennessee; Northern Michigan College of Education; State Teachers College, Whitewater, Wisconsin; Columbia University.

HOMER ARNETT, L. L. B.

A. B., Western Michigan College of Education; L. L. B., University of Michigan; Michigan State College.

JOHN C. BRICKNER, A. M.

B. S., Central Michigan College of Education; A. M., University of Michigan.

*GEORGE A. KIRBY, A. M.

B. Ed., Western Illinois State Teachers College; A. M., Columbia University; Defiance College; University of Illinois; New York University.

PAUL KIRCHER, B. B. A.

B. B. A., University of New Mexico; McGill University, Montreal.

VIRGINIA REVA, A. B.

A. B., Saint Mary's College, Notre Dame University.

* Absent on war leave.

** Absent on leave.

- GLEN C. RICE, B. S.
B. S., Western Michigan College of Education; University of Michigan;
Wayne University; New York University, School of Retailing.
- EDNA WHITNEY, A. M.
B. S., Western Michigan College of Education; A. M., University of
Michigan; Central Michigan College of Education.

The Department of Chemistry

- GERALD OSBORN, Ph. D.
A. B., Michigan State Normal College; M. S., Ph. D., University of
Michigan.
- *JAMES W. BOYNTON, M. S.
A. B., Western Michigan College of Education; M. S., University of
Michigan.
- ROBERT J. ELDRIDGE, S. M.
B. S., Kalamazoo College; S. M., The University of Chicago; California
Institute of Technology.
- JULIAN GREENLEE, M. S.
B. Ed., Southern Illinois Teachers College; M. S., University of Illinois;
Eastern Illinois State Teachers College.
- LAWRENCE G. KNOWLTON, Ph. D.
A. B., Oberlin College; Ph. D., Cornell University.
- LILLIAN H. MEYER, Ph. D.
A. B., M. S., Washington University; Ph. D., University of Illinois.

The Department of Education

- GEORGE H. HILLIARD, Ph. D.
A. B., A. M., Ph. D., University of Iowa; Iowa State Teachers College;
Teachers College, Columbia University.
- JANE A. BLACKBURN, A. M.
B. Ed., Illinois State Normal University; B. S., A. M., Teachers College,
Columbia University; University of Illinois.
- ROY C. BRYAN, Ph. D.
A. B., Monmouth College; A. M., Teachers College, Columbia Univer-
sity; B. Ed., Teachers College, University of Cincinnati; Ph. D., Teach-
ers College, Columbia University.
- LOFTON V. BURGE, Ph. D.
B. S., University of Kentucky; A. M., Ph. D., University of Michigan.
- HOMER L. J. CARTER, A. M.
B. S., Wayne University; A. M., Ohio State University.
- CARL R. COOPER, A. M.
A. B., Western Michigan College of Education; A. M., Teachers College,
Columbia University; University of Michigan.
- MANLEY M. ELLIS, Ph. D.
A. B., A. M., Ph. D., University of Michigan; Michigan State Normal
College; The University of Chicago.

* Absent on war leave.

- ORIE I. FREDERICK, Ph. D.
A. B., A. M., Findlay College; Ph. D., University of Michigan; University of Nebraska; George Peabody College for Teachers.
- ARTHUR J. MANSKE, Ph. D.
A. B., Wayne University; A. M., Ph. D., Teachers College, Columbia University.
- KATHERINE A. MASON, A. M.
B. S., A. M., Teachers College, Columbia University.
- RAY C. PELLETT, A. M.
A. B., Huntington College; A. B., A. M., University of Michigan.
- EFFIE B. PHILLIPS, A. M.
B. S., University of Minnesota; A. M., Teachers College, Columbia University; St. Paul Normal School; Washington State Normal School; University of Southern California.
- ROXANA A. STEELE, M. Ed.
B. S., A. M., Teachers College, Columbia University; M. Ed., Michigan State Normal College; The Johns Hopkins University; New School of Social Research.
- REVA VOLLE, A. M.
B. S., University of Illinois; A. M., Teachers College, Columbia University.
- ELMER H. WILDS, Ed. D.
A. B., Allegheny College; A. M., The University of Chicago; Ed. M., Ed. D., Harvard University; Teachers College, Columbia University.
- CRYSTAL WORNER, A. M.
A. B., Michigan State Normal College; A. M., University of Michigan; University of Wisconsin; Teachers College, Columbia University.

The Department of English

- GEORGE SPRAU, A. M.
A. B., Ohio Northern University; A. B., A. M., Ohio University; A. M., Harvard University.
- ELDA O. BAUMANN, Ph. D.
A. B., A. M., Ph. D., University of Wisconsin.
- *SEYMOUR BETSKY, A. M.
A. B., College of the City of New York; A. M., Harvard University.
- WILLIAM R. BROWN, Ph. D.
A. B., University of Texas; A. M., Ph. D., Harvard University.
- EDITH M. EICHER, A. M.
A. B., Morningside College; A. M., Columbia University; University of Iowa; The University of Chicago; University of California; Oxford University; The University of London.
- LOUIS FOLEY, A. M.
A. B., Ohio University; A. M., Ohio State University; Université de Dijon, Ecole Régionale des Beaux Arts (Tours); Université de Poitiers; Middlebury College (Ecole Française, Scuola Italiana); Diplôme de professeur de française a l'étranger, Université de Paris.

* Absent on war leave.

LORENA M. GARY, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan; The University of Chicago; Duke University.

FRANK C. HOUSEHOLDER, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan.

MINNIE D. LOUTZENHISER, A. M.

B. S., Northwestern State Teachers College, Maryville, Missouri; A. M., University of Washington; University of Iowa; Columbia University.

HELEN E. MASTER, A. M.

A. B., A. M., University of Michigan; University College of Wales.

LUCILLE A. NOBBS, A. M.

A. B., Kalamazoo College; A. M., University of Michigan; The University of Chicago; University of Jena; University of Grenoble.

VIRGINIA C. PERKINS, A. M.

A. B., University of Minnesota; A. M., Wayne University; University of Maine; Mount Holyoke College; University of Michigan.

HERBERT SLUSSER, A. M.

A. B., A. M., University of Michigan.

CHARLES A. SMITH, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan.

JOHN H. THOMPSON, A. B.

A. B., University of Michigan.

*RUTH G. VAN HORN, A. M.

A. B., A. M., University of Michigan; Bread Loaf School of English; Columbia University.

LOUISE J. WALKER, A. M.

A. B., Albion College; A. M., Teachers College, Columbia University; Central Michigan College of Education; University of Colorado; University of Miami; University of Michigan.

The Department of Geography and Geology

WILLIAM J. BERRY, Ph. D.

A. B., Iowa State Teachers College; S. M., Ph. D., The University of Chicago.

LUCIA C. HARRISON, S. M.

A. B., University of Michigan; S. M., The University of Chicago; The University of Mexico.

MARGUERITE LOGAN, S. M.

A. B., Iowa State Teachers College; S. M., The University of Chicago.

*H. THOMPSON STRAW, Ph. D.

A. B., Hillsdale College; A. M., Ph. D., University of Michigan.

* Absent on war leave.

The Department of Health

- ELLIS J. WALKER, R. N., Ph. B.
Ph. B., University of Wisconsin; Augustana Hospital Training School for Nursing; Registered Nurse, Illinois, Wisconsin, Michigan; Columbia University; State Normal School, Oshkosh, Wisconsin.
- *WALLACE BORGMAN, M. D.
A. B., Kalamazoo College; M. D., Northwestern University Medical School; Butterworth Hospital, Grand Rapids.
- H. H. TASHJIAN, D. D. S.
D. D. S., University of Michigan.
- *THOMAS W. HOWSON, D. S.
B. S., Western Michigan College of Education; D. S., University of Michigan.
- ELIZABETH B. WATSON, R. N.
Hurley Hospital School of Nursing, Flint, Michigan; Registered Nurse, Michigan; The University of Chicago.
- GERALDINE I. BROWNE, R. N.
St. Elizabeth School of Nursing, Danville, Illinois.
- EVELYN L. BUERGER, R. N., B. S.
Deaconess Hospital, Milwaukee, Wisconsin; B. S., Western Michigan College of Education.
- MILDRED L. RUDE, R. N., B. S.
Passavant Hospital, Jacksonville, Illinois; B. S., Western Michigan College of Education.
- Medical and Dental consultants from Kalamazoo, Michigan, for scheduled clinics.

The Department of Home Economics

- SOPHIA REED, A. M.
Ph. B., The University of Chicago; A. M., Teachers College, Columbia University; University of Iowa.
- RACHEL ACREE, A. M.
B. S., University of Kentucky; A. M., Teachers College, Columbia University; Eastern Kentucky State Teachers College; University of Tennessee; The University of Chicago.
- REINOU MAURITS, A. M.
B. S., University of Illinois; A. M., Teachers College, Columbia University.
- MARY A. MOORE, B. S.
B. S., Western Michigan College of Education; Kalamazoo College; Teachers College, Columbia University; Cornell University.
- REVA VOLLE, A. M.
B. S., University of Illinois; A. M., Teachers College, Columbia University.

* Absent on war leave.

The Department of Industrial Arts

- DEYO B. FOX, Ph. D.
B. S., M. S., University of Michigan; Ph. D., University of Pittsburgh.
- *JOHN L. FEIBER, A. M.
B. S., Stout Institute; A. M., University of Minnesota.
- FRED S. HUFF, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- CHARLES S. NICHOLS, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan; University of Wisconsin.
- JOHN H. PLOUGH, B. S.
B. S., Western Michigan College of Education.
- DON O. PULLIN, A. M.
B. S., Wayne University; A. M., Teachers College, Columbia University.
- MARION J. SHERWOOD, A. M.
B. S., A. M., Teachers College, Columbia University; Michigan State College; University of Michigan.

The Department of Languages

- MATHILDE STECKELBERG, A. M.
A. B., University of Nebraska; A. M., Teachers College, Columbia University; University of Jena; Ludwig-Maximilian University, Munich; University of Wisconsin.
- HARRY P. GREENWALL, A. M.
B. L., Ohio Wesleyan University; A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University; University of Berlin; University of Mexico; Peoples College, Denmark; University of Hawaii.
- EUNICE E. KRAFT, A. M.
A. B., A. M., University of Michigan; American Academy at Rome; Teachers College, Columbia University; Cornell University.
- FRANCES E. NOBLE, Ph. D.
A. B., A. M., Ph. D., Northwestern University; University of Wisconsin; Sorbonne, Paris; Middlebury College.
- MURIEL M. RIX, A. M.
A. B., Kalamazoo College; A. M., University of Michigan; Western Michigan College of Education.
- HERMANN E. ROTHFUSS, A. M.
B. S., A. M., University of Minnesota.
- MARION TAMIN, A. M.
Ph. B., The University of Chicago; A. M., Teachers College, Columbia University; Université de Caen; Carthage College; Middlebury College.
- MYRTLE WINDSOR, A. M.
A. B., A. M., University of Michigan; Western Reserve University; The University of Chicago.

* Absent on war leave.

The Department of Mathematics

- JOHN P. EVERETT, Ph. D.
A. B., A. M., University of Michigan; M. Pd., Michigan State Normal College; Ph. D., Columbia University.
- HUGH M. ACKLEY, A. M.
A. B., A. M., Olivet College; The University of Chicago; University of Minnesota; Harvard University.
- GROVER C. BARTOO, A. M.
A. B., A. M., University of Michigan; Geneseo Normal School.
- HAROLD BLAIR, A. M.
B. S., A. M., University of Michigan; Ferris Institute.
- CHARLES H. BUTLER, Ph. D.
Ph. B., A. M., The University of Chicago; Ph. D., University of Missouri; University of Illinois; Illinois State Normal University.
- WILLIAM H. CAIN, A. M.
A. B., University of Michigan; A. M., Teachers College, Columbia University; Indiana State Teachers College; Indiana University; University of North Carolina.
- PEARL L. FORD, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- WILLIAM HALNON, Ph. D.
A. B., Dublin College, Ireland; Ph. D., Indiana University; Trinity College, Dublin.
- ELLA E. LAUSMAN, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- RAY C. PELLETT, A. M.
A. B., Huntington College; A. B., A. M., University of Michigan.
- WALTER E. THORSBERG, A. M.
A. B., A. M., Western Michigan College of Education; University of Michigan.
- CLIFFORD F. WALCOTT, A. M.
B. S., Michigan State Normal College; A. M., University of Michigan.
- ERNEST E. WEBER, A. M.
A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University.

The Department of Music

- HARPER C. MAYBEE, M. Ed.
A. B., Western Michigan College of Education; M. Mus., University of Michigan; M. Ed., Michigan State Normal College; Teachers College, Columbia University.
- LEOTI C. BRITTON, M. S.
B. S., Western Michigan College of Education; M. S., Northwestern University; University of Pennsylvania; Vineland Training School; Columbia University.

- EDITH M. CARLSON, B. M.
B. M., MacPhail College of Music; Northwestern University; University of Minnesota.
- MARY P. DOTY, A. M.
B. Mus., University of Michigan; A. M., Teachers College, Columbia University.
- H. GLENN HENDERSON
Michigan Conservatory of Music; American Conservatory of Music; Chicago Musical College; Student in Paris with Giurlmant and Moskowski.
- DOROTHEA SNYDER, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan; Chicago Musical College; Columbia University.
- MARGARET W. SOMMERFELD, B. S.
B. S., Western Michigan College of Education.

The Department of Occupational Therapy

- MARION R. SPEAR, O. T. R., B. S.
B. S., Massachusetts School of Art; University of Michigan.
- JANE B. THOMAS, O. T. R., B. S.
B. S., Western Michigan College of Education; Beloit College.

The Department of Physical Education for Men

- JUDSON A. HYAMES, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan; Michigan State Normal College; New York University.
- *DAVID C. ARNOLD, B. S.
B. S., Western Michigan College of Education.
- *WALLACE BORGMAN, M. D.
A. B., Kalamazoo College; M. D., Northwestern University Medical School; Butterworth Hospital, Grand Rapids.
- *MITCHELL J. GARY, A. M.
B. S., A. M., University of Minnesota.
- JOHN W. GILL, A. M.
A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University; Wayne University.
- FRANK C. HOUSEHOLDER, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- *CHARLES H. MAHER, A. M.
A. B., Western Michigan College of Education; A. M., West Virginia University.
- CLAYTON J. MAUS, M. S.
B. S., Ashland College; M. S., University of Wisconsin; University of Colorado.

* Absent on war leave.

- *FRANK S. NOBLE, B. S.
B. S., Western Michigan College of Education; West Virginia University; New York University.
- ROBERT I. QUIRING, A. B.
A. B., Western Michigan College of Education.
- HERBERT W. READ, A. M.
A. B., Western Michigan College of Education; A. M., Columbia University; University of Michigan.
- DONALD N. SCOTT, B. S.
B. S., University of Illinois; Whitewater State Teachers College; Western Michigan College of Education; Northwestern University.
- *J. TOWNER SMITH, A. M.
B. S., Western Michigan College of Education; A. M., University of Michigan.
- ROY J. WIETZ, A. M.
B. S., University of Illinois; A. M., Columbia University; Ohio State University.

The Department of Physical Education for Women

- CRYSTAL WORNER, A. M.
A. B., Michigan State Normal College; A. M., University of Michigan; University of Wisconsin; Teachers College, Columbia University.
- MARY BOTTJE, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan; University of Wisconsin.
- ISABEL CRANE, A. M.
B. S., Battle Creek College; A. M., Teachers College, Columbia University; Eau Claire State Teachers College, Wisconsin; University of Wisconsin.
- DORIS A. HUSSEY, B. S.
B. S., Western Michigan College of Education; Sargent School for Physical Education; University of Wisconsin; Harvard Medical School.
- SARAH H. McROBERTS, A. M.
B. S., State University of Iowa; A. M., New York University; North Dakota State College of Agriculture and Mechanical Arts; University of Wisconsin; Hanya Holm School of Dance.
- HELEN MERSON, A. M.
A. B., Western Michigan College of Education; A. M., New York University; University of Minnesota.
- DOROTHY VESTAL, B. S.
B. S., University of Michigan; Sargent School for Physical Education; Butler College; University of Minnesota; Northwestern University.

The Department of Physics

- PAUL ROOD, Ph. D.
A. B., Albion College; A. M., Ph. D., University of Michigan.

* Absent on war leave.

GROVER C. BAKER, A. M.

A. B., Michigan State Normal College; A. M., University of Michigan.

JACOB P. DEWITT, M. S.

A. B., Hope College; M. S., University of Iowa; Kansas State College.

WALTER G. MARBURGER, M. S.

A. B., M. S., University of Michigan; Harvard University.

ALBERT H. MUNK, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan.

MILTON A. SIZER, M. S.

A. B., M. S., Marquette University; University of Chicago.

The Department of Psychology

THEODORE S. HENRY, Ph. D.

A. B., Illinois Wesleyan University; A. M., Ph. D., University of Illinois.

HOMER L. J. CARTER, A. M.

B. S., Wayne University; A. M., Ohio State University.

DOROTHY J. MCGINNIS, B. S.

B. S., Western Michigan College of Education; Ohio State University.

The Department of Rural Life and Education

WM. MCKINLEY ROBINSON, Ph. D.

B. S., Hiram College; A. M., Ph. D., Teachers College, Columbia University; Michigan State Normal College; Bowling Green State University, Ohio; The University of Chicago.

ANNA L. EVANS, A. M.

A. B., University of Michigan; A. M., The University of Chicago; Battle Creek College; Michigan State Normal College; Columbia University.

The Department of Social Sciences

FLOYD W. MOORE, Ph. D.

A. B., Albion College; A. M., University of Michigan; Ph. D., Northwestern University; Harvard University.

HOMER ARNETT, L. L. B.

A. B., Western Michigan College of Education; L. L. B., University of Michigan; Michigan State College.

HOWARD F. BIGELOW, A. M.

A. B., Wesleyan University; A. M., Harvard University; Kalamazoo College; University of Michigan; University of Illinois.

ROBERT S. BOWERS, A. M.

A. B., Kansas Wesleyan University; A. M., American University; Northwestern University; University of Southern California; The University of Chicago.

GEORGE O. COMFORT, Ph. D.

A. B., Western Michigan College of Education; A. M., University of Michigan; Ph. D., University of Kentucky; University of Wisconsin.

ROBERT FRIEDMANN, Ph. D.

A. B., Goshen, Indiana; Ph. D., University of Vienna, Austria; Honorary Fellow, Yale University.

LEONARD C. KERCHER, Ph. D.

A. B., A. M., Ph. D., University of Michigan; University of London.

JAMES O. KNAUSS, Ph. D.

A. B., Lehigh University; A. M., Harvard University; Ph. D., Cornell University.

EDWIN M. LEMERT, Ph. D.

A. B., Miami University; Ph. D., Ohio State University.

MARGARET E. MACMILLAN, Ph. D.

A. B., A. M., University of Michigan; Ph. D., Columbia University; State Teachers College, West Chester, Pennsylvania.

ARTHUR J. MANSKE, Ph. D.

A. B., Wayne University; A. M., Ph. D., Teachers College, Columbia University.

MILDRED S. NUTTEN, Ed. M.

A. B., Mount Holyoke; B. S., Simmons School of Social Work; Ed. M., Harvard University School of Education.

*ROBERT R. RUSSEL, Ph. D.

A. B., McPherson College; A. M., University of Kansas; Ph. D., University of Illinois; University of California; London School of Economics.

NANCY E. SCOTT, Ph. D.

A. B., A. M., Indiana University; Ph. D., University of Pennsylvania; Charles University, Prague, Czechoslovakia.

G. EDITH SEEKELL, A. M.

A. B., A. M., University of Michigan; Teachers College, Columbia University; University of Colorado.

*RUSSELL H. SEIBERT, Ph. D.

A. B., College of Wooster; A. M., The University of Chicago; Ph. D., Ohio State University; Bowling Green State College.

D. C. SHILLING, Pd. D.

Pd. B., Ohio Northern University; A. B., Miami University; A. M., University of Wisconsin; Pd. D., Ohio Northern University.

CHARLES R. STARRING, A. M.

A. B., A. M., Columbia University; University of London; The University of Chicago.

*W. VALDO WEBER, Ph. D.

A. B., A. M., Ph. D., University of Iowa; River Falls State Teachers College; LaCrosse State Teachers College.

OTTO YNTEMA, A. M.

A. B., A. M., Hope College; University of Michigan.

* Absent on war leave.

The Department of Speech

LAURA V. SHAW, A. M.

B. S., Ohio Wesleyan University; A. M., University of Michigan; Bread Loaf School of English; Middlebury College; Chicago Art Theatre; School of Speech, Oxford, England; Wharf School of the Theatre, Provincetown, Massachusetts; Tamara Daykarkanova School of Make-Up.

ALBERT B. BECKER, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan; Northwestern University.

*GIFFORD BLYTON, Ph. D.

A. B., University of Washington; Ph. D., Ohio State University; Louisiana State University.

WALLACE L. GARNEAU, A. M.

A. B., Western Michigan College of Education; A. M., University of Michigan; School of Radio Technique, Radio City, New York.

ANNA E. LINDBLOM, A. M.

A. B., A. M., Iowa State University; University of Minnesota; School of Speech, Oxford, England.

GEORGE E. MILLS, A. B.

A. B., Western Michigan College of Education; University of Michigan.

FRANK ROBINSON, A. B.

A. B., Western Michigan College of Education; University of Minnesota; Michigan State Normal College.

CHARLES VAN RIPER, Ph. D.

A. B., A. M., University of Michigan; Ph. D., University of Iowa; Northern Michigan College of Education; University of Minnesota.

*ZACK L. YORK, A. B.

A. B., Western Michigan College of Education; Yale University, School of the Theatre.

The Department of Trade and Industrial Education

DEYO B. FOX, Ph. D.

B. S., M. S., University of Michigan; Ph. D., University of Pittsburgh.

HEBER B. BENDER

Western Michigan College of Education.

HUBERT D. ELLINGER, B. S.

B. S., Western Michigan College of Education.

*JOSEPH W. GIACHINO, A. M.

B. S., Wayne University; A. M., University of Detroit.

GEORGE R. MILLER

Western Michigan College of Education.

JOHN H. PLOUGH, B. S.

B. S., Western Michigan College of Education.

ELMER C. WEAVER, A. M.

B. S., A. M., Teachers College, Columbia University.

* Absent on war leave.

RALPH O. WILLIAMS

University of Michigan; Michigan State College.

The Alumni Secretary

CARL R. COOPER, A. M.

A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University; University of Michigan.

The Clear Lake Camp

WILBUR D. WEST, Ph. D.

B. P. E., M. P. E., International Y. M. C. A. College; Ph. D., University of Michigan.

ISABEL CRANE, A. M.

B. S., Battle Creek College; A. M., Teachers College, Columbia University; Eau Claire State Teachers College; University of Wisconsin.

LOUISE E. DIETSCH, A. M.

B. S., Western Michigan College of Education; A. M., University of Michigan.

KARL GASSLANDER, A.M.

B. S., Northwestern University; A.M., Columbia University.

The Campus Training School

LOFTON V. BURGE, Ph. D., (Director)

B. S., University of Kentucky; A. M., Ph. D., University of Michigan.

RACHEL ACREE, A. M.

B. S., University of Kentucky; A. M., Teachers College, Columbia University; Eastern Kentucky State Teachers College; University of Tennessee; The University of Chicago.

HELEN M. BARTON, A. M.

A. B., Michigan State Normal College; A. M., Teachers College, Columbia University; University of California; University of Munich.

ELSIE L. BENDER, A. M.

B. S., A. M., Iowa State University; Iowa State Teachers College; Drake University; American University, Cairo, Egypt; Teachers College, Columbia University.

EVELYN L. BUERGER, R. N., B. S.

Deaconess Hospital, Milwaukee, Wisconsin; B. S., Western Michigan College of Education.

ISABEL CRANE, A. M.

B. S., Battle Creek College; A. M., Teachers College, Columbia University; Eau Claire State Teachers College, Wisconsin.

MARY P. DOTY, A. M.

B. Mus., University of Michigan; A. M., Teachers College, Columbia University.

CORA EBERT, A. M.

A. B., Iowa State Teachers College; A. M., Columbia University; University of Akron; University of Iowa; University of California; University of Munich.

GRACE I. GISH, A. M.

B. S., Kansas State College; A. M., The University of Chicago; Columbia University; University of Southern California.

- ANNA C. LUBKE, A. M.
Ph. B., The University of Chicago; A. M., George Peabody College for Teachers.
- HELEN MCCALL, A. M.
B. S., Kent State University; A. M., Columbia University; Muskingum College; Indiana State Teachers College.
- FLORENCE E. MCLOUTH, A. M.
B. S., Teachers College, Columbia University; A. M., University of Michigan; Michigan State Normal College; University of Pittsburgh; The University of Chicago; University of Southern California.
- *FRANK S. NOBLE, B. S.
B. S., Western Michigan College of Education; West Virginia University.
- JOHN H. PLOUGH, B. S.
B. S., Western Michigan College of Education.
- ROBERT I. QUIRING, B. S.
B. S., Western Michigan College of Education.
- SOPHIA REED, A. M.
Ph. B., The University of Chicago; A. M., Teachers College, Columbia University; University of Iowa.
- MARION J. SHERWOOD, A. M.
B. S., A. M., Teachers College, Columbia University; Michigan State College; University of Michigan.
- ETHEL SHIMMEL, A. M.
A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University; Olivet College; Michigan State Normal College; Cleary Business College.
- LOUISE S. STEINWAY, A. M.
B. S., A. M., Columbia University; University of Southern California.
- BESS L. STINSON, A. M.
B. S., A. M., George Peabody College for Teachers; University of Colorado; The University of Chicago.
- LOUISE F. STRUBLE, A. M.
B. S., Western Michigan College of Education; A. M., The University of Chicago; Chicago School of Applied Art; Michigan State Normal College; Pennsylvania State College; The Art Institute of Chicago.

The Hurd One-Teacher Rural Training School

- GRACE L. BUTLER, A. M.
B. S., Western Michigan College of Education; A. M., Teachers College, Columbia University.

The Paw Paw Training School

- KENNETH T. BORDINE, A. M. (Superintendent)
B. S., Michigan State College; A. M., University of Michigan; Colorado State Teachers College.

* Absent on war leave.

LEONA ADOLF, M. A.

A. B., M. A., Colorado State College of Education, Greeley, Colorado.

MAUDE W. ARTHUR, A. M.

M. Pd., Colorado State Teachers College; A. B., Iowa State Teachers College; A. M., Teachers College, Columbia University; The University of Chicago.

BESS W. BAKER, A. M.

Ph. B., The University of Chicago; A. M., University of Michigan.

AMELIA BAUCH, A. M.

B. S., A. M., Columbia University; Nebraska State Teachers College; The University of Chicago; University of California; University of Montana; University of Michigan.

PEARLE BAXTER, A. M.

A. B., Northwestern University; A. M., Boston University.

EDITH M. CARLSON, B. M.

B. M., MacPhail School of Music, Minneapolis; Northwestern University.

HARRIET G. DEHAAN, A. M.

A. B., Western Michigan College of Education; A. M., Northwestern University.

BRYAN EMMERT, A. M.

Ph. B., A. M., The University of Chicago; Nebraska State Teachers College; University of Wisconsin; Northwestern University; Columbia University.

GWENDOLYN FREER, A. M.

A. B., Lombard College; A. M. University of Michigan.

CLARENCE W. HACKNEY, A. M.

A. B. Western Michigan College of Education; A. M., University of Michigan.

ARLENE E. HOLLINGER, A. M.

A. B., Western Michigan College of Education; A. M., Northwestern University.

HELEN KADEL, A. M.

A. B., Fort Hays State College; A. M., Kansas State College.

LOIS KRAEGER, A. M.

B. S. C., University of Iowa; A. M., Teachers College, Columbia University.

CARL V. LINDEMAN, M. S.

B. S., Highland Park College; A. B., Des Moines University; M. S., Iowa State College of Agriculture and Mechanic Arts; University of Wyoming; Colorado Agricultural College.

LESTER R. LINDQUIST, A. M.

B. S., A. M., University of Michigan; Baker's Business College; Central Michigan College of Education.

ELIZABETH L. McQUIGG, A. M.

B. S., A. M., Teachers College, Columbia University.

- LOUISE C. MYERS, A. M.
B. S., A. M., Teachers College, Columbia University; Indiana State Normal College.
- ESTHER D. NYLAND, A. M.
A. B., A. M., University of Michigan; University of California.
- REYNOLD G. OAS, A. M.
B. S., Michigan State College; A. M., University of Michigan; Harvard University.
- HELEN I. ROTH, A. M.
B. S., Western Michigan College of Education; A. M., Teachers College, Columbia University.
- MARY A. SIMMONS, A. M.
B. S., A. M., Columbia University; Michigan State Normal College; Battle Creek College.
- MARY E. SMUTZ, A. M.
A. B., Oberlin College; A. M., Teachers College, Columbia University; Syracuse University.
- MARION A. SPALDING, A. M.
A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University.
- CLELLA STUFFT, A. M.
A. B., University of Nebraska; A. M., Teachers College, Columbia University; The University of Chicago; University of Oregon.
- *EDWIN O. VAUGHN, A. M.
A. B., Michigan State Normal College; A. M., Teachers College, Columbia University; The University of Chicago; Michigan State College.
- ALMON V. VEDDER, Ph. D.
A. B., Michigan State Teachers College; A. M., Ph. D., University of Michigan.
- JEAN VIS, A. M.
A. B., Michigan State Normal College; A. M., University of Michigan; Northwestern University.
- JEAN O. ZACKER, A. M.
A. B., Rosary College; A. M., University of Illinois.

The Portage Consolidated Training School

- LEWIS D. CRAWFORD, A. M. (Superintendent)
A. B., Western Michigan College of Education; A. M., University of Michigan.
- *HUBERT G. ARCHER, A. M.
A. B., Central Michigan College of Education; A. M., University of Michigan.
- MAXINE COOK
Western Michigan College of Education; Bay View Summer School.
- P. J. DUNN, A. M.
B. S., Michigan State College; A. M., University of Michigan; Central Michigan College of Education; Western Michigan College of Education.

* Absent on war leave.

LLEWELLYN GRAY, A. B.

A. B., Western Michigan College of Education; University of Michigan.

MARIAN I. HALL, A. M.

Ph. B., The University of Chicago; A. M., University of Michigan; Columbia University; Western Michigan College of Education.

MARGARET HINDS

Northern State Teachers College.

LELA M. McDOWELL, A. M.

Ph. B., The University of Chicago; A. M., Teachers College, Columbia University; Western Michigan College of Education.

ELEANOR T. McLAUGHLIN, A. M.

B. S., Vermont State Normal School; A. M., Teachers College, Columbia University.

HELEN MERSON, A. M.

A. B., Western Michigan College of Education; A. M., New York University.

NAVEDA D. MIDLAND, A. M.

A. B., Iowa State Teachers College; A. M., Teachers College, Columbia University; University of Minnesota.

ANN S. PEARSON, A. M.

Ph. B., The University of Chicago; M. Ed., Duke University; Michigan State Normal College; Teachers College, Columbia University.

ISABELLE PERRIN, A. B.

A. B., Western Michigan College of Education.

MYRTLE M. POWERS, B. S.

B. S., Western Michigan College of Education; Battle Creek College; Michigan State College.

LORENA M. PURDY, A. B.

A. B., Western Michigan College of Education; Ohio State University; University of Michigan.

LENA REXINGER, A. M.

B. S., George Peabody College for Teachers; A. M., Teachers College, Columbia University; Arkansas State Teachers College; The University of Chicago.

EMMA I. RICHARDS, A. M.

B. S., University of Minnesota; A. M., University of Michigan; Northern State Teachers College; Valley City Teachers College, North Dakota; Milwaukee Teachers College; Teachers College, Columbia University; Ohio State University.

MARY SLATTERY, B. S.

B. S., Western Michigan College of Education; University of Michigan.

MARY E. SMUTZ, A. M.

A. B., Oberlin College; A. M., Teachers College, Columbia University; Syracuse University.

MARGARET SOMMERFELD, B. S.

B. S., Western Michigan College of Education; University of Michigan.

CELIA SPINDLER, A. M.

B. S., A. M., George Peabody College for Teachers.

- OPAL STAMM, A. M.
A. B., Berea College; A. M., Teachers College, Columbia University;
University of California; Michigan State College; University of Min-
nesota.
- CATHERINE D. WILKERSON, A. M.
B. S., Central Missouri State Teachers College; A. M., Teachers Col-
lege, Columbia University; University of Kansas; Missouri Valley
College; University of California; Northwestern University; William
Jewell College; Western Michigan College of Education.
- MARY WILLIAMS, B. S.
B. S., Western Michigan College of Education.

The Richland Rural Agricultural School

- HOWARD D. CORBUS, M. S. (Superintendent)
B. S., Michigan State College; M. S., Cornell University; University
of Michigan.
- E. FEEN AOMOODY, A. M.
B. S., Western Michigan College of Education; A. M., University of
Michigan.
- FLORENCE C. BAILEY, A. M.
A. B., Western Michigan College of Education; A. M., University of
Michigan.
- HARRY H. BROWNE, B. S.
B. S., Western Michigan College of Education.
- LYDIA B. COX, A. M.
B. S. E., State University of Arkansas; A. M., George Peabody College
for Teachers; University of Iowa.
- DELLA P. GREGORY, B. S.
B. S., Western Michigan College of Education.
- ELAINE HICKMAN, B. S.
B. S., Western Michigan College of Education.
- AUDREY J. HOLDEN, B. S.
B. S., Western Michigan College of Education; Northwestern Univer-
sity; University of Minnesota.
- MILDRED HUTCHENS, A. B.
A. B., Western Michigan College of Education.
- LEOLA JABLONSKI, A. M.
A. B., Western Michigan College of Education; A. M., University of
Michigan; Ferris Institute.
- MAE T. MCALEER, A. M.
A. B., Western Michigan College of Education; A. M., University of
Michigan.
- ELEN O'CONNOR, B. S.
B. S., Western Michigan College of Education.
- GRACE RYNBERG, A. M.
B. S., A. M., Teachers College, Columbia University; The University
of Chicago.

IRMA SANBORN

Western Michigan College of Education.

MARGARET R. SOMMERFELD, B. S.

B. S., Western Michigan College of Education.

MARION A. SPALDING, A. M.

A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University.

LOUISE F. STRUBLE, A. M.

B. S., Western Michigan College of Education; A. M., The University of Chicago; Chicago School of Applied Art; Michigan State Normal College; Pennsylvania State College; The Art Institute of Chicago.

MAURINE VIND, A. B.

A. B., Western Michigan College of Education.

ELIZABETH WHITELOCK, B. S.

B. S., Western Michigan College of Education.

The Western State High School

ROY C. BRYAN, Ph. D. (Principal)

A. B., Monmouth College; A. M., Teachers College, Columbia University; B. Ed., Teachers College, University of Cincinnati; Ph. D., Teachers College, Columbia University.

RACHEL ACREE, A. M.

B. S., University of Kentucky; A. M., Teachers College, Columbia University; Eastern Kentucky State Teachers College; University of Tennessee; The University of Chicago.

*DAVID C. ARNOLD, B. S.

B. S., Western Michigan College of Education.

GROVER C. BARTOO, A. M.

A. B., A. M., University of Michigan; Geneseo Teachers College, New York.

JOHN C. BRICKNER, A. M.

B. S., Central Michigan College of Education; A. M., University of Michigan.

LEOTI C. BRITTON, M. S.

B. S., Western Michigan College of Education; M. S., Northwestern University; University of Pennsylvania; Vineland Training School; Columbia University.

RAYMOND C. DEUR, A. M.

B. S., Western Michigan College of Education; A. M., University of Michigan.

DONALD DOLAN, A. B.

A. B., University of Michigan; Western Michigan College of Education.

*Absent on war leave.

- PEARL L. FORD, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- LEONARD GERNANT, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan; Michigan State College.
- JULIAN GREENLEE, M. S.
B. Ed., Southern Illinois State Teachers College; M. S., University of Illinois; Eastern Illinois State Teachers College.
- ELIZABETH HATHAWAY, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- FRANK C. HOUSEHOLDER, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- HELEN G. HOWERY, A. M.
B. S., State Teachers College, Radford, Virginia; A. M., Teachers College, Columbia University; Columbia University.
- PAUL KIRCHER, B. B. A.
B. B. A., University of New Mexico; McGill University of Montreal.
- EUNICE E. KRAFT, A. M.
A. B., A. M., University of Michigan; American Academy at Rome; Teachers College, Columbia University; Cornell University.
- MARGARET E. MACMILLAN, Ph. D.
A. B., A. M., University of Michigan; Ph. D., Columbia University; State Teachers College, West Chester, Pennsylvania.
- SARAH H. McROBERTS, A. M.
B. S., State University of Iowa; A. M., New York University; North Dakota State College of Agriculture and Mechanical Arts; University of Wisconsin; Hayna Holm School of Dance.
- GEORGE E. MILLS, A. M.
A. B., Western Michigan College of Education; A. M., University of Michigan.
- *FRANK S. NOBLE, B. S.
B. S., Western Michigan College of Education; West Virginia University; New York University.
- HAZEL I. PADEN, A. M.
B. S., Massachusetts School of Art; A. M., University of Syracuse; Massachusetts Normal Art School; Boston University; Cornish School of Art; University of Oregon.
- JOHN H. PLOUGH, B. S.
B. S., Western Michigan College of Education.
- DON O. PULLIN, A. M.
B. S., Detroit Teachers College; A. M., Teachers College, Columbia University.
- ROBERT I. QUIRING, B. S.
B. S., Western Michigan College of Education.

*Absent on war leave.

SOPHIA REED, A. M.

Ph. B., The University of Chicago; A. M., Teachers College, Columbia University; University of Iowa.

MURIEL M. RIX, A. M.

A. B., Kalamazoo College; A. M., University of Michigan; Western Michigan College of Education.

MARION J. SHERWOOD, A. M.

B. S., A. M., Teachers College, Columbia University; Michigan State College; University of Michigan.

MATHILDE STECKELBERG, A. M.

A. B., University of Nebraska; A. M., Teachers College, Columbia University; University of Jena; Ludwig-Maximilian University, Munich; University of Wisconsin.

ERNEST WEBER, A. M.

A. B., Western Michigan College of Education; A. M., Teachers College, Columbia University*

EDNA WHITNEY, A. M.

B. S., Western Michigan College of Education; A. M., University of Michigan; Central Michigan College of Education.

MYRTLE WINDSOR, A. M.

A. B., A. M., University of Michigan; Western Reserve University; The University of Chicago.

The Library

ANNA L. FRENCH, Librarian

Michigan State Normal College, Drexel Institute School of Library Science; University of Michigan.

EDITH E. CLARK, A. B., Periodicals

A. B., Western Michigan College of Education; A. B., in Library Science, University of Michigan; Duke University.

HAZEL E. CLEVELAND, A. B., Training School Library and Circulation

A. B., Western Michigan College of Education; A. B., in Library Science, University of Michigan.

MARY A. H. HARVEY, Orders and Accessions

Michigan Female Seminary; Oberlin College.

PHOEBE LUMAREE, M. S., Catalog

A. B., Western Michigan College of Education; B. S., Simmons College School of Library Science; M. S., Columbia School of Library Service; Lake Forest College.

PAUL L. RANDALL, A. B., Reference

A. B., Western Michigan College of Education; B. S., in Library Science, University of Illinois.

*ROBERT H. SPINDLER, A. M.

A. B., Michigan State College; A. M., in Library Science, University of Illinois.

The Educational Service Library

WINIFRED MACFEE, B. S.

B. S., Western Michigan College of Education; University of Michigan.

* Absent on war leave.

Walwood Hall Union Building

Cornelius B. MacDonald	.....	Manager
H. Duane Plough	.....	Assistant Manager
Rosalyn K. Panter	.....	Dietitian
Rita K. Kohn	.....	Assistant Dietitian
Lucille Loughead	.....	Bookkeeper
Kathryn M. Metzger	.....	Clerk

Lavina Spindler Hall Cafeteria

Grace E. Moore	.....	Dietitian
Annette Ogilvie	.....	Dietitian

The Offices

John C. Hoekje	.....	Registrar
Leonard Gernant	.....	Assistant Registrar
Vivian Chandler	.....	Clerk, Records Office
Nina DeKoning	.....	Clerk, State High School Office
Blanche Draper	.....	Publicity
Homer M. Dunham	.....	Publicity
Eva Falk	.....	Clerk, Records Office
Margaret E. Feather	.....	Secretary to the Dean of Men
Jean Hamlin	.....	Secretary, Speech Clinic Office
Betty Happel	.....	Postmistress
Bernice Hesselink	.....	Financial Secretary
Evelyn Hickmott	.....	Secretary, Adult Education Office
Edna Hirsch	.....	Clerk, Administration Office
Patricia Jerrett	.....	Bookkeeper
Lloyd Jesson	.....	Secretary to the President
Eleanore Linden	.....	Secretary, Training School
Lucille Loughead	.....	Clerk, Union Building
Avis McCammon	.....	Secretary, Education Office
Helen A. McKinley	.....	Secretary, Graduate Division
LeRoy Meyers	.....	Receiving Clerk
Lorraine OptHoff	.....	Clerk, High School Office
Hester Pellegrom	.....	Secretary to the Registrar
Luthera Rankin	.....	Clerk, Records Office
Eleanor Sagars	.....	Secretary, Physics Office
Lucille E. Sanders	.....	Secretary, Rural Life and Education Department
Barbara Shane	.....	Clerk, Records Office
Alice Smith	.....	Secretary, Placement Bureau
Leah Smith	.....	Secretary, Extension Division
Carrie Stoeri	.....	Secretary to the Dean of Women
Helen Tanner	.....	Secretary, Mathematics Office
John Thompson	.....	Manager, Western's Campus Store
Glenadine B. Vanderberg	.....	Secretary, Physical Education Office
Gene Wood	.....	Clerk, Records Office

The Faculty Council

1. Members Elected

Terms expire 1948

- Charles H. Butler
- Frank J. Hinds
- Otto Yntema

Terms expire 1947

- Wallace L. Garneau
- Leslie A. Kenoyer
- Charles R. Starring

Terms expire 1946

- Isabel Crane
- John E. Fox
- Elizabeth L. McQuigg

2. Members Appointed

Terms expire 1946

- O. I. Frederick
- Lillian H. Meyer
- Phoebe Lumaree

3. Members Ex-Officio

- President Paul V. Sangren
- Vice President Wynand Wichers

FACULTY COMMITTEES
Year 1945-1946

COMMITTEE	PERSONNEL	
1. Adult Education and Leisure Time Activities	Hoekje, Blair, Fox, Frederick, Gernant, Loutzenhiser, Manske, Osborn, Scott, Siedschlag, Slusser, Yntema	
2. Assemblies	Wilds, Bottje, Garneau, Gary, Hoekje, MacFee, three students named by the Student Council	
3. Alumni Relations	Cooper, Burge, Dunham, C. MacDonald, MacFee, Mason, Nobbs, Wichers	
4. Athletic Board	Hoekje, Berry, Comfort, Hyames, C. MacDonald, V-12 representative, and the president of the Student Council	
5. Bulletins	Hoekje, Cleveland, Dunham, Evans, Paden, Steele	
6. Clear Lake Camp	Manske, Burge, Crane, Hilliard, Hyames, MacDonald, Reed, West, Worner, Wilds	
7. Commencement	Brown, Davis, Hoekje, McRoberts, Maurits, Maybee, Pellett, Siedschlag	
8. Consultative and Field Service	Hoekje, Carter, Hilliard, Joyce, Wichers, Wilds	
9. Curricula	Wichers, Bartoo, Barton, Brown, Burge, Ellis, Evans, Gernant, Harrison, Shilling, Steele, Wilds	
10. Curricula Enrollers	Curriculum	Enrollers
	Art Business Education Elementary General Degree Home Economics Industrial Arts Music Occupational Therapy Physical Education—Men Physical Education—Women Post-Graduate Pre-Professional Rural Life and Education Secondary Special Education Trade and Industrial Education Unclassified V-12 Trainees, (Regular Programs)	Kemper, Paden, Stevenson Rice, Anderson Blackburn, Berry, Frederick, Logan, Phillips Blair, Carter, DeWitt, Rood Volle, Acree, Maurits Fox Maybee, Britton, Henderson, Snyder Spear Read, Gill Worner, Hussey, Vestal Wilds Shilling, Butler, Kercher, Meyer, Noble Robinson, Sanders Nobbs, Brown, Steen, Tamin, L. Walker Ellis Fox Bartoo Marburger, Blaisdell, Butler, Everett, Garneau, Steen

11. Departmental Advisers	Department	Adviser
	Agriculture	Corbus
	Art	Siedschlag
	Biology	Kenoyer
	Business Education	
	General	Walker
	Secretarial	Walker
	Retailing	Rice
	Chemistry	Osborn
	Education	
	General	Hilliard
	Special	Ellis
	Geography	Berry
	Home Economics	Reed
	Industrial Arts	Fox
	Languages	Steckelberg
	Mathematics	Everett
	Music	Maybee
	Occupational Therapy	Spear
	Physical Education—Men	Hyames
	Physical Education—Women	Vestal
	Physics	Rood
	Psychology	Henry
	Rural Life and Education	Robinson
	Social Sciences	
	Social Science, Economics, Political Science, and Sociology	Moore
	History	Knauss
	Speech	Shaw
	Trade and Industrial Education	Fox
12. Faculty Meetings	Wichers, Bordine, Eicher, Hilliard, Meyer, Norrix, Rood, Volle	
13. Final Examinations	Hoekje, Blackburn, Harrison, Huff	
14. Freshmen Counselors	Argabright, Cooper, Hinds, Mason, Rice, Robinson, C. Smith, Steele, A. L. Walker, Weaver	
15. Friendship	Cooper, Eldridge, Foley, Howery, McCall, Master, Midland, Stinson	
16. Graduate Council	Wilds, Baumann, Berry, Fox, Kercher, Osborn, Rood, Steckelberg	
17. Health Education	Joyce, Buerger, Crane, Hyames, Jontz, Steele, Volle	
18. Personnel Advisory	Hilliard, Ackley, Brown, Carter, Harrison, Hinds, Hoekje, Knauss, Mason, Reva	
19. Placement	Burge, Argabright, Bordine, Bryan, Crawford, Davis, Hilliard, Fox, Hussey, Manske, Pellett, Rice	
20. Postwar Planning	Kercher, Ellis, Marburger, Meyer, Robinson, Sangren, A. L. Walker, Wichers, Yntema	
21. Public Relations	Wichers, Anderson, Cooper, Dunham, Garneau, Hoekje, Hyames, MacDonald, Mason, Shilling	
22. Social Life	Davis, Greenwall, Hoekje, MacDonald, MacFee, M. Moore, Nichols, Pellett	
23. Scholarship	Hoekje, Argabright, Carter, Davis, Hilliard, Osborn, Pellett, Worner	
24. Student Loan Funds	Hoekje, Davis, Pellett	
25. Student Welfare	Hoekje, Burge, Carter, Davis, Hilliard, C. MacDonald, Pellett, Van Riper, E. Walker	

Note.—In each case the person whose name appears first is the chairman of the committee.

GENERAL INFORMATION

PURPOSE

WESTERN MICHIGAN COLLEGE OF EDUCATION

The original primary purpose of Western Michigan College of Education, as stated in the act establishing it in 1903, was to prepare teachers for the public schools. Western Michigan College of Education ever has held that purpose in mind. But as the years have come and gone the original purpose has been expanded and modified. While most of its students still are in training for the teaching profession, Western now counts significant numbers who are pursuing courses of a pre-professional and vocational nature. Liberal Arts work leading to the degree either of Bachelor of Arts or of Bachelor of Science, is available in every department.

The college seeks to attract young men and women of vigorous health, high mentality, thorough scholarship, strong professional spirit, broad culture in the amenities of life, winning personality, and proved character.

By encouraging the formation of habits which make for good health and by promoting the development of sound bodies through physical education, the college aims to send into the various professions those physically fit for their tasks. Courses of study are planned with the purpose of developing an appreciation of thorough scholarship, by introducing students to the best in thought and life, and, at the same time, giving as thorough knowledge of the various branches of study as possible in the time devoted to the work. A high professional spirit is fostered in those expecting to teach through instruction in the principles underlying the teaching process and through the provision of ample opportunity for prospective teachers to become acquainted with children, to observe them in the classroom, and to teach them under supervision in the training schools connected with the college. Opportunity for the development of initiative, self-reliance, and community spirit is found in voluntary participation, according to the interests of the students, in a wide range of extra-curricular activities. A sane, wholesome social life is encouraged through membership in clubs and attendance at social functions of the college. In all these ways the college aims to develop in its students essential qualities and, as a consequence, to do its part in giving the State of Michigan a body of citizens thoroughly trained for every phase of their work. In a word, Western Michigan College of Education is progressive in educational policy and practice; it fosters a wholesome spirit of democracy; by every means at its command it seeks to keep constantly before its teachers and students the idea that character and service are the highest aims of education and the noblest ideals of life.

HISTORICAL SKETCH

Western Michigan College of Education was established by an act of the Legislature of 1903. The first school year was begun in June, 1904, under the presidency of Dwight B. Waldo. Rented quarters in the city high-school building and in the Kalamazoo College building housed the school for a year and two summer terms. In 1905 the Administration Building was completed, and in 1907 a gymnasium, the two buildings being connected by an intervening section of classrooms. The Training School Building was ready for occupancy in 1909, the Science Building in 1914, the Manual Arts Building in 1921, the \$270,000 Library in 1924, and the \$260,000 Men's Gymnasium in 1925. The Temporary Building, erected for the S. A. T. C. in 1918, has been used as a classroom building since 1923.

Walwood Hall, combined women's dormitory and Union Building, was opened in September, 1938. The Waldo Stadium and the new baseball field and stands were completed in 1939, and the Vandercook Hall for Men and the Student Health and Personnel Building were ready in the fall of that year. Lavina Spindler Residence Hall for Women was opened in September, 1940.

The Mechanical Trades Building became available in 1941 and the Theatre in 1942.

Successive land purchases have increased the original campus of 20 acres to one of 280 acres.

In the first academic year, 1904-1905, 116 students were enrolled. Ten full-time and three part-time instructors composed the faculty. In the year 1943-1944 there were 3,256 different undergraduate students enrolled and 197 graduate students. The faculty, including the teaching staffs of the affiliated training schools, totaled more than 200 persons.

Graduation from an approved high school has always been a prerequisite to admission.

In 1926 the curricula in art, music, commerce, manual arts, home economics, and physical education were lengthened to three years. The conferring of the degree of Bachelor of Arts upon the completion of a four-year curriculum was authorized in 1917. A curriculum for the degree of Bachelor of Science was formulated in 1925.

From June 30, 1932, to June 30, 1939, all life-certificate curricula required four years of training. The provisional certificate now replaces the life certificate.

The increase in enrollment has made necessary larger training-school facilities; these have been secured by affiliation with the Paw Paw village district, the Richland Township district, the Portage rural-agricultural district, and Rural District No. 9.

The two-semester plan was authorized by the State Board of Education in December, 1938, and the three-semester plan, in May, 1943.

In July, 1938, the State Board of Education and the University of Michigan Board of Regents agreed upon a plan for graduate study in the teachers colleges of Michigan which has operated successfully in this institution since that time.

In 1927, the North Central Association of Colleges and Secondary Schools placed the college on its approved list. In 1928, approval of the college was given by the American Association of Teachers Colleges. In 1941, the college was placed on the approved list of the Association of American Universities.

In the summer of 1939, the college was selected as one of the twenty colleges and universities in the United States to cooperate in the National Study of Teacher Education under the auspices of the American Council on Education. That study, designed to revise and improve the program of teacher preparation in this college and indirectly in other colleges throughout the country, has been energetically pursued.

On August 5, 1936, President Waldo tendered his resignation to the State Board of Education. His resignation was accepted by the Board, and President Waldo became President Emeritus, in which capacity he served until his death on October 29, 1939.

At the same meeting Dr. Paul V. Sangren, who had been serving in the capacity of Dean of Administration, was elected to the presidency. Formal inaugural exercises for Dr. Sangren as the second president of the institution were held on November 7, 1936.

LOCATION

The location of Western Michigan College of Education is particularly favorable. Several railways, including the Michigan Central, the New York Central, and the Pennsylvania, together with the major highways, U. S. 12, U. S. 131, and M. 43, pass through Kalamazoo, thus making the college readily accessible from most of southwestern Michigan and northern Indiana. Western Michigan College of Education, the only state-supported college in the southwestern part of Michigan, is privileged to serve a large and populous region, a fact that is of major importance both in service to students and also in the placement of teachers. The city of Kalamazoo, with its suburbs, has a population of approximately 60,000, and therefore offers numerous

opportunities for students to secure part-time employment and to defray a portion of their expenses while in residence.

The site of the campus is one of unusual beauty. Five of the buildings stand upon a hill which rises sharply to a height of a hundred feet above the plain upon which the major part of the city is located. From the summit the view is far-reaching and impressive: near at hand is the residential district, forest-like in its appearance from the hill; farther on loom the tall office buildings of the business district; beyond these are numerous factories, and still farther may be seen the outlines of the distant hills. The region surrounding Kalamazoo contains considerable forest land, varied vegetation, representative glacial topography, and numerous lakes.

The access to the industrial plants of the city, the many types of specialized agriculture, the variety of topography and native vegetation, and the many water bodies afford opportunities and facilities for field courses and excursions of various kinds and also offer recreational opportunities during every season.

The city of Kalamazoo is generous in offering its unusual cultural advantages to students, often at a merely nominal cost. Kalamazoo has its own symphony orchestra, which may be heard with enjoyment on Sunday afternoons. Each season the Community Concert Series brings some of the world's foremost musical artists. There is an annual lecture course, which, in the past, has presented many outstanding persons. The drama is well produced from time to time by the Kalamazoo Civic Theatre group in their beautiful experimental theatre. Somewhat before Christmas of each year community choruses from southwestern Michigan join with the Kalamazoo and Western Michigan College of Education choruses under the direction of Mr. Harper Maybee in a festival performance of Handel's *Messiah*, with soloists and orchestra. The exhibits of the Kalamazoo Art Institute are always an attraction. And added to these opportunities there are those offered by the churches. The leadership in the various denominations is naturally rather strong in a city the size of Kalamazoo and has helped to produce a lively Christian consciousness.

SUMMARY OF ENROLLMENT JULY 1, 1943—JUNE 30, 1944

(Students of collegiate rank only.)

A. Summer session, 1943.....	533
B. Total: first, second, and third semesters (in residence).....	2813*
C. Grand total.....	3346
Names appearing twice.....	90
D. Total number of different undergraduate students.....	3256
E. Graduate enrollment.....	197
F. Grand total, resident enrollment.....	3453

* Includes 1329 Navy V-12 trainees.

BUILDINGS AND MATERIAL EQUIPMENT

1. The **Administration Building** contains the administrative offices, the alumni office, the publicity office, and the campus store. The Extension Division, the Graduate Division, the Department of Music, the Department of Rural Life and Education, and the State High School, as well as several classrooms, are also located in this building.

2. The **Athletic Plant**. When the college reopened in the fall of 1939, a modern and adequate athletic plant was ready for use. It comprises the following features:

The Men's Gymnasium was erected in 1925. Its size and equipment make possible adequate training of varsity basketball and indoor-track teams, the preparation of physical directors and athletic coaches, and the carrying out of an intramural program of physical education and competitive sports during the winter. Between 3,500 and 4,000 people may be seated around the varsity

court. There is a regulation basketball floor, with three cross courts for intramural purposes; a fourteen-lap running track; a vaulting and jumping pit; two handball courts; a dirt floor area for the training of hurdlers, shot putters, and vaulters and for the early work of the baseball battery men; exercise rooms; wrestling and boxing rooms; and equipment for calisthenic apparatus work. There are also offices, classrooms, and locker rooms.

Hyames Baseball Field. The baseball field has been completely rebuilt. The infield is newly graded and sodded. Concrete stands will seat 2,500 spectators. Dugouts, dressing-rooms, and storage space help to make the facilities for baseball second to those at no college in the Mid-West.

Waldo Stadium. The stadium was dedicated November 4, 1939. Two concrete stands, each capable of seating 7,500 people and reaching from goal line to goal line, provide seating capacity for football enthusiasts, as well as for attendants at community functions. Surmounting the southeast stand is a modern press box, outfitted in the most approved manner. Beneath the northwest stand are locker rooms, officials' rooms, coaches' rooms, squad headquarters, training rooms, and concession stands. On each side of the field are twenty-six boxes, each capable of seating eight spectators.

Track. Around the football field, inside the Waldo Stadium, runs an eight-lane, quarter-mile cinder track. The straightaway is 220 yards long. There is also adequate space for training for the several field events.

Tennis Courts. There are now ten courts available for students. These furnish ample opportunity for personal, class instructional, and inter-class as well as inter-collegiate competition.

3. The **Temporary Building.** Housed in the building used as a barracks during the S. A. T. C. days are the *Department of Art*, the *Department of Home Economics*, the *Department of Occupational Therapy*, and three classrooms.

4. The **Industrial Arts Building** is a fireproof structure of the modern factory type. It offers facilities for specialization in woodworking, metal working, and drafting. There are separate units for elementary woodwork, advanced woodwork, forging, sheet metal, machine shop, foundry, pattern making, and gas-engine and automobile repair work. The drafting-room receives north and west light. Washrooms and showerbaths adjoin the locker room.

5. The **Library Building**, which was completed in the summer of 1924, enables all the students of the college to do reading and reference work under comfortable conditions. One corner of the building, at the side of the wide entrance lobby, is occupied by a long delivery desk, behind which is the steel-constructed stack-well. At the other side of the lobby a corner of the building is devoted to staff workrooms and a faculty reading room. All the rest of this floor is given over to the main reading room, two stories high and 158 feet by 38 feet, accommodating 290 readers. On the second floor are one large lecture room and two classrooms. The basement provides more classrooms.

The library consists of 60,750 volumes, arranged according to the decimal classification and indexed by a card catalog of the dictionary type. There are 81 complete files of periodicals; 369 periodicals and 8 newspapers were subscribed for during the current year.

(Upon the payment of a small fee students are also accorded the services of the efficient staff of the Kalamazoo Public Library and the use of its excellent book collection.)

The *Department of Business Education* occupies part of the basement of this building. A complete equipment of typewriters, filing cabinets, duplicating machines, etc., has been provided, so that students may have an opportunity to become familiar with modern mechanical office devices.

6. The **Mechanical Trades Building**, constructed largely with funds donated by a local foundation, was completed in 1941. This is a two-story building of brick and concrete construction and has a total floor space of some twenty thousand square feet. Housed in the building are the shops and classroom facilities utilized in teaching the metal trades and aviation mechanics. The

shops are equipped with modern tools and machines and include a machine shop, sheet metal shop, welding and heat treat shop, radio service shop, instrument repair shop, and a materials testing laboratory. Shops for aircraft engine overhaul, airplane overhaul, propeller overhaul, and doping and spray painting are also included.

7. The **Science Building** adequately houses a number of departments.

The *Department of Agriculture* has its classrooms here. (The laboratory is a 150-acre farm of fertile silt loam, located in Portage Township. Here a pure-bred herd of Guernsey cattle is raised, feeder cattle are kept, pure seed is grown, and a fine flock of laying hens is housed in a modern poultry house. A young orchard of good varieties of fruit is available for observation. Alfalfa fields, cover-crop demonstrations, and modern machinery are maintained).

The *Department of Biology* has laboratories for special work in physiology, hygiene, general biology, botany, zoology, and nature study. The department is thoroughly equipped with the instruments and apparatus necessary for work in the various phases of biological study. A commodious greenhouse was added to the equipment of the department in 1940. This is stocked with more than two hundred species of plants from all parts of the world, and affords excellent facilities for illustrating biographical principles as well as for preparing classroom material.

The *Kleinstueck Wild Life Preserve* and other interesting localities in the region, in addition to the campus itself, furnish abundant material for field studies in the biological sciences. The Kellogg Bird Sanctuary and the Wolf Lake Fish Hatchery are within easy driving distance.

The *Department of Chemistry* has laboratory supplies and equipment for four years of undergraduate work. These include some special equipment for lecture demonstrations and for courses in physical chemistry and advanced analysis; an automatic thermostat; and an electric combustion furnace.

(In the chemistry section of the general library are many of the current chemical journals, together with a large number of works of authoritative chemists.)

The *Department of Geography and Geology*. The equipment includes a file of the United States topographic maps; a collection of the United States Geological Survey folios; a collection of foreign topographic maps; rainfall, vegetation, physical, political, population, and economic maps; collections of rocks, minerals, and fossils; meteorological instruments; and a balopticon with several hundred slides.

The *Department of Physics*. This department has two lecture rooms, two well-equipped laboratories for general physics, a laboratory for electrical measurements and experimental work in radio, a dark room for photometric, spectroscopic, and photographic work, a shop, and stock rooms.

The laboratories are adequate for experimental work in all phases of general physics. Precision instruments and precision standards are available for use in the courses in electricity and electrical measurements. In these laboratories the student has ample opportunity to become familiar with the manipulation and operation of modern apparatus.

8. The **Lavina Spindler Hall for Women**, providing housing for one hundred and ninety-three students, was dedicated in 1940. It is situated on a hill, to the general contour of which the exterior and interior architectural design of the hall conforms.

Upon entering the building the visitor finds himself in a most attractive lobby, with a large mural on either side, and pillars and circular benches, all done in an effective green and coral color scheme. The terrace, which affords a view of the valley to the north and west, circles the curve of the entrance hall and may be approached from the dining room on the west and the living room on the east as well as from the lobby. There are three attractively and individually furnished reception rooms and the office adjacent to the main hall.

In the living room east of the lobby, the large mural above the fireplace, typifying strength and unity of the group, presents the circular theme, in

harmony with which the furnishings of the room are arranged. Blue is the predominating color contrasted with coral and yellow green. To the west of the lobby is located the large dining room with windows on three sides, where seating accommodations are provided for residents and their guests. The dining room also contains a large circular table for special parties.

Special facilities available to the students include: a large, attractive recreation room furnished with piano, ping-pong table, and card tables and chairs; two music practice rooms; and a laundry equipped with stationary tubs, clothes driers, ironing boards, shampoo basins, and hair driers. Three kitchenettes and two sunrooms afford the opportunity for social gatherings and "spreads." On the ground floor, adjacent to the nurse's room, is located the infirmary providing accommodations for two persons.

Maple furniture, including single beds, dressers or dressing tables, shelves, a large desk, two straight chairs and an easy chair, is used in all student rooms. A lamp and harmonizing or contrasting draperies complete and add color to the room. Each girl is provided with one blanket, a pillow, a bedspread, sheets, and a pillow case. With the exception of seven singles, all rooms accommodate two girls.

9. The **Student Health and Personnel Building**, erected in 1939, is a three-story structure, 150 feet long and 42 to 50 feet wide, located on the east side of Oakland Drive, just north of the entrance driveway. Its primary purpose is to house the Health Service and certain student-personnel activities of the college. The Health Service department includes in its equipment offices, examining rooms, treatment rooms, and infirmary rooms. The building also contains offices for the Dean of Men, the Dean of Women, the Director of Student Personnel and Guidance, members of the Department of Education, the veterans' counselor, and the freshmen counselors; quarters for the psycho-educational clinic, the speech correction clinic, and the psychological laboratory; classrooms for instruction in health, education, and psychology; the educational service library; and the radio broadcasting station.

The *Department of Psychology*. All the instruments necessary for standard introductory and advanced courses in psychology are at the disposal of the student. Chronoscopes, kymographs, tachistoscopes, color mixers, and ergographs constitute a part of this equipment. The department is also well supplied with excellent models of the brain and sensory organs.

(The general library of the college contains complete files of all the more important psychological journals, as well as a large list of the standard works of this and related fields.)

10. The **Theatre** was completed in the early part of 1942 as an original unit of a fine-arts building. This building contains an auditorium with a seating capacity of 350, a main lobby, two classrooms, dressing rooms, offices, a workshop, and rehearsal rooms. The building is of brick and stone exterior, two stories in height, with an over-all area 64 feet in width and 116 feet in length. In this building all play-production work, small concerts, lecture engagements, etc., connected with the college are held.

11. The **Training Schools** of Western Michigan College of Education are unique in that they include a wide range of typical schools: a one-room rural school, a consolidated school, a township-unit school, a large village school, a city graded school, and a high school—thus approximating the types of schools students may expect to work in after graduation. These schools give the student an opportunity for observation of and directed teaching in any subject and in any grade from kindergarten to the twelfth grade inclusive. Transportation to the outlying schools is afforded by the college busses.

The *Campus Elementary School* includes a kindergarten; a room each for grades one to eight; a library; a gymnasium; and special rooms for art, music, and home economics. The grade rooms center about an open light-well, forming a rotunda, with a stage for assembles. Enrollment is by application; new pupils are accepted from a waiting list when vacancies occur. Owing to the large demand for admission, only pupils of normal grade-age are accepted; no room for retarded pupils is maintained on the campus.

The *Campus High School*, the administrative offices of which are located on the second floor of the Administration Building, serves a twofold purpose in the field of secondary education. One major function of the school is to offer a broad curriculum in which teaching procedures designed by the leaders in the field of secondary education are put into practice. Another function is to offer an effective laboratory situation for training prospective teachers for secondary schools. (See separate catalog for High School.)

The *Hurd One-Teacher Rural School* on West Main Street is housed in a modern building, equipped with electric lights, running water, an extra room for directed teaching and a basement community room with a stage, which may be used for indoor play.

The *Paw Paw Large-Village School*, organized on the six-three-three plan, is one of the best of its kind. Western Michigan College of Education and the Paw Paw Board of Education unite to make this school a progressive one in every particular. All elementary grades, junior- and senior-high schools, and special departments are included, and the best types of equipment are used. There are at present twenty-nine faculty members.

The *Portage Center Consolidated School*, an eighteen-teacher school, organized on the eight-four plan, includes a kindergarten, all the elementary grades, and a high school. The school building is especially constructed both to meet the needs of the local community and to extend the directed-teaching facilities of the college into this type of situation.

The *Richland Township Unit School*, a sixteen-teacher school, has a building and facilities similar to those of the Portage school above described. It is organized on the six-six plan.

For each of the off-campus training schools the buildings and material equipment are supplied by the local community; but the faculties are employed and the schools are administered by the college.

In these teaching laboratories, students have an opportunity to test and apply previously studied theory under trained supervision. They experience the daily problems of the teacher and study children directly. They acquire the elementary habits and skills and some of the techniques of modern teaching. Each student is responsible for the progress of an assigned group of children.

12. The **Henry B. Vandercook Hall for Men**, located on the west side of Oakland Drive, just south of the Men's gymnasium, conforms architecturally to Walwood Hall. This modern dormitory houses 200 residents. Besides providing student rooms, equipped in modern style, the dormitory also contains general offices, private offices for staff members, reception rooms, an auditorium with a stage, guest rooms, lounge, book room, kitchenette, infirmary rooms, pressing room, barber shop, and telephone booths. This dormitory was ready for occupancy in September, 1939.

For the duration, this dormitory has been made available to military students.

13. The **Walwood Hall**, a beautiful building erected in 1938, combines under one roof, but with separate entrances, two units.

One unit is the **Union Building**—a two-story structure which serves as a social center for the campus. On the first floor of this building, besides the offices and a check room, are a large general lounge, the Women's League room, a soda bar, a large cafeteria, and private dining rooms. On the second floor at one end are the Men's Union room with adjoining recreation room, and offices and meeting places for student organizations. At the other end is a large ballroom in which are held most of the campus parties. This ballroom also serves as a lecture hall, theatre, and banquet hall as needed. Adjoining the ballroom are two well-planned reception or club rooms. The union building is supported by a small fee required of all students at the beginning of each semester.

The other unit is the **Walwood Hall Residence for Women**, which accommodates 115 girls. The building is of safe, fireproof construction. All rooms are double and so designed as to meet the needs of students. Individual

closets, beds, dressers, and mirrors are provided. The furniture is modern in style, and the draperies and bed spreads are in color. Additional features, such as built-in book shelves, decorative lamps, provisions for hanging pictures, and especially designed desks for work give quality and individuality to the rooms.

A large attractive lounge serves for general gatherings. A beautiful, well-lighted dining room accommodates resident students for all meals. A reception room and a library are also provided. Each floor of this dormitory has a kitchenette, with conveniences for pressing, sewing, and cooking. On the ground floor is a large laundry with driers, ironing board, and shampooing facilities. Here also are two recreation rooms, in the smaller of which is a piano available for practice work. The larger room is equipped with ping-pong and shuffle board. At the intersection of the corridors on the second and third floors are sunrooms affording places for small social gatherings.

14. The **Women's Gymnasium**. For their work in physical education the women of the college have the exclusive use of a gymnasium with a floor space of 119 feet by 68 feet. Sufficient apparatus is available for the needs of all physical-education activities, including both indoor and outdoor athletics. There is also a room equipped for remedial work. In the basement are lockers, showerbaths, and a swimming pool.

ADMISSION

Students may enroll at the opening of any semester or summer session.

GENERAL QUALIFICATIONS

The college expects that those who enter will have shown intellectual capacity, and will be able to apply themselves to their studies and to work systematically. While definite evidence of intellectual capacity is indispensable, the college believes that, after such evidence is established, positive qualities of character and personality should operate as determining factors in admission. Each application will be carefully reviewed and much weight will be attached to character, personality, previous record, and promise, as well as to scholarly attainments. Satisfactory showing in scholarship alone is not of itself sufficient to guarantee admission. The college will arrange for personal interviews whenever possible.

Attendance at Western Michigan College of Education is considered a privilege and not a right. In order to safeguard its ideals of scholarship, character, and personality, the college reserves the right, and the student concedes to the college the right, to require the withdrawal of any student at any time for any reason deemed sufficient to the college.

ADMISSION AS A STUDENT NOT A CANDIDATE FOR A DEGREE

Applicants who meet all the specific requirements for admission to this college, and who wish to pursue special studies not leading to one of the degrees of this college, may, with the consent of the registrar, be permitted to enroll. Such students may elect courses totaling not less than twelve hours during each semester, for which they have the proper prerequisites. These students are subject to all of the general regulations covering scholarship and conduct.

CREDENTIALS SHOULD BE SENT IN ADVANCE

All students desiring admission to the college are urged to submit their problems of eligibility for entrance to the registrar, who will act upon each case individually.

High-school credits should be sent to the registrar in advance, that there may be no delay when the student presents himself for registration and en-

rollment. A student who has not filed a copy of his high-school credits in advance should present it at the time of registration.

A prospective student should confer with his high-school principal regarding the filling out of an "Application for Admission" blank.

TRANSFERRED STUDENTS

Western Michigan College of Education accepts students with advanced standing from other regularly accredited institutions. They are required to have had mailed to the registrar, in advance, official transcripts of their credits, including statements of honorable dismissal. Students entering by transfer are required to maintain at least a "C" average while in residence, and, in addition, to remove any deficiency in honor points which may be involved.

The maximum amount of credit which may be accepted from a junior college is 60 semester hours.

FROM INSTITUTIONS OF HIGHER EDUCATION

Inquiries concerning admission from other institutions of higher education should be addressed to Mr. John C. Hoekje, Registrar, in charge of admissions on advanced standing.

Students with unsatisfactory scholarship or conduct records will not be admitted.

Students desiring to transfer to this college from other institutions of higher education must furnish complete official transcripts of their records, listing all credits earned by them up to the beginning of the session they wish to attend. The student should request the registrar of each institution attended to submit the official transcript directly to the admission officer named above. These transcripts should include (1) a complete list of and the record obtained in the college courses pursued and (2) statements of honorable dismissal from the institutions attended. It is also necessary for the student to submit a personal application blank and to request his high-school principal to submit an official statement of his preparatory record. Blanks for personal application and for the high-school record may be secured from the admission officer named above. Consideration of admission on transfer is on the basis of the *entire* record of the student, both high-school and collegiate. No part of the record may be disregarded. There are no exceptions to this regulation. Students applying for admission for the first semester are urged to submit their credentials as early as possible.

REGISTRATION

All students are required, at the beginning of each semester of residence, to enroll with the registrar of the college, to pay their fees to the cashier of the college, and to file an election blank properly filled out, showing the courses they expect to pursue during the semester. The completion of the foregoing constitutes registration in this college.

All students entering this college for the first time must present their credentials to the office of the registrar whether they are transferring from another college or whether they are entering from high school.

ENTRANCE REQUIREMENTS

Approved by the Michigan State Board of Education, October 2, 1942.

1. Admission on Certificate

A graduate of a four-year high school accredited by the University of Michigan, will be admitted to Western Michigan College of Education pro-

vided he is recommended* by the principal of the high school and meets conditions indicated below.

I. General

Prescribed Preparatory Work

A minimum of fifteen units is required for admission. Among these must be included certain major and minor sequences from the seven groups of subjects listed below, a major sequence consisting of three or more units, a minor sequence consisting of two or two and one-half units.

A minimum of four sequences must be presented, which must include a major sequence from Group A and at least one other major sequence. Not more than one of these required sequences will be accepted from any one group except Group B. Sequences may be presented from two languages.

A. English

A major sequence of three or more units

B. Foreign Language Group

A major sequence consists of three or more units of a single language; a minor sequence consists of two or two and one-half units of a single language. The foreign languages acceptable for a sequence are Greek, Latin, French, German, and Spanish.

C. Mathematics—Physics Group

A minor sequence in this group must include 1 unit of Algebra and 1 unit of Geometry. A major sequence is formed by adding to this minor sequence one or more from the following:

Advanced Algebra $\frac{1}{2}$ or 1 unit, Solid Geometry $\frac{1}{2}$ unit,
Trigonometry $\frac{1}{2}$ unit, ¹Physics 1 unit.

D. Science Group

Any two units selected from the following constitute a minor sequence and any three or more units constitute a major sequence.

¹Physics 1 unit

Chemistry 1 unit

Botany 1 unit

Zoology 1 unit

Biology (Botany $\frac{1}{2}$ unit and

Zoology $\frac{1}{2}$ unit) 1 unit

If biology is counted in these sequences neither botany nor zoology can be counted.

E. Social Studies Group

A total of two or two and one-half units selected from the following constitutes a minor sequence; a total of three or more units constitutes a major sequence.

Ancient History 1 unit

²European History 1, 1 $\frac{1}{2}$ units, or 2 units

³American History $\frac{1}{2}$ or 1 unit

³American Government $\frac{1}{2}$ unit.

³Economics $\frac{1}{2}$ unit

*It is expected that the principal will recommend not all graduates, but only those whose character, scholarship interests and attainments, seriousness of purpose, and intellectual promise are so clearly superior that the school is willing to stand sponsor for their success. The grade required for recommendation should be distinctly higher than that for graduation.

¹ Physics may not be counted in both Groups C and D.

² English History may be included under European History.

³ Half units in the social studies are acceptable as part of a sequence only if taken in the 11th or 12th grade.

F. Vocational Studies

A total of two or two and one-half units selected from any one of the following constitutes a minor sequence; a total of three units of any one constitutes a major sequence.

- Agriculture
- ⁴Commerce
- Home Economics
- Industrial Arts

G. Fine Arts

A total of two or two and one-half units selected from any of the following constitutes a minor sequence; a total of three units of any one constitutes a major sequence.

- ⁵Music
- ⁶Art

The remaining units, required to make up the necessary fifteen units, are entirely elective from among the subjects listed above and from any others which are counted toward graduation by the accredited school, except that single half units in language and quarter units in any subject will not be accepted and *at least ten of the total units must be from Groups A to E inclusive.*

The registrar shall have the authority, with the consent and approval of the departments of instruction most immediately concerned, to accept other courses as substitutes for certain of the units listed in the various groups. Only courses well organized and competently taught will be considered and any school desiring the privilege of such substitution for its graduates should furnish the registrar with detailed descriptions.

II. Approved Vocational Curricula

Michigan Colleges of Education admit graduates of high schools without regard to major and minor sequences to approved vocational curricula not leading to a degree.

2. Admission by Examination

The fifteen units required for admission by examination must all be chosen from the five groups listed above and must meet the prescribed sequence requirement.

3. Partial Certificate—Partial Examination Plan

This plan is available only to a graduate of an accredited high school whose principal is willing to recommend him in a part of the required fifteen units.

⁴ Commercial subjects will be accepted as follows:

- Typewriting, $\frac{1}{2}$ or 1 unit
- Elementary Business Training, 1 unit
- Bookkeeping, 1 or 2 units
- Shorthand, 1 or 2 units
- Commercial Arithmetic, $\frac{1}{2}$ unit
- Commercial Law, $\frac{1}{2}$ unit
- Office Practice, $\frac{1}{2}$ unit
- Commercial Geography, $\frac{1}{2}$ to 1 unit

⁵ Music subjects will be accepted as follows:

- Band, 1 unit
- Orchestra, 1 unit
- Choir, 1 unit
- Glee Club, $\frac{1}{2}$ unit
- Theory Class, 1 unit
- History and Appreciation, 1 unit
- Vocal or Instrumental Class Instruction, 1 unit

⁶ Art subjects will be accepted as follows:

- General Art, 1 to 2 units
- School Art Activities, $\frac{1}{2}$ unit
- Studio Art, 1 to 2 units

The candidate may, at the discretion of the registrar, be admitted on the basis of the principal's recommendation covering the units satisfactorily completed, plus examination covering the units in which he is deficient. For this purpose examinations will be provided only in the subjects listed in the five groups.

VOCATIONAL AVIATION MECHANICS CURRICULUM

For entrance requirements for this curriculum see page 224.

FRESHMAN DAYS

A few days in advance of registration day for each semester (trimester), all entering freshmen assemble at Western Michigan College of Education in order that they may become familiar with their new environment and with their duties, responsibilities, and opportunities before regular work begins. Entering upon a college course is an event of large significance in the life of an individual, and the success of the new venture may depend upon a right beginning.

During these Freshman Days, lectures are given on how to study, how to use the library, healthful living, college traditions, scholastic ideals, and regulations. The requirements of the several curricula offered are explained, and provision is made for consultation with a member of the faculty relative to the one best adapted to the interest and ability of the individual student. The opportunities for participation in extra-curricular activities are announced. Under the guidance of conductors, various buildings on the campus are visited. Through a diversity of social functions, acquaintances are made, friendships begun, and a sense of class unity developed.

Each entering freshman, whose high-school credits are received sufficiently early, will receive written notice of the name of the Senior Brother or Senior Sister to whom he is being assigned for assistance during these difficult days of adjustment. Each freshman is urged to write to his Senior Brother or Senior Sister indicating plans for arrival and such other matters as may seem important.

Because Freshman Days have proved to be of such great value to students beginning their collegiate work, every member of the incoming class is required to be present at all the scheduled exercises. The custom of making attendance required is becoming general in standard colleges.

IDENTIFICATION PHOTOGRAPH

When a student enrolls for the first time, he is required to have taken an identification photograph of which three copies are made. One copy becomes part of the student's permanent record, another copy is given to the student to serve to identify him at college functions, while a third copy is filed in the Dean's Office. The charge for the three is twenty-five cents.

COLLEGE-ABILITY TESTS

Tests of ability to do college work acceptably are required of each student upon entrance. This applies not only to freshmen but to upper classmen as well. The results of these tests are not used as a part of the entrance qualifications, but are of service in advising students regarding their scholastic work. Credits will be withheld from students for whom there is no record of such entrance tests taken at this institution.

These qualifying examinations are used to predict the student's ability to do satisfactory academic work. The tests are also a measure of the student's ability to read and interpret content material at the college level. The ability to use language is the criterion for the predictions and interpretations of the tests. These examinations do not deal with specific subject-matter areas and no intensive preparation should be made by the examinee.

STUDENT PERSONNEL AND GUIDANCE SERVICES

Throughout the year, Freshman Counselors advise and help freshmen in planning and adjusting their academic programs. Each freshman works out his schedule semester by semester with the assistance of the counselor at definite conference periods assigned to him. The details of the curricula, the sequence of studies, and the type of work for which the student seems best adapted are all considered at these conferences.

Both freshmen and upper classmen must consult Departmental Advisers when help is needed to arrange the courses which will constitute majors and minors, and for any other pertinent advice on the courses offered by a given department. Locations of Departmental Advisers, together with their designated office hours, will be found in the schedule of classes for each semester and summer session.

Upper classmen are assigned to Upperclass Counselors who will work with the students in arranging schedules of studies. Upperclass Counselors also stand ready to assist assigned students in other ways in accordance with their needs.

CREDIT RELATIONS WITH OTHER COLLEGES AND UNIVERSITIES

Graduates who received the former five-year certificate or the State Limited Certificate usually are granted junior standing in colleges and universities. They are able to fulfill the requirements for a degree by an additional two years of work. Senior standing usually is granted to graduates who have received a life certificate. A student who desires to earn a provisional certificate in the college and then complete the work for a degree in some other college or university should plan his work with the requirements of the particular institution in mind.

Admission to graduate schools is granted to students completing a four-year curriculum who have made their elections of courses conform to the requirements of such schools. Western Michigan College of Education is fully accredited by the American Association of Teachers Colleges and by the North Central Association. The college is also on the approved list of the Association of American Universities.

GENERAL INSTRUCTIONS FOR ENROLLMENT

Before the beginning of each semester the registrar prepares a special form, giving full information for enrollment. A copy of this form may be obtained at the information table.

CLASSIFICATION OF STUDENTS

Students at Western Michigan College of Education are classified officially as follows:

- Freshmen—Students credited with 0—30 semester hours inclusive.
- Sophomores—Students credited with 30—60 semester hours inclusive.
- Juniors—Students credited with 60—90 semester hours inclusive.
- Seniors—Students credited with more than 90 semester hours.

The above classification relates to eligibility for participation;

- a. In class activities
- b. As officers
- c. In social affairs

CLASS LOAD

Number of Hours Allowed. Students are expected to carry the equivalent of fifteen semester hours of college work a week. For all students the maximum number of hours a week that may be elected without special permission is eighteen; the minimum, twelve.

The Committee on Scholarship regulates the maximum load for a given student on the basis of his apparent ability and other factors.

Requests for permission to carry a sub-minimum load (less than 12 semester hours) must be addressed to the registrar.

EXTRA HOURS

No student may enroll for more than eighteen semester hours of work without the permission of the Committee on Scholarship.

Students may make application for extra hours by securing an application blank from the chairman of the Committee on Scholarship, filling out the same, and filing the application with the chairman of the committee. Only in exceptional cases is permission granted to carry extra studies during the first semester in residence. The registrar is chairman of this committee. It is deemed more desirable for a student to do work of a high grade of excellence with a normal class load than to take extra subjects with mediocre success.

WITHDRAWAL FROM COURSES

Necessary changes in enrollment must have been made by the end of the first week of a semester.

The mark *W* will be given only when the registrar issues an Official Drop Slip. If a student withdraws from a class without the registrar's written permission, a mark of *E* (failure) will be given.

Permission to drop courses will not be given upper classmen after the end of the third complete week of a semester. Freshmen will not be allowed to drop courses after the end of the fourth complete week of a semester.

HONORS IN COURSE

Honors in Course are bestowed upon graduating students who have displayed special attainments in scholarship. Such honors are announced at a special convocation.

Recipients of honors receive their degrees:

Cum laude When having a point-hour ratio of 2.5 to 2.69 inclusive
Magna cum laude When having a point-hour ratio of 2.7 to 2.89 inclusive
Summa cum laude When having a point-hour ratio of 2.9 to 3.0 inclusive

In figuring point-hour ratios, only the last three years of work are counted. Two or more of these must have been in residence. A mark of *E* will disqualify.

RULES RELATING TO EXAMINATIONS

1. A final examination is given in every course in accordance with the schedule issued each semester. No examination may be held except as announced in this schedule, and no date of examination may be changed without special permission of the Examination Schedule Committee.

2. Students are required to take the examinations in all courses except such as they may have dropped with consent of the Committee on Scholarship.

3. Students are in no case examined at any other time than that set for the examination of the class in which the work has been done. In case of unavoidable conflicts a special examination during examination week may be arranged by the instructor with the consent of the registrar.

4. A student desiring to take a second examination in a given subject must make formal application to the Chairman of the Scholarship Committee at least ten days before the time for the second examination.

MARKING SYSTEM AND EXAMINATIONS

Each course receives one grade, which combines the results of class work, tests, and examinations.

Grades are indicated by letters, to each of which is given a certain value in honor points.

Grade	Significance	Honor Points (Per hour of credit)
A	Excellent	3
B	Good	2
C	Fair	1
D	Passing	0
*U	Unsatisfactory	Not to be counted
E	Failure	0
I	Incomplete	
W	Withdrawn	

The mark *I* means that the student has not finished the work of the course, because of illness, unsatisfactory work, or for some other cause, and that he may be given opportunity to complete it.

I's must be removed during the next succeeding semester (except when the student does not return, and then within one year) or they automatically become *E*'s.

The mark *E* means that the student has failed. *E*'s and *W*'s can be removed only by taking again all the work involved.

Upon his entrance to the institution, after the acceptance of his entrance credentials a Student's Credit Book is made out for each student. It may be secured at the Records Office (Room 109, Administration Building). Freshman grades are mailed directly to parents by the registrar.

Transcripts. A student desiring a transcript of his record in this college should write to the registrar, giving dates of attendance and, if a graduate, the date of graduation. *He should give the full name under which he was enrolled.* Each student is entitled to one transcript of his record without charge, but all additional copies are charged for at one dollar a copy.

Schools and boards of education desiring transcripts of records of Western Michigan College of Education students should furnish, together with their request, as much of the above information as possible.

Attendance at Commencement. All students who complete the requirements for graduation and are entitled to receive degrees in June are expected to be present at the commencement exercises.

SCHOLARSHIP INDEX

The total number of honor points acquired divided by the total number of semester hours taken gives the scholarship index (courses repeated are counted each time taken).

STANDARD FOR GRADUATION

No student will be graduated on any curriculum if his scholarship index based on the work of that curriculum is less than 1.0.

HIGH SCHOLARSHIP LIST

To have his name placed on the High Scholarship List for a semester a student must have a point-hour ratio of 2.64 or more. No grade below *B* may be counted. Not more than eight semester hours in any one department may be counted. Not more than five semester hours of *B* credit may be counted.

* For Directed Teaching only.

Grades for non-credit courses (library methods, physical education, etc.) are not considered. The minimum number of hours to be taken must be fourteen semester hours.

LOW SCHOLARSHIP LIST

The name of a student whose point-hour ratio during any semester is less than .6 will be placed on the Low Scholarship List. Such a student is liable to disciplinary action by the Committee on Scholarship. He may be "Warned", "Probated", or "Dismissed".

CREDIT FOR BAND, GLEE CLUB, AND ORCHESTRA WORK

1. A maximum of two semester hours of academic credit annually is given for one year's regular participation in each of the following activities: Band, Glee Club, Orchestra, and Auxiliary Choir.
2. Eight semester hours of academic credit is the maximum allowed for participation in any one of the four activities indicated.
3. A grand total of not to exceed twelve semester hours of academic credit is allowed for participation in the four activities noted.
4. Participation in Band may be substituted for physical-education credit. In such cases participation in the Band for one semester is substituted for two and one-half class hours in physical education. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)
5. Official enrollment cards must bear notations of the work in music the student wishes to carry. Semester hour values must be indicated.

SIGNIFICANCE OF COURSE NUMBERS

I. Course numbering and availability

1 Courses numbered

- a. 100-199, inclusive, are primarily for freshmen;
- b. 200-299, inclusive, are primarily for sophomores;
- c. 300-399, inclusive, are primarily for juniors and seniors;
- d. 400-499, inclusive, are for seniors and graduate students;
- e. 500-599, inclusive, are for graduate students.

Note.—The courses under d and e above give, within parentheses, the University of Michigan numbers.

2. In general, students will be permitted to carry only courses numbered to correspond with their official classification. But exceptions may be made, with the approval of curricula advisers, for such reasons as maturity, experience, necessity of meeting prerequisites to other courses, etc.

II. Explanation of numbering

1. All consecutive, coherent courses are numbered similarly and lettered sequentially.

2. All fundamental, consecutive, coherent courses are numbered as follows:

- a. The number 100 is reserved for fundamental courses having no high-school prerequisite.
- b. The number 101 is reserved for fundamental courses having as prerequisites one year (or fraction thereof) of high-school work.
- c. The number 102 is reserved for fundamental courses having as prerequisites two years of high-school work.
- d. The number 103 is reserved for fundamental courses having as prerequisites three years of high-school work.
- e. The number 104 is reserved for fundamental courses having as prerequisites four years of high-school work.

3. All other courses primarily intended for freshmen are numbered serially beginning with 105.

4. Prerequisites for all courses numbered 200-399, inclusive, may be found in the "Details of Departmental Courses" as printed in the current college catalog.

5. All consecutive courses are numbered sequentially.

6. Numbers 300-302 inclusive are reserved for courses which are offered in departments other than the Department of Education, but which are given credit in education—the so-called "professional courses." To these numbers the letter *T* is added.

7. Courses offered as subdivisions of a given department are designated by numbers grouped by decades.

8. A course offered only in the summer session has an *S* added to the number.

9. To the number of a course available by class extension there is added *Cl*.

10. To the number of a course available by correspondence there is added *Co*.

CREDIT IN SEMESTER HOURS

The unit of credit is the semester hour; the number of semester hours credit given for a course generally indicates the number of class periods a week.

Classes which meet one hour a week for one regular semester will be given 1 semester hour of credit.

Classes which meet two hours a week for one regular semester will be given 2 semester hours of credit.

Classes which meet three hours a week for one regular semester will be given 3 semester hours of credit.

Classes which meet four hours a week for one regular semester will be given 4 semester hours of credit.

A minimum of 60 semester hours of credit is required for a State Limited Certificate in the two-year Rural Elementary Curriculum, and 120 semester hours of credit for the A. B. or the B. S. degree.

Six semester hours is the standard class load for a summer session.

No credit will be given for a course (even if pursued successfully) for which the student is not officially registered.

EXPENSES

Tuition Fees for Undergraduates

A. Regular Program

For residents of Michigan, \$15.00 for each semester.

*For non-residents of Michigan, \$30.00 for each semester.

*RESIDENCE REQUIREMENTS

Residence in Michigan for the purpose of registration shall be determined according to the State constitutional provision governing the residence of electors. (See Article III, Sections 1 and 2); that is, no one shall be deemed a resident of Michigan for the purpose of registration in Western Michigan College of Education unless he has resided in this state six months next preceding the date of his proposed enrollment, and no person shall be deemed to have gained or lost a residence in this state while a student in the college.

The residence of minors shall follow that of the legal guardians.

The residence of wives shall follow that of their husbands.

Persons of other countries who have taken out their first citizenship papers and who have otherwise met these requirements for residence, shall be regarded as eligible for registration as residents of Michigan.

It shall be the duty of every student at registration, if there be any possible question as to his right to legal residence in Michigan under rules stated above, to raise the question with the registration officer and have such question passed upon and settled previous to registration.

B. Irregular Program Fees

Resident students carrying an irregular program for the semester pay tuition as follows: one, two, or three semester hours, \$3.00; four, five, or six semester hours, \$6.00; seven, eight, or nine semester hours, \$9.00; more than nine semester hours, \$15.00.

In determining the number of hours, any single non-credit course will be counted as equivalent to two semester hours of credit courses. This ruling applies only to students carrying irregular programs totaling nine hours or less.

It is understood that the student-activities fee is to be paid in full by all students, whether taking one subject or more.

Kalamazoo County students who enroll for work in the Department of Rural Life and Education may attend Western Michigan College of Education for one year without paying tuition fees, because counties having county normals provide for one year of free tuition and because, by law, counties having state colleges of education may not have county normals.

Miscellaneous Fees

A fee of \$21.00 is collected each semester for the support of student activities, health service, student union, library purposes, class dues, *Brown and Gold*, and subscription to the *Western Michigan Herald*.

A student for whom no identification photograph is on file pays an additional 25 cents, when such photograph is taken.

A student carrying three semester hours of work or less will pay a supplementary fee of \$12.00.

Auditors Fees

Auditors (students who attend classes but who do not desire credit) are governed by the same regulations as are students desiring credit.

Graduation Fees

State Limited Certificate Curriculum	\$2.00
Provisional Certificate Curricula	3.00
Degree Curricula	3.00
Degree and Certificate	3.00
Alumni fee (paid by all graduates)	1.00

Graduation fees must be paid and application for degrees and certificates must be filed with the registrar before the end of the third week of the semester in which it is desired that they be granted.

Late Enrollment Fee

By action of the State Board of Education an additional fee of \$2.00 will be charged if a student does not pay his fees on the day officially designated for that purpose.

Regulations Governing Refund of Semester Fees

1. No refund of fees will be granted unless applied for within one month after the time of withdrawal.
2. A student who withdraws not more than two weeks after registration will be entitled to a refund of the entire semester fee.
3. A student who withdraws more than two weeks and less than four weeks after the beginning of the semester will be entitled to a refund of one-half the semester fee.

4. A student who withdraws more than four weeks and not later than eight weeks after the beginning of the semester will be entitled to a refund of forty per cent of the semester fee.
5. No refunds will be made for withdrawal after the eighth week of a semester.

ESTIMATE OF EXPENSES

An estimate of the expenses for one semester may be formed from the following table:

Room (one-half the rent of a double room)	\$40.50 to \$ 54.00
Board	81.00 to 108.00
Laundry	0.00 to 15.00
Textbooks and supplies	15.00 to 25.00
Incidentals	15.00 to 25.00
Tuition and fees (approximately)	35.00 to 35.00

Total for one semester of 16 weeks (approximately) ... \$186.50 to \$262.00

HOUSING FOR MEN

Men students are required to live in residences approved by the Office of the Dean of Men. A list of approved rooms is available in that Office and will be furnished upon request.

HENRY B. VANDERCOOK HALL FOR MEN

Request for reservation should be addressed to Mr. Ray C. Pellett, Dean of Men. Application must be accompanied by a five-dollar room deposit. This deposit does not apply on the rental charge but is held through the college year and is returned to the resident when he leaves, provided he has no outstanding account with the college. The last day for requesting deposit refunds, if application to live in the dormitory is canceled, is September 1 for the first semester or February 1 for the second semester.

Most rooms are double. The rates for double or single rooms in Vandercook Hall are \$3.25 per week. Room rent must be paid in advance, but may be paid in quarter semester installments. A 5% collection fee will be added to bills not paid within one week of payment date, and an additional 5% will be added on payments more than three weeks late.

(Students may purchase \$5.50 meal tickets for \$5.00 at the Walwood Hall Union Building Office.)

Note.—Due to the unsettled conditions of prices for food and labor, the College reserves the right to increase the charge during the year if, in its opinion, such increase is necessary.

WALWOOD HALL RESIDENCE

and

LAVINA SPINDLER HALL FOR WOMEN

Request for reservation should be addressed to Mrs. Bertha S. Davis, Dean of Women. Application must be accompanied by a five-dollar room deposit.

This deposit does not apply on the rental charge, but is held through the college year and is returned to the resident when she leaves, provided she has no outstanding account with the college. The last day for requesting deposit refunds, if application to live in the dormitory is canceled, is September 1 for the first semester or February 1 for the second semester.

Most rooms are double. The rates for room and board in Walwood Hall Residence and Lavina Spindler Hall are \$11.00 per week. Room and board payments must be made in advance, but may be paid in quarter semester in-

stallments. A 5% collection fee will be added to bills not paid within one week of payment date, and an additional 5% will be added on payments more than three weeks late.

Note.—Due to the unsettled conditions of prices for food and labor, the College reserves the right to increase the charge during the year if, in its opinion, such increase is necessary.

HOUSING FOR WOMEN

All women students are required to live in residences approved by the office of the Dean of Women. A list of such rooms is available in that office and will be mailed upon request.

Both of the women's residence halls will be available for the regular college year. Room application (accompanied by a \$5.00 deposit) and request for information relative to the residence halls should be addressed to the Office of the Dean of Women.

EMPLOYMENT FOR MEN AND WOMEN

Students interested in earning money with which to pay in part their expenses will be given advice and detailed information upon application. Students whose point-hour ratios fall below .8 are not eligible for campus employment.

WESTERN'S CAMPUS STORE

Western's Campus Store serves as a convenience to people on the campus. Service is the keynote of the store, and every effort is made to keep an adequate stock of all supplies needed by students for class work.

AWARDS AND PRIZES

The following awards and prizes are available. Those starred are suspended for the duration.

Institutional

*Athletic Medal A prize to the outstanding athlete
The award is based on scholarship and participation

Departmental

Biology The Harold Cook Memorial Prize

An annual prize of \$20.00 is given at the time of Commencement in June to the student judged most proficient during that year in the subjects in which the late Dr. Cook (Department of Biology) was most interested. The award is made by the Committee on Scholarship, in cooperation with the president of the Faculty Science Club.

Debate Election to Membership in Tau Kappa Alpha
*Industrial Arts A plaque to the outstanding student in that department
Education Election to membership in Kappa Delta Pi
Science Election to membership in Kappa Rho Sigma

Organizations

Kappa Delta Pi A prize to the outstanding student
*Men's Union A prize to the outstanding man student
Pi Kappa Rho Scholarship cup to the outstanding women's organization
Awarded annually by the Committee on Scholarship
*Theta Chi Delta Scholarship cup to the outstanding men's organization
Awarded annually by the Committee on Scholarship
*"W" Club Election to Membership
Women's League A prize to the outstanding woman student

GRADUATE SCHOLARSHIPS AND FELLOWSHIPS

Every capable student who is looking forward to administrative, supervisory, or other special types of educational work should be aware of the fact that graduate study is essential for adequate preparation. Western Michigan College of Education not only encourages its best students to continue in graduate work, but also recommends outstanding students for graduate scholarships and fellowships in the leading universities of the country. Although it is not possible to promise every applicant that he will be able to secure such a fellowship or scholarship, it is true that a student who has made an excellent record and shows promise of an exceptional educational future will have the support of the institution in attempting to secure such assistance. In this connection the particular interests of the student need not be confined to the field of education alone, but may concern any field of academic or vocational study in which he has had ample opportunity to demonstrate his ability in undergraduate work.

The Graduate School of the University of Michigan grants to one of our graduates each year a fellowship carrying a stipend of \$450. The student receiving this fellowship is recommended by Western Michigan College of Education as having met the qualifications described in the preceding paragraph. Graduate fellowships and scholarships are available at many other leading universities; applicants for scholarships recommended by Western Michigan College of Education will receive consideration by the Scholarship Councils of such universities. Interested students should confer with the Committee on Scholarships, of which the registrar is chairman.

UNDERGRADUATE SCHOLARSHIPS

By action of the Michigan State Board of Education there become available for allocation annually a limited number of scholarships for undergraduates.

Scholarships falling within Group I cover tuition charges and the major portion of fees. Applications for these scholarships should be addressed to the registrar.

Scholarships falling within Group II cover tuition charges and are available only for students who enroll in the two-year Rural Elementary Curriculum. Applications for these scholarships should be addressed to the County Commissioner concerned.

SCHOLARSHIP AND MEMORIAL FUNDS

The Alumnus Scholarship. An alumnus, who prefers to remain anonymous, will provide \$75.00 annually for scholarship purposes. The initial award, granted on the basis of competitive examinations, is renewable annually for three consecutive years, provided the holder maintains a satisfactory record.

The Amelia Biscomb Memorial Loan Fund was established in 1939 through the will of Mrs. Biscomb, for over thirty years a teacher of English in Western Michigan College of Education, who provided the sum of \$500 for this purpose. This fund is administered by the Student Loan Fund Committee.

The Debate Scholarship and Loan Fund. In the fall of 1920, the four debating organizations on the campus, the Senate, the Academy, the Forum, and the Tribunal, combined to start a fund which should be available for loans to worthy debaters and which should eventually be used to award scholarships to debaters. The fund has now passed the two-thousand-dollar mark and has been instrumental in making it possible for many debaters to remain in college. The money is administered as a trust fund and is under the management of the Forensic Board of Control.

The Dwight B. Waldo Memorial Fund, which was initiated by a group of faculty members at the time of Dr. Waldo's death in 1939, is growing steadily through the contributions of faculty, alumni, student organizations, and friends. Loans from the fund are available to any worthy student, under the direction of the Student Loan Fund Committee.

The **Ernest Burnham Rural Life Fund**. Commemorating the twenty-fifth anniversary of Dr. Ernest Burnham's work at Western Michigan College of Education as the pioneer in rural education in teachers colleges in America, his students, colleagues, and friends established the Burnham Rural Life Fund. A part of this fund has been used to supplement the collection of books on rural life and education in the college library; the remainder has been invested to yield an annual income which may be used for the purchase of additional books, for scholarships in the Department of Rural Life and Education, or for such services in behalf of rural life as the committee in charge shall consider of most value.

The **Fannie Ballou Memorial Fund**, founded in 1921, in honor of Fannie Ballou, who was for seven years supervisor of the second grade of the Training School, is administered as a loan fund. Loans are awarded to persons of superior ability in the field of elementary education. Preference is given to students in early-elementary education who have completed at least one year of resident work in this college. The administration of this fund is in charge of the Student Loan Fund Committee.

The **French Student Scholarship Fund**. Two war bonds have been given by Miss Marion Tamin to start a fund to bring a French student to Western Michigan College of Education after the war. It seems a fitting tribute to the students of French who have made the supreme sacrifice of their lives on the battlefields of the world and have insured thus the liberation of France. It is hoped that there will be many additional contributions to this scholarship fund.

The **Helen Statler Fund**. This fund was established in 1944 by Mrs. Frederick C. Fischer and Frederick C. Statler in honor of their mother and is available to any worthy student. The administration of this fund is in charge of the Student Loan Fund Committee.

The **Kalamazoo Kiwanis Educational Aid Fund** was established in 1925. The Fund provides loans for students in the junior and senior and graduate years of college. Information regarding applications for loans may be secured from the office of the registrar.

The **Katherine Mulry Johnson Scholarships** were founded in 1926 by Mrs. Johnson, for some time supervisor of the sixth grade in the Training School and later a member of the Department of History of Western Michigan College of Education, in honor of her mother. These scholarships are awarded annually by a committee from the Department of History to two upper-class women students of superior ability who plan to become teachers of history.

The **Kellogg Foundation Scholarship Funds**. The Kellogg Foundation has provided funds of \$4000 each, to be used in granting scholarships and loans to worthy and needy students who are preparing to become medical technologists and occupational therapists. The fund for occupational therapy is not available to students prior to their formal admission to the School of Occupational Therapy.

Inquiries concerning the medical technology fund should be addressed to Dr. D. C. Shilling, Department of Social Sciences.

Inquiries concerning the occupational therapy fund should be addressed to Dr. Manley M. Ellis, Department of Education.

The **LeRoy H. Harvey Memorial Loan Fund** was established in 1925 by the Student Science Club to honor the memory of Dr. LeRoy H. Harvey, who was, until his death, the active and inspiring head of the Department of Biology. The fund is administered by the Student Loan Fund Committee. Loans are made to students whose major interest is in the field of science.

The **Matie Lee Jones Memorial Loan Fund**, founded in 1929 in honor of Matie Lee Jones, who organized the Department of Physical Education for Women, is available to women students. The fund is administered through a committee consisting of the officers and the faculty advisers of the Women's League.

The Oscar S. Trumble Exchange Club Scholarships. These scholarships, one for a man and one for a woman, are sponsored and administered by the Kalamazoo Exchange Club, in memory of Oscar S. Trumble who, from 1925 to 1936, was Professor of History at Western Michigan College of Education. They are full-tuition scholarships and are limited to students from Kalamazoo County.

The Paul H. Todd Scholarship. Through the generosity of Paul H. Todd there becomes available annually \$300 for a scholarship "to help a needy, deserving student or students" during the college fiscal year. Applications for consideration for the award of this scholarship should reach the registrar by May 1. The scholarship grant becomes effective annually as of July 1.

The State D. A. R. Scholarship Loan Fund, founded in 1934, has grown to a fund of \$500 through gifts made by the State Committee of the Daughters of the American Revolution. The administration of this fund is in charge of the Student Loan Fund Committee.

The Stone D. A. R. Student Loan Fund was established in 1932 through gifts from the Lucinda Hinsdale Stone Chapter of the Daughters of the American Revolution. The fund is administered by the Student Loan Fund Committee.

The Student Health Loan Fund was established in the spring of 1933 with contributions from the Senior Class of that year and the Student Association, amounting to approximately \$450. Short term loans for medical and dental services are made from this fund, which is administered by the Health Service.

The Wallace B. Marshall Memorial Fund established in 1944 through a gift by his wife, Mrs. Blanche Marshall, provides an annual stipend of \$100 for assistance to a needy student of excellent character, definite purpose, and potential qualities of leadership. The fund was established in the memory of Lieutenant Wallace B. Marshall, United States Army Air Pilot, a graduate of Western Michigan College, who lost his life in the defense of his country. The fund will be administered by a committee under the chairmanship of the Dean of Men

The William McCracken Loan Fund in Chemistry was established in 1945 through a gift of \$1,000 made by Mrs. William McCracken to honor the memory of her husband, who organized the Department of Chemistry and served as its head for thirty-two years (1907-1939). Loans are awarded to worthy and needy students majoring in chemistry. Preference will be given students who have proven their ability through courses taken in chemistry at Western Michigan College of Education. The application for a loan should be made to the chairman of the Department of Chemistry.

The W. M. C. E. Competitive Scholarship Fund. Through funds made available by the Campus Store, Western Michigan College of Education offers annually three scholarships on a competitive basis. To the prospective freshman scoring highest on a series of tests administered each spring, an award of \$150 is made; to the one scoring second highest, an award of \$100; to the one scoring third highest, an award of \$75. Each award is renewed automatically annually during a period of three years, provided the student's record proves satisfactory.

The W. M. C. E. Student Loan Fund. In September, 1912, the nucleus of a student loan fund was established by the gift of \$200 from Miss Blanche Hull. This fund has been increased to a total of several thousand dollars. Money is loaned to deserving students on the recommendation of a faculty committee. An interest rate of five per cent is charged and notes, not to exceed one year, are accepted. Applications for loans should be made to the Student Loan Fund Committee, of which the registrar is chairman.

ALUMNI ASSOCIATION

The Western Michigan College of Education Alumni Association was organized June 19, 1906, by the graduates of the first two classes of the college. Forty classes are now associated in the organization, with a total membership of more than 16,000. The alumni secretary's office is in the Administration Building. In this office information regarding any alumnus or alumna may be obtained. The Kardex filing system in use affords an accurate method of referring to the alumni directory.

Each year headquarters are maintained at the Michigan Education Association meetings. Alumni of Western Michigan College of Education are urged to register and make use of the rooms reserved for this purpose. An annual invitation goes to graduates of Western Michigan College of Education to return to the campus for Homecoming Day. A reception for the alumni is held annually at Commencement time.

Graduates of Western Michigan College of Education receive frequent mail from the campus informing them about various matters of interest. Letters of inquiry concerning graduates, who are placed in all parts of the United States and in foreign countries, are given prompt attention. Once each year the members of the alumni are asked to return a postal-card which is prepared and sent to them to verify the records and secure additional facts in regard to schooling, degrees, marriage, children, books and magazine articles published, business records, etc. These returned cards are filed with the Kardex entry and replaced annually when the most recent card arrives.

Alumni giving annually to the Alumni Loyalty Fund are entitled to the *Western Michigan College News Magazine* which is published four times a year.

Although the number of Western's graduates has become very large, ways and means of cultivating closer and more friendly relations among them are being developed rapidly. Unit organizations are encouraged in localities where there are enough members of the alumni to warrant such organizations. The alumni secretary is glad to assist in any plans of this kind.

ART COLLECTION

Through the courtesy of the family of the late Hon. Albert M. Todd, an interesting collection of pictures and fine porcelains gathered by Mr. Todd through many years is on exhibition in the Library Building. Many of the ceramics in the Todd collection have been used in the furnishing of our dormitories.

BUREAU OF EDUCATIONAL MEASUREMENT AND RESEARCH

The Bureau of Educational Measurement and Research of Western Michigan College of Education has been established for a three-fold purpose: (1) to direct and coordinate the measurement and research activities of the training schools and the college; (2) to aid in the more adequate preparation of teachers for participation in measurement work; (3) to aid schools and school systems of the state in carrying forward testing programs and experimental work.

The Bureau has on hand a large number of intelligence and educational tests to serve as sample and informational material. It answers questions relating to measurement and research activities; it carries on statistical work necessary to answer questions concerning educational problems; it edits bulletins of information concerning educational problems; it administers aptitude tests; it sends representatives to visit schools and school systems that wish to begin testing work, to instruct teachers, to demonstrate the methods of testing, and actually to conduct mental-educational surveys.

The Bureau plans to be particularly helpful and valuable to graduates of the college and to school people of the state, and will gladly participate in the solution of any school problems as far as its resources and personnel permit.

CARNEGIE GIFT OF BOOKS AND PICTURES

A gift from the Carnegie Corporation of New York of books, photographic prints, color facsimiles, and etchings was presented to Western Michigan College of Education in the summer of 1939. This teaching and reference material has been carefully selected with a view to enriching a college library with books and illustrations not ordinarily afforded by colleges. The collection consists of 831 large, well-mounted photographs, and 125 books, together with 30 colored reproductions, and portfolios containing illustrations of prints. The Carnegie art collection is housed in the Library.

CLEAR LAKE CAMP

A five-year lease, on an experimental basis, of the W. K. Kellogg Clear Lake Camp, has been granted to Western Michigan College, with the provision that at the expiration of that period, the property may be deeded to the college by the W. K. Kellogg Foundation.

The Clear Lake Camp is located on M-37, fifteen miles north of Battle Creek and ten miles south of Hastings. It has a land acreage of twenty-nine acres of wooded land, and a shore line of about one-third of a mile, with splendid beach. There are thirty buildings in the camp, all excellently constructed and completely equipped.

The ultimate acquisition of this twenty-nine-acre camp, which represents an outlay of \$250,000 in buildings and equipment, will add very materially, not only to the physical assets of Western Michigan College, but will also provide increased facilities of exceptional value, for effective teacher preparation in accordance with the most approved of the newer trends, and at the same time afford excellent opportunity for children to profit from the educational contribution of camping experience.

COUNTY COMMISSIONERS SUMMER CONFERENCE

Each year during the early part of the summer session, the Department of Rural Life and Education calls a conference of the county school commissioners of Southwestern Michigan to consider their professional problems. This conference usually includes reports of progress by the different commissioners and by representatives of the State Department of Public Instruction, supplemented by an address by a speaker of national reputation. This meeting gives commissioners an excellent opportunity to meet the teachers from their counties in attendance at the summer session.

EDUCATIONAL SERVICE LIBRARY

The Educational Service Library, Rooms 103 and 105, Health and Personnel Building, affords for students of teaching and education, a representative collection of up-to-date school textbooks from the elementary and secondary fields, texts for each of the common branches and special subjects, a shelf or so of professional books, teaching and curricular helps, elementary and secondary courses of study in all subject areas, and educational magazines. Loan service is provided and reference use is aided by open shelves.

The library serves not only the regular undergraduate and graduate students while they pursue professional courses, but also students and teachers who seek a helpful resource in the solving of problems in the workshop or in the field. In-service use is extended to conferences, visiting teachers, and correspondents.

EXTENSION DIVISION

Through the agency of a well-organized extension division, teachers in service have large opportunities to secure credits toward certificates or degrees. Extension courses are designed to meet the needs of those whose circumstances do not permit attendance at a college.

Extension courses are open to:

- a. High-school graduates, with or without experience, who wish to earn credits to apply toward certificates or degrees.
- b. High-school graduates who wish to take work purely for personal pleasure and profit with or without credit.
- c. Mature persons who wish to pursue work for pleasure and profit with or without credit.

All instruction in extension courses is given by members of the regular faculty of Western Michigan College of Education. The work takes two forms:

a. Class work at a strategic center within range of the college, which the instructor visits at frequent intervals (usually every week).

b. Correspondence courses. Students who choose this type of work are directed in their study through outlines and personal letters from members of the faculty.

All subjects offered students in extension work, both in class and by correspondence, are equivalent to corresponding subjects in residence, are presented to students in definite assignments, and count regularly toward a certificate or a degree.

Class courses begin regularly each year about the middle of October and the first of February.

Correspondence courses may be begun at any time when the college is in session.

In all cases application for entrance to courses must be made to the Extension Division on special forms furnished by the division. This may be done by letter or through a representative of the college authorized by the division. Correspondence students must enroll directly with the Extension Division.

Fees for extension courses are as follows:

Class tuition, per hours of credit.....	\$6.00
Correspondence tuition, per hour of credit.....	6.00
Postage fee for any correspondence course.....	1.00

Not more than one-fourth of the number of hours necessary for any certificate or degree may be taken in extension classes or by correspondence. Such credit cannot be applied to modify the minimum or final resident requirements.

The following information is of special interest to extension students:

a. No one should be enrolled for extension work with Western Michigan College of Education if he is carrying work of any nature with another educational institution.

b. No one should be enrolled for extension work if he is carrying resident work at Western.

c. No one should be enrolled for extension class work and correspondence work simultaneously.

d. Extension students should not carry more than 5 semester hours of work at any one time.

e. A 2-hour correspondence course should be completed in a twelve-week period; a 3-hour one, in an eighteen-week period; and a 4-hour one, in a twenty-four week period, though a time extension of six weeks may be arranged for in exceptional cases. Work not completed within twenty-four weeks is considered dropped.

HEALTH SERVICE

The aim of the Health Service is two-fold: health education (an appreciation of maximal health with an understanding of the measures which help to maintain it), and a cooperative effort to guard the health of the students.

Prefacing this cooperation, each student should enter college physically as well-equipped as possible; with all obvious remedial defects corrected; teeth in good repair; eyes fitted with glasses, if glasses are needed; menacing

tonsils removed or under observation, etc. Further, the budget to meet college needs should include a fund available, or an insurance arranged, for unexpected illness and accidents which might threaten college success. Such preparations are essential at all times; today but emphasizes those needs.

A health fee, paid upon enrollment, entitles the student to the following cooperative services:

1. Medical examinations and conferences
2. Dental examinations and conferences
3. Consideration (and often care) of emergencies
4. Consultory service for student problems
5. Scheduled clinics: general, dental, etc.
6. Daily observations and care at Health Service
7. Hospitalization at rates especially advantageous
8. Laboratory services and clinical tests to determine diseases
9. Reports to home physicians and dentists
10. Cooperation with home physicians and dentists in furthering observations and treatments
11. As the times allow, other services will be reestablished, and new services instituted.

Many industrial and professional positions now ask health credentials. Every student completing college should be physically as perfect as possible; the position to which he goes expects that.

KLEINSTUECK WILD LIFE PRESERVE

In 1922, the late Mrs. Caroline Hubbard Kleinstueck deeded to the State Board of Education nearly fifty acres, including woodland, grassland, and a lake, about one mile from the campus, to be used as a wild-life preserve. The preserve is freely used by classes and student groups for instructional and recreational purposes.

An eighteen-year-old stand of pines covers portions of the area, while other portions are occupied by hardwood forest, swamp, and lake.

The area abounds in land and water birds, and includes many of the native plant species of southern Michigan.

NAVY COLLEGE PROGRAM—V-12

Western Michigan College of Education has been selected as the site of one of the V-12 Naval training schools under the authority of the Bureau of Naval Personnel in Washington. To make for uniformity in its nation-wide program, the Navy has stipulated that the college year be divided into three 16-week terms, the first beginning on or about July 1, and continuing through October; the second beginning on November 1 and continuing through February; the third beginning March 1 and continuing through June.

The college year for civilian students, both men and women, will conform to this same schedule. Students may enter at the beginning of any term, although entrance in July, the first term, is recommended.

Except for the change in calendar, there will be little disruption of the normal academic program. The curricular offerings of peacetime will be available, augmented by special wartime courses. Women students and men students not eligible for military service will attend Western Michigan College of Education as usual, continuing their normal programs on the new three-term basis. If a student prefers, he may attend only two terms of the three.

Information concerning both the Naval training school and the regular college is available upon request. Western Michigan College of Education advisers will be pleased to counsel with prospective college students concerning their individual problems.

PHYSICAL EDUCATION AND ATHLETICS

In order to serve the general student body, along with the service units, in meeting the high standard of physical fitness demanded by the government of the United States in this war-time period, the Department of Physical Education has expanded and intensified its whole program of physical education and added the obstacle course.

Emphasis is being given to basic and fundamental practices needed as a foundation for technical training in the war program. Much attention is given to activities that exercise the large muscle groups of the body giving strength, agility, endurance, and speed to the individual. Special emphasis is given to precision marching and to a competitive spirit developed through physical activities.

Every student is required to participate in some form of physical education. Beyond the requirements of his particular curriculum, the student selects his own activity except in cases where an adjusted program is recommended by a school physician.

An extensive intramural plan provides opportunity for a student to engage in competitive sports as a member of a club, sorority, fraternity, or independent team. Sports offered for women include: hockey, soccer, basketball, indoor baseball, archery, golf, tennis, track, swimming, skiing, and hiking. Those for men are: basketball, tennis, handball, horseshoe pitching, archery, volleyball, indoor baseball, outdoor baseball, track, and cross country.

Western Michigan College of Education has been very successful in all phases of intercollegiate athletics. The college is represented by teams in the following sports: football, baseball, basketball, indoor and outdoor track, cross country, tennis, golf, wrestling, and boxing.

PLACEMENT BUREAU

The Placement Bureau is an institutional service maintained, primarily, to aid graduating students and alumni of Western Michigan College of Education in securing suitable teaching positions. A Placement Committee, consisting of the Director of the Training Schools and members of the faculty who are in a position to know intimately the records of students in class work, directed teaching, and general school activities, assists in the work of the bureau.

Each semester graduating students enroll with the Placement Bureau, filling out appropriate blanks and receiving information and instructions relative to securing positions. Full records are kept on file in the Placement Office. These data consist of (1) the student's academic record, (2) the recommendations of at least three faculty members who are familiar with the student's work, (3) a departmental recommendation, (4) the report from the supervisor of the student's directed teaching, (5) a health record, (6) a record of his previous teaching experience, if any, and (7) the general rating of the Placement Committee. The records also include ability and personality ratings and photographs. The Bureau also aims to afford equally satisfactory replacement service to former graduates qualified for better positions. For superintendents who desire to fill positions requiring a greater degree of maturity and experience, a complete file is kept of alumni, including records of their current teaching experience and advanced study in other institutions. Copies of these records are available to superintendents at the time they desire to interview prospective candidates. These credentials are also sent to school administrators upon their request.

In addition to serving the teaching graduates of Western Michigan College of Education, the service is also extended to the General Degree people who prefer positions other than teaching. Each year presents a greater demand on the Bureau for well-trained people who desire non-teaching positions.

All undergraduates are urged to enroll with the Placement Bureau before graduation even though they do not desire help in securing a position at that time. In many cases students who have been out for two or more years find that they desire help in securing a position.

PSYCHO-EDUCATIONAL CLINIC

The object of the Psycho-Educational Clinic at Western Michigan College of Education is to provide, for both normal and maladjusted children and adults, a psychological service offering not only diagnosis but the suggestion of remedial measures as well. It is the plan of the clinic, whose laboratory is equipped with modern psychological apparatus, to train a limited number of competent students in dealing with psycho-educational problems involving educational, social, and emotional maladjustment. The personnel cooperating in these studies of maladjustment consists of a director and two associates, members of the Health Service, members of the Speech Clinic, and local psychiatrists, pediatricians, and ophthalmologists. The average case load each month has consisted of approximately thirty clinical, advisory, and classification problems. Approximately 34 per cent of these cases are referred to the clinic by social and relief agencies in Michigan, 35 per cent by school authorities, 18 per cent by parents and relatives, 10 per cent by other persons and organizations, and 3 per cent by private physicians.

READING LABORATORY

Individuals wishing to improve their reading skill may spend from one to two hours in the Reading Laboratory on Monday, Wednesday, and Friday of each week. The personnel of the laboratory consists of the director and five technicians. Twenty-five basic assignments have been prepared, and each student is expected to proceed from assignment to assignment as his ability permits. There are no lectures or discussion periods. The facilities of the Psycho-Educational Clinic will be drawn upon to provide clinical service whenever the student's needs warrant. Enrollment in the laboratory is limited to not more than fifteen individuals.

RURAL LIFE AND EDUCATION

The educational, social, and economic aspects of rural life—life in the open country and centers of less than 2,500 in population—are the primary concerns of the Department of Rural Life and Education.

To those who enjoy teaching in a community small enough that they may know intimately the family and community influences bearing upon their pupils; to those who prefer positions in which they are left to their own initiative with a minimum of restriction from administration, supervision, and tradition; to those who enjoy working cooperatively in a potentially flexible organization, rather than as cogs in the impersonal set-up which a large system necessitates; and to those who would capitalize upon their rural home and community backgrounds, rural education is a challenge. All too many are aware of the handicaps under which rural schools work, but these conditions are not unchangeable. All too few are aware of the progress rural schools have made and of the natural advantages, both physical and social, which rural schools enjoy.

A service, essential in times of war and in times of peace, is in jeopardy. For the one half of the nation's children—over one third of Michigan's—residing in rural communities, there is an acute shortage of teachers with adequate professional preparation. Not only is the present school generation suffering, but rural schools bid fair to lose much of the gain made slowly and against great odds since World War I. The more critical the conditions, the less can the rural schools afford to serve as the proving ground of the profession. Professionally prepared superintendents, principals, county school commissioners, supervisors, and helping teachers, as well as teachers, are in demand.

The state has shown its concern by offering scholarships covering tuition for the two-year rural curricula of the state teachers colleges. In keeping with its charter, from the beginning Western Michigan College of Education has offered specialized professional education for rural teachers. A two-year

elementary curriculum leads to a three-year certificate which permits the holder to teach "in schools not having grades above the eighth". By means of correspondence courses, extension courses, on-campus Saturday classes, and summer sessions, the two-year graduate is given every opportunity and encouragement to complete his degree at the earliest possible time, the more adequately to prepare himself for an exacting and challenging profession. The two-year curriculum may be completed without penalty for the student wishing later to complete one of the other curricula. Either the four-year elementary or the four-year secondary curriculum may be followed under the guidance of the Director of the Department of Rural Life and Education, with major attention given to preparation for work in rural communities.

The better to acquaint the student professionally with actual school conditions and the relation of school and community, selected rural students are permitted to do practice teaching while in residence for six weeks in one-teacher school districts in the several counties in the service area of the college. Other rural students do their practice teaching in the Hurd one-teacher school or the Portage consolidated school—both of which are affiliated with the college as training schools. For advanced students, either as members of a seminar or the Country Life Club, frequent opportunities arise to do field work in rural education or in community programs. The Country Life Club affords students social life and experiences in organized activities related to college and community life.

Those looking forward to service in rural communities as ministers, doctors, public health workers, veterinarians, librarians, social workers, editors, county extension agents, managers of co-operatives, recreational and cultural leaders in music, art, and the drama, as well as in the several other governmental and service occupations, will find helpful courses and guidance offered in the Department of Rural Life and Education.

OPPORTUNITIES IN AGRICULTURAL HIGH SCHOOLS

The demand for teachers of agriculture and shop, and agriculture and science is greater than at any previous time, due to the movement of young men from agricultural high schools into the armed services. What the future will bring in these schools no one can accurately foretell but it is assumed that the need for instruction in the production of foodstuffs is and will be as great or greater than it was. With this assumption, the Department of Agriculture is continuing its program of combinations of courses with other departments and the combination with the Michigan State College of Agriculture.

To meet the growing demand for teachers with the combination of agriculture, shop, and science in rural-agricultural and other small rural schools, related courses have been organized which will fulfill the requirements for these positions. Courses in agriculture have been supplemented with related courses in other departments.

Special attention is being given to the content of other courses so that they will meet the requirements of rural and small-town high-school teachers. Selections are possible so that credits earned in Western Michigan College of Education may be transferred to Michigan State College and still give a maximum amount of training to teachers in the subjects they may be asked to teach.

SPECIAL EDUCATION

Western Michigan College of Education has been training special education teachers since 1930. First to be established was the curriculum for the training of teachers of mentally retarded and backward children. The School of Occupational Therapy, Kalamazoo State Hospital, has been training occupational therapists since 1920, and since 1938 this School of Occupational Therapy has been associated with Western Michigan College of Education in the training of teachers in this field. The curriculum in Speech Correction dates from the establishment of the Speech Clinic in 1936. Preparation of Visiting Teachers is a new phase of training now offered in special education.

SPECIAL EDUCATION—TEACHERS OF MENTALLY RETARDED CHILDREN

The demand for teachers of mentally retarded and slow learning children has exceeded the supply ever since the curriculum was established at Western Michigan College of Education. Much opportunity is provided the student in this curriculum to observe and study the special education methods and curricula in the public schools of Kalamazoo and nearby cities. The Kalamazoo State Hospital provides mental hygiene clinics. Visits are also made to the Michigan state schools for mentally retarded children. The speech clinic of Western Michigan College of Education provides opportunity for clinical observation and instruction in the special speech problems of mentally subnormal children. The Psycho-Educational Clinic offers instruction in mental testing and in the observation of problem cases.

Courses required in this curriculum relate to the psychology, sociology, education, and mental hygiene of deviate children. Numerous students from other curricula have in the past taken certain of these courses to give them a background for the proper treatment of deviate children who may appear in regular classes.

In the first or second semester of the senior year the student takes the integrated fifteen-unit block consisting of directed teaching in the special class maintained for this purpose by our Paw Paw Training School, a course in general educational problems, and a laboratory course in education. The course in general educational problems and the laboratory course are kept in direct relationship to the directed teaching and the needs of the student. The curriculum leads to the Bachelor of Science degree and to a provisional certificate allowing the student to teach in special classes and schools for mentally retarded and backward children.

TEACHERS OF OCCUPATIONAL THERAPY

A special education curriculum is arranged for students who wish to teach occupational therapy in the schools. This curriculum includes some requirements in the Department of Education as well as practice teaching with handicapped children in certain schools approved by Western Michigan College of Education for such directed teaching. The student upon completion of the curriculum receives the Michigan elementary provisional certificate which permits her to teach occupational therapy in the public schools. For a detailed description of the curriculum for teachers of occupational therapy, see page 91.

SPEECH CORRECTION AND SPEECH CLINIC

Since 1936, when speech correction first appeared in the Western Michigan College of Education catalog, at least 600 students have received some training in methods for removing speech defects, more than 700 school children have been examined, and 223 students have been given remedial work for their own speech defects. These three groups represent the three major functions of the speech correction courses and the speech clinic: to train prospective teachers; to formulate a plan of treatment which the parent or classroom teacher of a speech defective child can follow; and to provide intensive clinical help for those students whose stuttering, sound substitutions, or abnormal voices prevent social and economic acceptance by a fluent world.

At the present time the majority of those taking these courses are former classroom teachers and those enrolled in the elementary, speech, special education, or English curricula. Extension classes have also been provided on campus and in outlying centers. While these courses cannot hope to equip the classroom teachers to handle all speech correction problems, they do dispel the ignorance and uncertainty which have prevented many children from overcoming their speech handicaps. They provide sufficient remedial information to permit the classroom teacher to work with nearly all of the sound-substitution cases (which amount to over one-half of all the speech

defects) and at least to refrain from harming the stuttering and voice cases. Many of the latter indeed have profited much from the cautious as well as from the positive suggestions given in these general courses.

In addition to this general training, Western Michigan College of Education offers a special curriculum in speech correction but only two or three students are permitted to complete this intensive training in any one year. Since this selection insures especially capable special teachers, all of those so trained have been placed without difficulty in the larger school systems of this and surrounding states.

These speech correction and classroom teachers often meet special problems which demand the testing and detailed examination which the speech clinic offers. Children are referred to the clinic from schools throughout the state. Two afternoons each week are set aside for these outpatients. Outpatient examinations include a thorough case history; voice, stuttering, or articulation tests; examination of the speech organs; a breathing and phonograph recording; laterality and other special tests; and a comprehensive analysis of the causes and symptoms of the disorder and enough retraining to indicate the proper direction which treatment should take. In most cases, a series of short fifteen-minute speech lessons, sufficient to provide one daily for a month, are given or sent to the teacher. These are so designed that any capable classroom teacher can conduct them, and they are accompanied by pamphlets containing general information concerning the particular disorder presented by the child. The lessons ask for a report at the end of the month and seldom are these omitted. The interest aroused by such activities often results in P.T.A. projects such as speech correction demonstrations and lectures, extension speech clinics, and even the purchase of audiometers or the hiring of speech correction teachers.

A free summer speech clinic is provided for children whose parents or teachers can enroll in the accompanying speech correction courses. This gives parents and teachers an opportunity to do speech correction work under supervision and to observe good models.

Finally, and perhaps of greatest importance, the speech clinic offers to the students at Western Michigan College of Education an opportunity to improve their own speech. All entering freshmen are given speech examinations and those whose speech is defective are urged to avail themselves of the services of the clinic. The treatment given these speech defective individuals consists of a class meeting thrice each week and daily conferences in the speech clinic. Detailed assignments for outside work are given daily, and the student is expected to spend at least three hours each day on his speech. Many students spend much more. The new clinical, conference, and laboratory rooms, with their interconnecting phones and other apparatus, make possible a very intensive and successful therapy. Not all cases are cures but the speech clinic has generally been successful in bringing about considerable and sometimes rapid improvement.

VOCATIONAL EDUCATION

Western Michigan College of Education offers varied opportunities in the field of Vocational Education. For information concerning these see page 108.

REGULATIONS GOVERNING PARTICIPATION IN EXTRA-CURRICULAR ACTIVITIES

Adopted by the Scholarship Committee January 21, 1941

I. Definition

Extra-curricular activities at Western Michigan College of Education include

- a. Membership in or pledgship to:
 1. An officially chartered social fraternity or sorority.
 2. An officially authorized student organization, such as class groups, departmental organizations, honorary societies, and religious organizations.
- b. Membership on the staff of a student publication.
- c. Participant in planning and staging established college functions.

II. Participation

Participation is to be interpreted to mean:

- a. Holding membership in or pledgship to an organization or group as defined in I above.
- b. Becoming candidate for an office or holding one.
- c. Serving on a student publication board, committee, or other group.

III. Eligibility

A. Extra-curricular activities

Only bonafide students officially enrolled in college classes and regularly in attendance may participate in extra-curricular activities.

Note.—1. "Officially enrolled" is to be interpreted to mean:

- a. Payment in full of tuition, fees, and dues
 - b. Enrollment in classes involving a minimum of ten (10) semester hours of work for college credit
2. "Regularly in attendance" is to be interpreted to mean both attendance at classes and satisfactory achievement in and contribution to class work.

B. Offices and committees

1. No student whose point-hour ratio is less than 1.2 shall be eligible for election or appointment to office or committee membership or for continuance in office or committee membership. (In checking for eligibility "incompletes" are to be counted.)
2. No student whose point-hour ratio is less than 1 shall be eligible to membership in more than one group as defined in I above.

Note.—1. This is not to be construed to mean that organizations or groups may not make higher scholastic requirements for membership or offices.

2. Any course giving credit or required in a department is not to be counted as extra-curricular.

Exception: A student may, in spite of ineligibility, hold membership only in any *one* extra-curricular activity as defined in I above.

- C. No student shall hold the office of president in more than one organization in any one college year.
- D. No student may participate in any extra-curricular activity, as defined in I above, until he has been assured of eligibility by the Dean of Women, if a woman; or by the registrar, if a man.

IV. Ineligibility

- A. An upper-classman is ineligible to participate in extra-curricular activities as defined in I above:
1. If he did not carry a minimum of ten semester hours during the previous regular semester, with the exception of seniors, for whom less than twelve semester hours will satisfy requirements for graduation.
 2. If he did not receive credit for each course he carried during the previous regular semester.
 3. If he did not earn a minimum of nine honor points the previous regular semester. (See exception under Note 1.)
 4. If he is on probation.
 5. If he ceases to comply with any of the various conditions enumerated under the heading "Eligibility" (III).

Note.—Any upper-classman who becomes ineligible during his period of participation, as defined herein, automatically forfeits his privileges enumerated.

- B. A freshman is ineligible to participate in officially-rated extra-curricular activities:
1. During his first regular semester of residence.
 - a. If he is not enrolled in and in regular attendance at classes carrying a minimum of twelve (12) semester hours of academic credit.
 - b. If he is on probation.
 2. During subsequent regular semesters in residence
 - a. If he did not carry a minimum of ten (10) semester hours of work for college credit during the previous regular semester.
 - b. If he did not receive credit for each course for college credit he carried during the previous regular semester.
 - c. If he did not earn a minimum of nine (9) honor points the previous semester.
 - d. If he is on probation.
 - e. If he ceases to comply with any of the various conditions enumerated under the heading "Eligibility" (III).

Note.—Any freshman who becomes ineligible during his period of participation, as defined herein, automatically forfeits his privileges.

V. Special Dispensation. The Committee on Scholarship reserves the right to make such special adjustments in individual cases as may appear desirable or necessary.

STUDENT ACTIVITIES AND ORGANIZATIONS**ACADEMY**

The Academy is one of the oldest women's organizations on the campus. Its aim is to promote interest in scholarship, leadership, character, and personality, and to give more social opportunities to its members. Members are elected by the sorority.

ALPHA PHI OMEGA

Alpha Phi Omega is purely a service fraternity composed of former Scouts, and in this sense is distinguished from other campus organizations. Its purpose is "to assemble college men in the fellowship of the Scout Oath and Law, to develop friendship, and to promote service to humanity."

ART CLUB

The Art Club is a social club whose aim is to broaden the student's art experience. The club is open to anyone interested in art. It gives the members contact with art through lectures, gallery tours, and trips to art centers. It gives them, as well, valuable contact with other students interested in this subject. The club sponsors public exhibitions of students' art work.

ASSEMBLY

Students and members of the faculty meet for assemblies on Tuesdays at nine o'clock. The exercises are in charge of a special committee and usually consist of lectures, musical numbers, and other types of entertainment of general interest to the student body.

CHARLES VAN EEUWEN COMMAND

This organization is intended to encourage comradeship among veterans of World War II enrolled in the college, and to assist them in their problems and adjustments. The program combines social and informational activities.

CLASSICAL CLUB

The Classical Club holds monthly meetings. The active members are students in the Latin department; other students, particularly those specializing in art, English, or history, are cordially welcomed as associate members.

An opportunity is offered for extending acquaintance with classical subjects, such as the private institutions of the Greeks and the Romans, their religion, art, theatre, and the topography and monuments of Athens and Rome. The programs consist of games, singing, illustrated talks, and the presentation of simple plays.

COUNTRY LIFE CLUB (NATIONAL AFFILIATION)

The Country Life Club is open to students in the Department of Rural Life and Education and all others interested in rural life. The meetings, held bi-weekly, combine educational and recreational features of great variety, most of which either bear upon rural life and education or are of such type as to be usable in rural community groups. Outside talent is sometimes used, but student participation is encouraged in order that qualities of initiative, responsibility, and leadership may be developed.

Delegates are sent annually to the convention of the American Country Life Association. Joint meetings are held occasionally with the corresponding clubs in other Michigan Colleges.

DANCE CLUB

The purpose of the Dance Club is to promote interest in and appreciation of the modern dance. It is open to any student who has attended a specified number of meetings and has shown to the group some ability in rhythmic movement and dance composition. Initiation takes place during the winter.

DEBATING

The career of Western Michigan College of Education in intercollegiate debating, begun in 1921-1922, has been increasingly successful. A large number of students are interested in forensic work, and separate squads for men and women are formed every year and trained under faculty direction. From these, squad teams are chosen to represent the college in contests with teams

of other colleges in Michigan and neighboring states. On several occasions Western's teams have debated visiting teams from foreign countries.

There is also a special program for freshmen, including inter-collegiate competition.

A series of spirited inter-society debates is held each fall for the possession of a loving cup presented by the Kalamazoo Bar Association.

DER DEUTSCHE VEREIN

Der Deutsche Verein is an organization composed of students who have had the equivalent of at least one year of college German. It affords its members the opportunity to make a more informal study of German life, history, and politics and gives them an opportunity for more general practice in the spoken language. The programs consist of lectures, usually with slides and pictures, the presentation of German plays, and German songs and games.

EARLY ELEMENTARY CLUB

Students whose interest is in the early-elementary field meet together on the first Tuesday in each month for social, professional, and practical purposes. The club takes a philanthropic interest in the young children of Kalamazoo and endeavors to promote their welfare through financial contributions at the Thanksgiving and Christmas seasons. Whenever possible, the club aids in bringing to Kalamazoo speakers of note in the early-elementary field. An effort is made to have faculty and students meet together in a purely social way; to this end, parties, picnics, and banquets are features of the year's program. The club identifies itself with the Association of Childhood Education through subscription to *Childhood Education* and through a vital first-hand interest in the annual conventions of the larger organizations.

EXTEMPORE SPEAKING AND ORATORY

As a charter member of the Michigan Intercollegiate Speech League, Western Michigan College of Education participates in the League's annual contests in extempore speaking and oratory, the former in the fall, the latter in the winter. A representative is also sent to the state contest of the Intercollegiate Peace Association in the spring. Local contests are held to select representatives and to encourage these activities on the campus.

Under the auspices of the local chapter of Tau Kappa Alpha, national forensic fraternity, separate contests are held for freshmen.

Various fitting awards are offered in the respective contests.

FORENSIC BOARD

The Forensic Board, functioning under the authority of the Charter Committee, has charge of debating at Western Michigan College of Education. Its membership consists of the men's and women's debate managers, the two coaches, and representatives from various clubs interested in debating. The Forensic Board supervises all intramural debating activities and encourages debating in general.

FUTURE TEACHERS OF AMERICA

The Dr. George H. Hilliard chapter of Future Teachers of America is open to both men and women students. The objectives of the organization center in the interests of the teaching profession. Both the National Education Association and the Michigan Education Association invite the membership of the local chapter to the work of advancing education in the state and nation.

HOME ECONOMICS CLUB

The Home Economics Club is organized for the purpose of promoting professional interest and good fellowship among the students. Membership is open to any student of the department who is interested, upon the payment of a small fee each semester. The club is affiliated with the Michigan and the American Home Economics Associations. Meetings are held two evenings each month during the college year.

HONORARY SOCIETIES

Arista is an honorary society for senior women who are outstanding in leadership, scholarship, and service. Recognition for those junior women chosen is given at the annual June Breakfast.

Beta Iota Chapter of Kappa Delta Pi, a national honor society in education, was installed on the campus in 1928.

It seeks to encourage high professional, intellectual, and personal standards. Membership is by invitation extended by the chapter to juniors and seniors ranking above the upper quartile point in scholarship, who have manifested leadership attributes and a continuing interest in education.

Kappa Rho Sigma is composed of students who have shown marked excellence in the fields of mathematics and science. Election is by vote of members of the faculties of these departments.

Pi Gamma Mu is a national honor fraternity in the fields of economics, government, geography, history, and sociology.

To be eligible for membership a student must be a junior or senior in full standing with a scholarship of at least a B average and must have completed 27 semester hours in the above fields.

Election is by vote of the members of the faculties of the mentioned fields.

Sigma Tau Chi is a national honorary fraternity for students in the Department of Business Education. Western's chapter, Beta, is the first organized in Michigan and the second in the United States.

The objectives of this club are to promote scholarship, to coordinate college training with actual business experiences, to facilitate favorable placement for members both in the business field and in the teaching field, and to promote fellowship and leadership among the students.

Members are elected from students in the business education department who maintain high scholarship.

Tau Kappa Alpha, national honorary forensic fraternity, elects its membership from the men and women whose work in intercollegiate public-speaking contests warrants such recognition.

INDUSTRIAL ARTS UNION

The Industrial Arts Union is an outgrowth of the Industrial Arts Club, organized in 1917. The present organization was perfected in 1928. The purpose of this group is to offer opportunity for individual expression and participation in educational programs of interest to the Department of Industrial Arts. Activities include social functions, discussion groups, short trips, and educational gatherings.

INTERNATIONAL RELATIONS CLUB

This club was established under the auspices of the Carnegie Foundation for International Peace and is affiliated with similar clubs throughout the world. It is composed of students who are interested in the study of national and international affairs. It aims to develop in its members a better understanding of foreign peoples and their problems. Good scholarship, the recommendation of the faculty of the Department of Social Sciences, and the approving vote of the society are prerequisite to membership. The semi-monthly meetings are devoted to lectures, discussions, or social diversions.

LATER ELEMENTARY CLUB

The Later Elementary Club is composed of students who are interested in the later-elementary field. Social or professional meetings are held each month.

LE CERCLE FRANCAIS

Le Cercle Français is designed to create and extend interest in the life and literature of the French people, to encourage conversational French, and to give opportunities for activities not possible in the classroom.

All students of French, except first-year students, are eligible. Meetings are held once a month.

MATHEMATICS CLUB

The Mathematics Club is an organization to further the study of undergraduate mathematics. All majors and minors in mathematics who have a C average are eligible for membership.

MEN'S UNION

All the men of the student body, the faculty, and the administration are members of the Men's Union. Since its organization in 1936, the Union has striven to create closer fellowship, spirit, and cooperation among the men of Western Michigan College of Education. A lounge and recreation room with ping-pong, pool tables, checkers, and chess are located in the Union Building, for the use of the men during their leisure.

The men acquire insignia during their first year in residence at the college, by which they are easily recognized. The Union sponsors an assembly during the year and also a social program. Dues paid at enrollment by men of the college support the Union.

MUSIC ORGANIZATIONS

The **Band** meets twice a week for practice and furnishes music at athletic and other events. Students with a reasonable knowledge of band instruments are eligible to membership.

The **Glee Clubs** take an important part in the musical life of the college. Two are maintained: the Men's Glee Club and the Women's Glee Club.

Two choirs are maintained: the College Choir and the Auxiliary Choir.

The College Choir is open only to members of the Women's Glee Club and the Men's Glee Club. The organizations aim to develop and perpetuate a high standard of choral ensemble singing. Each year the choir makes a number of appearances on the campus and before high schools and other organizations.

The Auxiliary Choir is designed for students of less choral experience. Many from this organization find their way into the Men's and Women's Glee Clubs and the College Choir.

The **Orchestra** of 50 pieces meets twice a week throughout the year and gives concerts at various times. Any student with a reasonable degree of proficiency in the playing of some orchestral instrument is eligible for membership. The opportunity for ensemble work under capable direction is one of which all qualified students should take advantage.

NATURAL SCIENCE CLUB

The purpose of this club is the promotion of interest in and knowledge of natural science through lectures and directed field study. Active members of the club must be majoring or minoring in science.

NURSES CLUB

The purpose of the Nurses Club is to give the members a chance to discuss singular and group problems, and to acquaint each student with the activities and opportunities of nursing. Any pre-nurse or graduate nurse may become a member. The monthly meetings are devoted to discussion, planning of lectures and tours, or social diversion.

OCCUPATIONAL THERAPY CLUB

The Occupational Therapy Club is organized with a two-fold purpose: to present programs and discussions of professional value in the field of occupational therapy and to promote better acquaintance among the students. Anyone who has been admitted to the Department of Occupational Therapy is eligible for membership. Several meetings a year will be open to freshmen who are prospective students, and to others in related studies.

OMEGA DELTA PHI

Omega Delta Phi is a men's social fraternity. The aim of the organization is to promote sustained interest and active participation in worthwhile college activities. Membership is based upon scholarship, personality, and leadership. The fraternity seeks to instill in its members a sense of comradeship and school spirit.

PI KAPPA RHO

Pi Kappa Rho, the youngest women's organization on the campus, has for its aim discussion, leadership, and friendly association. High scholarship and an active interest in campus life are among the requirements for membership.

PLAYERS

The purpose of this organization is the promotion of appreciation of the art of the theatre among its members and among the members of the student body. Programs for entertainment and study are presented at each regular meeting. The public presentation of two long plays and several one-act plays during the year gives practical experience in acting, staging, and management. Membership is limited and is attained through try-outs held in the first semester.

PRE-MEDICAL CLUB

Membership in this club is open to students who are interested in the medical profession and in the field of dentistry. The purpose of the club is both social and professional. Any persons interested are cordially invited to attend the meetings.

PSYCHOLOGY FORUM

The Psychology Forum was organized in the fall of 1938. The club has monthly meetings which usually follow a cafeteria supper. Membership is open to all students having certain scholastic requirements and an interest in psychology, as well as to faculty members. The purpose of the organization is to become acquainted with and to discuss current theories, concepts, and literature in the field of psychology.

SENATE

The Senate is one of the oldest women's organizations on the campus. It has for its purpose to develop leadership, to increase interest in school activities, and to give a greater appreciation of the fine arts. High scholastic standing and interest in school activities are requirements for its membership.

SIGMA TAU GAMMA

Sigma Tau Gamma, a men's organization, is the oldest of the college fraternities. Although it developed originally from a debating society, it is now the only national social fraternity on the campus. The fraternity is interested chiefly in promoting fellowship and leadership among students.

SPEECH CLUB

The purpose of the club is to give students actual speech practice in situations such as they will meet when they go out into the field. Programs are being arranged to this end. Tentative plans provide for mock trials for pre-law students; health talks and programs for pre-med students; plays and debates for students interested in these activities; panel discussions; social programs, with opportunity for after-dinner speaking; interpretive readings; book reviews; and possible puppet shows. It is proposed to give members of the club an opportunity to work out programs that would be interesting for assemblies of students of various ages. No preliminary speech training is required for membership, interest in speech being the only requisite.

STUDENT ASSOCIATION

Every student upon paying his fees becomes a member of the Student Association of Western Michigan College of Education.

This organization is governed by an executive group known as the Student Council, the personnel of which consists of the officers of the association, representatives from each class, and representatives from the major student organizations. The council conducts two student elections annually, in which class officers and class representatives, as well as Association officers, are elected.

The association provides the democratic means whereby the students of the college govern themselves, with the cooperation of a committee of faculty members, the Faculty Committee on Student Activities. The association, through its duly elected representatives and with the aid of the faculty, keeps close to the problems of student life. In the last few years it has assured the existence of desirable organizations through the charter system, and has worked out a financial system managed through the Student Council. Details of the work of the council are published annually in its handbook. As a responsible, self-governing body, the association unifies and inspires a fine type of spirit in the college.

STUDENT SCIENCE CLUB

The Student Science Club exists to instill in its members a scientific attitude and a spirit of research. Membership is limited to those students who have elected a year of science or mathematics and maintain high scholarship (B average) in those branches. The members are classified into groups according to the fields of science or mathematics in which their individual major interests lie. The meetings are bi-weekly. One meeting is devoted to a program given by some one of the student groups. The alternate meeting is given over to lectures by faculty members and speakers from outside the school. The programs are open to all students of the college.

THETA CHI DELTA

Theta Chi Delta is a social fraternity, the purposes of which are to develop character, encourage high scholastic achievement, and maintain a spirit of fellowship, organized loyalty, and school spirit. A fraternity house is maintained by the organization.

THETA PI ALPHA

Theta Pi Alpha is a social sorority of women regularly enrolled at Western Michigan College of Education. Its primary purpose is the cultivation of friendship and a spirit of cooperation among its members and with the members of other campus organizations; its secondary purpose is the study of contemporary literature and an appreciation of all the fine arts. Candidates for membership must possess scholarship, leadership, and individuality.

W CLUB

This organization is composed of men who have won an official letter in one of the major sports. Membership is by election. One of the objectives of the club is to help to stimulate and to maintain a high standard of sportsmanship both on and off the campus.

WESTERN MERRIE BOWMEN

The purpose of this organization is the promotion of an appreciation of archery. This club was organized especially for members of the Department of Industrial Arts, who will probably be asked to organize a club of this kind in connection with their teaching of woodwork. Membership, however, is open to all those who are interested in this activity.

WOMEN'S LEAGUE

The Women's League was organized in 1913 to look after the social welfare of the women of the college. It aims to aid new students in every possible manner and to promote closer acquaintances. Women students become members by paying a fee of twenty-five cents each semester at the time of registration. The women students are represented on the Women's League Cabinet through their departmental organizations.

Among the annual social activities of the League are the Women's League Formal, the Christmas Chocolate, the Who's Who Party, the Masquerade, and the June Breakfast with the Daisy Chain.

The League has as its headquarters the beautiful Davis Room in Walwood Hall. Here girls drop in for informal visiting, and many social events take place, prominent among them the weekly afternoon tea that has become a Wednesday tradition.

WOMEN'S PHYSICAL EDUCATION ASSOCIATION

All women of the college who are interested in physical education or allied activities are eligible to membership in the Women's Physical Education Association. Semi-monthly meetings are held, some of which are professional, others social. The club has parties, hikes, roasts, and other activities throughout the year.

YOUNG MEN'S CHRISTIAN ASSOCIATION

The College Young Men's Christian Association is a part of the larger Young Men's Christian Association movement which began in 1844. It is organized to create a wholesome fellowship among the men of the campus and to help them to put into practice their Christian ideals. Every man of the institution, whether student or faculty, is invited to become a member, regardless of his religious faith. The association meets once a week for programs which have to do with education, current problems, entertainment and social life, and projects of service.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION

The Young Women's Christian Association exists for the purpose of providing a fellowship to which every girl on the campus is eligible. It aims to help its members acquire a religious balance adequate to face the life problems that confront students in college.

STUDENT PUBLICATIONS

THE BROWN AND GOLD

The *Brown and Gold* is the college yearbook, written, edited, and published by the students of the college under the guidance of the Publications Committee. The editor-in-chief and business manager are appointed by the president of the Student Council, with the approval of the Student Council, the Publications Committee, and the faculty Committee on Student Activities.

THE HERALD

The *Western Michigan Herald* is a weekly newspaper published by the students of the college under the guidance of the Publications Committee, which is made up of both students and faculty. The editor-in-chief and the business manager are students appointed by the president of the Student Council, with the approval of the Student Council, the Publications Committee, and the faculty Committee on Student Activities. An interest in journalism and a willingness to work are the only prerequisites for staff members, who conform to the eligibility rules for college activities.

THE STUDENT DIRECTORY

The *Student Directory* is an annual booklet published during the second semester. It contains the addresses and telephone numbers of all students and faculty members, and includes information concerning the various student activities.

UNDERGRADUATE CURRICULA

DETAILS RELATING TO CURRICULA

PURPOSE AND CONTROL OF MICHIGAN COLLEGES OF EDUCATION

The Constitution of the State of Michigan [Act XI, Sec. 10] places the Michigan Colleges of Education under the authority of the State Board of Education subject to such regulations as may be prescribed by the Legislature. In 1903 [Public Act 203] the Legislature decreed: "The State Board of Education is hereby authorized and required to prescribe the courses of study for students, to grant such diplomas and degrees and issue such licenses and certificates to the graduates of the several normal schools of the state as said State Board of Education shall determine."

From time to time the Legislature has also defined the objectives and scope of work of the Colleges of Education. It has repeatedly declared that the purpose of these institutions "shall be the instruction of persons in the art of teaching and in all the various branches pertaining to the public schools of the state of Michigan" [Act 139, P. A. 1850; Act 192, P. A. 1889; Act 51, P. A. 1889].

In the course of a century the public school system has developed from the meager rudiments which satisfied a frontier society to the enlarged and complex organization which attempts to meet the needs of a day which faces the solution of social, political, and economic problems of fundamental significance. Only honest, intelligent, and well-informed citizens can cope with such problems, and such citizens it is the first duty of our public schools to produce. Only honest, intelligent, well-educated, and devoted teachers are adequate to meet these enlarged duties and responsibilities—the day of the mere school-keeper is gone. The problem of training such teachers has increased in scope and complexity, but to meet these problems the State Board of Education and the faculties of the Colleges of Education have constantly applied themselves, keeping in mind always the two purposes which, since the founding of the State, have been sustained not only by legislative authority, but which have the sanction of all educational experience as well. Hence the Michigan Colleges of Education have always stood and do now stand for two things paramount and inseparable in an institution for the training of teachers:

1. A thorough grounding in such fields of study as may lead to the intellectual growth of the student.
2. A thorough grounding in the science and art of teaching attained by sufficient actual teaching under direction.

Objectives and General Scope of Curricula

A. The program of study outlined for the first and second years in the curricula of the Michigan Colleges of Education is organized to serve, among others, the following purposes:

1. To provide the student with essential factual information; to give him an introduction to methods of thought and work and to provide such opportunities for study and growth as may lead to a well-rounded general education.
2. To prepare the student for undertaking the more advanced and specialized work embraced in the curricula of the third and fourth years of the Colleges of Education or for more advanced work elsewhere.

B. This program represents sixty semester hours of work, at least half of which must fall in Groups I, II, III. The student must complete during the first year at least six semester hours of Rhetoric and at least fifteen semester hours from Groups I, II, III.

The program for the third and fourth years is designed to enable the student

1. To pursue more extensively and intensively courses which acquaint him with the fields of his special interest and which broaden his general education.
2. To pursue a curriculum designed to give him the knowledge and skills necessary for teaching in a specific field.

Admission to the program of the third and fourth years is based upon the satisfactory completion of the work outlined under (A) above or upon evidence of equivalent work done satisfactorily elsewhere. In addition the student must satisfy such special tests or examinations as may be prescribed to determine his general intelligence, scholastic aptitude, and fitness for the teaching profession.

SUBJECT GROUPINGS

The Instructional Departments of the Michigan Colleges of Education are classified in groups as follows:

- Group I. Language and Literature
Ancient language and literature, English language and literature, modern language and literature, certain courses as indicated in the Department of Speech
- Group II. Science
Anatomy, astronomy, biology, botany, chemistry, geography, geology, hygiene, mathematics, nature study, physics, physiology, psychology, zoology, certain courses as indicated in the Department of Agriculture
- Group III. Social Science
Economics, history, philosophy, political science, sociology
- Group IV. Education
Education (includes methods courses and directed teaching)
- Group V. Fine Arts
Art, music
- Group VI. Practical Arts
Agriculture, business education, home economics, industrial arts, library science, military science
- Group VII. Physical Education and Health
Health, physical education

DEGREES DEFINED

BACHELOR OF ARTS (AND TEACHING CERTIFICATE)

The student who regularly completes a curriculum conforming to the degree requirements and embracing at least 90 semester hours from Groups I, II, and III, including at least 8 semester hours in one foreign language, is eligible for the degree of Bachelor of Arts. If two or more units of one foreign language are presented for entrance, the requirements for foreign language may be waived.

BACHELOR OF SCIENCE (AND TEACHING CERTIFICATE)

1. The student who regularly completes a curriculum conforming to the degree requirements and embracing more than 30 semester hours from Groups IV, V, VI, and VII is eligible for the degree of Bachelor of Science.
2. The student who otherwise qualifies for the degree of Bachelor of Arts and who has earned at least 54 semester hours in Group II may at his option receive either the degree of Bachelor of Science or the degree of Bachelor of Arts.

GENERAL DEGREE (WITHOUT TEACHING CERTIFICATE)

Students who do not have in mind preparation for teaching may elect basic courses which provide a general education or which satisfy preliminary requirements for other professional curricula. When such a program of work is carried on for four years and conforms to the degree requirements stated on pages 77 to 84 except the professional requirements in Group IV, the degree of Bachelor of Arts or Bachelor of Science may be granted *without the teaching certificate*.

SECOND BACHELOR'S DEGREE

A graduate of Western Michigan College of Education with the degree of Bachelor of Science who subsequently becomes a candidate for the degree of Bachelor of Arts, or vice versa, is required, in addition to the credits he already has, to complete 30 semester hours of resident credit and to satisfy any other specific requirements for the degree.

DEGREE REQUIREMENTS

Any curriculum leading to the Bachelor's degree and teacher's certificate consists of at least 120 semester hours of credit and must include

Group I	at least 12 semester hours
Group II	at least 12 semester hours
Group III	at least 12 semester hours
Group IV	at least 20 semester hours
Rhetoric	at least 6 semester hours

The remaining semester hours may be selected from the courses regularly offered by the college, subject to the following restrictions:

1. Not more than 40 semester hours may be taken in any one subject.
2. At least three-fourths of the work beyond the second year must be in courses not open to first year students.
3. The student must complete a major subject of at least 24 semester hours and at least two minor subjects of not less than 15 semester hours. (A candidate for the elementary provisional certificate may present, instead, 4 minors, 15 semester hours each.) Credits in the required English composition and credits in Education which are required in general on all curricula do not count toward majors or minors.
4. No candidate is eligible for the Bachelor's degree who has not done at least 30 semester hours of work in residence and who has not been in residence during the semester or summer session immediately preceding graduation. (An exception is made in the combined pre-professional curricula. See page 96.)
5. Courses must be selected so that the requirements in some one of the provisional certificate curricula are fulfilled. (This requirement does not apply to the General Degree curriculum, without teaching certificate. See page 86.)
6. Students who wish to qualify for the Bachelor's degree without the teacher's certificate will not be required to take the work prescribed under Group IV but must satisfy all the other requirements.

MAJOR AND MINOR REQUIREMENTS AND REGULATIONS

Requirements

(A major is a sequence of courses totaling a minimum of 24 semester hours; a minor is a sequence of courses, totaling a minimum of 15 semester hours. Students may, if conditions permit, elect beyond this minimum up to a maximum of 40 hours offered by any department. The maximum permitted in Groups IV-VII is 60 hours.)

1. *General Degree (without Teaching Certificate.)* The academic training shall include a major and two minors. (See page 86.)

2. *Bachelor's Degree and State Elementary Provisional Certificate.* The academic training shall include four minors, or a major (may be a group major) and two minors. The equivalent of two minors must be in subjects or subject fields taught in the elementary grades.

3. *Bachelor's Degree and State Secondary Provisional Certificate.* The academic training shall include one major and two minors, in subjects or subject fields in which the applicant expects to teach.

Regulations and Suggestions

1. In the "Details of Departmental Courses," pages 120 to 234, see the introductory statement for each department preceding its description of courses, for its approved major and minor course sequences. Students should consult the departmental advisers for approval of their major and minor programs.

2. All secondary students shall be known as "majors" in the fields of selected departments, e.g., Home Economics, Art, Mathematics, English, etc. If a student chooses to elect a major in each of two or more departments, he will be listed accordingly, e.g., Art and English; Industrial Arts and Mathematics, etc.

3. Decision concerning field of majors must always be made by student before the close of sophomore year or beginning of junior year.

4. Decision concerning pursuance of elementary or secondary curriculum must be made by the close of freshman year or beginning of sophomore year.

5. It is permissible to use as a "group" major a combination of courses from related departments, as in the several science departments and in the several social science departments, if and as approved by departmental advisers.

6. Group requirements (Groups I, II, and III) of the several curricula may be satisfied through the use of major and minor sequences. Likewise short sequential requirements of some of the curricula may sometimes be included as parts of major or minor groupings.

7. Minors may often be related to majors, so as to recognize naturally or closely related fields; for example, mathematics and physics, history and geography, literature and history, etc.

8. Students who wish to major in any of the "special" fields (art, business education, home economics, industrial arts, music, occupational therapy, physical education, and special education) are advised to follow the same procedure as indicated in item 1.

Attention is called to the regulation of the State Board of Education* as to the "special" fields which lead to certification in both elementary and secondary grades, when the candidate qualifies in both fields. In respect to this, Western Michigan College of Education at present prepares students in the fields of art, music, and physical education for women.

* Note.—See State Certification Code, page 18, paragraph 5.

Restrictions

1. It is usually not permissible to use education as a major or minor in any undergraduate curriculum.
2. The following courses are not to be counted as satisfying major and minor requirements:
 - a. Required courses in rhetoric (See Group I).
 - a. Uniformly required courses in education from Group IV: Human Growth and Development 251, Introduction to Directed Teaching 240 or 351, and Directed Teaching, Laboratory in Education, and General Educational Problems 370 A, B, C.
 - c. Professional courses numbered 300T to 302T. These are courses in teaching school subjects, hence give credit in education.
3. A combination of foreign languages, or of English or American literature with a foreign language, is not permissible. The major or minor must be in one language only.
4. Mathematics may not be combined with Science (physics, geography, chemistry, biology) for a major or minor sequence.

REQUIREMENTS FOR GRADUATION

Degrees and Certificates

The State Board of Education for the State of Michigan, on recommendation of the president and faculty of Western Michigan College of Education, confers degrees and grants teachers' certificates as follows:

A. The degree of *Bachelor of Arts* and the degree of *Bachelor of Science*.

B. The *State Elementary Provisional Certificate*, which qualifies the holder to teach for a period of five years from date of issue in the elementary grades (kindergarten to eighth) in any public school in Michigan. (See Note 1.)

C. The *State Secondary Provisional Certificate*, which qualifies the holder to teach for a period of five years from date of issue in the secondary grades (seventh to twelfth) in any public school in Michigan, in subjects or subject fields indicated on the certificate. (See Note 2.)

D. The *State Limited Certificate* which qualifies the holder to teach in the State of Michigan for a period of three years from date of issue in any school district except a school district which maintains an approved high school. (See Note 3; also "Important Directions to Holders of Limited Certificates Based on the Michigan Teachers Certification Code", on pages 82 and 83.)

Academic and Residence Requirements for Degrees and Certificates

- A. For the *Bachelor's Degree* the candidate shall—
 - a. present credits satisfying a prescribed curriculum aggregating 120 semester hours;
 - b. have satisfactorily completed in residence at this institution at least 30 semester hours;
 - c. have been in residence at this institution the semester or summer session immediately preceding graduation;
 - d. satisfy the requirements for the provisional certificate. (In certain cases this requirement may be waived.)
- B. For the *State Elementary Provisional Certificate* the candidate shall—

- a. present credits satisfying a prescribed curriculum aggregating 120 semester hours;
 - b. have satisfactorily completed in residence at this institution at least 30 semester hours;
 - c. have been in residence at this institution the semester or summer session immediately preceding graduation;
 - d. satisfy the requirements for the Bachelor's Degree.
- C. For the *State Secondary Provisional Certificate* the candidate shall—
- a. present credits satisfying a prescribed curriculum aggregating 120 semester hours;
 - b. have satisfactorily completed in residence at this institution at least 30 semester hours;
 - c. have been in residence at this institution the semester or summer session immediately preceding graduation;
 - d. satisfy the requirements for the Bachelor's Degree.
- D. For the *State Limited Certificate* the candidate shall—
- a. present credits satisfying a prescribed curriculum aggregating 60 semester hours;
 - b. have satisfactorily completed in residence at this institution 15 semester hours;
 - c. have been in residence at this institution the semester or summer session immediately preceding graduation.

Note 1. The holder of the State Elementary Provisional Certificate may be issued the State Elementary Permanent Certificate when the candidate shall have met the following conditions:

- (a) Application must be made to the college within one year following the expiration of the State Elementary Provisional Certificate.
- (b) The candidate must submit satisfactory evidence that he has taught successfully during the life of the certificate for not less than three years in elementary schools in the state of Michigan.
- (c) The holder of an Elementary Provisional Certificate issued after July 1, 1945, must have earned in addition 10 semester hours of acceptable college credit.

Note 2. The holder of the State Secondary Provisional Certificate may be issued the State Secondary Permanent Certificate provided the candidate shall have met the following conditions:

- (a) Application must be made to the college within one year following the expiration of the State Secondary Provisional Certificate.
- (b) The candidate must submit satisfactory evidence that he has taught successfully during the life of the certificate for not less than three years in secondary schools in the state of Michigan.
- (c) The candidate must have earned in addition ten semester hours of acceptable college credit.

Note 3. A candidate presenting credits as a graduate of a Michigan County Normal School and who in addition thereto presents entrance credits satisfying the requirements of this institution shall be granted:

- (a) Toward the Provisional Certificate, 25 semester hours;
- (b) Toward the State Limited Certificate, 25 semester hours;

- Note 4. Not more than one-fourth of the number of hours necessary for any certificate or degree may be taken in extension or by correspondence or both. Such credit, however, cannot be applied to modify the minimum or final residence requirements.
- Note 5. No teacher's certificate will be granted to any person who is less than eighteen years of age.
- Note 6. No teacher's certificate will be granted to any person who is not a citizen of the United States or who has not declared his intention of becoming a citizen.

Procedure for Permanent Certification

The holder of an Elementary Provisional or a Secondary Provisional Certificate, who has fully met the requirements (see notes page 81), may be issued a Permanent Certificate. Below is outlined the procedure to be followed:

A. *The Candidate will*

1. obtain from Western Michigan College of Education an application blank. This may be done after three years of teaching under the Provisional Certificate, but it must be done within one year following the expiration of the Provisional Certificate;
2. fill out the application as required and return it to the College;
3. return with the application blank his Provisional Certificate with his Teacher's Oath attached.

B. *The College will*

1. investigate the qualifications of the candidate to ascertain if he satisfies requirements for permanent certification;
2. recommend the candidate to the State Board of Education for permanent certification if his qualifications are found satisfactory;
3. deliver to the candidate the Permanent Certificate properly executed.

Important Directions to Holders of Limited Certificates Based on the Michigan Teacher's Certification Code

Caution: No person can be employed to teach in any school district unless he is legally qualified by holding a valid certificate. In order that the holder of any limited certificate may retain without interruption his status as a legally qualified teacher, he must make application for renewal to the State Board of Education between April 1 and September 1 of the year the certificate expires; if the candidate on the expiration of the certificate does not arrange for renewal as here stated, he will forfeit his status as a legally qualified teacher, and therefore will not be permitted to teach. He will, however, remain eligible to make application for renewal until June 30 of the year following expiration of his certificate after which date renewal privileges are canceled.

- A. To the holder of the State Limited Certificate or of the State Limited Renewal Certificate.
1. The holder of a State Limited Certificate may be issued (five times) a State Limited Renewal Certificate provided the candidate shall have met the following conditions:
 - (a) Subsequent to the date of issue of the last certificate held, the candidate must have acquired 10 semester hours of credit, of an average grade of "C" or better, earned in an institution or accepted by an institution approved by the State Board of Educa-

tion. These credits must be applicable toward the requirements of the curriculum prescribed for the State Provisional Certificate eventually desired.

- (b) In order to assure that the credits earned toward renewal will apply on the State Provisional Certificate curriculum at the institution where the candidate intends to qualify eventually for that certificate, *the candidate should arrange in advance in each case to have his course selections approved by that institution.* Also all credits wherever earned should be submitted to that institution for evaluation and by it transmitted to the State Board of Education with recommendations.
- B. To the holder of the County Limited Certificate or of the County Limited Renewal Certificate.
1. The holder of a County Limited Certificate may be issued (two times) a County Limited Renewal Certificate, each valid for two years provided the candidate shall have met the following conditions:
 - (a) Subsequent to the date of issue of the last certificate held, the candidate must have acquired 10 semester hours of credit, of an average grade of "C" or better, earned in an institution or accepted by an institution approved by the State Board of Education. These credits must be applicable toward the requirements of the curriculum prescribed for the State Limited Certificate and for the State Provisional Certificate.
 - (b) In order to assure that the credits earned toward renewal will apply on the State Limited Certificate curriculum and on the State Provisional Certificate curriculum at the institution where the candidate intends to qualify for either certificate, *the candidate should arrange in advance in each case to have his course selections approved by that institution.* Also all credits wherever earned should be submitted to that institution for evaluation and by it transmitted to the State Board of Education with recommendations.

Note.—More complete information concerning the several teachers' certificates may be obtained from Bulletin No. 601, Teachers' Certification Code, published by the Superintendent of Public Instruction, Lansing, Michigan. 1942 Revision.

Additional Regulations Governing Students at Western Michigan College of Education

1. All freshmen must carry Rhetoric 106 A, B.
2. At the end of the sophomore year all students except those enrolled in the two-year curricula must have had at least six class hours of physical education.
3. In general, freshmen should not elect two courses in a single department in the same semester. No student should elect more than 10 semester hours in a single department in the same semester.
4. All students who expect to receive a degree must present at least 8 semester hours of credit in rhetoric.
5. Not more than a total of 60 semester hours of credit from Groups IV, V, VI, and VII may be accepted for either the Bachelor of Arts or the Bachelor of Science degree.
6. Before being admitted to the regular program of work of the third year, a candidate for a teaching certificate shall have earned at least 8 semester hours in each of the Groups I, II, and III. He shall have maintained at least a C average for work already completed and shall give evidence of his fitness for teaching.
7. To satisfy the minimum requirements in Groups I, II, and III, the student shall not present a series of isolated courses.

8. All students who expect to obtain a degree and teaching certificate are required to present credits in the following courses: Human Growth and Development 251, Introduction to Directed Teaching 240 or 351, and Directed Teaching, Laboratory in Education, and General Educational Problems 370 A, B, C.

9. A student will not be permitted to carry directed teaching unless his point-hour ratio is at least 1.0.

10. All students must take the equivalent of six hour lectures in political science. This is a legal requirement.

THE CURRICULA

GENERAL DEGREE	Page 86
FOR TEACHERS	87-95
PRE-PROFESSIONAL, NON-TEACHING PROFESSIONAL, AND COMBINED	96-107
VOCATIONAL EDUCATION	108-113

Specific details and requirements in the various fields of specialization are outlined on the following pages. All of the curricula detailed conform to the general requirements for degrees and certificates and, at the same time, indicate the courses which should be pursued by students preparing to teach in the fields described.

Accelerated Programs of Study

As part of its adjustment to wartime conditions, Western Michigan College of Education is offering accelerated programs to undergraduate students who may wish to elect them. Students who elect the accelerated program may at the end of any semester or summer session drop back into the normal program, and the college may require a student to return to the normal program should it become clear that he cannot meet the scholastic requirements of the accelerated plan. It may also be possible that some students could not be permitted to go on the accelerated plan at the outset because of the difficulties for them in carrying such a heavy load.

If a student decides to enter on the accelerated program, his counselor will help him in his choice of courses in order to see that his curriculum requirements are met, and to see that his major and minor requirements are properly satisfied. For students who have not already done so, of course, it will be necessary to decide upon the departments for majoring and minorng earlier than under the normal circumstances. In not all cases will this choice be the final one.

Full information regarding accelerated programs may be secured from the registrar.

GENERAL DEGREE CURRICULUM

A.B. or B.S. Degree

(For liberal and pre-professional education)

Students who do not have in mind preparation for teaching may elect basic courses which provide a general education or which satisfy preliminary requirements for other professional curricula. When such a program of work is carried on for four years and conforms to the degree requirements stated on pages 77 to 84, except the professional requirements in Group IV and such other special requirements as concern professional training for teaching, the degree of Bachelor of Arts or Bachelor of Science may be granted *without a teaching certificate*.

Since Western Michigan College of Education is on the approved list of the Association of American Universities, students who complete their curricula with satisfactory records should experience no difficulty in enrolling in the better graduate and professional schools of the United States.

Group Requirements

Group I. Language and Literature	12 semester hours
Ancient language and literature, English language and literature, modern language and literature, certain courses as indicated in the Department of Speech.	
Rhetoric (in addition)	8 semester hours
Group II. Science	12 semester hours
Anatomy, astronomy, biology, botany, chemistry, geography, geology, hygiene, mathematics, nature study, physics, physiology, psychology, zoology, certain courses as indicated in the Department of Agriculture.	
Group III. Social Science	12 semester hours
Economics, history, philosophy, political science, sociology. Must include two semester hours of political science.	
Group VII. Physical Education and Health.	
Physical education: Women are required to take ten class hours, including Physical Education 100 and one individual sport. Men are required to take ten class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)	
Electives	76 semester hours

- Note.—1. The total minimum requirement is 120 semester hours.
 2. One major and two minor sequences must be included.
 3. A course in library methods is required.

CURRICULA FOR TEACHERS

On the following pages are outlines of the various curricula for teachers offered by Western Michigan College of Education. They are designed to give prospective teachers a broad general education with a reasonable degree of specialization in the subject-matter fields through well-planned majors and minors. In addition, they furnish an adequate background in professional study for the graduate to enter teaching with a knowledge of the purposes and objectives of public education, the nature of child growth and development, the modern methods of teaching, and the means of appraising instruction.

Curricula for Elementary and Secondary Teachers

Students pursuing the elementary curriculum, page 88, are granted the state elementary provisional certificate which permits them to teach in the kindergarten and grades one to eight, inclusive. They also receive the A.B. or B.S. degree. The secondary curriculum, page 89, leads to the state secondary provisional certificate which permits holders to teach in grades seven to twelve, inclusive. They, too, receive either the A.B. or B.S. degree. Students who major in art, music, or physical education for women (subjects taught in both elementary and secondary grades) choose either the state elementary or state secondary provisional certificate. Either certificate will authorize the holder to teach the specified special subject in both the elementary and the secondary grades when he qualifies in both fields. Students pursuing the vocational business curriculum are granted a state secondary provisional certificate. (See page 93).

Curricula for Special Education Teachers

Students desiring to enter the field of special education should follow the curricula found on pages 90, 91, and 92. The first of these emphasizes the preparation of teachers of the mentally retarded and backward children. Those interested in occupational therapy follow the program outlined on page 91. In like manner, those interested in speech correction pursue the work outlined on page 92. All three of these curricula lead to the B.S. degree and a state elementary provisional certificate is granted to those successfully completing the stated requirements.

Curricula for Rural Teachers

Both elementary and secondary degree curricula—with corresponding state provisional certificates—with major attention given to preparation for work in open country and in village or town communities having 2500 or less in population, are offered. (See page 95).

Students interested in a state limited certificate, which entitles them to teach in any primary school district or graded school district not maintaining grades above the eighth, may follow the program outlined on page 94. This is a two-year program and the student earns 60 semester hours credit. The state limited certificate is valid for three years. The curriculum has been arranged to assist students in attaining as broad and at the same time as specific and practical a preparation for working with children in farm and non-farm rural communities as is possible in a period of two years.

The foregoing paragraphs are descriptive of the minimum requirements for the professional education of teachers. However, a student who wishes to become well-rounded in personality as well as to become a good teacher will take advantage of the many extra-curricular and cultural opportunities available at Western Michigan College of Education. We mention social activities such as parties, receptions, and teas; musical organizations such as glee clubs, orchestra, and band; social dancing, plays, athletics, church relationships, and many other features found in the school and in the city of Kalamazoo.

ELEMENTARY CURRICULUM

A.B. or B.S. Degree

State Elementary Provisional Certificate

(For the preparation of teachers of Kindergarten and Grades
1, 2, 3, 4, 5, 6, 7, 8)

Group Requirements

(See page 77 for Subject Groupings)

Group I. Language and Literature	12 semester hours
Rhetoric (in addition)	8 semester hours
Group II. Science	12 semester hours
Group III. Social Science	12 semester hours
Including two semester hours of political science	
Group IV. Education	
Human Growth and Development 251	3 semester hours
Psychology of Reading 212	3 semester hours
Introduction to Directed Teaching 351	3 semester hours
Directed Teaching, Laboratory in Education, and General Educational Problems 370 A, B, C	15 semester hours
Group V. Fine Arts (Art, Music)	6 semester hours
Group VI. Practical Arts	
Group VII. Physical Education and Health	
Physical education: Women are required to take ten class hours, including Physical Education 100, one individual sport, and Physical Education 233, 330, or 331. Men are required to take ten class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)	
Electives	46 semester hours

Note.—1. The student, in conference with his counselor, should choose courses on the basis of his special needs and interests, from among those especially adapted to teaching in the elementary field as a whole, or in any of the following special areas:

Early Elementary
Later Elementary

Rural Elementary
Special Education

2. The academic training shall include four minors, or a major (this may be a group major) and two minors. The equivalent of two minors must be in subjects or subject fields taught in the elementary grades.

It is possible for students to specialize by presenting minors not only in the general subject-matter fields, but in the special fields as well, of art, home economics, industrial arts, music, physical education, and special education.

3. Students majoring in art, music, or physical education for women may choose either the State Elementary Provisional Certificate or the State Secondary Provisional Certificate. Either certificate will authorize the candidate (student) to teach his specified special subject in (both) the elementary and the secondary grades when the candidate qualifies in both fields.

4. Certain courses in some departments may not be counted toward satisfying the minimum group requirements. See course descriptions, pages 120 to 234.

5. A course in library methods is required.

6. For further information regarding details of specialization in a department or field, see introductory paragraphs for each department, pages 120 to 234.

SECONDARY CURRICULUM

A.B. or B.S. Degree

State Secondary Provisional Certificate

(For preparation of teachers of Grades 7, 8, 9, 10, 11, 12)**Group Requirements**

(See page 77 for Subject Groupings)

Group I. Language and Literature	12 semester hours
Rhetoric (in addition)	8 semester hours
Group II. Science	12 semester hours
Group III. Social Science	12 semester hours
Including two semester hours of political science	
Group IV. Education	
Human Growth and Development 251	3 semester hours
Introduction to Directed Teaching 351	3 semester hours
Directed Teaching, Laboratory in Education, and General Educational Problems 370 A, B, C	15 semester hours
Group VII. Physical Education and Health	
Physical education: Women are required to take ten class hours, including Physical Education 100, one individual sport, and Physical Education 332. Men are required to take ten class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)	
Electives	55 semester hours

Note.—1. The student, in conference with his counselor, should choose courses on the basis of his special needs and interests.

2. The academic training shall include one major and two minors in subjects or subject fields in which the applicant expects to teach.

It is possible for students to specialize by presenting minors not only in the general subject-matter fields, but in the special fields as well, of art, business education, home economics, industrial arts, music, and physical education.

3. Students majoring in art, music, or physical education for women may choose either the State Elementary Provisional Certificate or the State Secondary Provisional Certificate. Either certificate will authorize the candidate (student) to teach his specified special subject in (both) the elementary and the secondary grades when the candidate qualifies in both fields.

4. Certain courses in some departments may not be counted toward satisfying the minimum group requirements. See course descriptions, pages 120 to 234.

5. A course in library methods is required.

6. For further information regarding details of specialization in a department or field, see introductory paragraphs for each department, pages 120 to 234.

SPECIAL EDUCATION CURRICULUM

B.S. Degree

State Elementary Provisional Certificate

(For the preparation of teachers of mentally retarded and backward children)

Group I. Language and Literature	12 semester hours
Rhetoric (in addition)	8 semester hours
Group II. Science	
General Biology 101A, B	8 semester hours
Hygiene 112 (or Health Education 285)	2 semester hours
General Psychology 200	3 semester hours
Abnormal Psychology 305	3 semester hours
Group III. Social Science	
Principles of Sociology 241	3 semester hours
Modern Social Problems 242	3 semester hours
Political science	2 semester hours
Elective	4 semester hours
Group IV. Education	
Human Growth and Development 251	3 semester hours
Mental Testing 307	2 semester hours
Mental Deficiency 332	2 semester hours
Introduction to Mental Hygiene 335	3 semester hours
Methods of Teaching Subnormal Children 337	2 semester hours
Introduction to Directed Teaching 351	3 semester hours
Directed Teaching, Laboratory in Education, and General Educational Problems 370A, B, C	15 semester hours
Group V. Fine Arts	
Illustrative Handwork 107	3 semester hours
Group VI. Practical Arts	
Special Education Shop 208	2 semester hours
Group VII. Physical Education and Health	
Physical education: Women are required to take ten class hours, including Physical Education 100 and one individual sport. Men are required to take ten class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)	
Electives	37 semester hours

Note.—1. The academic training shall include a major (this may be a group major) and two minors, or four minors. The equivalent of two minors must be in subjects or subject fields taught in the elementary grades or in special classes for mentally retarded children.

2. A course in library methods is required.

OCCUPATIONAL THERAPY CURRICULUM

B.S. Degree and Diploma

State Elementary Provisional Certificate

(For the preparation of teachers of occupational therapy)

Group I. Language and Literature

Rhetoric 106A, B and 323	8 semester hours
Fundamentals of Speech 105A	3 semester hours
Electives	9 semester hours

Group II. Science

General Biology 100A, B	8 semester hours
Anatomy and Physiology (for Occupational Therapists) 215	4 semester hours
Applied Kinesiology 216	2 semester hours
General Psychology 200	3 semester hours
*Neurology and Psychiatry 330	3 semester hours
*Clinical Subjects 332	4 semester hours
*Clinical Observations 334	4 semester hours

Group III. Social Science

Political science	2-3 semester hours
Sociology 241	3 semester hours
*Social Service in Hospitals 351	3 semester hours
*Hospital Case Studies 352	3-4 semester hours

Group IV. Education

Theory of Occupational Therapy 210A, B and 310	6 semester hours
Human Growth and Development 251	3 semester hours
Introduction to Directed Teaching 351	3 semester hours
General Educational Problems 370C	3 semester hours
Directed Teaching 374	5 semester hours

Group V. Fine Arts

Elementary Design 105	3 semester hours
Modeling 111	3 semester hours
Therapeutic Crafts 222A	2 semester hours
Weaving 303	4 semester hours
Bookbinding 304	2 semester hours
Electives	2 semester hours

Group VI. Practical Arts

Printing 140A	3 semester hours
Special Education Shop 208	3 semester hours
Therapeutic Crafts 222B	2 semester hours
Stitchery 223	4 semester hours
Rug Making 224	1 semester hour
Basketry 226	1 semester hour
Leatherwork 227	1 semester hour

Group VII. Physical Education

All students are required to take four class hours of physical education, including Physical Education 100. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

Clinical Training

Ten calendar months at affiliating hospitals. This includes courses starred above, and undifferentiated credit totaling 9 semester hours

Note.—1. Thirty semester hours of college credit (as listed in First Year, Occupational Therapy Curriculum for Diploma, page 106) must be earned before the student is admitted to the School of Occupational Therapy. This admittance is based on the approval of the applicant by the Coordinating Committee of the school, on the basis of general aptitude for the work and the scholastic record submitted with the special application blank.

2. The ten calendar months of clinical training shall be taken in two months between the second and third years, and in eight consecutive months during the second semester of the third year and the time remaining before the fourth year.

3. Granting of the Diploma of Occupational Therapy and registration in the American Occupational Therapy Association is conditional upon the student's passing a comprehensive examination over all required work.

4. A course in library methods is required.

5. A course in rehabilitation lectures is required.

6. This curriculum is open to women students only.

SPEECH CORRECTION CURRICULUM

B.S. Degree

State Elementary Provisional Certificate

(For the preparation of teachers of speech correction)

Group I. Language and Literature.....	8 semester hours
Rhetoric (in addition).....	8 semester hours
Fundamentals of Speech 105A, B.....	6 semester hours
Introduction to Speech Correction 230.....	3 semester hours
Principles of Speech Correction 231.....	3 semester hours
Phonetics 318.....	3 semester hours
Basic Voice and Speech Science 319.....	3 semester hours
Stuttering and Allied Disorders 331.....	3 semester hours
Group II. Science	
General Biology 101A, B.....	8 semester hours
or	
Hygiene 112.....	2 semester hours
and	
Physical Science 100A, B.....	6 semester hours
General Psychology 200.....	3 semester hours
Abnormal Psychology 305.....	3 semester hours
Mental Testing 307.....	2 semester hours
Group III. Social Science	
Principles of Sociology 241.....	3 semester hours
Modern Social Problems 242.....	3 semester hours
Political science.....	2 semester hours
Electives.....	4 semester hours
Group IV. Education	
Psychology of Reading 212.....	3 semester hours
Human Growth and Development 251.....	3 semester hours
Applied Speech Correction 300T.....	3 semester hours
Introduction to Speech Education 331.....	2 semester hours
Mental Hygiene 335.....	2 semester hours
Introduction to Directed Teaching 351.....	3 semester hours
Directed Teaching, Laboratory in Education, and General Educational Problems 370A, B, C.....	15 semester hours
Group VII. Physical Education and Health	
Physical education: Women are required to take ten class hours, including Physical Education 100 and one individual sport. Men are required to take ten class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)	
Electives.....	24 semester hours
Suggested electives: Anatomy 211A, Genetic Psychology 205, Interpretive Reading 210, Public Speaking 206, Social Psychology 243, Principles of Social Work 348, Social Work Practice 349, Psycho-Educational Problems 309.	

Note.—1. The student, in conference with his counselor, should choose courses on the basis of his special needs and interests.

2. The student must present a major in special education (speech correction). Two minors are also required and are usually in social science, science, languages, or psychology.

3. Certain courses in some departments may not be counted toward satisfying the minimum group requirements. See course descriptions, pages 120 to 234.

4. A course in library methods is required.

5. For further information regarding details of specialization in a department or field, see introductory paragraphs for each department, pages 120 to 234.

VOCATIONAL BUSINESS CURRICULUM

B.S. Degree

State Temporary Vocational Coordinators Certificate
State Secondary Provisional Certificate

(For preparation of teachers and coordinators of vocational business)

The prerequisites to admission to this curriculum are:

1. Junior year standing and completion of certain group requirements. (See page 77).
2. Completion of a minimum of 15 semester hours in Secretarial Training or Retail Training.
3. Satisfactory evidence of having had one year of work experience in a store or office.

Note.—Work Experience gained prior to matriculation in this curriculum must be evidenced by signed reports from the store or office in which the experience was gained.

A minimum of two years of approved work experience in the occupational field in which the student is majoring is required for graduation. Graduates meeting the specified requirements will be eligible for a temporary Vocational Coordinator's Certificate. This certificate is granted by the State Board of Control for Vocational Education.

Third Year

Advanced Rhetoric 323	2 semester hours
Business Administration 321	3 semester hours
Labor Problems 325A, B	4 semester hours
Survey of American Government 234	2 semester hours
Secretarial or Retailing (Groups A or B) ²	9 semester hours
Electives (Group II)	8 semester hours
Electives (Group I)	2 semester hours

Fourth Year

Directed Teaching 370A	8 semester hours
Laboratory in Education 370B	4 semester hours
Business Problems 339	3 semester hours
*Philosophy of Vocational Education 441 (E151)	2 semester hours
Secretarial or Retailing (Groups C or D) ²	7 semester hours
Electives (Group III)	7 semester hours

Post Graduate—Summer Session

*Analysis and Preparation of Instructional Materials 442 (E152)	2 semester hours
*Methods of Teaching Vocational Education 443 (E153)	2 semester hours
*Coordination in Vocational Education 572 (E106)	2 semester hours

Note.—1. *Starred courses carry graduate credit toward a Master's Degree.

2. Group A (Secretarial) includes Secretarial Science 130A, Secretarial Practice 230 A, B, and Filing Principles 236; Group B (Retailing) includes Fundamentals of Retailing 140, Merchandise and Job Analysis 151A, and Retail Salesmanship 150; Group C (Secretarial) includes Secretarial Accounting 211A, B or Accounting Principles 210A, B; and Group D (Retailing) includes Retail Publicity 240 or Retail Credits and Collections 241 and Store Organization 251 A, B.

RURAL ELEMENTARY CURRICULUM (Two Years)†

Two-year—60 semester hours—curriculum which satisfactorily completed meets requirements for the State Limited Certificate which is valid for three years “and qualifies holder to teach in any Primary School District, or in any Graded School District not maintaining grades above the eighth”*

Group I. English ¹	6 semester hours
Rhetoric 106A (in addition)	3 semester hours
Group II. Science ²	8 semester hours
Group III. Social Science ³	
Rural Economics 240	3 semester hours
Rural Sociology 240	3 semester hours
Elective	3 semester hours
Group IV. Education ⁴	
Curriculum 145	3 semester hours
Introduction to Directed Teaching 240	3 semester hours
Directed Teaching 271	3 semester hours
Rural Education 340	2 semester hours
Elective	4 semester hours
Groups V. and VI. Fine and Practical Arts ⁵	
Personal and Social Problems 120 or equivalent	1 semester hour
Elective	5 semester hours
Group VII. Physical Education and Health ⁶	5 class hours ⁶
Men: Elective	
Women: Physical Education 100, Rural School Physical Education 233, and an elective	
Library Methods	Non-credit
Electives ⁷	13 semester hours

Note.—†This “limited-time” curriculum is necessary because of the acceptance of a double standard, despite the call for equal educational opportunity, in the professional preparation of teachers for rural and urban schools. It has been arranged to assist students in obtaining as broad and, at the same time, as specific and practical a professional preparation for working with children in farm and rural non-farm communities, as is possible in a period of two years.

At least one-half—30 semester hours—of this curriculum must be chosen from courses in Groups I, II, and III. Provision has been made for a flexibility of choice, under the guidance of the departmental counselor, among both group and general electives that will facilitate individualization on the basis of the personal and professional needs and interests of each student. In keeping with certification requirements “all courses must be appropriate to the education of elementary teachers”. For most students the preferred choices would be made from among the courses in the different groups as listed below.

1. Fundamentals of Speech 105A; Chief American Poets 121; American Prose 122; Literature for Children 203.

2. Rural School Agriculture 105 or Nature Study 231A or Nature Study 231B; Introductory Geography 105A; Health Education 285 or Hygiene 112.

3. United States History 201B and “. . . a course of six one hour lectures or the equivalent shall be given in political science. . . .”—Michigan School Laws, Section 898; Revision of 1940.

4. Arithmetic 101T; Psychology of Reading 212; Human Growth and Development 251. Those selected students permitted to do Directed Teaching 271 in the field while in residence there for six weeks receive 5 instead of 3 semester hours credit.

5. Art Structure 106; Rural School Music 109; Industrial Art 110; Auxiliary Choir 134; Home Nursing 220; Clothes and Personality 203; Nutrition 219.

* Teachers' Certification Code, Bulletin No. 601, 1942 revision, page 6.

6. A class hour is to be interpreted to mean one hour of class work each week for one semester. Men: Physical Education 102A; 102B; 103A; 103B; Early American Dancing 101; Social Dancing 122. Women: Early American Dancing 101; Social Dancing 122; Swimming 110; Tennis 113; Badminton 120.

7. These elections may well be chosen from among the preferred choices listed in the above notes (1 to 5) not used to meet minimum group requirements, supplemented if necessary from such courses as follow: Rhetoric 106B; Fundamentals of Speech 105B; Literary Interpretation 210; Lyric Poetry 211; The Familiar Essay 212; The English Bible 218A, 218B; Introductory Geography 105B; Physical Science 100A, 100B; United States History 201A; Introduction to Learning and Adjustment 100; Illustrative Handwork 107.

ACCELERATED RURAL ELEMENTARY CURRICULUM

(Fifty Semester Hours)

Because of the present shortage of rural teachers, an accelerated rural elementary curriculum is being offered. Special teaching permits are granted upon the completion of not less than fifty of the sixty semester hours in the two-year **Rural Elementary Curriculum**. Directed Teaching 271 and certain other subjects selected under the guidance of the departmental counselor must have been included.

The accelerated curriculum may be completed in three semesters, one calendar year, or, possibly, in two semesters and two summer sessions. The special certificate is valid for one year only and is not subject to renewal. Following its expiration, the requirements for the State Limited or some other certificate must be met.

DEGREES IN RURAL EDUCATION

Elementary or Secondary Degree Curricula with major attention given to preparation for work in rural communities: The Rural Elementary Curriculum (two-year) includes foundation courses for the degree, and students are encouraged to complete one of the four-year curricula—elementary or secondary—at the earliest possible time. Additional courses, as well as counsel, are provided by the Department of Rural Life and Education for those wishing further professional specialization as teachers, principals, county commissioners, supervisors, or helping teachers in rural communities—open country, village, or town.

Students preparing to work in the elementary schools choose four minors and additional courses from among both group and general electives, with thought to individualization on the basis of personal and professional needs. They become familiar with the grades and subject areas of the entire elementary field.

Students preparing to work in the secondary schools choose majors, minors, and additional subject matter areas with thought to the variety of teaching and extra-curricular demands to be met in the smaller high schools.

Those preparing to serve rural people in the several professions and service occupations other than teaching will find considerable basic work in these curricula. For them, as well as for degree students preparing to work in either elementary or secondary school positions, advanced courses in rural education and rural life are offered.

PRE-PROFESSIONAL, NON-TEACHING PROFESSIONAL, AND
COMBINED CURRICULA

It is no longer possible for a student to enter professional colleges and universities directly from high school. Pre-professional college training is now required. Most of the best professional schools of the country have prescribed more or less definitely the nature of the college work prerequisite to professional training. The amount of college training required by leading universities in preparation for the various professions, such as law, medicine, and dentistry, has in late years been materially increased. Dentistry, formerly requiring three years, now requires six; medicine, formerly a four-year course, now requires seven years; etc. A number of professions are now entirely on the graduate level; that is, a college degree must be presented before one may enter upon the study of these professions.

For the most part, the additional college work now required is of a cultural nature, or is definitely preparatory to professional courses to be taken later. Examples of the latter are work in mathematics basic to engineering, and the social sciences essential to law and social work. Western Michigan College of Education offers two and, in some cases, three or four years of work preparatory to professional study.

Pre-professional curricula have been developed in Business Administration, Dentistry, Engineering, Forestry, Journalism, Law, Library Science, Medicine, and Social Work. In addition to the standard pre-professional curricula, *combined curricula* approved by the State Board of Education have been specially arranged with the various professional schools of certain colleges and universities. In these curricula, the student, after successfully completing the three-year curriculum as outlined, may apply for admission to the professional school or college of which he has met the requirements. If admitted, the student will, after a year of successful work in the professional school, be granted the A.B. or B.S. degree by Western Michigan College of Education, providing all requirements for the bachelor's degree have been satisfied. (See page 86.) *It will be seen that this shortens by one year the time necessary for obtaining both degrees.*

The professional schools and colleges with which Western Michigan College of Education has agreements concerning combined curricula reserve the right to refuse admission for certain reasons. Because of this, Western Michigan College of Education cannot guarantee that a student successfully completing combined curricula will be admitted to the professional school of his choice. If the student contemplates entering some college or university other than those with which combined curricula have been arranged, he should procure a catalog of the institution he plans to attend, to assist the advisers in mapping out his course. A minimum of two years in residence including the junior year is required for the bachelor's degree in the combined curricula. Combined curricula have been arranged with the Schools of Dentistry, Engineering, Business Administration, Forestry, and Law of the University of Michigan. There are also combined curricula with the College of Medicine, Wayne University; the Detroit College of Law; the Schools of Commerce and Journalism of Northwestern University; the Divisions of Agriculture, Business Administration, and Engineering of Michigan State College; Nursing with Bronson Hospital; and Medical Technology with the Michigan Department of Health and Bronson Hospital.

A course in library methods and five to ten class hours of physical education are required.

AGRICULTURE

The successful completion of the courses outlined below will permit the student to enter the junior year at Michigan State College for the bachelor's degree in Agricultural Science and the certificate for the teaching of vocational agriculture in the secondary schools of Michigan.

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Animal Husbandry, 106, 107, 108	8 semester hours
Electives (to be selected from United States History 201A, B; Trigonometry and College Algebra 103A; or Trigonometry 100C.)	9-10 semester hours

Second Year

General Chemistry 100A, B, or 101A, B	8 semester hours
Farm Crops 202	3 semester hours
Soils 201	3 semester hours
Fundamentals of Speech 105A	3 semester hours
General Psychology 200	3 semester hours
Horticulture 203	2 semester hours
Electives (to be selected from Principles of Economics 220A, B; Bacteriology 212A; Surveying 210; or United States History 210A, B.)	8-10 semester hours

BUSINESS ADMINISTRATION

The Department of Business Education offers a differentiated program for students interested in preparing for a business career. While the department does not prescribe a definite curriculum leading to the professional degree of B.B.A., it does offer a major sequence of courses in accounting, business law, and related subjects in the General Degree curriculum.

Students interested in pursuing, during their freshman and sophomore years, the pre-professional curriculum given below and transferring their credits to the professional schools at the University of Michigan or Northwestern University should exercise care to see that specific requirements for admission have been met.

First Year

Rhetoric 106A, B	6 semester hours
Trigonometry and College Algebra 103A, College Algebra and Analytic Geometry 103B	10 semester hours
or	
College Algebra and Analytic Geometry 104A, B	8 semester hours
Language or literature	6-8 semester hours
Ancient and Medieval Civilization 105A, B	6 semester hours
or	
Modern Europe 108A, B	6 semester hours
or	
English History 109A, B	6 semester hours
Electives	4-0 semester hours

Second Year

Accounting 210A, B	6 semester hours
Principles of Economics 220A, B	6 semester hours
Mathematics 211	2 semester hours
Language or literature	6 semester hours
Secretarial Practice 230A	2 semester hours
Electives	8 semester hours

DENTISTRY

(Combined Curriculum in Letters and Dentistry)

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Electives (see note below)	16 semester hours

Second Year

General Chemistry 100A, B, or 101A, B	8 semester hours
Mechanics, Heat, and Sound 203A, Electricity and Light 203B	8 semester hours
Electives	14 semester hours

Third Year

Advanced Rhetoric 323	2 semester hours
Organic Chemistry 306A, B	8 semester hours
Electives	20 semester hours

Note.—In the selection of electives the student should plan to meet the General Degree requirements in Groups I, II, and III. See page 86.

ENGINEERING

(Combined Curriculum in Letters and Engineering)

University of Michigan

First Year

Rhetoric 106A, B	6 semester hours
Trigonometry and College Algebra 103A, College Algebra and Analytic Geometry 103B	10 semester hours
or	
College Algebra and Analytic Geometry 104A, B	8 semester hours
General Chemistry 100A, B, or 101A, B	8 semester hours
Mechanical and Machine Drawing 221	3 semester hours
Descriptive Geometry 222	3 semester hours
Electives	2-4 semester hours

Second Year

Chemical and Metallurgical

Calculus 205A, B	8 semester hours
Mechanics, Heat, and Sound 203A, Electricity and Light 203B	8 semester hours
Problems 204A, B	2 semester hours
Engineering Materials 210	3 semester hours
Qualitative Analysis 201, Quantitative Analysis 202	8 semester hours
Metal Processing 211	2 semester hours

Third Year

Chemical and Metallurgical

Principles of Economics 220A, B	6 semester hours
Organic Chemistry 306A, B	8 semester hours
or	
Language (German preferred)	8 semester hours
Statics 320	3 semester hours
Advanced Rhetoric 323	2 semester hours
Fundamentals of Speech 105A	3 semester hours
Social science electives	6 semester hours
Electives	2-4 semester hours

Second Year

Aeronautical, Civil, Electrical, Marine, and Mechanical

Calculus 205A, B	8 semester hours
Mechanics, Heat, and Sound 203A, Electricity and Light 203B	8 semester hours
Problems 204A, B	2 semester hours
Engineering Materials 210	3 semester hours
Metal Processing 211	2 semester hours
Fundamentals of Speech 105A	3 semester hours
Group I electives	6-8 semester hours

Third Year

Aeronautical, Civil, Electrical, Marine, and Mechanical

Principles of Economics 220A, B	6 semester hours
Foreign language	8 semester hours
or	
Group III elective	6 semester hours
Differential Equations 321 or elective	3 semester hours
Statics 320 or elective	3 semester hours
Advanced Rhetoric 323	2 semester hours
Theoretical Mechanics 425 or elective	3 semester hours
Electives to total	32 semester hours

Note.—1. Language requirement: one year of a foreign language is required unless two years of a single foreign language were presented for entrance.

2. All students must have 12 semester hours in Group III (Social Science), including two hours of political science.

3. Electives: Differential Equations 321 is required in Aeronautical Engineering, Electrical Engineering, and Engineering Mechanics. Geology 230 should be elected in the third year of the Civil Engineering curriculum.

FORESTRY

(Combined Curriculum in Letters and Forestry)

University of Michigan

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Trigonometry and College Algebra 103A, B, or College Al- gebra and Analytic Geometry 104A, B	8-10 semester hours
General Mechanical Drawing 120	2 semester hours
Electives (to be selected from literature or language)	4-6 semester hours

Second Year

General Chemistry 100A, B, or General Chemistry 101A, B	8 semester hours
Botany 221A, B	8 semester hours
Principles of Economics 220A, B	6 semester hours
Electives (to be selected from physics; Botany 222; Speech 105A, B; Sociology 241, 242; literature or language)	8 semester hours

Third Year

Advanced Rhetoric 323	2 semester hours
General Geology 230	3 semester hours
Surveying 210	3 semester hours
Electives (to be selected from American Government 230, American State and Local Government 231; Geology 230 A, B; Organic Chemistry 306A, B; Zoology 242; Botany 335; Geography 312 or 325)	22 semester hours

JOURNALISM

(Approved by the University of Michigan, Michigan State College, and Northwestern University as part of requirement toward degree in Journalism)

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
or	
General Chemistry 100A, B, or 101A, B	8 semester hours
United States History 201A, B	6 semester hours
French, German, or Spanish 100A, B	8 semester hours
Electives	2-3 semester hours

Second Year

Chief American Poets 121 or American Prose 122	3 semester hours
General Psychology 200	3 semester hours
Principles of Sociology 241	3 semester hours
Modern Social Problems 242	3 semester hours
American National Government 230	3 semester hours
American State and Local Government 231	3 semester hours
Principles of Economics 220A, B	6 semester hours
Economic History of the United States 312	3 semester hours
Electives	3-4 semester hours

Note.—1. Since journalists are using the typewriter constantly, it is of great advantage to the student to acquire facility in typing. It is strongly recommended that the student who is not already a proficient typist take a course in typewriting.

2. Northwestern University requires a reading knowledge of a modern language or two years of college work in one language.

LAW

(Combined Curriculum in Letters and Law)

University of Michigan Law School

Detroit College of Law

First Year

Rhetoric 106A, B	6 semester hours
Trigonometry and College Algebra 103A, College Algebra and Analytic Geometry 103B	10 semester hours
or	
General Chemistry 100A, B, or 101A, B	8 semester hours
College Algebra and Analytic Geometry 104A, B	8 semester hours
or	
Introduction to Physical Science 105A, B	6 semester hours
or	
General Biology 100A, B	8 semester hours
English History 109A, B	6 semester hours
Latin, French, German, or Spanish 100A, B (Latin pre- ferred)	8 semester hours

Second Year

English Literature 107A, B	6 semester hours
or	
Shakespeare 214A, B	6 semester hours
United States History 201A, B	6 semester hours
Principles of Economics 220A, B	6 semester hours
Accounting 210A, B	6 semester hours
General Psychology 200 (University of Michigan)	3 semester hours

Third Year

Advanced Rhetoric 323	2 semester hours
American National Government 230	3 semester hours
American State and Local Government 231	3 semester hours
Principles of Sociology 241	3 semester hours
Modern Social Problems 242	3 semester hours
Public Finance 320	3 semester hours
Electives (to be selected from Speech 105A, B; Money and Credit 221A, B; language or literature, or laboratory science)	13 semester hours

Note.—1. An average scholarship of two honor points is required by the University of Michigan Law School.

2. The above requirements are those of the University of Michigan Law School. Those of the Detroit College of Law are the same except that for Psychology 200 in the third year, Accounting 210A, B (6 semester hours) is substituted.

LIBRARY SCIENCE

(Combined Curriculum in Library Training)

The better schools for training in library science require the bachelor's degree for entrance. They also stipulate that certain courses must be taken. To avoid loss in the transference of credits to such schools, Western Michigan College of Education has provided this combined curriculum.

First Year

Rhetoric 106A, B	6 semester hours
French, German, or Spanish	8 semester hours
History of Modern Europe 108A, B	6 semester hours
General Biology 100A, B	8 semester hours
or	
General Chemistry 100A, B, or 101A, B	8 semester hours
Electives	2-4 semester hours

Second Year

French, German, or Spanish	8 semester hours
Second year foreign language	8 semester hours
English or American literature	6 semester hours
United States History 201A, B	6 semester hours
or	
American National Government 230, American State and Local Government 231	6 semester hours
General Psychology 200	3 semester hours

Third Year

Foreign language	8 semester hours
Principles of Economics 220A, B	6 semester hours
or	
Principles of Sociology 241, Modern Social Problems 242	6 semester hours
English or American literature	6 semester hours
Advanced Rhetoric 323	2 semester hours
Electives from mathematics or science	8 semester hours

Fourth Year

Language or literature	6 semester hours
Principles of Sociology 241, Modern Social Problems 242	6 semester hours
or	
Principles of Economics 220A, B	6 semester hours
Electives to complete a major and two minors	18 semester hours

Note.—The high school course should include two years of Latin, two years of French or German, as much social science as possible, and a mastery of typewriting.

MEDICINE

University of Michigan Medical School

The Medical School requires 90 semester hours of pre-medical work from an accredited college. An average scholarship of one and three-quarters honor points is required. The college pre-medical requirements must include the following:

English	6 semester hours
Chemistry	14 semester hours
Physics	8 semester hours
Biology	8 semester hours
French, German, or Spanish	12-16 semester hours
Electives to total	90 semester hours

Wayne University College of Medicine

(Combined Curriculum in Letters and Medicine.)

The Medical School requires 90 semester hours of pre-medical work from an accredited college.*

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
General Chemistry 100A, B, or 101A, B	8 semester hours
French or German	8 semester hours

Second Year

English Literature 107A	3 semester hours
Mechanics, Sound, and Heat 203A, Electricity and Light 203B	8 semester hours
Qualitative Analysis 201, Quantitative Analysis 202	8 semester hours
French or German	8 semester hours
Electives	2 semester hours

Third Year

English Literature 107B	3 semester hours
Organic Chemistry 306A, B	8 semester hours
Principles of Economics 220A, B	6 semester hours
Principles of Sociology 241	3 semester hours
General Psychology 200	3 semester hours
Anatomy 211A	4 semester hours
Advanced Rhetoric 323	2 semester hours

Note.—1. Application for admission to a College of Medicine should be made by the middle of the school year preceding the year in which the student intends to enter the College of Medicine.

2. Credit in trigonometry must be presented before the student may begin the study of physics.

3. * For the duration of the war, Wayne University will accept 60 semester hours for entrance. For details, see Wayne University catalog for 1943, pages 36-37.

MEDICAL TECHNOLOGY

The first three years of this curriculum meet the scholastic requirements for admission to the laboratory training school of the Michigan Department of Health and of the Registry of the American Society of Clinical Pathologists. Upon successful completion of the fourth year, the student may be granted the degree of Bachelor of Science, if all requirements have been satisfied.

First Year

Rhetoric 106A, B	6 semester hours
Intermediate Algebra 100A, Solid Euclidean Geometry 100B	5 semester hours
or	
Trigonometry and College Algebra 103A, College Algebra and Analytic Geometry 103B	10 semester hours
or	
College Algebra and Analytic Geometry 104A, B.....	8 semester hours
General Chemistry 100A, B, or 101A, B.....	8 semester hours
General Biology 100A, B	8 semester hours
Group I electives	4-6 semester hours

Second Year

Qualitative Analysis 201, Quantitative Analysis 202	8 semester hours
Bacteriology 212, Zoology 242B	8 semester hours
Group I electives	6-8 semester hours
Group III electives	6 semester hours

Third Year

Mechanics Sound and Heat 203A, Electricity and Light 203B	8 semester hours
Organic Chemistry 306A	4 semester hours
Bio-Chemistry 350, 351	3 semester hours
Physiology 211	4 semester hours
Group I electives	3-4 semester hours
Group III electives	6 semester hours
Electives	2 semester hours

Fourth Year

Medical Technology 335 (400)	30 semester hours
------------------------------------	-------------------

During the fourth year, the student registers for Medical Technology 335 (400), a twelve months course given in the laboratory training school of the Michigan Department of Health and/or approved hospital training schools.

NURSING

(Combined curriculum in Letters and Nursing)

Bronson Hospital, Kalamazoo

A five-year curriculum leading to the B.S. degree and the R.N. diploma. The first and fifth years are spent entirely in work at Western Michigan College of Education. The work of the third and fourth years is in the hospital. During the second year two-thirds of the work is at the college.

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Modern European History 108 A, B	6 semester hours
Electives*	10 semester hours

Second Year

Anatomy and Physiology (for Nurses) 213	5 semester hours
Chemistry (for Nurses) 106	4 semester hours
Bacteriology (for Nurses) 214	4 semester hours
Sociology (for Nurses) 244	2 semester hours
Nutrition 219	2 semester hours
General Psychology (for Nurses) 202	2 semester hours

Third and Fourth Years at Bronson Hospital

Fifth Year

English or foreign language	12 semester hours
Advanced Rhetoric 323	2 semester hours
Survey of American Government 234	2 semester hours
Modern Social Problems 242	3 semester hours
Electives	11 semester hours

Note.—*1. General Chemistry 100 A, B is required unless high-school chemistry was presented for entrance.

2. In addition to the 80 semester hours of work outlined above, the student is credited with 40 semester hours for the work done in the hospital. This credit may be used only in the Nursing curriculum. Nursing may constitute a major in this curriculum.

3. Four class hours of physical education are required. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

4. A course in library methods is required.

OCCUPATIONAL THERAPY

B.S. Degree and Diploma

First Year

Rhetoric 106A, B	6 semester hours
Fundamentals of Speech 105A	3 semester hours
General Biology 100A, B	8 semester hours
Elementary Design 105	3 semester hours
Modeling 111	3 semester hours
Printing 140A	3 semester hours
Electives from Group I	4 semester hours

Second Year

Anatomy and Physiology (for Occupational Therapists) 215	4 semester hours
Applied Kinesiology 216	2 semester hours
Theory of Occupational Therapy 210A, B	4 semester hours
General Psychology 200	3 semester hours
Special Education Shop 208	3 semester hours
Therapeutic Crafts 222A, B	4 semester hours
Stitchery 223	4 semester hours
Rug Making 224	1 semester hour
Basketry 226	1 semester hour
Leatherwork 227	1 semester hour
Electives	3 semester hours

Third Year (First Semester)

Advanced Rhetoric 323	2 semester hours
Political science	2-3 semester hours
Sociology 241	3 semester hours
Weaving 303	4 semester hours
Electives from Group V	2 semester hours

Third Year (Second Semester and
additional time to total ten calendar months.)

Clinical Training (at affiliating hospitals)	3 semester hours
Neurology and Psychiatry 330	3 semester hours
Clinical Subjects 332	4 semester hours
Clinical Observations 334	4 semester hours
Social Service in Hospitals 351	3 semester hours
Hospital Case Studies 352	3-4 semester hours
Undifferentiated Credit	9 semester hours

Fourth Year (First Semester)

Theory of Occupational Therapy 310	2 semester hours
Bookbinding 304	2 semester hours
Electives from Group I	5 semester hours
Electives	9 semester hours

Note.—1. Thirty semester hours of college credit (as listed in first year above) must be earned before the student is admitted to the School of Occupational Therapy. This admittance is based on the approval of the applicant by the Coordinating Committee of the school, on the basis of general aptitude for the work and the scholastic record submitted with the special application blank.

2. The ten calendar months of clinical training shall be taken in two months between the second and third years, and in eight consecutive months during the second semester of the third year and the time remaining before the fourth year.

3. Granting of the Diploma of Occupational Therapy and registration in the American Occupational Therapy Association is conditional upon the student's passing a comprehensive examination over all required work.

4. A course in library methods is required.

5. A course in rehabilitation lectures is required.

6. This curriculum is open to women students only.

OCCUPATIONAL THERAPY

Diploma

A curriculum which, satisfactorily completed, meets the requirements of the Council on Medical Education and Hospitals of the American Medical Association and the American Occupational Therapy Association. Graduates of this course are entitled to take the examination for registration in the American Occupational Therapy Association.

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Elementary Design 105	3 semester hours
Modeling 111	3 semester hours
Printing 140A	3 semester hours
Electives	7 semester hours

Second Year

Anatomy and Physiology (for Occupational Therapists) 215	4 semester hours
Applied Kinesiology 216	2 semester hours
Theory of Occupational Therapy 210A, B	4 semester hours
Principles of Sociology 241	3 semester hours
General Psychology 200	3 semester hours
Special Education Shop 208	3 semester hours
Therapeutic Crafts 222A, B	4 semester hours
Stitchery 223	4 semester hours
Rug Making 224	1 semester hour
Basketry 226	1 semester hour
Leatherwork 227	1 semester hour

Third Year (First Semester)

Theory of Occupational Therapy 310	2 semester hours
Weaving 303	4 semester hours
Bookbinding 304	2 semester hours
Electives under guidance	7 semester hours

Third Year (Second Semester and
additional time to total ten calendar months.)

Clinical Training (at affiliating hospitals)	
Neurology and Psychiatry 330	3 semester hours
Clinical Subjects 332	4 semester hours
Clinical Observations 334	4 semester hours
Social Service in Hospitals 351	3 semester hours
Hospital Case Studies 352	3-4 semester hours
Undifferentiated Credit	9 semester hours

Note.—1. Thirty semester hours of college credit (as listed in the first year above) must be earned before the student is admitted to the School of Occupational Therapy. This admittance is based on the approval of the applicant by the Coordinating Committee of the school, on the basis of general aptitude for the work and the scholastic record submitted with the special application blank.

2. The student may take the required ten calendar months of clinical training in either of these two ways; (a) two months between the second and third years and eight consecutive months following the first semester of the third year, or (b) ten consecutive months following the first semester of the third year.

3. Granting of the Diploma of Occupational Therapy and registration in the American Occupational Therapy Association is conditional upon the student's passing a comprehensive examination over all required work. The student must return to the school following clinical training to take this examination and for graduation.

4. A course in library methods is required.

5. A course in rehabilitation lectures is required.

6. Four class hours of physical education are required. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

7. This curriculum is open to women students only.

SOCIAL WORK*

First Year

Rhetoric 106A, B	6 semester hours
General Biology 100A, B	8 semester hours
Modern Europe 108A, B or Foundations of Western Civilization 100A, B (unless the student plans to take United States history in the sophomore year)	6 semester hours

Second Year

Principles of Sociology 241	3 semester hours
Modern Social Problems 242	3 semester hours
General Psychology 200	3 semester hours
Principles of Economics 220A, B	6 semester hours
United States History 201A, B (unless the student has taken the history suggested for the freshman year)	6 semester hours

Third Year

Advanced Rhetoric 323	2 semester hours
Any 2 or 3 of the following advanced sociology courses:	
Social Psychology 243	2 semester hours
Problems of Family Life 247	3 semester hours
Criminology 342	3 semester hours
Mental Deficiency 332	2 semester hours
Mental Hygiene 335	3 semester hours
American National Government 230	3 semester hours
American State and Local Government 231	3 semester hours

Fourth Year

Any 1 or 2 of the following (to complete 4 required courses in advanced sociology):	
Rural Sociology 245	3 semester hours
Urban Community 340	2 semester hours
Population 343	3 semester hours
Social Control 441 (158)	3 semester hours
Cooperative Social Organization 445 (162)	2 semester hours
Principles of Social Work 348	4 semester hours
Social Work Practice 349	3 semester hours
Clinical Psychology 309	2 semester hours

Note.—*Professional training for social work is today largely restricted to the graduate level by the leading schools of social work. This pre-professional curriculum permits from 49 to 53 hours of electives, only recommended courses being indicated in the above outline. Therefore students pursuing it should plan to complete a curriculum conforming to the degree requirements. Social science should be the field of major sequences, while a minor sequence may be chosen from any field of special interest to the student. If a certificate in teaching is also desired, courses must be selected so that the requirements in one of the certificate curricula are fulfilled.

VOCATIONAL EDUCATION CURRICULA

Western Michigan College of Education accepts as one of its functions the training, on a pre-service as well as in-service basis, of persons interested in acquiring technical instruction of a highly specialized character. At present there is a fairly wide range of instructional programs offered in Business Administration, Home Economics, Industrial Arts, and Trade and Industrial Education. The primary objective of these curricula is training for vocational competency. Some of the courses of study are open to youths and adults whose academic background does not necessarily include subject matter sequences required for regular college admission. In most cases, however, the student should present evidence of high school graduation, or certain occupational experiences indicating that he could profit from the instruction.

Employees in offices, stores, and industries may be admitted as special students in the in-service vocational courses without reference to previous school experience, provided they are recommended for such training by a responsible official of the employing firm.

Business Administration

In the field of business, there are at present three programs available to the student interested in qualifying for selling, secretarial, or junior administrative positions. The two-year terminal curricula in retail selling and secretarial practice accommodate students who wish to secure comprehensive occupational training on a standard college basis but who do not choose to remain in college for the full four-year course. Both of these programs are on a co-operative work-and-study basis, thus assuring the student of every available opportunity to meet, on a practicable paid basis, the requirements of the full-time job for which he is preparing. For students interested in preparing for a career in business on a junior administrator level, the Department of Business Education makes available a four-year vocational training program in secretarial science and office management.

Home Economics

Short courses are offered to the adults of the community. These courses consist of various units in nutrition, clothing, home furnishings, consumer buying, etc., of interest to the group. College credit is not given.

The Home Economics Department does not at the present time offer a specific curriculum for the training of dietitians. As the program expands, courses will be added to qualify students for this field. At present students may take two years at Western and then transfer to another institution.

Industrial Arts

This department offers a wide variety of opportunities for vocational training. The areas of instruction cover woodwork, drawing, printing, and metal shop. All the elementary courses are open to women, especially in the field of printing. The student may pursue courses leading to a high degree of vocational competency and qualify for jobs in the printing trades.

Trade and Industrial Education

Courses are offered for aviation mechanics, machine tool operators, machinists, tool and die makers, sheet metal workers, arc and oxy-acetylene welders, radio service and communications specialists, shop maintenance, cabinet making, pattern making, shop mathematics, blueprint reading, and machine drafting. Courses are set up in units. Each unit can be completed in eighteen weeks.

Note.—Students can begin courses on the first day of any calendar week following proper enrollment and payment of tuition and fees.

SECRETARIAL SCIENCE AND OFFICE MANAGEMENT

B.S. Degree

In keeping with the increasing opportunities for young women in supervisory and junior administrative positions in business offices, the Department of Business Education announces the curriculum in Secretarial Administration, beginning in 1945-1946.

First Year

Rhetoric 106A, B	6 semester hours
*Secretarial Science 130A, B	10 semester hours
College Algebra and Analytic Geometry 104A, B	10 semester hours
*Introduction to Economics 120A, B	4 semester hours

Second Year

*Accounting Principles 211A, B	6 semester hours
Principles of Economics 220A, B	6 semester hours
*Secretarial Practice 230A, B	4 semester hours
Language or literature	6-8 semester hours
Fundamentals of Speech 105A, B	6 semester hours
Elective	2-0 semester hours

Third Year

*Office Organization and Management 239	3 semester hours
*Business Law 320A	3 semester hours
*Business Correspondence 330	3 semester hours
Advanced Rhetoric 323	2 semester hours
General Psychology 200	3 semester hours
Introduction to Statistics 211	2 semester hours
Electives	14 semester hours

Fourth Year

*Personnel Administration 336	3 semester hours
*Business Problems 339	3 semester hours
Psychology of Personality 207	2 semester hours
Electives	22 semester hours

Note.—1. *Courses required for a major sequence in this curriculum are starred.

2. Physical education: Women are requested to take ten class hours, including Physical Education 100 and one individual sport. Men are required to take ten class hours (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

3. A course in library methods is required.

COOPERATIVE PROGRAM IN RETAILING (Two Years)

A two-year curriculum designed to prepare students for work in the field of retailing. This work is organized on the cooperative plan which combines classroom instruction at the college in the morning, and, with the cooperation of the merchants of Kalamazoo, employment for actual experience in the local stores during the afternoon and Saturday.

Entrance requirements: high-school graduation, recommendation of the high-school principal, aptitude for store work, and approval of the Department of Business Education.

Successful completion of the course leads to a diploma in retailing. If, at a later date, such students desire to secure a degree, credit obtained for work taken in the two-year program may be applied toward degree requirements, (see degree requirements, pages 77 to 84) provided regular college entrance requirements are met.

Students enrolled in this course will have the opportunity, in addition to taking the specialized courses in retailing, to elect such other college courses as will fit their needs and their schedules, abilities, and work programs will permit. Students should consult their faculty adviser before making a selection of electives.

First Year

Retail Records 111	3 semester hours
Fundamentals of Retailing 140A, B.....	6 semester hours
Retail Merchandising 141	3 semester hours
Retail Salesmanship 150	3 semester hours
Merchandise and Job Analysis 151A, B	6 semester hours
Personal and Social Problems 120	1 semester hour
Electives	8 semester hours

Second Year

Interior and Window Display 224.....	2 semester hours
Retail Credit and Collections 241	3 semester hours
Store Organization 251A, B	4 semester hours
Retail Publicity 240	3 semester hours
Coordinated Business Experience 200A, B	2 semester hours
Electives	16 semester hours

Note.—1. Physical education: Women are required to take four class hours including Physical Education 100, and one individual sport. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

2. A course in library methods is required.

COOPERATIVE PROGRAM IN SECRETARIAL TRAINING (Two Years)

This curriculum is intended primarily for those students who wish to qualify for various types of clerical and stenographic positions while enjoying the advantages of social and cultural contacts available to regular college students. The courses are so organized that the student may get basic training in fields other than vocational.

Entrance requirements: high-school graduation, recommendation of high school principal, and approval of Department of Business Education.

An important feature of this course is the requirement that the student accept part-time employment during the second year. The work experience is a definite part of the instructional plan of the program and is under the direction of a co-ordinator.

Graduates of this course receive the Secretarial Diploma and are assisted by the college and departmental placement offices in securing suitable full-time positions.

High-school graduates who are admitted to this curriculum without having the regular college entrance sequences may qualify for a degree by removing the deficiencies.

Enrollment in this curriculum is definitely limited. Therefore, students desiring to pursue this curriculum should make application at least thirty days before the date of actual matriculation.

First Year

Rhetoric 106A, B	6 semester hours
Introduction to Economics 120A, B	4 semester hours
Business Mathematics 120	2 semester hours
*Secretarial Science 130A, B	10 semester hours
Personal and Social Problems 120	1 semester hour
Electives	7 semester hours
Physical education	

Second Year

Secretarial Accounting 211A, B	6 semester hours
Principles of Economics 220A, B	6 semester hours
Secretarial Practice 230A, B	4 semester hours
Filing Principles and Techniques 236	2 semester hours
Electives	10 semester hours
Physical education	

Note.—1. * Students who have not had shorthand or typewriting in high school should register for Shorthand and Typewriting 100A.

2. Students should consult their faculty adviser before making their selections for electives.

3. Physical education: Women are required to take four class hours including Physical Education 100, and one individual sport. Men are required to take four class hours. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

4. A course in library methods is required.

TRADE AND INDUSTRIAL EDUCATION**AVIATION MECHANICS CURRICULUM (Two Years)**

This two-year curriculum is offered to students who wish to enter the field of aviation for their life work. Special preparation is given for service and maintenance positions with the airlines, repair depots, and commercial and private owners of aircraft.

Twenty-five to thirty hours per week in shop work and related subjects are offered in a modern, well-equipped, government-approved repair station located in the Mechanical Trades Building. All repair work on airplane engines and aircraft structures is supervised by licensed mechanic instructors. A major part of the instruction is given on aircraft to be re-licensed after repairs and the overhaul are completed. Facilities leased at the Municipal Airport provide inspection and service of licensed aircraft used in daily flight operations.

An accurate log book is kept by each student, listing repairs and service work completed. This log is retained by the student as evidence of practical experience. A student who is recommended may write the government-sponsored examinations for the airplane mechanic's or the airplane-engine mechanic's license. A diploma is granted upon successful completion of the course.

Specialist ratings can be acquired in machine shop, sheet metal, welding, hydraulics, propellers, instruments, and aircraft radio. These ratings are of interest to those preparing to enter the armed services as ground mechanics.

Ground School courses are offered in preparation for the private and commercial pilot certificate of aeronautical knowledge. These courses are adapted to teachers preparing to offer pre-flight aeronautic courses sponsored in many high schools. Flight training can be included for those actively interested as flight instruction is to be made available at nominal cost.

MACHINE SHOP CURRICULUM (Two Years)

This two-year curriculum is offered to students who wish to enter the machinist's trade. The curriculum consists of a number of unit courses which are based upon the training needs of machine tool operators. With this arrangement, the special training needs of each individual can be met. The machine tool operator need elect only one course covering a specific machine and include the related subjects applying, to complete training in a four-month period. The machinist elects a series of unit courses and related subjects courses to complete two years of training as a machinist.

RADIO CURRICULUM (One Year)

Basic training for the radio service mechanic, with related subjects that lead to Federal Communications Commission operators' permits and examinations, and knowledge and skill necessary to service and operate all forms of radio and electronics equipment.

SHEET METAL CURRICULUM (One Year)

The curriculum covers most phases of sheet metal layout and construction of small production parts, blowpipe fabrication, and cabinet sheet metal fabrication accompanied by a comprehensive course in sheet metal drafting.

TOOL AND DIE MAKING CURRICULUM (One Year)

This course leads to the development of superior skills in the precision operation of machine tools. Special tools, jigs, fixtures and dies to blank, bend, form, or mould duplicate parts, designed, fabricated, and tested on production runs in the machine shop.

TRADE DRAFTING CURRICULUM (One Year)

Practical work assignments are given at the start, involving sketching of machine parts. Blueprints are examined and explained to acquaint the student rapidly with the conventions and symbols used in machine drafting. The machinery handbook is used for reference to familiarize the student with materials, specifications and tolerances, limits and standards common to production work. Detail design from assembly sketches of small machines, giving a consideration of production costs in overhead, labor, and materials.

TRANSPORTATION MAINTENANCE CURRICULUM (One Year)

Basic training for automobile service men involving theory and practices in automotive service and maintenance. Includes opportunity for specialization in the different service areas, as engine tune-up, brakes, metal finishing etc.

WELDING CURRICULUM (Eight Months)

A combination course to train gas welding operators and arc welding operators leads to qualifying tests for certified welders.

GRADUATE DIVISION

ADMINISTRATIVE OFFICERS

ELMER H. WILDS, Ed. D., Director of the Graduate Division
HELEN A. MCKINLEY, Secretary of the Graduate Division

ADVISORY COUNCIL

WILLIAM J. BERRY
ELDA O. BAUMANN
LEONARD C. KERCHER

GERALD OSBORN
PAUL ROOD
MATHILDE STECKELBERG

ELMER H. WILDS, Chairman
HELEN A. MCKINLEY, Secretary
PAUL V. SANGREN, Ex Officio

FACULTY

Elda O. Baumann, Ph.D., Professor of English
William J. Berry, Ph.D., Professor of Geography
Howard F. Bigelow, A.M., Professor of Economics
William R. Brown, Ph.D., Professor of English
Lofton V. Burge, Ph.D., Professor of Education
Charles H. Butler, Ph.D., Professor of Mathematics
Roy C. Bryan, Ph.D., Professor of Education
George O. Comfort, Ph.D., Professor of Political Science
Manley M. Ellis, Ph.D., Professor of Education
Louis Foley, A.M., Professor of English
Deyo B. Fox, Ph.D., Professor of Vocational Education
Orie I. Frederick, Ph.D., Professor of Education
Wallace A. Garneau, A.M., Professor of Speech
Lucia C. Harrison, S.M., Professor of Geography
George H. Hilliard, Ph.D., Professor of Education
Frank J. Hinds, A.M., Professor of Biology
Leslie A. Kenoyer, Ph.D., Professor of Zoology
Leonard C. Kercher, Ph.D., Professor of Sociology
James O. Knauss, Ph.D., Professor of History
Edwin M. Lemert, Ph.D., Professor of Sociology
Margaret E. Macmillan, Ph.D., Professor of History
Arthur J. Manske, Ph.D., Professor of Education
Floyd W. Moore, Ph.D., Professor of Economics
Lucille A. Nobbs, A.M., Professor of English
Gerald Osborn, Ph.D., Professor of Chemistry
Paul Rood, Ph.D., Professor of Physics
Nancy E. Scott, Ph.D., Professor of History
D. C. Shilling, Ph.D., Professor of Political Science
George Sprau, A.M., Professor of English
Arthur L. Walker, A.M., Professor of Business Education
Wilbur D. West, Ph.D., Professor of Physical Education
Elmer H. Wilds, Ed.D., Professor of Education

INFORMATION

General Statement

The Board of Regents of the University of Michigan at its meeting in July, 1938, passed a resolution approving a formal request from the State Board of Education that the University of Michigan cooperate with the four Michigan Colleges of Education in planning a graduate program of instruc-

tion. According to the action, a Graduate Division, organized and administered in cooperation with the University, has been set up at Western Michigan College of Education. All courses given in the Graduate Division are offered by instructors who have been given the status of graduate lecturer by the Executive Board of the Graduate School of the University. All courses given in the Graduate Division constitute a part of the regular program of instruction of the University and carry both course and residence credit toward the master's degree. Most courses are strictly of a graduate nature and do not give undergraduate credit. Some courses are open to well-qualified seniors, who are admitted on approval of the director of the Graduate Division.

Organization

Graduate courses have been offered by the Graduate Division of Western Michigan College of Education since February, 1939. The graduate courses for which credit is given have been selected through cooperation of the Advisory Council of Western Michigan College of Education and the Adviser to the College from the University of Michigan, but these courses are under the control of the Executive Board of the Graduate School of the University of Michigan. The work is conducted as a part of the regular program of the University of Michigan Graduate School.

An attempt is made to keep the work balanced by offering a considerable proportion of the courses in cognate fields and, at the same time, by giving all courses in Education for which there is a demand. Courses give two or three semester hours credit. The courses offered are open, not only to students just entering upon a program of advanced study, but also to those who have already completed some of the work for advanced degrees at the University of Michigan. Such students should ascertain in advance whether the particular courses offered may be included as a part of their program for the master's or doctor's degree.

Admission

The privileges of admission are open to students who hold the bachelor's degree, or its equivalent, from schools of recognized standing and who are otherwise qualified to pursue with profit the work offered. Undergraduates within six hours of graduation may enroll in the Graduate Division and take graduate courses while completing their undergraduate work.

In order to be admitted to the courses offered, the student must comply with regulations of the Graduate School, which are as follows:

1. Two complete official transcripts of scholastic records to date should be sent to the Graduate Office, in advance of registration. The transcript should specify degrees obtained, courses completed, scholarship grades attained, and the basis of grading. One copy of the transcript is kept permanently on file in the Graduate School Office at Ann Arbor, and another in the Graduate Division Office at Western Michigan College of Education.

2. A student who wishes to become an applicant for an advanced degree must indicate in his request for admission to graduate study a field of specialization; a student who is not an applicant for a degree is held to no special requirements, but he must furnish evidence of graduation from a recognized college.

3. Application for admission blanks may be secured from the Graduate Division Office, Room 106, Administration Building.

Students who fail to make previous arrangements for admission may submit their credentials to the Director of the Graduate Division and be given tentative admission, pending review by the Dean of the Graduate School. Students who plan to begin their graduate work in the Graduate Division of Western Michigan College of Education may make application on blanks provided for that purpose by the Director of the Graduate Division, and may have their transcripts sent directly to his office. Graduates of Western Mich-

igan College of Education may have their transcripts automatically transferred by filling out these application blanks.

Course Requirements

Every student planning to work toward a degree is expected to acquire an intimate knowledge of his field of study and the methods employed in that field so that he will be able to approach his subject in an independent and critical spirit. A mere accumulation of credits is not advisable. A student should have in view a fairly complete program of studies before enrolling in the courses offered. The Director of the Graduate Division will assist the student in formulating such a program and recording it on the Schedule of Study blank which must be reviewed by the Graduate Adviser to Western Michigan College of Education and submitted by him to the Dean of the Graduate School for approval. Alterations in the program, resulting from the dropping or adding of courses, must receive approval in similar fashion.

Degrees

All degrees are awarded by the University of Michigan. Students taking work in the Graduate Division shall be permitted to complete such requirements for the master's degree as may be satisfied by courses offered in the Division. Unless specifically stated otherwise, a minimum of one summer session of full-time work on the campus of the University of Michigan is required of all applicants for the master's degree. Courses may be taken in the Graduate Division for credit toward the doctor's degree. All doctoral students must meet the admission requirements of the Graduate School of the University of Michigan in full and should be approved by their department of specialization before proceeding very far with their work. Doctoral students are required to fill in the first two pages of the Schedule of Study form, but the actual outlining of their programs may wait until they can confer with their advisers. No student can have a doctoral committee appointed until the Schedule of Study form is on file.

Residence Requirement

The minimum amount of credit which must be earned in residence is eighteen hours. The residence requirement may be met by attendance in any of the Graduate Centers of the University of Michigan. The eighteen-hour minimum residence requirement must be supplemented by acceptable credit to the extent of six hours, which if not also taken in residence may be advanced credit for work taken in a recognized graduate school of another institution, or University of Michigan Extension credit.

Time Limitation

A student enrolled after September, 1935, must complete the work for the master's degree within six consecutive years after his first enrollment in the Graduate School. The time limit for acquiring the degree will be extended during the *period of the present emergency* in all cases when a student can present satisfactory evidence that he has been engaged in active government defense service which prevented him from continuing his graduate work.

Credit Requirement

The minimum credit requirement for the master's degree (Master of Arts or Master of Science) is twenty-four hours. This minimum is sufficient, however, only if the student's undergraduate record is satisfactory both as to quality of work done and quantity in relation to the proposed program of graduate work. This minimum also presupposes the preparation of a mas-

ter's thesis. In satisfying the twenty-four-hour requirement for the master's degree the following conditions must be met: (1) at least twelve hours must be earned while the student is carrying a full-time program of work during a term or during two summer sessions, with attendance during one of the summer sessions or its equivalent being on the campus at the University of Michigan; (2) at least twelve hours must be earned in courses in which enrollment is restricted to graduate students. A student must complete his master's work within six consecutive years after the first enrollment in the Graduate School.

Substitution of Course Work for Thesis

After a student has completed twelve hours of his graduate work, he may exercise the option of taking six hours of work in lieu of the thesis, thus making the credit requirement thirty hours without a thesis. If a student desires to substitute six hours work in lieu of the thesis, he will obtain a petition blank from the office of the Director.

The substitution of six hours of course work for the thesis does not remove the requirement of two seminars (or B192 or C192 and one seminar). An individual intending to go on for the doctorate must prepare a master's thesis or its equivalent. Usually the courses to be substituted consist of two courses in Education and one cognate course.

Seminar Requirement

In so far as possible, two types of seminars are provided: (a) for those students preparing a master's thesis, and (b) for those not preparing a thesis. Under most circumstances Education B192, or its equivalent, is prerequisite or must be taken simultaneously with either type of seminar. Those not preparing a master's thesis usually elect Education B192 or C192 and one seminar; those preparing a master's thesis, two seminars, although if they complete the thesis in one, some other course may be substituted for the second seminar. Most seminars are specifically designed to aid students in bringing the thesis to completion. It is permissible to begin the preparation of a thesis in any one of the non-seminar courses (consult instructors and advisers about this).

Scholarship Requirement

Students who desire credit must meet all the requirements set by the instructor with reference to attendance, supplementary reading, term reports, examinations, etc. The master's degree is awarded only to those students who maintained an average of B in all their work. An average grade of B is required for graduation. A grade lower than B for a given subject does not necessarily bar a student from obtaining credit for a graduate course, provided such a grade is balanced by other work of uniformly high character. Hours of D and E grades are used to determine the average grade of each student, but are not included in the number of hours required for the degree. A graduate student will not be allowed credit for a course unless it is completed and reported in the office of the Graduate School within a year of the official termination of the course.

Graduate students are subject to the rules of the Dean of Men and the Dean of Women and to other general regulations of Western Michigan College of Education.

For a student devoting full time to graduate study, the normal load during a term is twelve hours; the maximum program of work allowed during a six weeks summer session is six hours. A student who enrolls in both the eight weeks and the six weeks summer session will be allowed to earn a maximum of eight hours credit provided he enrolls in two three-hour courses of the eight weeks session and one two-hour course of the six weeks session. During a term the program of work done by students devoting only part time to gradu-

ate study and paying the reduced schedule of fees varies from two to six hours, but no student in part-time attendance who is engaged in full-time teaching of other such employment shall be allowed to elect more than four hours of work during a term. During the summer session the program of work for such students will be determined by the Director of the Graduate Division according to the proportion of the student's time available for graduate study.

The Permanent Teacher's Certificate

The candidate for the secondary permanent certificate must earn ten semester hours of residence credit. The State Certification Code recommends that this be obtained in *graduate courses* leading toward the master's degree. The required ten hours may be earned in either a subject-matter or a professional field; the program to be followed is determined in each case by the present and probable future needs of the individual. Although the candidate for the elementary permanent certificate is not required to earn additional semester hours of credit, there are undoubted advantages to be gained from taking graduate work during the provisional period. The Director of the Graduate Division of Western Michigan College of Education will advise students in regard to desirable graduate courses available for this purpose in this and in other institutions. Even though the candidate plans to secure his permanent certificate through the institution in which he completed the requirements for the provisional certificate, he may take all or part of the required ten hours at Western Michigan College of Education.

Probably the most satisfactory way to meet the course requirements for the permanent certificate is to pursue work toward the master's degree. The attainment of the degree will not only insure meeting the credit requirements for the permanent certificate but will also improve the opportunities for advancement in the teaching profession. The Director of the Graduate Division will be glad to discuss with candidates the possibilities of satisfying the requirements for the permanent certificate while at the same time working toward the master's degree.

Registration

Registration for the first semester of the Graduate Division will be on Saturday, October 27, 1945, from 9 to 12 A.M. and from 1 to 4 P.M. Registration for the second semester will be on Saturday, March 2, 1946, at the same hours. All students who enroll later than these dates must pay in addition to the regular fee a penalty of one dollar for each day of late registration until a maximum penalty of three dollars is incurred.

Registration will take place in the Graduate Division Office, Room 106, Administration Building.

All Saturday classes for the first semester will begin on Saturday, November 3, and will continue through Saturday, February 23. All Saturday classes for the second semester will begin on Saturday, March 9, and continue through Saturday, June 15. Weekday evening classes during both semesters will meet during the week preceding the Saturday classes. Most classes meet two class hours each Saturday during the semester. All courses give two semester hours credit. (Consult Schedule of Classes for instructors, hours, and places of meeting). Prerequisites for a course should be carefully determined by the student before enrolling in the course. Generally speaking, prerequisites for courses are, in addition to graduation from a four-year curriculum in an accepted college or university, one year of work of college grade in the field of the subject elected. In some cases, courses may require specific prerequisites or an amount of prerequisite credit in excess of the general requirement.

Fees

The semester fees must be paid in advance and no student can enter upon his work until after such payment. These fees are payable at the beginning of the first semester in October and at the beginning of the second semester in March. The fees are as follows:

Fee for each semester	Michigan Students	Nonresident Students
More than six credits	\$60	\$100
Six credits	45	60
Four credits	32	42
Two credits	16	26

In case of complete voluntary withdrawals after the beginning of any one semester, refunds are made as follows:

100 per cent—up to two weeks

50 per cent—more than two weeks and less than four weeks

40 per cent—more than four weeks and not later than eight weeks

Undergraduates who, at the beginning of a given semester, are within six semester hours of graduation or, at the beginning of a summer session, within four hours of graduation are permitted to register in the Graduate Division. Such students must complete the undergraduate requirements and receive the bachelor's degree while doing work in the Graduate Division during the first semester or summer session there. These students must register for such work at the Graduate Division Office.

Undergraduate students who wish to carry graduate courses for undergraduate credit (numbered in the 400 group) must secure written permission from Dr. Elmer H. Wilds, Director of the Graduate Division, but enrollment should follow the regular plan for undergraduates.

For students who are within six hours of graduation and who enroll in a combination program of graduate and undergraduate work, the fees are as follows:

1. Undergraduate students who elect five or more hours in the Graduate Division shall pay the announced fee of \$60.00 for Michigan students and \$100.00 for nonresident students for full-time enrollment in the Graduate School; but no additional fees will be charged for undergraduate work. This fee of \$60.00 is paid in the Graduate Office but covers both graduate and undergraduate enrollment.

Undergraduate students who elect less than five hours in the Graduate Division shall pay the usual part-time undergraduate enrollment fees and the part-time graduate fees covering the work they elect.

Other Information

For details concerning other information, see the *Announcement* of the Graduate Division, Western Michigan College, and the *Announcements* of the Graduate School and of the School of Education, University of Michigan, and the booklet, *Advanced Study in Education*, prepared by the School of Education, University of Michigan.

Questions not answered by these sources should be addressed to Dr. Elmer H. Wilds, Director of the Graduate Division, Western Michigan College of Education, Kalamazoo, Michigan.

DETAILS OF DEPARTMENTAL COURSES*

AGRICULTURE

HOWARD D. CORBUS

Revisions of course offerings in the Department of Agriculture, because of war conditions, will be made within the named courses, rather than by special courses with added designations. Special courses that are requested as a result of war conditions will be offered, and the contents of all regular courses will also be modified in the light of present conditions. The present courses in the Department of Agriculture have been selected to fit particular conditions that have existed for some time and there seems to be assurance that after the war they will be as basic and useful as they ever were.

For these reasons, the outline of a combination of courses in Western Michigan College of Education, such as is given on page 97, with a view toward preparation for more advanced work in agriculture in the College of Agriculture, has been included in this catalog.

Courses in agriculture are planned to serve three and possibly four groups of students enrolled in the college. Students in one of these groups are preparing to teach either in one-teacher rural schools or in consolidated rural schools with elementary grades in which the pupils come from rural homes. The teacher in such a position should be well informed about the environment and means of support of people in a rural district.

A second group of students includes those who enroll in a pre-professional curriculum with the intention of finishing their work in a college of agriculture, forestry, or veterinary science, to which their credits may be transferred.

A third group consists of those who are preparing to teach courses in agriculture and science, and perhaps shop courses, in consolidated rural high schools or agricultural schools.

Still other students, in whatever curriculum enrolled, who wish to know more about the general field of agriculture as an important national industry, may constitute a fourth group. A group of agriculture courses may be combined with other science courses, such as biology or geography or chemistry, to form "group" or "combination science" majors. A good selection of related minors is also desirable, such as manual arts, geography, etc.

Special effort has been made to fit courses into the rural education curriculum, and combinations have been arranged to fit the needs of small high schools. Those preparing to teach courses in agriculture in secondary schools should choose Animal Husbandry 106, 107, 108; Soils 201; Farm Crops 202; Horticulture 203. Rural School Agriculture 105 is planned to assist rural elementary teachers to understand the agricultural problems in connection with their school work in districts where farming is the main source of income. A well-stocked, fertile, demonstration farm provides opportunity for first-hand observation and for participation in actual farm experiences.

The described courses are not being offered in 1945-1946 except by special arrangement with the instructor.

105. Rural School Agriculture. 3 semester hours. Mr. Corbus.

This course is planned to assist teachers who are going into rural schools in districts where farming provides the main source of cash income. Attention is given to the sources and amounts of cash likely to be derived from farm enterprises in such districts, to the environment that surrounds the rural pupil during the time he is not in school, to the major problems confronting patrons of rural school, to adaptation of elementary science work to the nature of the pupils' experiences, and to intelligent counsel with pupils regarding their personal problems.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group II.

*Note.—1. For information regarding the significance of course numbers and credit for courses see pages 49 and 50.

106. Animal Husbandry. 3 semester hours. Mr. Corbus.

This course deals with market types, classes, grades, and breeds of cattle, hogs, sheep, and horses from the farm-use standpoint. Consumer problems in meat consumption are linked with producer and breeder problems. The origin of types and breeds is studied with the purpose of meeting demands with a satisfactory supply. Utilization of the products of farm enterprises, as wool, meats, etc., is studied.

107. Animal Husbandry. 3 semester hours. Mr. Corbus.

This course concentrates on the dairy industry, particular attention being given to the nature and properties of the salable products and the systems used in manufacturing and distributing these products to the consumer. The feeding of animals as a means of furnishing raw materials for conversion into usable animal products, and animal feeding from the economic standpoint are considered.

108. Animal Husbandry. 2 semester hours. Mr. Corbus.

The subject of poultry is considered, both as a separate specialized type of industry and as a supplementary farm enterprise. Size of business, investment, selection of types and breeds, and equipment are studied. Attention is given to the problems of getting established in the various poultry enterprises, their approximate incomes, expenses, and handicaps.

201. Soils. 3 semester hours. Mr. Corbus.

Soils and their management are studied as the source of livelihood, not only of those living on farms but also of others in related occupations. Soil types, productivity, and methods of building and maintaining fertility are studied. Observations of actual soil management are made on the college farm: profiles, soil-erosion controls, commercial-fertilizer applications, liming, and organic-matter content are seen and studied on this representative, family-sized farm. Laboratory exercises to illustrate important principles are used in addition to classroom work.

202. Farm Crops. 3 semester hours. Mr. Corbus.

This course deals with practices used to supply farm products for direct cash sales, or indirect cash production through feeds for farm animals. Improved practices in crop and soil management, better seed, more efficient culture, and better marketing are studied in connection with the survey of our domestic crops. The probable cash income from the production of these crops is used in the economic study of farm life.

203. Horticulture. 2 semester hours. Mr. Corbus.

Horticulture is studied in its several divisions—the growing of fruits, vegetables, and flowers and landscape decoration or home beautification. Consideration is also given to the size, location, production problems, and returns when these enterprises furnish the money needed to support a farm home. The commercial fruit industry is compared with general farm supplementary fruit work, as to the incomes and handicaps of each. Commercial nurseries, the college farm, and local greenhouses offer opportunities for class visitation.

310. Organization in Agriculture. 1 semester hour. Prerequisite: 8 semester hours in agriculture. Mr. Corbus.

The purpose of this course is to outline the developments in the improvement of agriculture through education. A survey will be made of the early efforts to extend information about agriculture by way of farmers' clubs, granges, and cooperative associations; of the later organization of courses in college, secondary school, and elementary school, and extension work with adults and 4-H clubs; and of the new developments in evening agricultural schools and part-time classes.

Another objective is to show where and how education in agriculture fits into the general school system.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group II.

THE COLLEGE FARM

The college owns a 150-acre farm, located on the regular route between the college campus and the Portage Training School. The farm has modern equipment, and is stocked with a dairy herd and poultry. Demonstrations of approved farm practices are available to students.

ART

LYDIA SIEDSCHLAG
JOHN G. KEMPER

HAZEL I. PADEN
ELAINE L. STEVENSON

Many courses in the Department of Art are designed for students not particularly talented in art, but interested in finding a field of art in which they may do well. Suggested courses which require no prerequisite other than a marked desire to participate in art experiences are:

Elementary Design 105
Art Structure 106
Illustrative Handwork 107
Lettering and Poster Making 108
Industrial Art 110
Modeling 111
Art Appreciation 113A, B

Any one of the following groups of courses constitutes a year's sequence in art.

- (a) Art Structure 106 and Industrial Art 110
- (b) Art Structure 106 and Illustrative Handwork 107
- (c) Art Structure 106 and Figure Drawing 205
- (d) Art Structure 106 and Demonstration Drawing 301T
- (e) Art Structure 106 and Lettering and Poster Making 108
- (f) History of Art 213A and History of Art 213B
- (g) Art Appreciation 113A and Art Appreciation 113B

A minor in art consists of: Art Structure 106, Elementary Design 105, Art Appreciation 113A, B or History of Art 213A, B, and art electives to complete 15 semester hours of credit.

A major in art consists of:

Elementary Design 105	3 semester hours
Art Structure 106	3 semester hours
Industrial Art 110	2 semester hours
Figure Drawing 205	3 semester hours
Art Composition 208	3 semester hours
Commercial Art 214	3 semester hours
History of Art 213A	3 semester hours
History of Art 213B	3 semester hours
Demonstration Drawing 306	2 semester hours

Art Observation 300T and Supervision 302T are offered as required educational courses for art majors.

105. Elementary Design. 3 semester hours. Miss Siedschlag.

A beginning course in art structure, emphasizing principles of design and color theory and their application to the making of original borders, surface patterns, and other art problems.

106. Art Structure. 3 semester hours. Miss Paden, Miss Stevenson.

This course is especially arranged to help the student to direct art activities in the grades. The semester's work includes lettering, design, color theory, drawing, cut-paper problems, and holiday projects, together with methods of presenting problems and developing a greater appreciation of art among children.

107. Illustrative Handwork. 3 semester hours. Mr. Kemper.

An elementary course in crafts, with emphasis on the doing process and allowing for the individual creative release achieved through the handling of different materials. Problems relate to interests in primary grades.

A fee of fifty cents will be charged for materials.

108. Lettering and Poster Making. 2 semester hours. Miss Stevenson.

Special problems for grades; poster work to advertise school activities. The work has been planned to be of special help to students other than those specializing in art.

110. Industrial Art. 2 semester hours. Miss Stevenson.

A studio course in crafts, designed to meet needs of groups with varied interests.

A fee of fifty cents will be charged for materials.

111. Modeling. 3 semester hours. Miss Siedschlag.

A general course offered to students in all departments. The course includes the designing, building, and casting of pottery; and the use of the potter's wheel and kiln for modeling with clay, firing, and glazing.

113A. Art Appreciation. 1 semester hour. Mr. Kemper, Miss Stevenson.

This course aims to develop aesthetic judgment. A brief survey of the history of painting, with special attention to modern painting is given.

113B. Art Appreciation. 1 semester hour. Prerequisite: Art Appreciation.

113A. Mr. Kemper, Miss Stevenson.

A brief survey of the history of sculpture, architecture, and minor arts is given.

201. Free Brush. 2 semester hours. Miss Paden.

A method of spontaneous drawing and designing, using large brushes, ink, and poster paints.

205. Figure Drawing. 3 semester hours. Prerequisite: Art Structure 106 or consent of instructor. Miss Siedschlag.

Anatomy of the human figure is studied. Rapid sketches, line drawings, and memory sketches are made, after which the work progresses from gesture lines, shadow edges, paneling, and contour drawing to finished drawings. Mediums—pencil and charcoal.

208. Art Composition. 3 semester hours. Prerequisite: Art Structure 106, Elementary Design 105. Miss Paden.

A study of composing within a given space figures, landscapes, flowers, birds, and animals, emphasizing unity, spacing, distribution of dark and light; study of tone relationship and color harmony. Mediums used are show-card paints, charcoal, pen and ink, and linoleum cuts. Christmas cards for the annual sale are designed in this class.

209. Costume Design. 2 semester hours. Miss Volle.

For description of course see Department of Home Economics, page 165.

212. Handicraft. 3 semester hours. Prerequisite: Art Structure 106, Industrial Art 110, or consent of instructor. Mr. Kemper.

Includes problems in batik, gesso, metal, leather tooling, and other handwork. Emphasis on technique.

213A. History of Art. 3 semester hours. Prerequisite: consent of instructor. Mr. Kemper.

Study of primitive, Egyptian, Chaldean, Greek, and Roman architecture, sculpture, painting, and minor arts.

213B. History of Art. 3 semester hours. Prerequisite: History of Art 213A. Mr. Kemper.

Study of the art of the Renaissance in Europe and of modern and contemporary art in Europe and America.

214. Commercial Art. 3 semester hours. Prerequisite: Art Structure 106 or Elementary Design 105. Mr. Kemper.

This course is designed to offer special work in the study of advertising art. Posters for school and business activities, lettering, typography, package design, and other related problems are studied. Various techniques and media, as well as technical methods used in the reproduction of art work, are discussed.

215. Aesthetic Discernments. 1 semester hour. Mr. Henderson, Miss Loutzenhiser, Miss Siedschlag.

The course takes literature, music, and art and endeavors to point out to students, not necessarily specialists in any of the arts, the common core which permeates all the arts. Common expressions such as organization of form, rhythm, repetition, unity, harmony, tonality are made meaningful through discussion and demonstration by a member of the English, the Music, or the Art Department.

Note.—This course may not be counted toward a major or a minor.

220. Stage Design. 2 semester hours. Not offered in 1945-1946.

A course for art and speech students. Class makes practical use of knowledge of scene painting, lighting, and mechanics of staging, in connection with the midwinter play.

Note.—This course may be counted for credit in speech.

221. Home Furnishing. 2 semester hours. Miss Maurits, Miss Siedschlag.

Color, design, historic furniture, and arrangement of furnishings will be studied.

222A. Therapeutic Crafts (for Occupational Therapists). 2 semester hours. Miss Spear and Mrs. Thomas.

For description of course see Department of Occupational Therapy, page 188.

224. Interior and Window Display. 3 semester hours. Mr. Kemper.

A studio course for art and cooperative retailing students. Window and store display art is studied with emphasis upon color, design, and lettering as related to displays. Attention is given to sources for display materials and services. This course is given in the evening.

300T. Art Observation. 1 semester hour. Miss Paden.

Observation of art activities in the training school, and discussion and illustration of these problems.

302T. Art Supervision. 2 semester hours. Prerequisite: Art Structure 106, Elementary Design 105, Art Composition 208, History of Art 213A, Commercial Art 214. Miss Paden.

A study of the school curriculum and its needs in art activities. A course of study will be outlined and administrative problems discussed. Collections of illustrative material will be cataloged, and equipment and supplies planned.

303. Weaving (for Occupational Therapists). 4 semester hours. Mrs. Thomas.

For description of course see Department of Occupational Therapy, page 189.

- 304. Bookbinding** (for Occupational Therapists). 2 semester hours. Mrs. Thomas.
For description of course see Department of Occupational Therapy, page 189.
- 305. Advanced Figure Drawing.** 2 semester hours. Prerequisite: Figure Drawing 205. Miss Siedschlag.
A continuation of Figure Drawing 205, developing technical skill and imagination.
- 306. Demonstration Drawing.** 2 semester hours. Prerequisite: Art Structure 106. Miss Siedschlag.
A drawing course reviewing perspective, composition, figure, object, and animal drawing.
- 308. Advanced Art Composition.** 2 semester hours. Prerequisite: Art Structure 106, Elementary Design 105, Art Composition 208. Miss Siedschlag.
The work centers about the study of prints and print making, etching, wood block printing, and oil painting.
- 309. Advanced Design.** 3 semester hours. Prerequisite: Art Structure 106, Elementary Design 105, Art Composition 208. Mr. Kemper.
Continuation of Elementary Design 105. Applied Art problems.
- 310. Painting.** 2 semester hours. Prerequisite: Art Structure 106, Elementary Design 105, Art Composition 208, or consent of instructor. Miss Paden.
Painting of still life and landscape, in the studio and outdoors. Water color is used. The course involves the study of composition, color value, and technique.

 BIOLOGY

LESLIE A. KENOYER
LAVERNE ARGABRIGHT
RAYMOND C. DEUR

THEODOSIA H. HADLEY
FRANK J. HINDS
ROY E. JOYCE

EDWIN B. STEEN

To serve as the biological foundation for a cultural education, General Biology 100A, B is recommended.

For students taking the secondary school curriculum, a major sequence consists of Group (a) below and any two of the other groups; a minor consists of Group (a) and any one of the other groups, provided such election will give the required number of hours.

- (a) General Biology 100A, B
- (b) Botany 221A, B
- (c) Zoology 242A, B
- (d) Anatomy 211A and Physiology 211B
- (e) Bacteriology 212A and Community Hygiene 212B
- (f) Hygiene 112, Evolution and Genetics 305, and Human Genetics 306.
- (g) Cytology and Histology 341 and Vertebrate Embryology 342

For students anticipating medicine or dentistry, a major consists of Groups (a) and (c) required, and (d), (e), or (g) recommended. The latter three, however, will not be recognized by medical schools as filling the requirements in these subjects nor will these be accepted as a part of the 90 semester hours required by most medical schools.

For students anticipating forestry, horticulture, or landscape architecture a major consists of Groups (a), (b), and (c).

For special-education students and students interested primarily in social sciences, a recommended major consists of Groups (a), (e), and (f) above.

For physical-education students, required work consists of Groups (a) and (d) above and Hygiene 112. This is the minimum requirement from such students for a minor in biology.

For occupational therapy students, a minor consists of Group (a), Anatomy and Physiology 215, and Neurology and Psychiatry 330.

For special nature-study students the required major in science consists of the following courses:

1. General Biology 100A, B
2. Nature Study 231A, B
3. 8 semester hours chosen from Botany 221A, B; Zoology 242A, B; Bird Study 234; Nature Study Materials and Methods 233S. Geology, chemistry, and physics are suggested as desirable additional courses.

A minor for elementary teachers may consist of the following courses:

1. General Biology 100A, B
2. Nature Study 231A, B

There is a laboratory fee of fifty cents per semester for materials used in biology courses.

GENERAL COURSES

100A. General Biology. 4 semester hours. Mr. Hinds, Mr. Joyce, Dr. Kenoyer, Dr. Steen.

This course, together with 100B, is intended to give the student a general survey of the principles of plant and animal life as part of the foundation for a liberal education or as a basis for the advanced courses in biology. It covers the organization of plants and animals, the general physiology of living things, and a study of the lower plant and animal groups with special stress upon their importance to man.

100B. General Biology. 4 semester hours. Mr. Hinds, Mr. Joyce, Dr. Kenoyer, Dr. Steen.

This is a continuation of 100A, which should precede it, and considers the structure and classification of the higher groups of animals and plants, and the larger aspects of genetics, embryology, evolution, and ecology.

101A. General Biology. 3 semester hours. Mr. Hinds, Mr. Joyce, Dr. Kenoyer, Dr. Steen.

The course is an abridgment of 100A and is offered as an extension course.

101B. General Biology. 3 semester hours. Mr. Hinds, Mr. Joyce, Dr. Kenoyer, Dr. Steen.

This is a sequence to 101A, and is essentially an abridgment of 100B.

204. History of Science. 2 semester hours. Miss Hadley.

A survey of the development of scientific ideas and a study of the lives and achievements of great scientists. Effort is made to develop not only a knowledge of these achievements, but also an appreciation of the problems and painstaking labors of early investigators and the heroism and dramatic significance of their work. Emphasis is placed on the triumphs of science in the present scientific age and the relation of science to present civilization. Historical relations between science and religion are traced.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group II.

205S. Field Biology. 2 semester hours. Not offered in 1945. Dr. Kenoyer.

This course deals with the collection, care, preservation, culturing of, and

techniques for studying both plant and animal forms of the Kalamazoo area. It will be found valuable for the high-school teacher of biology, for the elementary teacher who wishes to develop skill in keeping plants and animals in the classroom, and for all who desire a better acquaintance with the life forms of this area.

304. Methods and Materials in Biology. 2 semester hours. Prerequisite: General Biology 100A, B. Mr. Hinds.

This course is required of applicants for student teaching in biology. It is a laboratory and field course in the preparation and use of biological materials of instructional value. Emphasis is placed on the construction of inexpensive equipment, the maintenance and care of plants and animals under high-school laboratory conditions, and the preparation of teaching collections.

305. Evolution and Genetics. 3 semester hours. Prerequisite: General Biology 100A, B. Dr. Kenoyer.

In the classroom, supplemented by demonstrations, the evidence supporting the theory of evolution is examined. The field of genetics is explored largely from the basis of the significance of hereditary changes in relation to evolution.

306. Human Genetics. 3 semester hours. Prerequisite: General Biology 100A, B. Dr. Kenoyer.

This course considers the principles of heredity and their application to man; sociological problems and their biological basis; and possibilities for the improvement of human society. Classroom work, library studies, and visits to institutions.

ANATOMY, PHYSIOLOGY, AND HYGIENE

112. Hygiene. 2 semester hours. Mr. Hinds, Mr. Joyce, Dr. Steen.

This course deals with the fundamental principles of health promotion and disease prevention and control, guiding the student toward a more satisfactory adjustment to his environment. The functional rather than the anatomical phases of hygiene are emphasized, and some attention is given to mental and social hygiene.

211A. Anatomy. 4 semester hours. Prerequisite: General Biology 100A, B, or equivalent. Dr. Steen.

This course is designed to give the student a thorough knowledge of mammalian anatomy, with special reference to man. Each system of organs is taken up in detail. In the laboratory the human skeleton is studied and the cat dissected. Recommended for anyone desiring a knowledge of the structure of the body.

211B. Physiology. 4 semester hours. Prerequisite: General Biology 100A, B, and Anatomy 211A or its equivalent. Dr. Steen.

This course is designed to give the student a knowledge of the fundamental principles of physiology and their application to the functioning of the organs and systems of the body, particularly among vertebrates, with emphasis on man. The various metabolic processes are studied in detail.

212A. Bacteriology. 4 semester hours. Prerequisite: General Biology 100A, Hygiene 112. Mr. Joyce.

This course deals with microorganisms, including protozoa, molds, yeasts, and bacteria. Their structure, classification, culture, staining, and control are taken up in classroom and laboratory.

212B. Community Hygiene. 3 semester hours. Prerequisite: General Biology 100A, B, and Hygiene 112 or Bacteriology 212A. Mr. Joyce.

This course is a broad study of all forms and agencies of public health. The history of health work; the classification and prevention of disease; the

purity of water, milk, and other foods; sewage disposal; housing; recreation; school health; and the functioning of organized health agencies are topics which receive major emphasis. Classwork and demonstrations.

213. Anatomy and Physiology (for Nurses). 5 semester hours. Dr. Steen.

This course is essentially an abridged combination of Anatomy 211A and Physiology 211B. The subject content is especially adapted to meet the needs of students in the Bronson Hospital School of Nursing. Classroom, 3 hours a week; laboratory, 4 hours a week.

214. Bacteriology (for Nurses). 4 semester hours. Mr. Joyce

This course is essentially an abridged combination of Hygiene 112 and Bacteriology 212A, and is adapted to the needs of students in the Bronson Hospital School of Nursing. Classroom, 3 hours a week; laboratory, 2 hours a week.

215. Anatomy and Physiology (for Occupational Therapists). 4 semester hours. Prerequisite: General Biology 100A or 100B. Dr. Steen.

An abridgment similar to Anatomy and Physiology (for Nurses) 213 but adapted to the needs of the students in occupational therapy. Classroom, 2 hours a week; laboratory, 4 hours a week.

216. Applied Kinesiology (for Occupational Therapists). 2 semester hours.

Mrs. Thomas.

For description of course see Department of Occupational Therapy, page 188.

285. Health Education. 2 semester hours. Miss Worner.

For description of course see Department of Education, page 146.

301. Health Education. 3 semester hours. Miss Crane, Mr. Joyce, Miss Worner.

An off-campus laboratory course in which the teacher, children, and others in the community cooperate in developing healthful living in school, home, and community. Class meetings will cover 24 hours divided into two- and three-hour periods which will be spent in developing a guiding point of view for the work, in broadening the teachers' and others' awareness of healthful living, and in discussion of reports on problems being developed. In addition to class work the instructor will visit each class member in his working situation and will hold conferences with groups. A report of accomplishment will be required.

330. Neurology and Psychiatry (for Occupational Therapists). 3 semester hours. Members of Hospital Staff.

For description of course see Department of Occupational Therapy, page 189.

332. Clinical Subjects (for Occupational Therapists). 4 semester hours. Members of Hospital Staff.

For description of course see Department of Occupational Therapy, page 189.

334. Clinical Observations (for Occupational Therapists). 4 semester hours. Members of Hospital Staff.

For description of course see Department of Occupational Therapy, page 189.

335. (400). Medical Technology (for Medical Technologists). 30 semester hours. Members of Staff of Michigan Department of Health and/or hospital training schools.

This course consists of a training program divided between the Michigan Department of Health and various hospital laboratories in such a way as to give a total of 17 weeks of public health laboratory training and 34 weeks of hospital laboratory training.

OPEN TO GRADUATES

514. (171). Public Health Practices. 2 semester hours. Mr. Hinds.

A practical course of lectures and demonstrations designed to familiarize the student with the facts and methods necessary for making an effective health supervision of school children. The principles and practices of health teaching in the various grades are considered. The interrelation of health teaching and the teaching of other subjects in the school curriculum is emphasized.

BOTANY

221A. Botany. 4 semester hours. Prerequisite: General Biology 100A, B, or a year of high-school botany. Dr. Kenoyer.

This and the following course furnish a good botanical background for high-school biology teachers and for foresters. A general study of the gross and microscopic structures of higher plants, accompanied by field studies which aim to give a closer acquaintance with the major groups of the plant kingdom. Morphology of the algae and fungi. Classroom, 2 hours a week; laboratory or field, 2 two-hour periods a week.

221B. Botany. 4 semester hours. Prerequisite: Botany 221A. Dr. Kenoyer.

This course includes the mosses, ferns, and seed plants, studied from the standpoint of their structure, identification, and ecological relationships. Considerable attention is paid to field work and the preparation of a herbarium. Classroom, 2 hours a week; laboratory or field, 2 two-hour periods a week.

222S. Local Flora. 2 semester hours. Prerequisite: General Biology 100A, B, or satisfactory equivalent. Dr. Kenoyer.

Plants are studied from the standpoint of classification and relationship to their environment. Field work constitutes an important part of the course.

223S. Botany of Flowering Plants. 1 semester hour. Prerequisite: one year of biology or consent of instructor. June 24-30, 1945. Dr. Kenoyer.

The rich flora of the Higgins Lake region will be studied from the taxonomic and ecological standpoints. Mornings will be spent in the field, and afternoons in laboratory and discussions. A pocket magnifier, a dissecting set, Gray's manual, and other works on classification will be found useful.

For fees, transportation, and clothing, see course 235S, page 130.

OPEN TO SENIORS AND GRADUATES

420. (122). Systematic Botany. 2 semester hours. Prerequisite: one year of general biology or one semester of college botany. Dr. Kenoyer.

This course aims to make the student familiar with both native and cultivated plants and to enable him to understand the principles of their classification. It includes lectures, laboratory, and field work.

NATURE STUDY

231A. Nature Study. 4 semester hours. Miss Argabright and Miss Hadley.

The aims of this course are to develop an ability to interpret natural phenomena with scientific accuracy, to develop an understanding of some of the laws of nature, and to help the student enjoy and appreciate the wonders of nature. The materials of this course are: autumn flowers, seed dispersal, flowerless plants, insects, spiders, winter birds, heat, light, weather, and astronomy. Field trips are a part of the scheduled work.

231B. Nature Study. 4 semester hours. Miss Argabright and Miss Hadley.

The aims of this course are the same as 231A. The materials of this course are: rocks, minerals, electricity, spring flowers, pond life, migratory and resident birds. Field trips are a part of the scheduled work.

233S. Nature Study Materials and Methods. 2 semester hours. Prerequisite: Biology 100A, B, or Nature Study 231A, B, or consent of instructor. Not offered in 1945. Miss Argabright.

This course is planned to give the student additional techniques in collecting, classifying, and preserving biological and geological specimens. For this purpose and for learning how to care for living materials, some field excursions are made. The content of supplementary nature materials, such as museum exhibits, moving pictures, and nature literature are surveyed.

234. Bird Study. 2 semester hours. Miss Argabright.

This course undertakes to develop knowledge and appreciation of the birds, through study of their plumage, song, flight, migration, and nesting habits, their relation to environment, and their importance to man. The student learns to identify a minimum of fifty birds in the field and one hundred in the laboratory. Use is made of the Kellogg Bird Sanctuary, Kleinstueck Preserve, and Wolf Lake.

235S. General Conservation. 1 semester hour. June 24-30, 1945. Members of the Colleges of Education and of the State Department of Conservation.

The aim of this course is to develop an appreciation of the necessity of conserving our natural resources. It consists of lectures and field trips in botany, forestry, geology, and zoology.

The course will be given at the Conservation Camp at Higgins Lake, near Roscommon, Michigan. The camp is situated on the lake front, with surrounding woods rich in plant and bird life. There is also an excellent bathing beach.

Field and lecture notebooks will be kept and materials will be gathered for school collections. Students should provide themselves with clothing suitable for field trips: walking shoes, sweater or coat, cloth bags for rock specimens, field glasses, and magnifying glass.

The cost of the course is \$24.00 for extension credit or \$27.00 for residence credit. The same fees are charged for 223S and 236S, but the student may select one course only for a session. The fee covers tuition, and the expense of six days in camp, including field trips, board, bed, bedding, and towels. Students will provide their own transportation to and from Higgins Lake.

Those who can provide transportation, those who need transportation, and those who desire further information address Mr. John C. Hoekje, Director of Extension, Western Michigan College of Education, Kalamazoo, Michigan.

236S. Game Bird Ornithology. 1 semester hour. June 24-30, 1945. Members of Colleges of Education and State Department of Conservation.

A study of the birds, both land and water, as represented in the Higgins Lake area. Field trips, laboratory study of bird skins, and lectures.

For fees, transportation, and clothing, see course 235S.

ZOOLOGY

241S. Insect Study. 2 semester hours. Prerequisite: General Biology A, B, or equivalent. Mr. Hinds.

Designed to offer a systematic study of the principal groups of insects. Life habits, structural adaptations, life histories, natural homes, classification, and economic importance are considered. Frequent field excursions are made for collection of material, identification, and study of habits. Methods of rearing insects and of preparing museum specimens are studied. Control of insects in relation to disease, destruction of crops, and household depredation is especially emphasized.

242A. Invertebrate Zoology. 4 semester hours. Prerequisite: General Biology 100A, B. Mr. Hinds.

The work of this semester deals with the structural characteristics, physiology, life histories, habits, distribution, and classification of the invertebrates.

Identification of local forms and economic values are emphasized. This and the following course are desirable for those intending to teach biology in the high school. They also cover entrance requirements in medicine or dentistry. Classroom, 2 hours a week; laboratory or field, 2 two-hour periods a week.

242B. Vertebrate Zoology. 4 semester hours. Prerequisite: General Biology 100A, B. Mr. Hinds.

The work of this course covers the classes of vertebrates with emphasis on classification, structure, functions, environmental relations, and economic aspects. Field work is emphasized during the spring. Classroom, 2 hours a week; laboratory or field, 2 two-hour periods a week.

341. Cytology and Histology. 4 semester hours. Prerequisite: General Biology 100A, B, and 8 additional hours, preferably to be chosen from 242A, B, and 211A. Not offered in 1945-1946. Mr. Hinds.

This course deals with the structures and properties of cells and of the fundamental tissues; also with the grouping of the latter into organs and systems of organs.

342. Vertebrate Embryology. 4 semester hours. Prerequisite: General Biology 100A, B, and 8 additional hours in biology, preferably including 242A, B, and 211A. Dr. Steen.

This course takes up in detail the embryological development of vertebrates and puts special emphasis on human development. Maturation, fertilization, cleavage, origin and development of germ layers, histogenesis and organogenesis are considered. In the laboratory the frog, the chick, and the pig or mouse are used to demonstrate the course of development.

OPEN TO SENIORS AND GRADUATES

441S. (60). Advanced Ornithology. 2 semester hours. Prerequisite: 8 hours of college laboratory courses in biology and zoology and permission of instructor. Mr. Hinds.

This course affords the student an opportunity for a review of introductory ornithology. Special attention is given to details of song, habitat, habits, and identification of shore and marsh birds in their native haunts. Skins of birds both resident and migrant in Michigan are provided for identification in the laboratory. Students enrolling are expected to have their own field glasses. Early morning field trips will be a part of the scheduled class work.

BUSINESS EDUCATION

ARTHUR L. WALKER
AGNES E. ANDERSON
HOMER ARNETT
JOHN C. BRICKNER

PAUL KIRCHER
VIRGINIA REVA
GLEN C. RICE
EDNA WHITNEY

Twenty-four semester hours are required for a major in business education. The following courses are required:

Introduction to Economics 120A, B
Accounting 210A, B, or 211A, B
Secretarial Science 130A, B
Secretarial Practice 230A
Filing Principles and Techniques 236

Students whose major field of specialization is retailing may substitute the following courses *in total* for the above-listed courses:

- Retail Records 111
- Fundamentals of Retailing 140A, B
- Retail Merchandising 141
- Retail Salesmanship 150
- Retail Accounting 211
- Retail Publicity 240
- Retail Credit and Collections 241

All students majoring in business education are required to obtain a minor in economics. Business Mathematics 120 is required as a part of Group II requirements.

Students desiring to do directed teaching in business education are required to take Teaching of Business Subjects 300T.

Students who plan to teach and desire a minor in the field of business education should take the following courses:

- Introduction to Economics 120A, B
- Secretarial Science 130A
- Accounting 210A, B

Shorthand 100A, B and Typewriting 101A, B, or their high school equivalents, are prerequisite to Secretarial Science 130A and are not included as part of the minimum requirements for a major or minor.

ACCOUNTING COURSES

210A. Accounting. 3 semester hours. Mr. Kircher.

This course deals with the elementary principles of accounting and considers the more common technical devices for recording business transactions according to those principles. Particular attention is given to the effect of transactions on balance-sheet accounts and to the theory and practice of recording temporary changes of proprietorship in expense and revenue accounts. The importance of properly reporting from the records significant financial facts for purposes of control is emphasized. Problems and sets to be worked under the direct supervision of the instructor are assigned.

Classroom, 3 hours a week; laboratory, 2 hours a week.

210B. Accounting. 3 semester hours. Prerequisite: Accounting 210A. Mr. Kircher.

A continuation of course 210A, applying the principles developed in the preceding course to partnerships and corporations. Manufacturing accounts and statements, reserves and funds, the voucher system, and the analysis and interpretation of simple financial statements are among the topics considered.

Classroom, 3 hours a week; laboratory, 2 hours a week.

211A. Secretarial Accounting. 3 semester hours. Mr. Walker.

In this course the basic principles of accounting are considered from the viewpoint of the secretary. Training is obtained through a study of the accounts of private individuals, professional men, institutions, and small business firms of various types.

211B. Secretarial Accounting. 3 semester hours. Prerequisite: Secretarial Accounting 211A. Mr. Walker.

A continuation of course 211A in which practical applications of the accounting principles developed in the previous semester will be applied in a large number of work situations.

310A. Advanced Accounting Principles. 3 semester hours. Prerequisite: Accounting 210A, B. Mr. Kircher.

This course is to supplement Accounting 210A, B by a consideration of advanced principles of accounting theory and practice. The following topics are considered: evaluation of assets; temporary and permanent investments; depreciation, appraisal, and depletion of fixed assets; current, contingent, and fixed liabilities; capital stock; surplus and reserves.

310B. Advanced Accounting Principles. 3 semester hours. Prerequisite: Advanced Accounting Principles 310A. Mr. Kircher.

A continuation of Accounting 310A, including the following topics: consignments, installment sales, mergers, holding companies, receiverships, estates, and trusts.

311. Cost Accounting. 3 semester hours. Prerequisite: Accounting 210A, B. Not offered in 1945-1946.

The relation of cost accounting to management for control; general principles involved in constructing a cost system; modern methods of distributing the three elements of cost—material, labor, and burden; cost records and operating reports; joint and by-product costs; budgetary control and the use of cost reports by executives and department heads. Class discussion is supplemented by many short illustrative problems, and a complete cost set is written up.

312. Tax Accounting. 3 semester hours. Prerequisite: Accounting 210A, B, or consent of instructor. Mr. Kircher.

A study of the accounting procedures and problems involved in the Federal Income Tax Laws, social security, and payroll tax regulations as they apply to old age benefits, state unemployment insurance, payroll records, and government reports. Special application will be made by means of practical individual and business case problems.

320A. Business Law. 3 semester hours. Mr. Arnett.

Organized to meet the particular need of teachers of business law in secondary schools, this course undertakes primarily to develop an appreciation and respect for law through a study of its sources, development, and social significance. The legal rules of ordinary business transactions are learned for the most part from a study of actual cases involving circumstances from which these rules have been developed and applied. Students who elect this course should plan to continue in the second semester with 320B.

320B. Business Law. 3 semester hours. Mr. Arnett.

A continuation of Business Law 320A.

RETAILING COURSES

Enrollment in all retailing courses is limited to students who have been admitted to the two-year cooperative program in retailing. Under this cooperative plan, classroom instruction is given at the college during the morning; in the afternoon and on Saturdays members of the class are employed in the local stores of Kalamazoo and vicinity. Such a plan enables a student to obtain valuable practical experience to supplement his technical training.

For further information regarding the program and admission requirements see page 110.

As only a limited number of students may be admitted, application for admission should be made at the earliest possible date. Address all inquiries to the Department of Business Education.

111. Retail Records. 3 semester hours. Mr. Rice.

A study of the many and varied records essential to good retailing. A thorough review of percentages, decimals, fractions, interest, and discount, covering both the calculations and the use to which these are put. The records involved in store sales systems, credit transactions, stock control. An introduction to the mathematics of merchandising, such as mark-up, mark-downs, departmental and expense calculations. The problem method is used.

140A. Fundamentals of Retailing. 3 semester hours. Mr. Rice.

This is the introductory course in the retailing program. A survey of our distributive system is given in order to picture retailing in its place in the larger field. Opportunities in retailing, types of establishments, their advantages and disadvantages, store location, layout, organization, and management.

140B. Fundamentals of Retailing. 3 semester hours. Mr. Rice.

Continuation of Fundamentals of Retailing 140A. The employer-employee relationship, study of selling and non-selling functions, analysis and control of expenses, trends in retailing, influence of government in retailing. Application of these matters to both large and small stores, chains and independents.

141. Retail Merchandising. 3 semester hours. Mr. Rice.

The problems of adjusting sales, stock, and purchases so that a profit is made. What, when, where, and how to buy. Mark-up, terms and datings, retail method of inventory, mark-downs, stock-turn, computation of profit, control systems, expenses as an item of merchandising, merchandise planning, and policies. Case problems are used.

150. Retail Salesmanship. 3 semester hours. Mr. Rice.

The accepted principles of good selling applied to the problems of the retailer in meeting the needs of consumers. What the sale is, customer reactions, how the seller can improve his practices, analysis of the steps in a sale. Sales demonstrations and practice.

151A. Merchandise and Job Analysis. 3 semester hours. Mr. Rice.

This course is aimed especially at closely correlating the actual experience on a job with the classroom work, to improve the efficiency and productivity of the student's work by a detailed study of his job and the merchandise, either textile or non-textile, with which he is dealing. The development of merchandise manuals. Classroom, 4 hours a week.

151B. Merchandise and Job Analysis. 3 semester hours. Mr. Rice.

A continuation of Merchandise and Job Analysis 151A.

200A. Coordinated Business Experience. 1 semester hour. Mr. Rice and Mr. Walker.

For description of course see page 136.

200B. Coordinated Business Experience. 1 semester hour. Mr. Rice and Mr. Walker.

For description of course see page 136.

211. Retail Accounting. 3 semester hours. Mr. Rice.

A study of accounting as it applies to both large and small retail establishments. The handling of different types of transactions, the sales audit, accounts receivable, invoice procedure, accounts payable, alteration and work-room costs, departmental accounting, branch and chain store accounting, operating statements, budgets, expense proration, taxes, operating and financial reports. The problem method is used.

224. Interior and Window Display. 3 semester hours. Mr. Kemper.

For description of course see Department of Art, page 124.

240. Retail Publicity. 3 semester hours. Mr. Rice.

A study of the devices used by stores of various types and sizes to attract and hold customers' attention. Newspaper, radio, and direct mail advertising; window and interior display; plans and techniques of sales promotion. The publicity calendar and budget.

241. Retail Credit and Collections. 3 semester hours. Mr. Rice.

Consideration of the meaning and importance of credit. The extent of retail credit, types of credit transactions and their proper use, sources of credit information, legal aspects, policies and procedures. Problems of collections and methods of carrying on collections.

251A. Store Organization. 2 semester hours. Mr. Rice.

A study of the manner in which stores are organized, with attention to the great variety of types of work found in retail concerns. The course acquaints the student not only with such work as he is doing at present, but makes him familiar with those positions to which he aspires in the future and the steps through which he will probably pass, and with the preparation of job analysis.

251B. Store Organization. 2 semester hours. Mr. Rice.

Opportunity is given to each student to make a study of some particular phase of retailing in which he is especially interested. This may be further and more detailed investigation of something already studied or work along a line not as yet studied.

SECRETARIAL COURSES**100A. Shorthand.** 3 semester hours. Miss Anderson, Mrs. Whitney.

A presentation of the theory and principles of Gregg shorthand. No credit will be given for this course until the typewriting requirement, 101A or its equivalent, has been satisfied.

100B. Shorthand. 3 semester hours. Prerequisite: Shorthand 100A and Typewriting 101A. Miss Anderson, Mrs. Whitney.

The discussion, application, and thorough review of the principles of Gregg shorthand as presented in 100A. The writing of shorthand notes under careful supervision from dictation at various rates of speed is developed, and extensive reading of expertly prepared shorthand plates is encouraged. No credit will be given for this course until the typewriting requirement, 101B or its equivalent, has been satisfied.

101A. Elementary Typewriting. 2 semester hours. Miss Anderson, Mrs. Whitney.

The mastery of the keyboard and the proper techniques of typewriting are developed in this course. Students are taught the various parts of the typewriter and the care of the machine. The form and content of business letters, addressing envelopes, centering, tabulation, and manifolding are emphasized. Remedial testing and drill form a part of this course. Class meets five 50-minute periods a week. Not open to students with one year high school typewriting credit.

A fee of \$1.50 will be charged for materials supplied in this course.

101B. Intermediate Typewriting. 2 semester hours. Prerequisite: Elementary Typewriting 101A or its high school equivalent. Miss Anderson, Mrs. Whitney.

Special stress is placed upon perfecting the techniques necessary for accuracy and speed in typewriting. Special attention will be given to punctuation, capitalization, footnotes and reference citations, bibliographies, proof-reading markings, filing, letter-writing techniques, and frequent remedial drills. This course should be taken concurrently with Shorthand 100B. A writing rate of 40 words net per minute is required for passing.

120A. Introduction to Economics. 2 semester hours. Mr. Kircher.

A presentation of the important features of business economic organization, with particular reference to the consumer. The course will develop a familiarity with vocabulary and literature in the field of business and furnish a background for everyday reading.

120B. Introduction to Economics. 2 semester hours. Prerequisite: Introduction to Economics 120A. Mr. Kircher.

The purpose of this course is to familiarize the student with factors which have contributed to the growth of business and which have influenced the structure and interrelationships of business and society. It will also explore areas of economic thought that may be used for further study.

130A. Secretarial Science. 5 semester hours. Prerequisite: Shorthand 100B or equivalent. Mrs. Whitney.

The first of a series of four courses designed for the development of those attitudes, knowledges, and skills essential for the occupational efficiency of a secretary. In this course special emphasis will be given to the development

of accuracy and speed in shorthand and typewriting. This course is designed for the two-year secretarial students only. Classes meet for this course two hours a day, five days each week.

A fee of \$1.50 will be charged for materials supplied in this course.

130B. Secretarial Science. 5 semester hours. Mrs. Whitney.

A continuation of the development of speed and accuracy in shorthand and typewriting with special emphasis on punctuation, grammar, letter form, and transcribing procedure. Classes meet for this course two hours a day, five days each week.

A fee of \$1.50 will be charged for materials supplied in this course.

200A. Coordinated Business Experience. 1 semester hour. Mr. Rice and Mr. Walker.

The enrollment in this course is limited to those students who are admitted to the cooperative office or retail training programs and who are currently enrolled in Secretarial Practice 230A or in Store Organization 251A. The requirements for college credit will be: (1) a minimum of 200 clock hours of approved office or store work, (2) monthly reports from the employer and the coordinator made in writing to the chairman of the department, and (3) a term report by the student.

200B. Coordinated Business Experience. 1 semester hour. Mr. Rice and Mr. Walker.

A continuation of course 200A open to students currently enrolled in Secretarial Practice 230B or Store Organization 251B. The requirements for credit are the same as for course 200A.

230A. Secretarial Practice. 2 semester hours. Prerequisite: Typing speed of 40 words per minute. Mr. Walker.

A course for the secretarial and business education student and, also, for the prospective teacher of office practice in the secondary school. The content of this course provides opportunity for acquiring an operating knowledge of such office machines as the adding-listing machines, comptometer, duplicating machines and techniques, rotary calculating machines, dictaphone, and other office appliances. This class will meet four 50-minute periods a week. A fee of \$2.50 will be charged.

230B. Secretarial Practice. 2 semester hours. Prerequisite: Secretarial Practice 230A. Mr. Walker.

A continuation of Secretarial Practice 230A. This course is intended primarily for the student preparing for office occupations. It is the aim of the course to equip the student with the necessary operating skills on the computing machines, transcribing machines, posting machines, and duplicating machines necessary for vocational competency. This class will meet four 50-minute periods a week. A fee of \$2.50 will be charged.

236. Filing Principles and Techniques. 2 semester hours. Mr. Walker.

A study of the indexing and filing rules and their application to the following filing methods; card systems; direct name, Varidex, Triple-Check Automatic, Numeric, Geographic, Subject, and Soundex correspondence filing. Other topics covered include cross reference, transfer, follow-up, filing equipment and supplies, and the organization and maintenance of a filing system for a particular type of filing situation. This class will meet three 50-minute periods a week. A fee of \$1.50 will be charged for supplies.

239. Office Organization and Management. 3 semester hours. Prerequisite: all other courses in office training. Mr. Walker.

This is a course designed primarily for students of superior abilities who wish to train for the position of office supervisor. The topics covered in this course include: a study of the functions of the office; office systems and routines; correspondence; the mailing department; supervisory activities;

personnel problems; selection and use of office furniture and business machines; office forms and supplies; office planning and layouts; and the construction and use of office manuals as a means of establishing standard practices.

300T. Teaching of Business Subjects. 2 semester hours. Prerequisite: Shorthand 100A, B, Typewriting 101A, Accounting 210A, B. Department of Business Education Staff.

Consideration of approved methods for presenting material for training in business occupational skills and methods of testing and determining standards of achievement for those skills; the examination and compilation of supplementary and collateral material for the use of the teacher. It is recommended that this course either precede or accompany directed teaching in any of the business occupational skills.

330. Business Correspondence and Report Writing. 3 semester hours. Miss Anderson.

Provision is made in this course for an analysis of and practice in writing various types of business letters and reports. A study is made of the principles of effective expression in such correspondence as credit and collection letters, letters of adjustment, sales letters, form letters, follow-up techniques, and statistical report writing and editing. Considerable attention will be given to the mechanics of styles, sentence structure, punctuation, spelling, vocabulary, and letter arrangement.

336. Personnel Administration. 3 semester hours. Prerequisite or concurrent: Labor Problems 325B and Psychology of Personality 207. Mr. Walker.

The principal emphasis in this course will be on the place of the personnel office in modern business and industry, and the duties and work of the personnel manager and his assistant in the selection, classification, and assignment of employees. A detailed study will be made of the records and reports that are used in carrying on the work of the personnel office. Other topics to be considered will include interviewing, counseling, adjustment of complaints, job analysis, job classification, in-service training, and up-grading of employees.

339. Business Problems. 3 semester hours. Prerequisite: Introduction to Statistics 211. Not offered 1945-1946.

Opportunity is provided for a first-hand study of an office problem in a selected business in Kalamazoo or vicinity. The problem will be chosen by the student and the office manager of the office concerned, with the advice of the instructor. A comprehensive analysis and report of the observation or study will be submitted as the principal work of the course. This course will require that the student spend a minimum of ten hours a week in the office selected for study and observation. Progress reports and conferences will be required each week.

OPEN TO SENIORS AND GRADUATES

404. (E154). Organization and Teaching of Office Practice. 2 semester hours. Mr. Walker.

A consideration of the aims and content of office practice courses in the secondary school, with plans and techniques for organizing and teaching the subject matter of the course and its laboratory material.

441. (E151). Principles and Problems in Business Education. 2 semester hours. Mr. Walker.

Analysis of current trends and philosophies in business education and their implications for the classroom teacher of business subjects. The course is organized around units which include objectives, guidance, occupational research, extra-curricula activities, and the growth and status of business education in the United States.

442. (E152). Curriculum Construction in Business Education. 2 semester hours. Mr. Walker.

Principles, practices, and problems involved in the evaluation and reconstruction of business curricula to meet the needs of a democratic society. It is possible through this course for each class member to study and evaluate his own immediate curriculum problems.

443. (E153). Improvement of Instruction in Business Subjects. 2 semester hours. Mr. Walker.

This course is designed primarily for the experienced teacher of business subjects, providing an opportunity for the study of latest research findings, materials, teaching procedures, tests and measurements, and possible future developments in the various business subject-matter fields.

CHEMISTRY

GERALD OSBORN
ROBERT J. ELDRIDGE

LAWRENCE G. KNOWLTON
LILLIAN H. MEYER

Students who wish to teach chemistry must have a minimum of 15 semester hours in chemistry. A major in chemistry is 24 semester hours and a minor is 15 semester hours.

Through arrangement with the Department of Physics, a major in physical science may be made by taking 15 semester hours of chemistry and 10 semester hours of physics. A minor in chemistry may not be made by combining chemistry with physics.

Students who wish to specialize in chemistry should plan programs including the following sequence: general chemistry and mathematics during the first year; qualitative analysis, quantitative analysis, calculus, and physics, the second year; organic chemistry, the third year; physical chemistry and special courses, the fourth year.

Two of the six semester hours earned in Physical Science 100A, B may be counted toward a major or a minor in chemistry.

In General Chemistry 100A, B, 101A, B, 105A, B, and 106 a deposit of \$2.00 per semester for lock and supplementary supplies is required; in advanced laboratory courses a deposit of \$5.00 per semester is required. These deposits are made in the main office and numbered receipts are given students. Students must present these receipts before admission to the laboratory.

At the close of the semester these deposits will be refunded, less a flat laboratory fee of fifty cents and any charges caused by breakage of materials or loss of lock.

100A. General Chemistry. 4 semester hours. Prerequisite: one year of algebra. Designed for students who have had no high-school chemistry. Mr. Eldridge.

The fundamental principles of chemistry are studied in such a way as to prepare both those students who wish to teach and those who expect to go on to more advanced work in the subject. This course may also be taken as a cultural subject by students desiring a broader knowledge of their environment. Classroom, 3 hours a week; laboratory, 4 hours a week.

Note.—Courses 100A, B and 101A, B each constitute a year's work. Students should plan to take the two semesters' work; however, credit is given for each semester's work.

100B. General Chemistry. 4 semester hours. Prerequisite: General Chemistry 100A. Mr. Eldridge.

A continuation of General Chemistry 100A. Classroom, 3 hours a week; laboratory, 4 hours a week.

100A, B. Physical Science. 3 semester hours each semester. Dr. Berry, Mr. Marburger, Dr. Osborn, Dr. Rood.

For description of course see Department of Physics, page 200.

101A. General Chemistry. 4 semester hours. Prerequisite: one unit of high-school chemistry and one unit of algebra. Chemistry Staff.

This is a more advanced course than 100A. The theory and fundamental principles of chemistry are emphasized. It is a foundation course. Classroom, 3 hours a week; laboratory, 4 hours a week.

101B. General Chemistry. 4 semester hours. Prerequisite: General Chemistry 101A. Chemistry Staff.

A continuation of course 101A. Classroom, 3 hours a week; laboratory, 4 hours a week.

105A. General Chemistry. 4 semester hours. Dr. Meyer.

The fundamental theories of chemistry are studied, along with some of the common non-metallic elements and their compounds. The laboratory work involves the general practice of chemical manipulation. Open only to students in the Department of Home Economics. Classroom, 3 hours a week; laboratory, 4 hours a week.

105B. General Chemistry. 4 semester hours. Prerequisite: General Chemistry 105A. Dr. Meyer.

A continuation of course 105A. Some applications of inorganic chemistry to home economics, elementary organic chemistry, introduction to the chemistry of foods and the body, and to textiles and dyeing. Open only to students in the Department of Home Economics. Classroom, 3 hours a week; laboratory, 4 hours a week.

106. Chemistry (for Nurses). 4 semester hours. Dr. Meyer.

The fundamentals of chemistry are studied with a view to applying them to the field of nursing. The course is divided into three parts: inorganic chemistry, organic chemistry, and biological chemistry. Credit for this course applies only to the combined curriculum in letters and nursing. Classroom, 3 hours a week; laboratory, 2 hours a week.

201. Qualitative Analysis. 4 semester hours. Prerequisite: General Chemistry 100A, B, or 101A, B. A knowledge of common logarithms is essential. Dr. Osborn.

Two lectures a week and a minimum of 6 hours a week in the laboratory. The work includes the detection of both basic and acidic radicals.

202. Quantitative Analysis. 4 semester hours. Prerequisite: General Chemistry 100A, B, or 101A, B, and Qualitative Analysis 201. A knowledge of quadratic equations and of common logarithms is essential. Dr. Knowlton.

This course includes the theory and practice of volumetric and gravimetric analysis, and gravimetric separations. Classroom, 2 hours a week; laboratory, a minimum of 6 hours a week.

206S. Chemistry and the Modern World. 2 semester hours. Not offered in 1945. Dr. Osborn.

Some knowledge of chemistry is indispensable to the understanding of the world today. This course is designed for those students who have never studied chemistry and who do not wish to devote a year to the course, yet who desire to gain an insight into the role that chemistry plays in our everyday life. Considerable use will be made of the lecture-demonstration method. This course should be valuable for the grade teacher.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group II.

210. Engineering Materials. 3 semester hours. Prerequisite: General Chemistry 100A, B, or 101A, B. Mr. Eldridge or Dr. Knowlton.

An elementary study of the manufacture and properties of the ferrous and non-ferrous alloys, cements, clay products, protective coatings, fuels, and water softening. This is a non-laboratory course for pre-engineers. This course should be accompanied by a metal-processing course. (See Department of Trade and Industrial Education, page 226).

300T. Teaching of Physical Science. 2 semester hours. Prerequisite; a major or minor in physics or chemistry. Mr. Marburger, Dr. Osborn.

303A. Physical Chemistry. 5 semester hours. Prerequisite: General Chemistry 100A, B, or 101A, B; Qualitative Analysis 201; Quantitative Analysis 202 or 307S; Physics 203A, B; College Algebra and Analytic Geometry 104A, B, or equivalent; and Calculus 205A, B. Dr. Knowlton.

This course is valuable for students who expect to teach chemistry, physics, and mathematics in the high school. A thorough grounding is made in the fundamental principles in chemistry. The course includes studies in kinetic theories of gases, liquids, solids, solutions, thermodynamics, physical bases for molecular structure, thermochemistry, homogeneous equilibria, heterogeneous equilibria, etc. Classroom, 3 hours a week; laboratory, 8 hours a week.

303B. Physical Chemistry. 5 semester hours. Prerequisite: Physical Chemistry 303A. Dr. Knowlton.

A continuation of course 303A. The course includes radioactivity, quantum theory, atomic structure, conductance of solutions, pole potentials, oxidation potentials, polarization, chemical thermodynamics, colloids, etc. Classroom, 3 hours a week; laboratory, 8 hours a week.

305. Advanced Qualitative Analysis. 1 or 2 semester hours. Prerequisite: General Chemistry 100A, B or 101A, B, and Qualitative Analysis 201. Dr. Osborn.

This course consists of laboratory work, readings, and quizzes. Emphasis is placed on the analysis of alloys and mixed solids.

306A. Organic Chemistry. 4 semester hours. Prerequisite: General Chemistry 100A, B, or 101A, B. Open to qualified sophomores. Mr. Eldridge, Dr. Osborn.

Preparation and reactions of organic compounds, of both the aliphatic and the aromatic series, are studied. These courses are valuable not only to those students who wish to teach chemistry, but also to those who may later study medicine, dentistry, or chemical engineering. Credit is given for each semester's work, but students are advised against taking one course only. Classroom, 2 hours a week; laboratory, 6 hours a week.

306B. Organic Chemistry. 4 semester hours. Prerequisite: Organic Chemistry 306A. Mr. Eldridge, Dr. Osborn.

A continuation of course 306A.

308. History of Chemical Theory. 2 semester hours. Prerequisite: two years of college chemistry would be desirable. However, certain students who have completed 3 semesters of college chemistry may be admitted with the consent of the chairman of the department. Dr. Osborn.

This course is taught from the point of view of the history of chemical theory in which the evidence for the old theories is critically presented. The reasons for the ultimate rejection of the old theories are studied, and a somewhat critical examination of modern theories is made.

350. Elementary Biochemistry. 2 semester hours. Prerequisite: Organic Chemistry 306A. Dr. Meyer.

Elementary study of the chemistry of the body: digestion, metabolism, excretion, the endocrines, and vitamins. Classroom, 2 hours a week.

351. Biochemistry Laboratory. 1 or 2 semester hours. To accompany Elementary Biochemistry 350. Dr. Meyer.

Analysis of blood, urine, and gastric juices, and other experiments according to the needs of the student and the number of hours credit elected. Laboratory, 3 to 6 hours a week depending on credit desired.

396A. Organic Preparations. 2 semester hours. Consult instructor before enrolling. Mr. Eldridge.

Methods for preparing the aliphatic compounds with an effort to produce the maximum yield at the minimum of expense. Theoretical interpretations of facts are sought. Classroom, 1 hour a week; laboratory, 10 hours a week.

396B. Organic Preparations. 2 semester hours. Consult instructor before enrolling. Mr. Eldridge, Dr. Osborn.

Methods of preparing the aromatic organic compounds. Classroom, 1 hour a week; laboratory, 10 hours a week.

398. Inorganic Preparations. 1 or 2 semester hours. Consult instructor before enrolling. Mr. Eldridge, Dr. Osborn. Laboratory work only.

399. Organic Analysis. 2 semester hours. Consult instructor before enrolling. Mr. Eldridge.

Determination of carbon, hydrogen, and nitrogen by combustion methods. Laboratory work only.

OPEN TO GRADUATES

571. (D201a). The Teaching of Science. 2 semester hours. Dr. Osborn.

Analyzes and evaluates the objectives of science as a high-school subject and considers modern practices with respect to such topics as classroom method, motivation, laboratory work, directed study, and like problems.

EDUCATION

GEORGE H. HILLIARD
 JANE A. BLACKBURN
 KENNETH T. BORDINE
 ROY C. BRYAN
 LOFTON V. BURGE
 HOMER L. J. CARTER
 CARL R. COOPER
 MANLEY M. ELLIS
 DEYO B. FOX
 ORIE I. FREDERICK

ARLENE E. HOLLINGER
 ARTHUR J. MANSKE
 KATHERINE A. MASON
 RAY C. PELLETT
 EFFIE B. PHILLIPS
 MARION J. SHERWOOD
 ROXANA A. STEELE
 BESS L. STINSON
 REVA VOLLE
 WILBUR D. WEST

ELMER H. WILDS

Courses in the Department of Education are designed primarily to meet the professional needs of the student preparing to teach. Certain regulations are set up which affect all students.

Students in the provisional certificate curricula are required to take Introduction to Directed Teaching 240 or 351.

All students pursuing a curriculum for a provisional certificate and a degree are required to take as a minimum 21 semester hours of professional work in education. The following, or their equivalent, are required: Human Growth and Development 251, 3 semester hours; Introduction to Directed Teaching 240 or 351, 3 semester hours; and Directed Teaching, Laboratory in Education, and General Educational Problems 370 A, B, C, 15 semester hours. It is possible for students to take Directed Teaching and Laboratory in Education 370A and B, 12 semester hours, during one semester, and General Educational Problems 370C, 3 semester hours, during the other semester of the

senior year. This may be necessary to permit students to take elective courses or to complete their major, minor, or group requirements. Students with irregularities in their professional work should confer with the departmental adviser at the earliest possible date.

Students who upon reaching the senior year have educational credits which satisfy the above, with the exception of directed teaching, may meet this requirement by taking one or more of the following: Directed Teaching 371, 372, or 373.

Students preparing for the State Elementary Provisional Certificate are required to take Psychology of Reading 212, 3 semester hours.

Elective courses are available in education in the following fields: early elementary education, later-elementary education, secondary education, special education, theory and principles of education, educational measurements, rural education, and health education. Certain special-methods courses giving education credit are available in other departments of the institution, such courses being labeled T.

Undergraduate students are not encouraged to specialize in the field of education. The department takes the position that, except in the case of very mature students who have had experience in teaching, specialization in the field of education should be reserved for graduate study. Students should feel free to take such electives in education as will give them better professional preparation for teaching and serve their individual interests. Specialization in undergraduate study should as a general rule be confined to the school-subject fields, such as history, mathematics, business education, and industrial arts.

REQUIRED WORK IN EDUCATION

(For Provisional Certificate)

Sophomore or Junior Year

251. Human Growth and Development. 3 semester hours. Prerequisite: as many honor points as semester hours of credit acquired. Mr. Carter, Dr. Ellis, Dr. Hilliard, Mrs. Phillips, Miss Stinson, Miss Volle.

This class will meet four periods each week, one of which will be devoted to the presentation of illustrative materials and lectures from the fields of sociology, biology, psychology, and other fields of interest which contribute to the objectives in this course.

The course is designed to help the student understand efficient guidance through appreciating the varied problems of the developing human being on each and every growth level from conception to maturity.

Junior Year

351. Introduction to Directed Teaching. 3 semester hours. Prerequisite: Human Growth and Development 251, or equivalent. Miss Mason, Mrs. Phillips, Miss Steele.

The immediate aim of this course is to prepare students for successful student-teaching. It deals with the particular problems of organization and management of the school, and with the selection, organization, adaptation, and presentation of materials of instruction that function in teaching-learning situations.

Senior Year

REGULAR COURSES IN DIRECTED TEACHING

370A, B, C. Integrated Professional Education. 15 semester hours. Prerequisite: Human Growth and Development 251 and Introduction to Directed Teaching 351, or equivalent; and as many honor points as semester hours of credit acquired. Miss Blackburn, Dr. Burge, Dr. Frederick, Dr. Manske, Miss Steele, Dr. Wilds, supervisors, and resource persons.

For all seniors whose programs will permit them to devote one semester entirely to professional education. A unified course for seniors which is based on needs and problems of students while doing their directed teaching.

- A. Directed Teaching.** 8 semester hours. A student devotes half of each school day for one semester to this work and the other half day to 370B and C. Students are expected to become acquainted with the whole program of the training schools in which they are teaching. In addition to observing and teaching, students are expected to participate extensively in planning assemblies, sponsoring clubs, and cooperating in other activities of the school and community. Students should enroll for directed teaching in the Training School Office as soon as the schedule of classes for the ensuing semester is published.
- B. Laboratory in Education.** 4 semester hours. Students work individually and in groups on problems which they face in their directed teaching situation in classroom, school, and community. Other problems to be faced later as full-time teachers also are considered. Each laboratory room is equipped with tables, chairs and bookshelves. Generous use is made of many school books, professional books, courses of study, bulletins, pamphlets, educational periodicals, and mimeographed materials which are of assistance to the students in solving their actual teaching problems. Suggestions and guidance are afforded by staff members and by resource persons who are brought to the laboratory groups for the help they can give the students. Community organizations in Kalamazoo are visited. The problems of general interest considered in C below are discussed further in the laboratory groups. B and C combined constitute seven semester hours credit.

A fee of \$2.00 will be charged for supplementary materials used in this course.

- C. General Educational Problems.** 3 semester hours. Laboratory groups come together in general sessions for the consideration of problems of general interest and value to all teachers regardless of level or area in which they teach. These include such matters as social, political, and economic influences on education; historical and philosophical backgrounds of present-day education; changes and trends in education; organization of the school system; guidance responsibilities of teachers; sponsoring of school activities and organizations; relationships between teachers and securing of positions; and school and community relationships.

370A, B. Directed Teaching and Laboratory in Education. 12 semester hours. (eight and four semester hours, respectively).

For seniors who can take twelve semester hours of professional education work during the same semester but who desire to take elective courses or to take one course during this semester to complete major, minor, or group requirements. (See descriptions above.)

370C. General Educational Problems. 3 semester hours.

Open only to those who take the course during their senior year either the semester before or the semester after they take 370A and B. (See description above.)

OPTIONAL COURSES IN DIRECTED TEACHING

- 371. Directed Teaching.** 4 semester hours. Prerequisite: as many honor points as semester hours of credit acquired. Only for seniors who have completed most of their professional course work prior to the senior year. Similar to description for 370A. Students should enroll at the Training School Office for Directed Teaching 371, 372, or 373 as soon as the schedule of classes for the semester is published. Dr. Burge and supervisors.

- 371S, 372S. Directed Teaching.** 3 semester hours each. Prerequisite: Human Growth and Development 251 and Introduction to Directed Teaching 240 or 351, or equivalent; adequate academic and professional training in the subject or subjects to be taught; and one-fourth as many honor points as semester hours of credit earned. Dr. Burge, grade and special supervisors.

This work includes the teaching of classes in the training school, the observation of lessons taught by the supervisors, the study and measurement of children as individuals and in groups, and meetings with the supervisors of directed teaching and with the Director of Training Schools.

Students are urged to become as familiar as possible with the spirit and general workings of the training school.

- 372. Directed Teaching.** 4 semester hours. Only for seniors who have previously fulfilled a part of their requirement in directed teaching. Similar to description for 370A. Dr. Burge and supervisors.
- 373. Directed Teaching.** 4 semester hours. Prerequisite: Directed Teaching 372 or 370A. This elective course is planned primarily for those students who wish to extend their teaching over a wider range of grades or subjects, and for students who, in the opinion of the chairman of the departments and the director of training schools, need more experience in teaching. Dr. Burge and supervisors.

- 374. Directed Teaching.** 5 semester hours. Prerequisite: same as for Directed Teaching 371. Open only to students of occupational therapy. Mrs. Struble.

A course in the teaching of arts and crafts related to work in occupational therapy in the public schools and in institutions for defective children.

- 375S. Problems in Elementary Education.** 3 semester hours. Prerequisite: teaching experience. Observations and general conferences. Dr. Burge and grade supervisors.

This course is open only to experienced people who wish to observe present-day practices in teaching and to study intensively a problem in elementary education. The work will consist of three hours observation and one hour conference, five days a week. The conference period provides for both a discussion of the observations of the previous days and guidance of individuals in problems in which they are interested.

ELECTIVE WORK IN EDUCATION

- 100. Introduction to Learning and Adjustment.** 1 semester hour. Open only to freshmen and sophomores. Mr. Carter and Miss McGinnis.

The psychological principles of effective learning will be demonstrated and applied under the supervision of the instructor; methods of note-taking, reading, memorizing, and organizing will be discussed and practiced; the methods presented are to be applied to the different courses the student is carrying. Students who feel themselves handicapped by poor habits of study are urged to enroll in this course. The psychological problems involved in the transition from control by adults to self-management will be considered, and the resources of clinical psychology will be made available for the solution of difficulties of individual adjustment.

ELEMENTARY EDUCATION

- 208. Stories for Childhood.** 2 semester hours. Miss Blackburn, Mrs. Phillips.

A study of stories and poems suitable to childhood. Classroom practice in story telling.

212. Psychology of Reading. 3 semester hours. Miss Blackburn, Dr. Hilliard.

A summary of the results of the scientific studies made in the field of reading, with suggestions as to the bearing of these studies upon the materials and methods of teaching.

308. Parent Education. 2 semester hours. Open only to seniors. Mrs. Phillips.

The course will enable students to appraise and organize materials and methods of work suitable for child-study groups or parent-teacher meetings. The means of securing better habits and attitudes in school and home will be studied. Behavior problems based upon actual case material secured from experiences of visiting teachers will be discussed. Efforts will be made to secure real practice in handling child-study groups. This course will be adapted to the needs of both early- and later-elementary teachers.

311A. The Elementary Curriculum. 2 semester hours. Dr. Frederick.

A consideration of content and procedures to adapt experiences of pupils in elementary schools to modern conditions and child needs and interests. Individual or committee reports concerning the improvement of various aspects of the elementary school curriculum will be prepared.

311B. The Elementary Curriculum. 2 semester hours. Dr. Frederick.

A continuation of 311A. Emphasis will be placed on developing and organizing course of study materials for actual use in school systems represented by those taking the course.

Note.—Not open to those who have not had 311A during the preceding semester.

312. Later Elementary Education. 3 semester hours. Prerequisite: Human Growth and Development 251. Miss Mason.

A study of the characteristics and needs of pupils in the later-elementary grades and of the materials and methods of instruction.

OPEN TO GRADUATES

506. (C175). Psychology of Child Development. 2 semester hours. Dr. Ellis.

Gives a systematic knowledge of the facts and generalizations concerning the growth of children from birth to maturity. The emphasis will be on the child as a whole, while major divisions of the course will deal with physical, mental, social, and emotional development.

507. (C177). Education of Young Children. 2 semester hours. Dr. Vedder.

Primarily for teachers and supervisors of nursery-school, kindergarten, and elementary-school children. Reviews the planning of school programs and the scientific bases for innovating practices.

510A. (C107a). Psychology of the Elementary School Subjects: Reading and Language. 2 semester hours. Dr. Hilliard.

Deals with the psychological principles underlying present and projected practices in the teaching of reading and language. Involves statement of laws of learning, survey of experimental studies, psychological principles in learning situations, selection of subject matter, and examination of textbooks and courses of study.

510B. (C107b). Psychology of the Elementary School Subjects: Arithmetic, Spelling, and the Social Studies. 2 semester hours. Dr. Hilliard.

Deals with the psychological principles underlying present and projected practices in the teaching of arithmetic, spelling, and the social studies. Involves a consideration of the laws of learning with special emphasis on the psychological principles of specific learning situations in the school subjects stressed in this course. Units of instruction, courses of study, and textbooks will be reviewed in terms of the results of experimental studies of the learning processes.

511. (B105). Construction of the Elementary School Curriculum. 2 semester hours. Dr. Frederick.

Acquaints students with theories, techniques, and practices utilized in curriculum building.

513. (B251). Supervision of Elementary School Instruction. 2 semester hours. Dr. Hilliard.

Required of students preparing for the preliminary examination for the doctorate in elementary education. Presupposes training and experience in elementary education and a rudimentary knowledge of public-school administration.

514. (B151). Administration and Supervision of Elementary Schools. 2 semester hours. Dr. Hilliard.

Deals with the general managerial problems of the elementary school. Open to students of maturity and experience who wish to fit themselves for principalships or supervisorships in grades one to eight.

515. (C225). Seminar in Elementary Education. 2 semester hours. Prerequisite: Education B105 or C105, or equivalent. Dr. Hilliard.

Designed for students who desire to make an intensive study of some phase of instruction in elementary work.

BUSINESS EDUCATION

OPEN TO SENIORS AND GRADUATES

404. (E154). Organization and Teaching of Office Practice. 2 semester hours. Mr. Walker.

For description of course see Department of Business Education, page 137.

441. (E151). Principles and Problems in Business Education. 2 semester hours, Mr. Walker.

For description of course see Department of Business Education, page 137.

442. (E152). Curriculum Construction in Business Education. 2 semester hours, Mr. Walker.

For description of course see Department of Business Education, page 138.

443. (E153). Improvement of Instruction in Business Subjects. 2 semester hours, Mr. Walker.

For description of course see Department of Business Education, page 138.

HEALTH AND PHYSICAL EDUCATION

285. Health Education. 2 semester hours. Miss Worner.

In this course the fundamental scientific principles of healthful living are developed through a study of school health problems. An effort is made to advance healthful living on the part of the students, and to make prospective teachers aware of modern methods and materials useful in helping school children solve their health problems.

286. Safety Education. 3 semester hours. Mr. Sherwood.

A course dealing with the various phases of accident prevention in school and out, and the school procedures to promote general safety. Particular emphasis is given to teaching aids and methods of putting into practice a school program coordinating safety with the usual laboratory and classroom activities.

OPEN TO GRADUATES

580S. (F190). The Camp as an Educational Agency. 2 semester hours. Dr. West.

Designed primarily for graduate students who are preparing for or are holding positions in camps. Includes both an extensive study of the literature of camping and, when feasible, visits to several camps.

581S. (F208). Community Recreation. 2 semester hours. Dr. West.

Deals with the development, administration, and community use of leisure time. Stresses the social and economic factors which have given rise to the present-day movement toward education for leisure.

585. (F213). Curriculum Problems in Physical Education and School Health. 2 semester hours.

Considers the aims, objectives, and goals of physical education and school health. Principles underlying the curriculum standards for the selection of activities, and criteria for judging outcomes are discussed. A thesis may be initiated.

OCCUPATIONAL THERAPY

210A, B. Theory of Occupational Therapy (for Occupational Therapists). 4 semester hours. Miss Spear.

For description of course see Department of Occupational Therapy, page 188.

309. Theory of Occupational Therapy (for Occupational Therapists). 2 semester hours. Miss Spear.

For description of course see Department of Occupational Therapy, page 188.

310. Theory of Occupational Therapy (for Occupational Therapists). 2 semester hours. Miss Spear.

For description of course see Department of Occupational Therapy, page 188.

RURAL LIFE AND EDUCATION

145. Curriculum. 3 semester hours. Miss Evans.

For description of course see Department of Rural Life and Education, page 204.

240. Introduction to Directed Teaching. 3 semester hours. Miss Evans.

For description of course see Department of Rural Life and Education, page 204.

271. Directed Teaching. 3 semester hours. Prerequisite: Introduction to Directed Teaching 240, academic preparation in the subject or subjects to be taught, and as many honor points as semester hours of credit. Dr. Burge and supervisors.

For students enrolled in the two-year State-Limited-Certificate curriculum. See Department of Rural Life and Education, page 204.

340. Rural Education. (Administration). 2 semester hours. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 205.

345. Rural Education (Seminar). 2 semester hours. Prerequisite: consent of instructor. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 205.

346. Rural Education (Seminar). 2 semester hours. Prerequisite: Rural Education 345. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 205.

348. Special Problems of Village and Consolidated Schools. 2 or 3 semester hours, depending on amount of field work done. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 205.

SECONDARY EDUCATION

321. Secondary School Curriculum. 2 semester hours. Dr. Frederick.

A study of the principles underlying the revision and reorganization of junior- and senior-high school curricula and a survey of current practices in adapting the high-school offering to modern social conditions and adolescent needs.

OPEN TO SENIORS AND GRADUATES

- 423. (C219). Cooperative Field Experience in Guidance.** 4 semester hours.
Prerequisite: open to mature students who have had 523. (C119) and 529 (C217), or equivalent work. Dr. Hilliard and Dr. Manske.
Designed to provide field experience and correlated instruction in guidance. Conducted in Detroit in cooperation with the Chrysler Corporation, the Ford Motor Company, and the Merchants Retail Association. Those admitted to this course will spend eight weeks in retail trades in the larger stores of Detroit, or in war production in industry, at standard rates of pay. The correlated program of instruction will relate such experience to the guidance field. Permission to elect this course must be secured in advance of registration from the Director of the Graduate Division, from whom full particulars may be obtained.

OPEN TO GRADUATES

- 520. (B120). Improvement of Teaching in Secondary Schools.** 2 semester hours. Dr. Frederick.
For teachers of experience, high-school principals, and superintendents who desire to consider the larger problems of classroom instruction. Open also to graduate students without teaching experience.
- 521. (B122). The Modern High School Curriculum.** 2 semester hours. Dr. Frederick.
Concerned largely with the literature dealing with the high-school program of studies, the criticisms directed against the existing curriculum, and the more significant proposals for its reform.
- 523. (C119). Educational Guidance and Adjustment of High School Pupils.** 2 semester hours. Dr. Manske.
Deals with the personal, recreational, educational, and vocational guidance of youth. Methods of counseling and techniques of gathering pertinent personnel data will be presented.
- 524. (B124). Administration of Secondary Schools.** 2 semester hours. Dr. Bryan.
Designed for superintendents, principals, and experienced teachers interested in administrative matters. Makes detailed study of the general problems of organization, supervision, and management of the high school. A master's thesis may be begun.
- 525. (B156). Supervision of High School Subjects.** 2 semester hours. Dr. Bryan.
Deals with the measure, aims and principles of supervision of secondary-school subjects.
- 527. (B227). Seminar in the Secondary School Curriculum.** 2 semester hours.
Prerequisite: Education B122 and B192 or equivalents, and one or more other courses in secondary education. Dr. Wilds.
Designed for students prepared to do curriculum research work in secondary education.
- 528. (B228). Seminar in Secondary School Administration.** 2 semester hours. Dr. Bryan.
For advanced students interested in making an intensive study of a particular problem concerned with the administration of the secondary school.
- 529. (C217). Techniques of Guidance.** 2 semester hours. Dr. Manske.
Familiarizes the student with the instruments of guidance and how to apply them. Stresses the interpretation and application of basic data to guidance situations and the techniques of counseling. Systematic observations of practice employed in selected institutions and agencies are a requirement of the course.

530. (C180). Personnel Problems in High School and College. 2 semester hours. Dr. Manske.

Designed to help supervisors, principals, deans and advisers of students, and guidance workers to understand the problems affecting success and failure of high-school and college students.

SPECIAL EDUCATION

331. Introduction to Special Education. 2 semester hours. Prerequisite: Human Growth and Development 251. Dr. Ellis.

A beginning course in the field of special education, dealing with the education of gifted, subnormal, neurotic, delinquent, speech-defective, blind, deaf, and crippled children.

332. Mental Deficiency. 2 semester hours. Prerequisite: Human Growth and Development 251. Dr. Ellis.

A course in the psychology and the school treatment of subnormal children. Major emphasis will be placed upon the educational treatment of subnormal children and of the moron and borderline classes.

335. Introduction to Mental Hygiene. 3 semester hours. Mr. Carter, Dr. Ellis.

A course in the mental hygiene of childhood and adolescence. Among the topics considered are: adjustment to home and school; failure, frustration and aggression; role of the emotions in education; the genetic development of personality; adolescence and its problems; sex development; personality disorders; juvenile delinquency; maladjustment in elementary school, high school, and college; the mental hygiene of courting, mating, and marital relations; the mental hygiene of religion.

336. Character Education. 2 semester hours. Mr. Cooper.

Character outcomes of education are emphasized in this course. The theories of character education are considered, the objectives of character education are studied and cataloged, and a bibliography of references to methods and materials is collected. Consideration of the individual and respect for personality are stressed. Life-situations are the center of interest, with classroom management, group cooperation, and problem-solving in the foreground. Socialized discussion, case discussions, child guidance, pupil participation, and the significance of the teacher's influence receive attention, together with the influences of the community and the home upon character.

337. Methods of Teaching Subnormal Children. 2 semester hours. Prerequisite: Human Growth and Development 251, Education of Exceptional Children 331. Miss Hollinger.

This course is designed to acquaint the student with the principles and practices of instruction of subnormal children.

338. Audio-Visual Education. 2 semester hours. Mr. Pellett.

Some attention will be given to the historical approach as well as to the philosophy of audio-visual education. Special emphasis will be given to types of audio-visual aids, technical processes, necessary educational procedures, and the administration of audio-visual instruction. Some time will be devoted to the principles and the methods of research in the field.

OPEN TO SENIORS AND GRADUATES

431. (C130). Education of Exceptional Children. 2 semester hours. Dr. Ellis.

Deals with the problems and methods involved in the adjustment and training of exceptional children in the schools—the mentally retarded, the gifted, and crippled, the deaf, the blind, the emotionally unstable, and the delinquent.

435. (C120). Mental Hygiene of Adolescence. 2 semester hours. Dr. Ellis.
Deals with the cause, prevention, and resolution of the mental conflicts which arise in extensive use of case materials and stresses practical school problems.

436. (C121). Mental Hygiene of Childhood. 2 semester hours. Dr. Ellis.
The mental hygiene of adolescence and adulthood. Topics considered are: development of adolescence; sex development in adolescence; adjustment and maladjustment in adolescence; personality disorders; psychoneuroses, psychoses; juvenile delinquency; mental hygiene of religion; courting, mating, marital relations; maladjustment in college.

OPEN TO GRADUATES

531. (C132). Clinical Study of Exceptional Children. 2 semester hours.
This course is intended to illustrate methods of diagnosing and treating the problems of exceptional children.

THEORY AND PRINCIPLES OF EDUCATION

211. Introduction to Statistics. 2 semester hours. Dr. Everett.
For description of course see Department of Mathematics, page 181.

235S. Occupational Information for Teachers. 2 semester hours. Mr. Corbus.
This course has been planned to enlarge the teacher's knowledge of occupations, in order that he may be better able to counsel students in their vocational choices. The course will deal particularly with those occupations most frequently entered into by students in the communities represented by those enrolled in the class. Actual visitation and conferences with employment and personnel officers will be included in the work of this course. The course will be especially valuable to teachers in rural schools and village elementary and secondary schools.

350. The Community and the School. 2 semester hours. Prerequisite: Principles of Sociology 241. Dr. Kercher.
For description of course see Department of Social Sciences, page 219.

353. Foundations of Modern Education. 3 semester hours. Prerequisite: Human Growth and Development 251. Dr. Wilds.
This course acquaints the prospective teacher with the historical and philosophical backgrounds of the institution in which he is to work, in order to prepare for intelligent participation in the interpretation of modern educational issues and the solution of present-day educational problems. The aims, types, content, agencies, organization, and methods of education are studied from their origins down to the present time, in order to provide a sound basis for the understanding, interpretation, and evaluation of the current theories and practices in the public school system of Michigan.

345S. Adult Education. 2 semester hours. Not offered in 1945. Miss Steele.
The course considers the history and philosophy of adult education, the nature of the people who are to benefit by the program of adult education, and the psychology of adult learning, materials, and methods.

OPEN TO SENIORS AND GRADUATES

451. (A125). Philosophy of Education. 2 semester hours. Dr. Wilds.
For graduate students and teachers of experience. Analyzes and interprets the changes in education taking place in this and other countries.

OPEN TO GRADUATES

550. (C102). Advanced Educational Psychology. 2 semester hours. Dr. Wilds.
Will deal with problems of individual differences, learning, and social and emotional adjustment.

ADMINISTRATION AND RESEARCH

360A. School Administration. 2 semester hours. Not offered in 1945-1946.
Mr. Pellett.

A course for students preparing for work as school superintendents. Problems commonly met by school superintendents are studied in some detail. Among the problems discussed are the following: relation of city to state educational organization, growth of city school organization, functions of school boards, nature of the superintendent's work, financial organization, building planning, and educational organization.

Note.—School administration courses 360A and 360B alternate with Philosophy courses 390, 391, and 392.

360B. School Administration. 2 semester hours. Not offered in 1945-1946.
Mr. Pellett.

This course emphasizes the work of the school principal and deals with the following problems: faculty, the pupils and their needs, supervision of classroom teaching, daily program, training the student body, general problems of management, accounting, testing programs, and relation to the community.

OPEN TO GRADUATES

560. (B250). Principles of Educational Administration. 2 semester hours.
Dr. Hilliard.

Deals with the philosophy and principles underlying school administration. Required for the master's degree in general administration and of all students preparing for the preliminary examination for the doctorate in educational administration. Presupposes a rudimentary knowledge of administration and some practical field experience.

562. (B192). Methods of Research in Education. 2 semester hours. Dr. Wilds and others.

Introduces students to the theories and technique of educational research. Study is made of the selection of problems, preparation of bibliography, statistical treatment of educational data, and the writing of the thesis.

PHILOSOPHY

390. Introduction to Philosophy. 2 semester hours. Mr. Pellett.

To introduce the student to the meaning, scope, and problems of philosophy is the purpose of this course.

391. History of Philosophy. 2 semester hours. Mr. Pellett.

Study of the Greek and the early medieval philosophy, with regard both to their interrelations and to their influence on modern thought, will be followed with the study of the late medieval and modern system of philosophical thought.

392. Ethics. 2 semester hours. Mr. Pellett.

A constructive treatment of the fundamental principles of morality, including such topics as the weakness of the traditional conception of morality, the naturalness of real morality, the content of morality, freedom and responsibility, achievement, and morality and religion.

VOCATIONAL EDUCATION

OPEN TO GRADUATES

570. (E100). Principles of Industrial Arts Education. 2 semester hours. Dr. Fox.

For description of course see Department of Industrial Arts, page 172.

571. (E101). **Principles and Techniques of Vocational Guidance.** 2 semester hours. Dr. Fox.
For description of course see Department of Industrial Arts, page 172.
572. (E106). **Coordination in Vocational Education.** 2 semester hours. Dr. Fox.
For description of course see Department of Industrial Arts, page 172.
573. (E114). **Curriculum Construction in Vocational Education.** 2 semester hours. Dr. Fox.
For description of course see Department of Industrial Arts, page 172.

ENGLISH

GEORGE SPRAU
ELDA O. BAUMANN
WILLIAM R. BROWN
EDITH M. EICHER
LOUIS FOLEY
LORENA M. GARY

MINNIE D. LOUTZENHISER
HELEN E. MASTER
LUCILLE A. NOBBS
HERBERT SLUSSER
CHARLES A. SMITH
LOUISE WALKER

The courses in English are planned primarily to meet the needs of students preparing to teach in the various departments of the public schools.

Freshman literature: Where it is necessary or advisable for freshmen to elect courses in literature in addition to the required course in rhetoric, they should elect courses to supplement, not repeat, their work in high school. For example, a student who has had a general course in American literature in the high school should not elect the freshman course in American poets or American prose. He should elect a course in English Literature 107 or General Literature 124. Freshmen who have had four units of English in the high school, including a general survey of American literature and of English literature in the eleventh and twelfth grades, should not elect courses in literature. They might better begin the college study of literature in their sophomore year.

Majors and minors: Students who intend to make a major or a minor in English in any of the curricula leading to a certificate to teach should confer with the adviser of the department as early as possible in their freshman year. In so far as possible an attempt will be made to select and arrange the work of each student in accord with his personal needs and the other requirements of his program of study. However, the following general outlines may be of service as tentative guides in planning programs of study:

Students who major or minor in English for the State Elementary Provisional Certificate should plan to take Literature for Children 203; 3 to 6 semester hours in courses in poetry; 3 or 4 hours in courses in non-fiction prose; 3 hours in fiction; 3 or 6 hours in drama; and sufficient electives to meet the requirements for a major or a minor.

Students who major or minor in English for the State Secondary Provisional Certificate should have a fundamental acquaintance with Latin, and a reading knowledge of some modern language, preferably French or German. They must take Anglo-Saxon 390 and Chaucer 391, and should take Shakespeare 214A,B, The English Novel 213, some course in non-fiction prose, some course in American literature, and some course in poetry. For a minor, of course, the student will elect 15 semester hours most suited to his needs. In all cases the student's general program of study from year to year should be considered in making his elections in English.

RHETORIC AND CRITICISM

99. **Grammar Drill.** Non-credit course. Miss Gary.

A miscellaneous review and drill for students who are deficient in the rudiments of English grammar, spelling, and punctuation. Such students are

required to carry this work in connection with the regular courses in composition and rhetoric, in order that they may receive such extra attention as cannot be given them in these classes. The class meets twice a week.

106A, B. Rhetoric. 6 semester hours. Dr. Baumann, Miss Eicher, Miss Gary, Miss Loutzenhiser, Miss Master, Miss Nobbs, Mr. Slusser, Mr. Smith, Miss Walker.

The course is planned to aid the student in developing greater facility in the use of language in the common human experiences of thinking, talking, reading, and writing.

In 106A, the first half of the course, the procedure has to do specifically with the ordinary uses of the mother-tongue and with such mechanics as the student will have occasion to practice in his college work. The principles of English grammar and punctuation are reviewed in their application to reading, speaking, and writing. This is done by means of practice exercises, by reading and the discussion of reading, by the writing and revision of themes. Some attention is given to the mechanics of the outline, the methods of indicating footnotes, and the making of a bibliography. One expository paper of considerable length is generally undertaken.

In 106B, the second half of the course, the general forms of discourse are introduced, with particular attention to description and narration. Some attention is given to figures of speech and to those traits of style that give character to writing. English prosody in its more elementary aspects is considered in connection with the study of a small group of poems. Usually some masterpiece of English prose is studied in detail as an example of narrative writing.

315. Literary Criticism. 2 semester hours. Mr. Sprau.

A careful study of the fundamental principles of literary criticism, supplemented with wide reading in English critical essays. Each student writes several short criticisms. The work of the course is arranged to develop in the student a careful critical judgment and to cultivate the habit of thoughtful criticism.

323. Advanced Rhetoric. 2 semester hours. Miss Eicher, Mr. Foley, Miss Gary, Miss Master, Miss Nobbs, Mr. Slusser.

In this course some attention is given to the historical background and method of development of the language. Such subjects as point of view, fashion in language, euphemism, poetic imagery, and shifting meanings of words are studied, with a view to illuminating much that lies back of literary expression, and to sharpening and vivifying the student's appreciation of literature. It is taken for granted that those who enroll in the course have had considerable work in English or in foreign language.

OPEN TO SENIORS AND GRADUATES

452. (152). History and Principles of Modern English Grammar. 2 semester hours. Mr. Foley.

A study of the historical development of the English language, with special attention to the evolution of modern syntax and the growth of new meanings for words.

LITERATURE

Not more than six hours credit may be counted from courses in literature numbered below 200.

107A, B. English Literature. 6 semester hours. Miss Eicher, Miss Loutzenhiser, Mr. Smith.

This course is arranged primarily for freshmen who elect work in literature. It should not be generally elected by freshmen who have had a survey course in English literature in the eleventh or twelfth grades. The course extends over the whole year, but students may elect either semester as a unit in itself.

A. 3 semester hours. Emphasis is placed on the study of Chaucer, the epic, the drama of Shakespeare, and the important prose works of the eighteenth century.

B. 3 semester hours. This course is concerned with the development of the novel from its beginning, and with the chief writings in prose, poetry, and drama from 1798 to the present time.

121. Chief American Poets. 3 semester hours. Miss Eicher, Miss Nobbs, Mr. Slusser, Miss Walker.

An intensive study of the chief American poets.

122. American Prose. 3 semester hours. Miss Eicher, Miss Nobbs, Mr. Slusser, Miss Walker.

An intensive study of the chief American prose writers.

124A, B. General Literature. 6 semester hours. Dr. Brown.

This course offers students the opportunity, by means of translations, of cultivating a more intimate acquaintance with the greater things in European literatures other than English. No foreign language is necessary for the course. Where possible, students should plan to take both semesters' work; but either semester may be taken as a unit in itself.

A. 3 semester hours.

This course is devoted to reading and critical interpretation of the masterpieces of epic and dramatic literature other than English. The *Iliad* and the *Aeneid* and important dramas from Aeschylus to Ibsen will be read and analyzed.

B. 3 semester hours.

This course is concerned primarily with the development of the lyric and the novel in European literatures other than English.

203. Literature for Children. 3 semester hours. Miss Master.

A general survey of the field of literature suited to the needs and tastes of children; the general principles which underlie the selection of literature for children under any given conditions.

205A, B. Nineteenth Century English Prose. 4 semester hours. Mr. Slusser.

A careful reading of selected non-fiction English prose of the nineteenth century. The types of literature selected for study include reflective and familiar essays and longer writings, both critical and philosophical. This course continues throughout two semesters, but students may elect either A or B.

A. 2 semester hours.

Coleridge, Hazlitt, Lamb, De Quincey, Landor, Macaulay.

B. 2 semester hours.

Ruskin, Pater, Arnold, Huxley, Newman, Stevenson.

207AS. Representative English Poetry. 3 semester hours. Miss Gary.

The aim of this course is to help the student become more familiar with representative poets of England and the relation of each to the period and movement in which he worked. Selections are read and discussed in class.

207BS. Representative English Prose. 3 semester hours. Not offered in 1945. Miss Eicher, Miss Loutzenhiser.

The purpose of this course is to give the student a greater familiarity with the most representative works of England's best prose writers. Stress is placed upon the significance of each work in relation to the literary and social movements of the time. Selections are read and discussed in class.

210. Literary Interpretation. 3 semester hours. Mr. Sprau.

In this course an attempt is made to introduce the student to the general field of literary study and to develop in him some skill in critical interpretation. The typical forms of literature are carefully studied, and different ways of approaching the subject are considered. The course is intended to be a foundation for further study of literature.

211. Lyric Poetry. 3 semester hours. Mr. Sprau.

This course is a more thorough study of one form of literature considered in Literary Interpretation 210. Its aim is to help the student to a fuller appreciation of good poetry, to know why a poem is good literature, and to suggest ways of using poetry with classes.

212. The Familiar Essay. 1 or 2 semester hours. Mr. Sprau.

This course aims to introduce the student to careful and accurate reading of English literary prose, and to cultivate in him some appreciation of the familiar essay as a type of literature. The familiar essay is studied in its historical development, with special emphasis on the essay as written by the best essayists of our own time.

213. The English Novel. 3 semester hours. Dr. Brown.

The first aim of the course is to acquaint the student with the method of studying and teaching prose fiction. For this purpose some short, well-constructed novel is analyzed in the classroom. After some study of the picaresque tale of the Elizabethan times, the class traces the development of the novel in DeFoe, Richardson, Fielding, Sterne, and Smollett, the Gothic romance, and the novels related to the French Revolution. Later the leading English novelists from Jane Austen to the present date are studied. Each member of the class is required to make a detailed study of some novelist or some phase of the novel, and to report upon it to the class.

214A, B. Shakespeare. 6 semester hours. Mr. Sprau.**A. 3 semester hours.**

The purpose of the course is to help the student read Shakespeare with better understanding and appreciation. One of the great tragedies and one of the better comedies are carefully studied in class. Other tragedies, comedies, and histories are read more rapidly with such critical comment as time will permit.

B. 3 semester hours.

This course follows A, and may not be taken without having had A or some equivalent work in Shakespeare. In this course the remaining plays not read in A and the poems are read and considered in their historical order. The work consists of reading and of critical discussion of special subjects of importance in Shakespearian criticism. Some attempt is made to introduce the student to scholarly methods of personal study.

215. Aesthetic Discernments. 1 semester hour. Mr. Henderson, Miss Loutzenhiser, Miss Siedschlag.

For description of course see Department of Art, page 124.

216. Contemporary Literature. 2 semester hours. Mr. Slusser.

It is the aim of this course to give the student some acquaintance with the better things in the literature of the last thirty years and to help him choose his reading with more critical discrimination. The classroom work consists of reading and interpreting representative selections, and of lectures upon interesting subjects connected with the literature of today. The course is primarily a reading course; much library work is required.

218A, B. The English Bible. 4 semester hours. Mr. Sprau.

In this course an attempt is made to study the Bible as a body of great literature. Facts of history and composition, in so far as they are known, are carefully studied as a background for intelligent interpretation and appreciation of Biblical literature. Students who enroll in the course for credit are required to read the major part of the Bible and to study intensively certain books that are especially rich in literary value.

A. 2 semester hours. The Old Testament.**B. 2 semester hours. The New Testament.**

219. The Short Story. 2 semester hours. Dr. Brown, Mr. Foley.

This course traces the development of the short story in England, France, and America, with an account of the various types and its general technique. The required reading will serve to acquaint the student with the best short stories and the method of teaching such material. Themes and reports are required.

223. Eighteenth Century Prose. 3 semester hours. Mr. Foley.

This course involves the reading of a variety of types in the non-fiction prose of the eighteenth century, with attention to the ideas and ideals voiced by the leading English writers of that time: DeFoe, Swift, Steele, Addison, Johnson, Hume, Goldsmith, and Burke.

224. Eighteenth Century Poetry. 3 semester hours. Mr. Foley.

A study is made of classicism in English literature as exemplified in the non-dramatic poetry of Dryden, of his successor, Pope, and of some of Pope's contemporaries; the further history of classicism, and the rise and progress of romanticism to the end of the eighteenth century, including the work of Gray, MacPherson, Cowper, Blake, and Burns.

225. The Ballad. 2 semester hours. Mr. Foley.

A study of the form and method of development of the traditional popular ballad. A number of ballads representative of various types are studied minutely, and many others are read. The course gives some attention secondarily to the later artistic ballad.

226A, B. Masterpieces. 4 semester hours. Miss Loutzenhiser.

The purpose of this course is to study intensively some of the masterpieces of English literature. At least one example of the novel, the essay, the drama, the tale, and narrative poetry is read and analyzed. The masterpieces studied are as follows:

A. 2 semester hours.

Canterbury Tales, Othello, The Faerie Queene.

B. 2 semester hours.

Heroes and Hero Worship, The Ring and the Book, Pride and Prejudice.

227. Seventeenth Century Poetry and Prose. 3 semester hours. Mr. Smith.

The poets read and discussed in this course are John Donne, John Milton, and John Dryden. The following prose writers are studied for their style and for their views: Francis Bacon, Sir Thomas Browne, John Donne, John Milton, John Bunyan, John Dryden.

305. Carlyle. 2 semester hours. Mr. Sprau.

This course is intended for mature students who have a taste for serious, thoughtful reading and who care for a better acquaintance with the work of this author. Special attention is given to *Sartor Resartus, Heroes and Hero-Worship, Past and Present*, and the more important essays.

307A, B. History of English Literature. 6 semester hours. Dr. Brown, Miss Gary.

This course is intended primarily for third and fourth-year students who have had no literature in the first and second years. It may be elected by other third- and fourth-year students who have not taken English Literature 107. Except by special arrangement with the instructor, credit for 307A will not be counted until 307B is completed.

A. 3 semester hours.

A study of English epic and lyric poetry.

B. 3 semester hours.

A study of representative English dramas, essays, and novels.

308A, B. The English Drama. 4 semester hours. Mr. Smith.

The chief aim of the course is to give the student familiarity with many interesting and important, but too seldom read, English plays. Either semester's work may be taken separately.

A. 2 semester hours.

During the first semester interesting and significant plays by Elizabethan and Jacobean playwrights—Lyly, Greene, Peele, Marlowe, Kyd, Webster, Jonson, Beaumont, and Fletcher—are read and discussed.

B. 2 semester hours.

In the second semester, Restoration and Eighteenth Century plays by Dryden, Wycherley, Steele, Addison, Gay, Garrick, Sheridan, and others are studied.

309A, B. Nineteenth Century Poetry. 6 semester hours. Dr. Baumann, Mr. Sprau.

This course aims to cultivate in the student a richer appreciation of poetry and to develop some skill in the critical interpretation of literature. The work consists of wide reading in the poetry of the century, supplemented by critical and interpretive lectures on the thought of the period as it was reflected in the work of the chief English poets. Students may elect either A or B without the other.

A. 3 semester hours.

Wordsworth, Coleridge, Byron, Shelley, Keats, Scott, and Landor.

B. 3 semester hours.

Tennyson, Mrs. Browning, Browning, Clough, Arnold, Rossetti, Morris, and Swinburne.

Note.—The courses in Wordsworth 312, Tennyson 310, and Browning 311, offered in the summer session and by extension, may not be counted together with the semesters of Nineteenth Century Poetry 309, in which these poets appear.

313. The Contemporary Novel. 2 semester hours. Dr. Brown.

A study of the tendencies in English and American prose fiction since 1898, together with wide reading from the chief novelists of the period. Book reviews and a long report will be required.

322. American Literature. 3 semester hours. Mr. Foley, Miss Nobbs, Mr. Slusser.

This course is intended primarily for juniors and seniors who have had no other courses in American literature and who desire more intimate acquaintance with the subject. The work consists of lectures, discussions, and as wide reading as the time will permit.

Note.—This course can not be counted for credit together with the courses American Poets 121 and American Prose 122.

333. Lives and Letters of English Authors. 2 or 3 semester hours. Pre-requisite: freshman or sophomore courses in English literature. The instructor's consent is required. Dr. Brown.

This course combines a detailed study of the Wordsworths, the Carlyles, and others, with wide reading in biography and letters. Reports and critical essays are required.

338. Modern Drama. 2 semester hours. Miss Eicher.

A study of the plays of Ibsen, Pinero, Jones, Galsworthy, Shaw, and others, with a careful inquiry into the relations among the Continental, the English, and the American dramas.

- { 390. **Anglo-Saxon.** 3 semester hours.
- { 391. **Chaucer.** 3 semester hours. Courses 390 and 391 together yield 6 semester hours credit. Students may not enroll for one semester's work without the consent of the instructor. Each course represents a semester's work. Dr. Brown, Mr. Foley.

The purpose of Anglo-Saxon 390 is to give the student some acquaintance with Old English grammar and Old English forms as a foundation for more thorough study and understanding of modern English; and to give him a clearer conception of early English literature. Bright's *Anglo-Saxon Reader* is used as a text, supplemented with wide reading in translation from early English literature, and in the history of the period.

In Chaucer 391, as much as possible of Chaucer's poetry is read in the original, with special attention to pronunciation, grammar, and meter. The life and time of Chaucer are carefully studied as an aid to the interpretation of his poetry. A generous amount of reading in the literature of the Middle English period is required.

OPEN TO SENIORS AND GRADUATES

413. (184). **The Modern Novel.** 2 semester hours. Dr. Brown.
A study of social interpretation in the English novel from Jane Austen to John Galsworthy.

414. (160). **Shakespeare's Tragedies.** 2 semester hours. Mr. Sprau.
Students who enroll in the course must have had some course in Shakespeare or in the early English drama.

416. (177). **English Literature from the Restoration to 1730.** 3 semester hours. Dr. Baumann.

The works of leading literary figures of the period, with emphasis on satire.

417. (111). **The English Epic.** 3 semester hours. Dr. Brown.
A study of the general characteristics of the epic. The class makes a careful study of *Paradise Lost*. Selections are read from other epics for comparative study.

422. (182). **American Literature.** 3 semester hours. Miss Nobbs.
A study of representative prose and poetry from 1870 to the present. Individual assignments over schools and tendencies, with emphasis upon Whitman, Mark Twain, Henry James, O'Neill, Robinson, Steinbeck, and Hemingway.

TEACHING

300T. **Teaching of English.** 2 semester hours. Miss Walker.
The aim of the course is to give the prospective teacher the best educational information relative to the content and teaching of various phases of English in the junior- and senior-high school. Students should plan to take the course before enrolling for practice teaching in English.

GEOGRAPHY AND GEOLOGY

WILLIAM J. BERRY

MARGUERITE LOGAN

LUCIA C. HARRISON

Introductory Geography, either 105A and B, or 305, must precede all other undergraduate geography courses except Conservation of Natural Resources 312, Introduction to Commercial Geography 218, Meteorology 225, and Military Uses of Maps and Aerophotographs 250. Course 305 should be taken instead of 105A, B by two groups of students: (1) those who do not begin the study of geography until the junior year and yet desire to complete a minor in the field and (2) upper classmen who are interested in electing a sequence in geography as a part of their general cultural or professional training. There is no required sequence in the courses in regional geography.

A student will not receive departmental recommendation for directed teaching or for a teaching position in geography who has not successfully completed Geographic Techniques 303.

A major in geography consists of 24 semester hours, including Field Geography 340, Climatology 325, either General Geology 230S or Dynamic Geology 230A, and Geographic Techniques 303. Students majoring in geography are advised to elect Economics 220A, B and modern American and European history, and to acquire the ability to read German, French, or Spanish. A minor in geography consists of 15 semester hours, including Field Geography 340 or an approved equivalent.

A major in earth science consists of Geology 230A, B and 16 hours additional in geography and geology.

Some recommended sequences to meet particular interests are the following:

1. If major is history: 105A, B or 305, 310, 316, and the regional geography of the continent of special interest.
2. If major is business administration or business education: 105A, B or 305, and 218.
3. If major is general science: 105A, B or 305, 325, 340, and Geology 230S or 230A, B.

Two of the six semester hours earned in Physical Science 100A, B may be counted toward a major or a minor in earth science.

100A, B. Physical Science. 3 semester hours each semester. Dr. Berry, Mr. Marburger, Dr. Osborn, Dr. Rood.

For description of course see Department of Physics, page 200.

105A. Introductory Geography. 3 semester hours. Dr. Berry, Miss Harrison, Miss Logan.

Designed to build the background of factual material and principles basic to the study of regional geography.

The course in Introductory Geography continues throughout two semesters and the two semesters' work should be taken consecutively.

105B. Introductory Geography. 3 semester hours. Dr. Berry, Miss Harrison, Miss Logan.

A continuation of Introductory Geography 105A.

106. Major Geographic Patterns of the World. 2 semester hours. Prerequisite: Introductory Geography 105A, B. May not be offered in 1945-1946. Miss Logan.

A world view of man's major adaptations to the natural environment, including such patterns of adjustment as the agricultural, manufacturing, besticultural, mining, and the like.

206. United States and Canada. 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Dr. Berry or Miss Logan.

A regional study of the United States and Canada.

207. Europe. 3 semester hours. Prerequisite: Introductory Geography 105A, * B or 305. Miss Logan.

The course proposes to point out the functions of the various national conditions, such as climate, topography, minerals, and relative locations in the economic, political, and social developments in the various regions of Europe.

208. South America. 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Harrison.

The historical background of the political evolution of the countries of South America; distribution of the several racial and national groups and the part played by each in the economic life; the development and potential economic resources of the continent in relation to the country by which controlled and to international trade; the economic, social and political geography of the several countries.

209. Mexico and the Caribbean Lands. 2 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Harrison.

Includes the geography of Mexico, Central America, the Guianas, and the West Indian Islands. The present economic, social, and political development of these regions; their potentialities and trends.

Note.—Courses 208 and 209 may be elected simultaneously.

215. Geographic Background of Current Events. 1 semester hour. Prerequisite: Introductory Geography 105A, B or 305, and an interest in world affairs. Offered by different members of the Department of Geography Staff.

The particular topics discussed in tracing relationships of current international and national problems to natural environmental conditions will necessarily vary with the trend of events.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group II.

218. Introduction to Commercial Geography. 3 semester hours. Dr. Berry or Miss Logan.

A course dealing with important commercial products from the standpoint of their places of origin, cultural and natural factors in their production, their flow in commerce, and principal regions of their consumption.

225. Meterology. 2 semester hours. Dr. Berry.

A study of the elements of weather, such as temperature, precipitation, and pressure; the reading of weather maps; and the characteristics of fronts and air masses. Thermodynamics and the mechanics of the atmosphere are used to explain weather phenomena, but the course is essentially non-technical.

250. Military Uses of Maps and Aerophotographs. 2 semester hours. Open to freshmen, sophomores, juniors, and seniors. Dr. Berry.

It is the aim of this course to develop skill in the use of maps, particularly those used in war activities, and in interpretation of aerophotographs.

303. Geographic Techniques. 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Logan.

Guidance is given in the selection, interpretation, and use of major types of geographical materials such as texts, library materials, pictures, maps, and the like. Special emphasis is placed upon the organization of geographic investigations.

304. Geography of British Isles. 2 semester hours. Prerequisite: Geography 105A, B or equivalent, and Europe 207. Miss Logan.

A geographic analysis of the present and future geographic potentialities of the British Isles.

305. Introductory Geography for Juniors and Seniors. 3 semester hours. Not open to students who have received credit for Introductory Geography 105A or 105B. Dr. Berry.

An introductory course designed for upper classmen who are electing their first course in collegiate geography.

306. Michigan. 2 semester hours. Prerequisite: Introductory Geography 105A, B or equivalent. Dr. Berry.

A detailed but non-technical study of Michigan in which are taken up the major economic, social, and recreational activities with a view to explaining their existence in the particular parts of the state where each activity is prominent.

- 307. Asia.** 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Logan.

An interpretation of the major geographic regions of Asia. Especial emphasis is given to the organization of materials into geographic units.

- 308. Africa.** 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Harrison.

Earth conditions that have retarded exploration, occupation by the white race, and economic development factors that have been operative in the evolution of the present political pattern of the continent; problems of governance and commercial exploitation by Europeans; the economic, social, and political geography of the major natural and political regions; economic, cultural, and political trends.

- 309. Australasia.** 2 semester hours. Prerequisite, Geography 101A, B or 305. Miss Logan.

A geographic interpretation of Australia, New Zealand, Netherland India, the Philippines, and islands nearby. Especial stress is laid upon their potentialities for future utilization.

- 310. Geographic Background in American Development.** 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Dr. Berry.

A study of the relations between the natural environmental elements and the settlement and development of the United States.

- 311. Geography of the South.** 3 semester hours. Prerequisite: Geography 105A, B or 305.

A systematic study of the regions of the southeastern part of the United States with particular attention to the natural resources, the manner in which they have been utilized, and the economic problems which exist today.

- 312. Conservation of Natural Resources.** 2 semester hours. Dr. Berry.

A critical evaluation of certain of the natural resources of the United States, such as minerals, soils, forests, water, and wild life; and a study of the utilization of these resources so as to yield the greatest ultimate good.

- 316. Political Geography.** 2 semester hours. Prerequisite: at least one year of college geography and history. Miss Harrison.

Relationships between the patterns of states and the patterns of the natural environment. Includes a study of the comparative control by the several world powers of the arable lands, the useful minerals, the ocean highways, and the strategic footholds; of the natural environmental and other bases for the existence of areas of territorial instability; of the modifications in the political system of western Europe that evolved when it was transferred to new natural environments—through the migrations of peoples, as in the Western Hemisphere, Australia, and New Zealand, or through colonial administration, as in Africa; of the Soviet Republic, China, and Japan as they figure in the world structure of states.

- 320. Geography of Japan.** 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Logan.

A detailed study of the geography of Japan, with attention focused on present and future potentialities.

- 323. Geography of the Union of Socialist Soviet Republic.** 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Miss Logan.

A careful analysis of the geography of the whole of the Soviet realm.

325. Climatology. 2 semester hours. Prerequisite: Introductory Geography 105A, B or 305.

A study of the distribution and character of the major climatic types of the earth. The fundamentals of air physics as applied to this distribution are discussed.

340. Field Geography. 3 semester hours. Prerequisite: Introductory Geography 105A, B or 305. Dr. Berry.

A intensive study is made of various type areas within the Kalamazoo vicinity with the purpose of observing how agricultural and industrial development, transportation, commercial organization, and the urban pattern have made adjustments in these areas. The course is based primarily upon field work and affords training in observing geographical facts, field note-taking, and detailed mapping of areas studied. Required of students who specialize in geography.

341. Advanced Field Geography: Independent field investigation. 1, 2, or 3 semester hours. Prerequisite: Field Geography 340. Dr. Berry.

The course is planned for students who desire to do independent field work in geography and to receive credit, the amount of which will depend on the size of the project and the intensity with which the work is done. A complete report written in scientific style is required. The course offers a good opportunity for college men in service to do some collegiate work. It should not be taken while the student is in residence. Students may take this course only by special permission of the instructor. Enrollment must then be made with the Extension Division and fees paid at that office. Residence credit is given.

350. Cartography and Graphics. 2 semester hours. Prerequisite: Introductory Geography 105A, B or 305.

A study of maps, the construction of them for reproduction, and the projections and symbolism most commonly used; also the graphical presentation of statistical material.

361. Geography of the Local Community. 3 semester hours. Off-campus course giving residence credit. Dr. Berry.

In this course will be studied the agriculture and the industries that provide livelihood for people living in the community, and with these activities will be considered climatic, edaphic, and locational factors to which they are related. The class will carry on individual projects in mapping the urban and rural patterns of the community and evaluating them in the light of natural patterns.

OPEN TO SENIORS AND GRADUATES

410. (130). Library and Laboratory Techniques in Geographic Investigations. 2 semester hours. Prerequisite: one year of college geography. Dr. Berry.

The utilization of maps, literature, and data in developing regional concepts. There will be field excursions for the purpose of observing landscape phenomena of geographic significance.

OPEN TO GRADUATES

506. (120). Cultural Geography of North America. 2 semester hours. Prerequisite: Introductory Geography 105A, B or consent of instructor. Dr. Berry.

The migrations and routes of travel of the various European colonizers, together with the geographical conditions encountered in developing each part of the continent for human use.

516. (135). Political Geography. 2 semester hours. Miss Harrison.

A study of the resources, peoples, and geographico-political problems of the various nations and empires of the world from the point of view of the reciprocal areal relations involved.

578. (145). Pro-Seminar in Economic Geography. 2 semester hours. Prerequisite: Introductory Geography 105A, B or 305 and Industrial Commercial Geography 218, or consent of instructor.

Each member of the class carries on an individual investigation of some problem in economic geography. The theory and technique of research in economic geography, recent significant contributions to the literature of the field, and the treatment of graphic forms as applied to geography are covered.

GEOLOGY

230A. Dynamic Geology. 4 semester hours. Dr. Berry.

A study of the origin and development of the surface features of the earth and the processes involved in their development. It involves principally studies of the work of streams, glaciers, and wind, and of volcanic and diastrophic activity. Classroom, 3 hours a week; laboratory or field, 2 hours a week.

230B. Historical Geology. 4 semester hours. Prerequisite: Dynamic Geology 230A. Desirable antecedent: General Biology 100A, B. Dr. Berry.

The course includes a study of the origin of the earth, the development of plant and animal life as shown by fossils, and the major changes that have occurred in the elevation, size, and form of the continents. Classroom, 3 hours each week; laboratory, 2 hours each week. There will be at least two Saturday field trips.

230S. General Geology. 3 semester hours. Not offered in 1945. Dr. Berry.

The work of streams, underground water, glaciers, wind, and waves in creating earth features; common rocks and rock-forming minerals; the origin of mountains; the nature of the geologic record; the geologic time table; the history of past changes in the location of areas of land and sea; periods of mountain building and of degradation and deposition; past climates. A minimum of three field trips is required.

Note.—This is a general cultural course, similar to survey courses in chemistry and biology. Students desiring a full year's work in geology should elect Geology 230A, B.

332. Physiography of United States. 2 semester hours. Prerequisite: Dynamic Geology 230A. Dr. Berry.

An investigation of land forms in western United States and the geologic processes which have produced them. Laboratory work will consist largely of examination and interpretation of selected topographic maps.

335. Mineralogy. 2 semester hours. Desirable antecedents: general chemistry and Dynamic Geology 230A. Dr. Berry.

A study of the physical and chemical properties, the occurrence, the uses, and the determination of approximately 100 of the more common minerals. Classroom, 1 hour a week; laboratory, 2 hours a week.

HOME ECONOMICS

SOPHIA REED
RACHEL ACREE

REINOU MAURITS
MARY A. MOORE

REVA VOLLE

Western Michigan College of Education prepares students to qualify as teachers of Vocational Home Economics in Michigan under the provisions of the State and Federal acts on vocational education.

Courses are planned in the Department of Home Economics for a major or a minor in home economics. Plans are also made for meeting the requirements for a vocational certificate in Michigan.

Major:

The major consists of twenty-four or more semester hours in home economics. To be eligible for the advanced foods courses it will be necessary for the student to have had Chemistry 105A, B. To be eligible for the advanced

courses in clothing it will be necessary for the student to have taken Elementary Design 105, or equivalent, and Costume Design 209. A student who has a major in home economics and meets the requirements of the Department of Education for a certificate may teach home economics only in the non-vocational home-economics departments of Michigan.

Minor:

The minor consists of fifteen semester hours in home economics. It is planned for students of other curricula who wish to take home economics for personal or homemaking purposes.

Vocational Certificate:

Only persons who meet the requirements for a vocational certificate can teach in the vocational home-economics departments in Michigan. The required courses are listed below:

Science—Biology 105A, Chemistry 105A, B, Hygiene 112, Household Physics 202.

Social Science—At least one course each in economics and sociology.

Fine Arts—Elementary Design 105, Costume Design 209, Home Furnishings 221.

Home Economics—Problems in Home Living 100, Clothing Clinic and Textiles 103, Foods 111, Clothing 205, Nutrition 211, Home Nursing and Family Health 223, Family Clothing 305, Advanced Foods 311, Quantity Food Management 312, Home Management 322, Home Management Practice 324, Marriage and Family Relationships 325, and elective, two or more semester hours.

Education—Problems in Home Economics Education 300T, Human Growth and Development 251, and other courses in the Department of Education to fulfill the requirement for a secondary provisional certificate.

Dietetics:

At present the Department of Home Economics does not prepare students to be dietitians. If a student wishes to enter the department and transfer at the end of two years, it is suggested that she take two years of chemistry (both inorganic and organic), one year of biology, General Psychology 200, and courses in sociology, besides courses in foods and nutrition.

Note.—The following courses are open to students not majoring or minoring in home economics: Home Economics 100, 103, 111, 120, 209, 218, 219, 222, 226, 321, 325, 339. Students may enter other courses with the consent of the instructor.

In all one semester hour courses in home economics, a fee of twenty-five cents per semester for illustrative materials and books will be charged; in all two and three semester hour courses, a fee of fifty cents per semester for these purposes will be charged.

ORIENTATION COURSE FOR FRESHMEN

100. Problems in Home Living. 1 semester hour. Miss Reed.

The student studies her problems in adjustment to college. The course includes units on personality, food for health, housing, use of leisure, social relationships, management of time and money, and vocations.

CLOTHING AND TEXTILES

103. Clothing Clinic and Textiles. 3 semester hours. Miss Maurits.

This course is primarily for the purpose of studying the clothing needs of a college girl. Emphasis will be placed on getting the most in becomingness, appropriateness, and durability for each clothing dollar spent. In addition to class work there will be opportunity for individual conferences with the

instructor to solve individual clothing problems. One construction problem, based on wardrobe needs of the individual, is included to give opportunity for learning the elementary technique of construction. Textiles is taught from the consumer point of view. Some testing of textile materials is required.

105. Elementary Design. 2 semester hours. Miss Siedschlag.

A beginning course in art structure, emphasizing principles of design and color theory and their application to the making of original borders, surface patterns, and other school art problems.

203. Clothes and Personality. 2 semester hours. Miss Maurits or Miss Volle.

This course is to help the student who is interested in spending her clothing dollars more wisely. Factors affecting the choice of satisfactory clothes from the standpoint of becomingness, current fashion, and economy are studied. Laboratory work consists of making garments to develop a knowledge of construction. Emphasis is placed on selection of clothes to suit personality types.

205. Clothing. 3 semester hours. Prerequisite; Clothing Clinic and Textiles 103. Miss Volle.

This course is planned to develop technical skill. A foundation pattern is developed from which flat-pattern designing is taught. A further study of selection, textiles, and construction technique is developed through making garments of various kinds of materials. Comparisons of quality, cost, and workmanship are made with similar ready-made dresses.

209. Costume Design. 2 semester hours. Prerequisite: Elementary Design 105. Miss Volle.

This course is intended to develop more discriminating judgment in the selection of appropriate clothes for individuals, through a better understanding of the relation to selection of art principles, psychology, fashion, personality, and physical characteristics of individuals. Emphasis will be placed on the relation of wardrobe needs to social and economic status. Laboratory work will consist of an interpretation and adaptation of current fashion-magazine designs to individual needs and original designing. A brief study of historic costume is made as a basis for understanding recurring cycles in fashions.

223. Stitchery (for Occupational Therapists). 4 semester hours. Mrs. Thomas
For description of course see Department of Occupational Therapy, page 188.

224. Rug Making. (for Occupational Therapists). 1 semester hour. Miss Spear.
For description of course see Department of Occupational Therapy, page 189.

304. Tailoring. 2 semester hours. Prerequisite: Clothing 205 or consent of instructor. Miss Volle.

This course is planned to give experiences in tailoring techniques, with emphasis on the making of coats and suits.

305. Family Clothing. 2 semester hours. Prerequisite: Clothing Clinic and Textiles 103, Clothing 205, Costume Design 209. Miss Volle.

This course is flexible in content to meet the needs of advanced students preparing to teach clothing selection and construction to definite groups of persons. Each part of the wardrobe, including all garments and accessories, will be studied with reference to its cost and to its appropriateness in the wardrobe of specific individuals. Garments are made for persons of any age, from either new or old material.

306. Clothing Modeling. 2 semester hours Prerequisite: Clothing Clinic and Textiles 103, Clothing 205, Costume Design 209, Elective for majors. Miss Volle.

This course is intended to give advanced students an opportunity to design in material on a dress form, thereby developing more skill in fitting. Emphasis is placed on the relation of texture of material to design of dress. A dress form is made and two garments are modeled and finished.

FOODS AND NUTRITION

111. Foods. 3 semester hours. Miss Moore.

A study of foods and the principles of cookery. The course includes planning, preparing, and serving of meals to family groups. Emphasis is placed on the cost of meals.

211. Nutrition. 3 semester hours. Prerequisite: Chemistry 105A, B, Foods 111. Miss Moore.

A study of the essentials of adequate nutrition on food budgets of various income levels. Application of such knowledge to the feeding of individuals and family groups.

218. Food for the Family. 2 semester hours. Elective for non-majors. Miss Acree or Miss Moore.

Problems in the buying of foods and in the planning, preparing, and serving of family meals.

219. Nutrition. 2 semester hours. Elective for non-majors. Miss Moore.

A study of nutrition in relation to the health of the individual and of family groups; adequate nutrition on reduced food budgets; relation of individual to community nutrition problems.

311. Advanced Foods. 3 semester hours. Prerequisite: Nutrition 211. Miss Acree or Miss Moore.

A study of unusual methods of preparation of foods and various types of table service. The course includes experimental work on food problem of special interest to the individual student. A unit on food preservation is taught.

312. Quantity Food Management. 2 semester hours. Prerequisite: Advanced Foods 311. Miss Acree or Miss Moore.

This course includes a study of the buying, preparing, and serving of large amounts of food; the management of school lunches; the management of people, supplies, time, and equipment in large quantity cookery and serving. Some practical work is done in the college cafeteria and in the preparing and serving of teas, banquets, luncheons, and dinners.

319. Problems in Advanced Foods and Nutrition. 2 semester hours. Prerequisite: Nutrition 211, Advanced Foods 311. Elective for majors. Miss Acree.

Each student works on some problem in foods or nutrition in which she has special interest. The present nutrition status of children and adults, the methods of judging nutrition, and the cause and effect of malnutrition are studied in relation to meal planning. Recent literature on foods and nutrition is evaluated. Feeding experiments are conducted to show the effect of diets of varying compositions.

HOME MANAGEMENT, CHILD DEVELOPMENT, AND FAMILY RELATIONSHIPS

120. Personal and Social Problems. 1 semester hour. Miss Acree, Miss Maurits, Miss Moore.

This general course is planned for those who do not intend to teach home economics. Consideration will be given to such units as selection and care of clothing, personal health and grooming, social usage, nutrition, the hot lunch, 4-H Club work, and applied art. The units taught will be selected on the basis of the interests and needs of the students.

220. Home Nursing (for Rural School Teachers). 1 semester hour. Prerequisite: consent of the instructor. Miss Acree and member of the Health Service Staff.

A practical course, open to both men and women, in home hygiene and the care of the ill or injured; common ailments, diseases, and emergencies; medi-

cines and home remedies; nutrition; and the promotion and conservation of individual and group health under conditions peculiar to the rural home, school, and community. This course meets the requirements for the Red Cross home nursing certificate.

221. Home Furnishings. 2 semester hours. Miss Maurits and Miss Siedschlag.

This course is planned especially for students of home economics for the purpose of developing taste and judgment in the selection and arrangement of home furnishings. Color design and historic furniture will be studied.

222. The Home and Its Management. 2 semester hours. Elective for non-majors. Miss Acree and Miss Maurits.

This course will be adapted to the needs of the students. It includes units on budgeting of time, labor, and money; mechanics of the household; cost and purchase of foods and clothing for the family.

223. Home Nursing and Family Health. 2 semester hours. Miss Acree, Miss Buerger, Miss Watson.

The prevention and care of illness in the home and a consideration of administrative problems and health procedures used in school health work furnish the material for this course. A study of the physiology of women and of maternity is included. This course meets the requirements for the Red Cross home nursing certificate.

251. Human Growth and Development. 3 semester hours. Prerequisite: as many honor points as semester hours of credit acquired. Mr. Carter, Dr. Ellis, Dr. Hilliard, Mrs. Phillips, Miss Stinson, Miss Volle.

For description of course see Department of Education, page 142.

321. The House. 2 semester hours. Prerequisite: Elementary Design 105 and Principles of Sociology 241 or consent of instructor. Open to both men and women. Miss Volle.

This course is planned for advanced students, to show the interrelation of social and aesthetic phases of housing. The adaptation of the house to the needs and interest of the young, adolescent, and adult members of a family is studied. An analysis is made of recent developments in rural single- and multiple-housing projects.

322. Home Management. 2 semester hours. Prerequisite: Economics of Consumption 223, Advanced Foods 311. Miss Maurits.

The course consists of a survey of the scientific principles underlying up-to-date homemaking, including a study of housing problems, home sanitation and safety, mechanics of the household, buying of equipment and furnishings, family finance, and an analysis of home management in various types of family living.

324. Home Management Practice. 3 semester hours. Prerequisite: Home Management 322. Miss Maurits.

Students live together in family-size groups in a house where opportunity is provided for practice in the composite duties of homemaking. The house is managed on three economic levels of income, and students participate in social activities of a family group suited to each status of living.

325. Marriage and Family Relationships. 2 semester hours. Prerequisite: General Psychology 200 or Principles of Sociology 241. Open to both men and women. Miss Reed and others.

This course is a study of the contributions and problems of the family in modern society. It includes a consideration of marital and personality adjustments in family living for changing age groups. It places emphasis on preparation for marriage and gives a perspective of the new tasks and obligations in urban and rural living as they affect social relationships, shared tasks, and legal problems.

339. Consumer Buying. 2 semester hours. Mr. Bigelow or Miss Maurits.

A study of the consumer-education movement; sources of information for the consumer; laws affecting the consumer; the labeling, grading, and standardization of consumer goods; the theory of buying; and an analysis of factors involved in prices.

HOME ECONOMICS EDUCATION**300T. Problems in Home Economics Education.** 3 semester hours. Prerequisite: Directed Teaching 371. Miss Reed.

Major consideration is given to the problems which the student is meeting in teaching. The course also includes a study of vocational legislation and requirements; homemaking for adults and out-of-school youth; evaluation of textbooks, magazines, and illustrative material; how to secure a position, and professional ethics; investigation of laboratory equipment; value of state and national associations.

INDUSTRIAL ARTS

DEYO B. FOX
FRED S. HUFF

CHARLES S. NICHOLS
DON O. PULLIN

MARION J. SHERWOOD

All students pursuing an industrial arts major should decide which type or phase of the work they wish to emphasize and then plan a suitable sequence of courses, with the help of their adviser, to prepare them for participation in their chosen specialty.

Suggested Course Sequences**WOOD**

Woodshop 100
Fundamentals of Shopwork 106
General Shop 202
Farm Shop 203A
Farm Shop 203B
General Woodshop 205A
General Woodshop 205B

DRAWING

Drawing 120
Drawing 121A
Drawing 121B
Drawing 221
Drawing 222
Architecture 225A
Architecture 225B

PRINTING

Printing 140A
Printing 140B
Presswork 141
Printing 240
Advanced Presswork and Lockup 241
Printing 242
Layout and Design 243
Linotype Composition 245A
Linotype Composition 245B
Linotype Mechanism 345A
Linotype Mechanism 345B

METAL

General Metal 130A
General Metal 130B
Machine Shop 234A
Machine Shop 234B

Students who enter without high-school physics must elect Physical Science 100A, B.

Ordinarily students will be required to take Applied Mathematics 112 and Electricity 160. Those who elect a year of college physics are not required to take either Applied Mathematics 112 or Electricity 160. Those who elect a year of college mathematics are not required to take Applied Mathematics 112.

The first courses in wood, drawing, printing, and metal should be taken as soon as possible. None of these should be taken later than the sophomore year.

All elementary courses are open to women. Those who show sufficient ability will be accepted in the advanced courses and may earn a minor in industrial arts.

SHOP COURSES

100. Woodshop. 2 semester hours. Mr. Sherwood.

An introductory course, including shop drawing, blueprint reading, and fundamental tool processes. A combination theory and laboratory course suitable for students enrolled in other departments, both men and women.

106. Fundamentals of Shopwork. 3 semester hours. Prerequisite: Woodshop 100 or equivalent. Mr. Sherwood.

An advanced course in bench woodworking, with particular emphasis on technique of hand tools, grinding, and sharpening. It includes elementary principles of pattern making, molding, shop sketching, and bench metal tools.

202. General Shop. 3 semester hours.

A comprehensive course covering a variety of mediums used in the industrial-arts field with introductory laboratory experiences. The course is particularly helpful to those preparing for administrative positions and those interested in the unspecialized phases of industrial-arts work.

203A. Farm Shop. 2 semester hours. Prerequisite: General Shop 202.

The application of the principles of General Shop 202 to farm problems: farm woodworking and carpentry; pipe fitting and plumbing, including water supplies, water uses, and water disposals; concrete construction, including floors, foundations, and septic tanks.

203B. Farm Shop. 2 semester hours. Prerequisite: General Shop 202.

A continuation of Farm Shop 203A. Forging; electricity; general tool repair; farm machinery; organization, management, and planning of the farm plant and home shop.

205A. General Woodshop. 3 semester hours. Mr. Nichols.

An introductory course in the use of woodworking machinery: elementary spindle and face-plate turning, skeleton furniture construction, wood steaming and bending, caning, and furniture design.

Note.—This course is strongly recommended for all students following a wood-working sequence or for students who have a hobby in woodworking.

205B. General Woodshop. 3 semester hours. Prerequisite: General Woodshop 205A. Mr. Nichols.

To develop the skills and techniques of spindle turning; types of furniture; upholstery; care, buying, and installation of woodworking machines, with cost estimating.

Note.—This course is strongly recommended for industrial arts majors following a woodworking sequence.

208. Special Education Shop. 3 semester hours. Mr. Nichols.

A basic course in shop fundamentals, including the use of hand tools, construction, design, fastening devices, and finishing. An introductory course for students of special education and prerequisite to advanced courses in occupational therapy.

308. Special Education Shop. 2 semester hours. Mr. Nichols.

A treatment of specific problems for prospective teachers in the field of orthopedic-occupational therapy. Common tools, materials, and suitable shop processes are employed to demonstrate the rehabilitation of injured joints, torn muscles, twisted limbs, etc. Typical case studies of industrial as well as war casualties are considered.

DRAWING COURSES

120. General Mechanical Drawing. 2 semester hours. Mr. Sherwood.

A general elementary course dealing with those phases of the work found in modern high-school courses, with special emphasis on problems correlated with other departments. Open to both men and women.

121A. Mechanical Drawing. 3 semester hours. Prerequisite: General Mechanical Drawing or equivalent. Mr. Huff.

A continuation of the principles emphasized in Mechanical Drawing 120. Lettering, sketching, drawing, tracing, and electric blueprinting of suitable shop projects.

121B. Mechanical Drawing. 2 semester hours. Prerequisite: Mechanical Drawing 121A. Mr. Huff.

More advanced problems in mechanical drawing, detailing, design, theory and application, ranging from simple geometrical problems, through surface development to machine details, cams, gears, and some architectural drawing. Special emphasis on review of the fundamentals of drawing and discussions of practical problems.

221. Mechanical and Machine Drawing. 2 semester hours. Prerequisite: General Mechanical Drawing 120 or equivalent. Mr. Huff.

Special attention is given to orthographic projection, detailing assemblies, and other fundamentals of drafting. This course is the equivalent of Drawing I of the College of Engineering, University of Michigan, and satisfies the requirements of engineering students.

222. Descriptive Geometry. 2 semester hours. Mr. Huff.

Instruction and exercises are given on combinations of the point, line, and plane, intersections, developments, tangent planes, and warped surfaces. This course is the equivalent of Drawing II of the College of Engineering, University of Michigan.

225A. Architecture. 2 semester hours. Prerequisite: General Mechanical Drawing 120. Mr. Huff.

Architectural details, plans, elevations, rendering, tracing and blueprinting, and estimating of simple one and two-story buildings. Outside reading for architectural appreciation.

225B. Architecture. 2 semester hours. Prerequisite: Architecture 225A. Mr. Huff.

Plans, elevations, details, mechanical perspective, rendering, tracing, and prints of a modern house. Emphasis placed on styles of architecture and architectural appreciation.

METAL COURSES

130A. General Metal. 3 semester hours.

A survey course presenting proper procedures and practices in handling and shaping metals in a series of units. Basic experiences are offered in sheet metal, art metal, cold metal, forging, welding, and heat treating. Processes are demonstrated and applied in making a variety of projects.

130B. General Metal. 3 semester hours.

A continuation of course 130A in which the student has an opportunity to emphasize work in any particular unit. Advance practices in sheet metal, art metal, forging, and welding are offered. No machine shop experience is available in this course.

234A. Machine Shop. 3 semester hours. Not offered in 1945-1946.

A course in the fundamentals of machine tool operation, involving turning, milling, shaping, and grinding practices in machining parts of selected projects to be assembled at the bench.

234B. Machine Shop. 3 semester hours. Not offered in 1945-1946.

Advanced practice in the operation of machine tools in finishing machine parts, making of jigs and fixtures for producing duplicate parts, tempering and heat treatment of steel.

PRINTING COURSES

140A. Printing. 3 semester hours. Mr. Pullin.

This course is for beginners and is intended to acquaint the student with the various tools and materials of a print shop and to teach him the fundamentals of plain type composition. Simple jobs are carried through the various stages, from composition to make-ready and presswork. Practical work is given in setting straight composition. This course is open to both men and women.

140B. Printing. 3 semester hours. Prerequisite: Printing 140A. Mr. Pullin.

This course emphasizes proportion, balance, and the study of type faces. Practical work is given in the composition of more complicated printed matter which involves rule work, borders, and ornaments. Practical work is given in make-ready and presswork.

141. Presswork. 2 semester hours. Prerequisite: Printing 140A, B. Mr. Pullin.

This is a beginning course in presswork, which includes simple lockup, make-ready, and feeding.

240. Printing. 2 semester hours. Prerequisite: Printing 140A, B, and Presswork 141. Mr. Pullin.

Keeping of records and accounts, purchase of materials, planning and laying out equipment, and study of school publications. Students will work out courses of study with job sheets, using original ideas.

241. Advanced Presswork and Lockup. 2 semester hours. Prerequisite: Presswork 141. Mr. Pullin.

This course is a continuation of course 141. Practical presswork and imposition of forms, make-ready of forms for jobbers and cylinder presses. Practical work on the cutter and folder will also be emphasized.

242. Printing. 3 semester hours. Prerequisite: Printing 140A, B. Mr. Pullin.

Advanced work in the complete designing and producing of printed matter, with a study of plates, papers, and inks. Advanced imposition and presswork are also included.

243. Layout and Design. 3 semester hours. Prerequisite: Printing 140A. Mr. Pullin.

Students will undertake the complete layout, design, and composition of such jobs as tickets, name cards, letterheads, programs, newspaper advertisements, newspaper-page layout, and cover designs. Principles of balance, art, color, copy-writing, copy-fitting, etc., as applied to such jobs will be studied.

245A. Linotype Composition. 3 semester hours. Prerequisite: Printing 140A, B. Not offered in 1945-1946.

This course deals primarily with the operation of the linotype keyboard. Straight composition is emphasized.

245B. Linotype Composition. 3 semester hours. Prerequisite: Linotype Composition 245A. Not offered in 1945-1946.

This course considers the problems of job, advertisement, and newspaper composition.

345A. Linotype Mechanism. 2 semester hours. Prerequisite: Linotype Composition 245A, B. Not offered in 1945-1946.

This course is designed to acquaint the students with the many intricacies of the machine. Simple adjustments are made.

345B. Linotype Mechanism. 2 semester hours. Prerequisite: Linotype Mechanism 345A. Not offered in 1945-1946.

This course gives the student practical experience in caring for the machines in operation.

THERAPEUTIC OCCUPATIONS

- 226. Basketry** (for Occupational Therapists). 1 semester hour. Mrs. Thomas.
For description of course see Department of Occupational Therapy, page 189.
- 227. Leatherwork** (for Occupational Therapists). 1 semester hour. Mrs. Thomas.
For description of course see Department of Occupational Therapy, page 189.
- 222B. Therapeutic Crafts** (for Occupational Therapists). 2 semester hours.
Miss Spear and Mrs. Thomas.
For description of course see Department of Occupational Therapy, page 188.

PROFESSIONAL COURSES

- 300T. Shop Organization.** 1 semester hour. Mr. Sherwood.
This course includes the organization of models, outlines, and various teaching aids, as well as modern tool and equipment arrangements for school shops.
- 301T. Teaching of Industrial Arts.** 3 semester hours. Mr. Sherwood.
This course aims to combine the student's previous educational contacts and practical experiences with the best modern school practices in the teaching of industrial arts. It includes observation studies and individual research problems.

OPEN TO GRADUATES

- 570. (E100). Principles of Industrial Arts Education.** 2 semester hours. Dr. Fox.
A general course intended to aid teachers, supervisors, and administrators to see the field of industrial arts in its entirety. Among the factors considered will be the philosophy, organization, and administration of industrial arts, types of schools, kinds of shops, teachers, teaching situations, shops, and students. This course offers a basis for understanding the place of industrial arts in education as a whole.
- 571. (E101). Principles and Techniques of Vocational Guidance.** 2 semester hours. Dr. Fox.
Deals with vocational guidance as a form of conservation of the native capacities of youth and the education provided for them. Considers the relations of vocational guidance to other forms of guidance and to a liberal education.
- 572. (E106). Corrdination in Vocational Education.** 2 semester hours. Dr. Fox.
Seeks to aid teachers and other workers in the field in bringing into their proper relationship school, employment, and home factors affecting students engaged in a part-time education program.
- 573. (E114). Curriculum Construction in Vocational Education.** 2 semester hours. Dr. Fox.
Deals with the study of bases for determining subject matter to be taught and its content and scope for varying grade levels. Devotes special attention to vocational subjects, their relations with other subjects, and their arrangement into curricular form.

LANGUAGES

MATHILDE STECKELBERG
 HARRY P. GREENWALL
 EUNICE E. KRAFT
 FRANCES E. NOBLE

MURIEL M. RIX
 HERMANN E. ROTHFUSS
 MARION TAMIN
 MYRTLE WINDSOR

Twenty-four semester hours are required for a major in foreign languages and fifteen for a minor. This minimum requirement does not include the first year of a language, if taken as a part of a curriculum leading to a secondary teaching certificate.

Students desiring to do directed teaching in foreign languages must have completed a minimum of fifteen semester hours and must be approved by the chairman of the department. Teaching of Latin 300T is prerequisite to directed teaching in Latin and Teaching of Modern Foreign Languages. 301T is prerequisite to directed teaching in French, German, or Spanish. Phonetics 305 is required of students majoring or minoring in French; France and the French 207A, B is required of those majoring in French. Latin Writing 305 is required of all students majoring in Latin.

A course in modern European history is desirable for students majoring or minoring in a modern foreign language.

No credit will be given for less than eight semester hours of a beginning language.

Students are urged to take the advanced courses as full year units, although credit may be obtained for one semester upon consultation with the instructor.

TEACHING

300T. Teaching of Latin. 2 semester hours. Miss Kraft.

The problems of the first two years of high-school Latin are considered. Observations of teaching, reports, and discussions will form a part of the work. This course is prerequisite to directed teaching in Latin.

301T. Teaching of Modern Foreign Languages. 2 semester hours. Mr. Greenwall, Miss Steckelberg, Miss Windsor.

This course is designed to meet the needs of all students planning to teach modern foreign languages. The first weeks of the course are devoted to the consideration of problems common to the teaching of all modern languages. The latter part treats of problems peculiar to each of the modern languages: French, German, and Spanish.

FRENCH

100A, B. Elementary French. 8 semester hours. Dr. Noble, Miss Tamin.

The rudiments of grammar, drill in pronunciation, reading of 100 to 150 pages of a selected text, writing French from dictation, and memorizing of French songs and poems. The course aims, from the outset, to give training in understanding spoken French.

102A, B. Intermediate French. 8 semester hours. Prerequisite: two years of high-school French or one year of college French. Dr. Noble, Miss Tamin.

Composition based on text, assigned topics, and further practice in oral French. About 500 pages of texts, including plays and short stories, are read.

201A, B. Conversation and Free Composition. 4 semester hours. Prerequisite: two years of high-school French or equivalent. Miss Tamin.

This course is intended to develop ease and accuracy in the use of everyday French.

202S. Reading from Modern French Novels and Stories. 2 semester hours. Miss Tamin.

This course is intended for students beyond the first-year French level, and is suited to the average ability of the class, yet takes into account, through individual work, differences in preparation. The course consists of reading of novels, short stories, and other material meant to broaden the culture of the students while increasing their speaking and reading ability by careful study of functional grammar and vocabulary.

203A, B. Nineteenth Century French Literature. 6 semester hours. Prerequisite: Elementary French 100A, B, Intermediate French 102A, B, or equivalent. Dr. Noble.

A. A study of romanticism and the development of realism, with readings from Chateaubriand, Victor Hugo, Alfred de Vigny, George Sand.

B. A study of naturalism, with readings from Balzac, Flaubert, Zola, Maupassant; and of the Parnassian and symbolistic schools of poetry.

207A, B. France and the French. 2 semester hours. Dr. Noble.

A course required of those specializing in French, but conducted in English and open to those not in the Department of French. A study of topics, oral and written, pertaining to French life. Discussion on the art, geography, education, and historical monuments of France. Intended as a cultural background for other courses and for general information. Required of students majoring in French.

305. Phonetics. 3 semester hours. Prerequisite: two years of college French or equivalent. Miss Tamin.

The aim of this course is to make a scientific study of sounds and their various groupings, so as to develop accuracy in pronunciation. A great deal of corrective work will be done, aside from the study of theories and rules. Required of all students majoring or minoring in French.

306. Advanced Composition and Grammar Review. 2 semester hours. Prerequisite: two years of college French or equivalent. Miss Tamin.

A study of grammatical difficulties as they are found in first- and second-year high-school readers. Intended to verify and to strengthen the knowledge of fundamental principles of grammar in those students who are planning to teach French. Recommended for all students majoring or minoring in French.

307A, B. Contemporary French Literature. 4 semester hours. Miss Tamin.

A comprehensive study of contemporary literature, including prose, drama, and poetry, with a definite effort to find out the different trends of thought of contemporary writers. Readings from best known authors.

310A, B. Seventeenth Century French Literature. 6 semester hours. Prerequisite: Nineteenth Century French Literature 203A, B, or equivalent. Miss Tamin.

A study of the development of classicism against the social background of the seventeenth century. Prose and poetry are studied during the first semester. The second semester stresses especially dramatic literature, with a comprehensive study of Corneille, Racine, and Molière.

313A, B. Survey of French Literature. 4 semester hours. Prerequisite: three years of college French or equivalent. Not offered in 1945-1946. Miss Tamin.

A course intended to acquaint students with the masterpieces of French literature as expressing the best aspects of French civilization at different periods in French history, with special emphasis on the mediaeval period, the Renaissance period, and the eighteenth century.

GERMAN

100A, B. Elementary German. 8 semester hours. Mr. Rothfuss, Miss Steckelberg.

The aim of this course is to give the student a thorough knowledge of the fundamentals of German grammar, some facility in speaking and writing the language, and the power to understand and reproduce simple German reading matter. The work consists of the systematic study of German grammar, the reading of 100 to 200 pages of narrative prose, the reading and memorizing of selected poems, and the writing of simple, idiomatic German. No credit is given for a part of the course. One year of high-school German may be applied on the course.

102A, B. Intermediate German. 8 semester hours. Prerequisite: one year of college German or two years of high-school German. Mr. Rothfuss, Miss Steckelberg.

The work of this course consists principally of the reading of novelistic and dramatic German. The composition work consists of reproductions of texts read, short compositions on assigned topics, and reports on books assigned for collateral reading. The memorizing of poems is continued.

103A, B. Scientific German. 8 semester hours. Prerequisite: one year of college German or two years of high-school German. Miss Steckelberg.

This is a course in the extensive reading of scientific material. Students are given an opportunity for specialization in the field of their major interests. They may, upon the advice of the instructors in science and mathematics, suggest articles bearing upon particular problems. In the second semester, *Naturwissenschaften* and other current German scientific material are read.

201A, B. German Conversation and Composition. 4 semester hours. Prerequisite: the equivalent of two years of college German. Mr. Rothfuss.

The aim of this course is to supplement the practice in speaking and writing German done in the reading courses. Required of students majoring in German.

305A, B. German Literature to 1825. 8 semester hours. Prerequisite: the equivalent of two years of college German. Miss Steckelberg.

A. A survey of German literature through the time of Lessing, with readings from early German epics and lyrics and a detailed study of the times and works of Lessing.

B. The classical period. A study of the life and works of Goethe, Schiller, and other poets of the period. The intensive study of selected dramas, lyrics, and prose of Goethe and Schiller.

306A, B. German Literature from 1825 to the present. 8 semester hours. Prerequisite: the equivalent of two years of college German. Mr. Rothfuss.

A. The romantic movement in Germany and German drama through the time of Hebbel. Readings from the works of the romanticists and the dramas of Kleist and Hebbel.

B. German literature from Grillparzer to the present. A study of the dramatic, epic, and lyric poetry of the period, with readings from Grillparzer, Hauptmann, Sudermann, Hugo von Hofmannsthal, and other poets.

LATIN

100A, B. Elementary and Second-Year Latin. 8 semester hours. Miss Rix.

This course is designed for those students who need two units of Latin for admission to the A. B. curriculum or to a medical, dental, or other professional course. It covers the work of two units of high-school language requirement.

Note.—A student may present one unit of high-school Latin and enter the course in the second semester.

102A, B. Cicero and Ovid. 8 semester hours. Prerequisite: two units of high-school Latin or Elementary and Second-Year Latin 100A, B. Miss Rix.

Orations and letters of Cicero and selections from Ovid's *Metamorphoses* are read. One day each week is devoted to Latin composition.

103A, B. Virgil. 8 semester hours. Prerequisite: three units of high-school Latin or Cicero and Ovid 102A, B. Miss Kraft.

The first six books of the *Aeneid* are read and a survey of the last six books is made. A study of Greek and Roman mythology accompanies the reading.

104A, B. Latin Literature. 8 semester hours. Prerequisite: four units of Latin. Miss Kraft.

Survey of Roman literature with reading of representative Latin authors.

A. Selection from Books I, V, XXI, XXII, XXVII, XXX of Livy.

B. Selections from Cicero's philosophical works, Pliny's *Letters*, and the Latin poets.

105S. Latin Literature. 3 semester hours. Miss Steckelberg.

Selections from Seneca, Tacitus, Suetonius, and other representative Latin authors will be read. Duplication of material already familiar to members of the class will be avoided.

204A. Horace. 4 semester hours. Miss Kraft.

The *Odes*, *Epodes*, and *Satires* are read. A study of the philosophy of Horace accompanies the reading.

204B. Horace and Latin Comedy. 4 semester hours. Miss Kraft.

The epistles of Horace are read, the *Ars Poetica* acting as an introduction to the study of the rise and development of Latin comedy, which is represented by selected plays of Plautus and Terence.

205S. Latin Literature in English. 2 semester hours. Miss Steckelberg.

No knowledge of the Latin language is required for this course. Selections from representative authors will be read in English translations. Those desiring to apply this credit to a major or minor in Latin may make arrangements to read the works in the original. The development of Roman literature will be studied with special emphasis upon the masterpieces and their contribution to the thought of today.

305. Latin Writing. 3 semester hours. Miss Kraft.

Practice is made in the fundamental principles of correct expression in Latin. Required of all students majoring in Latin.

306. Roman Life. 3 semester hours. Miss Kraft.

The distinctive features of Roman private and public life are presented with a view to the needs of the high-school teacher. Since a knowledge of Latin is not required, the enrollment is not limited to students of the department.

310. Catullus, Tibullus, and Propertius. 2 semester hours. Miss Kraft.

Selections from these poets and a study of the period in which they wrote.

311. Lucretius, Martial, and Juvenal. 2 semester hours. Miss Kraft.

The study includes selections from the *De Rerum Natura* of Lucretius, the *Epigrams* of Martial, and the *Satires* of Juvenal.

SPANISH

100A, B. Elementary Spanish. 8 semester hours. Mr. Greenwall, Miss Windsor.

The elements of grammar and pronunciation are given particular attention. The use of oral Spanish is encouraged, and reading is begun very early in the year.

102A, B. Intermediate Spanish. 8 semester hours. Prerequisite: two years of high-school Spanish or Elementary Spanish 100A, B. Mr. Greenwall, Miss Windsor:

The study of grammar is continued. A short novel is read each semester and work in composition is based upon the text.

201A, B. Spanish Conversation and Composition. 4 semester hours. Prerequisite: two years high-school Spanish or Elementary Spanish 100A, B.

This course is intended to develop ease and accuracy in the use of everyday Spanish.

203A, B. Advanced Spanish. 8 semester hours. Prerequisite: Elementary Spanish 100A, B, and Intermediate Spanish 102A, B. Mr. Greenwall.

Emphasis will be placed on advanced composition and the reading of advanced texts. It is also the purpose of this course to give a knowledge and understanding of the Spanish-speaking nations.

LIBRARY

ANNA L. FRENCH

HAZEL E. CLEVELAND

PHOEBE LUMAREE

Library Methods. Non-credit course. Miss French.

A course of eight lessons in the use of the library. Required of all freshmen.

306S. Administering the Small School Library. 3 semester hours. Not offered in 1945. Miss Cleveland.

A course in the place of the library in the school and the methods of administering the library to fulfill these functions.

307S. Organizing Materials in the Small School Library. 3 semester hours. Not offered in 1945. Miss Lumaree.

This course includes the work of classifying and cataloging books and the building up of an information file.

308S. Book Collection of a Small School Library. 3 semester hours. Miss Cleveland.

This course includes the methods of selecting and using books in the general collection and the reference collection of the small school library.

MATHEMATICS

JOHN P. EVERETT
 HUGH M. ACKLEY
 GROVER C. BARTOO
 HAROLD BLAIR

CHARLES H. BUTLER
 WILLIAM H. CAIN
 PEARL L. FORD
 ERNEST WEBER

Note: The Mathematics Department offers several courses designed especially for men belonging to the Navy V-12 program. These courses are not closed to civilians but, except in special cases, civilian students are expected to enroll in the regular courses of the civilian program.

For description of the military courses see the *Navy V-12 Course Descriptions*.

Courses in the Department of Mathematics are designed to meet the needs of students presenting three types of preparation in the high school. A freshman electing work in mathematics for the first time should be careful to select from courses 100A, 103A, and 104A the one best adapted to the amount of high-school mathematics for which he has credit.

The department offers four sequences leading to calculus. Sequence A is designed for students who present trigonometry as part of their high-school preparation. Sequence B is designed for students who present one and a half years of algebra, but no trigonometry, as part of their preparation. Sequences C and D are for students who have completed but one year of algebra in the high school; sequence D, the one regularly pursued by such students, requires two years to reach calculus; for exceptional cases, in which students having but one year of high-school algebra desire to enter calculus in the second year of their college course, sequence C is offered; this requires the student to make up deficiencies in his high-school course by taking two courses (115S and 116S) in the summer session following his freshman year. Note that the four sequences are mutually exclusive. As long as the Navy V-12 program is continued, students will be able to reach calculus after two terms by completing either M1 or M3 the first term and either M2 or M4 the second term.

Elementary Sequences in Mathematics

A	B	C	D
104A	103A	100A	100A
104B	103B	*100B	*100B
		100C	100C
		115S	104A
		116S	104B

* Solid Euclidean Geometry 100B may be taken in combination with course 100A or course 100C, either the first or the second semester.

* * * *

Second Year

205A
 205B

Following course 205B, a student has the privilege of electing several courses for which calculus is a prerequisite. A junior might elect Advanced Calculus 331, Theory of Equations 322, Differential Equations 321, Solid Analytic Geometry 323, or Theoretical Mechanics 325.

For all students, including those not majoring in mathematics, there is offered by the department a group of subjects consisting of the following courses: Mathematics of Finance 227, Mathematics of Insurance 228, Introduction to Statistics 211, College Geometry 230. One or more of these courses will be offered each semester at eleven o'clock.

Opportunity is offered for more varied work in mathematics, but the courses should be chosen with some regard for the particular interests and objectives

of the student. Members of the department will be glad to confer with students concerning the arrangement of their courses.

Attention is called to Mathematics of Buying and Investment 200, which is being offered experimentally to and for students of limited mathematical attainment.

Students expecting to teach mathematics are advised to elect the professional courses in the teaching of mathematics best suited to their particular requirements. It should be noted, however, that adequate appreciation of, and acquaintance with, subject matter is the first and inevitable step in the acquisition of professional skill in teaching. Professional preparation for teaching mathematics demands both academic accomplishment and training in proficiency of method, but in general the relative importance of these two types of education is in the order in which they are mentioned here.

A major in mathematics comprises not less than eight semester hours of work completed subsequent to a year's course in calculus and elected with the approval of the departmental adviser.

A minor in mathematics comprises not less than eight semester hours of work completed subsequent to any one of courses 103B, 104B, 116S, M 2 or M 4 and elected with the approval of the departmental adviser.

Students desiring to do directed teaching in mathematics must have completed a major or a minor in this subject and have included in this preparation Teaching of Secondary Mathematics 301T. History of Mathematics 315A, B is also recommended. Applications for directed teaching in mathematics must be approved by the chairman of this department. Solid Euclidean geometry is a prerequisite to directed teaching in either algebra or geometry.

100A. Intermediate Algebra. 3 semester hours. Prerequisite: one year of high-school algebra and one year of high-school geometry. Mr. Ackley, Mr. Bartoo, Mr. Cain, Miss Ford.

Designed for students who present for admission only one year of algebra. For such students it should precede all other college courses in mathematics. The course includes a review of the important topics of the first year's course, together with the work usually given in the third term of the high-school course: numerical and literal quadratic equations; problems; fractional negative, and literal exponents; radicals; imaginaries; functions and their graphs.

100B. Solid Euclidean Geometry. 2 semester hours. Prerequisite: one year of high-school geometry. Mr. Bartoo, Mr. Cain, Dr. Everett, Miss Ford.

Designed for those students who present for admission only one year of geometry. This course, if not taken in high school, is required of all majors in mathematics. Theorems and constructions, including the relations of planes and lines in space; the properties and measurements of prisms, pyramids, cylinders, and cones; the properties of the sphere and the spherical triangle.

100C. Plane Trigonometry. 3 semester hours. Prerequisite: Intermediate Algebra 100A or a year and a half of high-school algebra, and at least one year of Euclidean geometry. Mr. Ackley, Mr. Bartoo, Mr. Cain, Miss Ford.

Trigonometric ratios, identities and equations, inverse functions, theory and use of logarithms, circular measure of angles, solution of triangles.

100D. Spherical Trigonometry. 1 semester hour. Prerequisite: Plane Trigonometry 100C. Mr. Ackley.

This course extends the theory of plane trigonometry so as to cover the case of a triangle formed by arcs of a great circle on a sphere. Applications are made to problems in geography, navigation, aviation, surveying, and cartography.

Note.—This course will not be offered during the continuance of the Navy V-12 program. Students desiring such a course are directed to Navigation and Nautical Astronomy, M8 and M9.

101T. Arithmetic. 3 semester hours. Mr. Ackley, Mr. Blair, Dr. Everett.

Lectures and discussions on the history and teaching of the subject, with assigned reading. Extended treatment of typical problems of applied arithmetic. This course gives credit in education.

103A. Trigonometry and College Algebra. 5 semester hours. Prerequisite: one and one-half years of high-school algebra and at least one year of high-school geometry. Mr. Bartoo, Mr. Blair, Mr. Cain.

Designed for students who have studied algebra in high-school one and a half or two years, but who have not taken trigonometry as part of their high-school course. It includes all of the work given in Plane Trigonometry 100C and, in addition, an introduction to college algebra.

103B. College Algebra and Analytic Geometry. 5 semester hours. Mr. Bartoo, Mr. Blair, Dr. Butler, Mr. Cain.

Simultaneous linear equations, rectangular and polar coordinates, and all of the work offered in 104B, including a unit of solid analytic geometry.

104A. College Algebra and Analytic Geometry. 4 semester hours. Prerequisite: trigonometry, Mr. Blair, Dr. Everett, Miss Ford.

Designed for students who have taken trigonometry as part of their high-school course. Polar and cartesian coordinates, the straight line, and relations between two or more straight lines; simultaneous linear equations, determinants of any order, permutations and combinations, functions of the second degree and complex numbers, with geometric interpretations as applied to the circle and the parabola.

104B. College Algebra and Analytic Geometry. 4 semester hours. Prerequisite: College Algebra and Analytical Geometry 104A. Mr. Blair, Dr. Everett, Miss Ford.

Cubic functions, the general polynomial, Horner's method, the parabola, ellipse, and hyperbola, the general equations of the second degree as related to the definition and classification of conic sections, rectangular coordinates of three dimensions, the plane and the straight line, and a unit of solid analytic geometry.

112. Applied Mathematics. 2 semester hours. Mr. Ackley, Mr. Cain.

For students in industrial arts who desire a course in the application of elementary mathematics to machines and designs.

115S. College Algebra. 3 semester hours. Prerequisite: one and one-half years of high-school algebra and one or one and one-half years of high-school geometry, or the equivalent. Mr. Blair.

A review of exponents, radicals, and quadratic equations, including systems of quadratic equations, progressions, the binomial theorem, complex numbers; theory of equations, including Horner's method, determinants, permutations and combinations.

116S. Analytic Geometry. 3 semester hours. Prerequisite: trigonometry and college algebra. Miss Ford.

Analytic geometry of the straight line, circle, and conic sections; change of axes; properties of conics, involving tangents, diameters, and asymptotes.

120. Business Mathematics. 2 semester hours. Mr. Bartoo, Mr. Cain.

This course will include diagnostic and remedial work in the fundamental operations of arithmetic, followed by a study of the elementary problems with which modern business is concerned. Among the topics studied are percentage and its applications, interest, logarithms, graphs, and equations. Enrollment in this course is restricted to students enrolled in the Department of Business Education.

200. Mathematics of Buying and Investment. 2 or 3 semester hours. Prerequisite: high-school algebra and geometry. Mr. Cain, Dr. Everett.

Designed to give the individual actual concrete appreciation of the relation of cash and time payments to his own business or budgetary problems, and to afford students with a limited background of mathematics an appreciation of ways in which understanding of the relations of the individual to organized society is promoted by mathematics. Methods of financing installment purchases as commonly encountered are studied, and their actual cost to the consumer is investigated. The student is introduced to tables of interest, annuities, and other readily available means of assistance in dealing with business practices. The amount of credit earned in the course will be determined by the extent to which the student participates in the investigation of illustrative exercises outside of the class hour.

201S. Field Work in Mathematics. 2 semester hours. Prerequisite: high-school algebra and geometry. Not offered in 1945. Dr. Butler.

Designed to provide first-hand acquaintance with both theoretical and practical aspects of the use of elementary mathematical instruments. Attention will be given to the construction, adaptation, and use of simple and inexpensive homemade instruments as well as the use of commercial equipment. Classroom discussion will be supplemented by practical field work, including scale drawing, plane table surveying, elementary mapping, and methods of approximating areas. The course should be especially useful to teachers of mathematics, geography, and the other natural sciences, and to those engaged in scouting and club work.

205A. Calculus. 4 semester hours. Prerequisite: college algebra and analytic geometry. Mr. Ackley, Mr. Blair, Dr. Everett.

Functions, limits, continuity, the derivative of algebraic, trigonometric, inverse, exponential, and logarithmic functions; applications of the derivatives, the differential, curvature, motion.

205B. Calculus. 4 semester hours. Prerequisite: Calculus 205A. Mr. Ackley, Mr. Blair, Dr. Everett.

Elementary indefinite and definite integrals, trigonometric integrals, substitution, rational fractions, applications of the definite integral, indeterminate forms, curve tracing, infinite series, functions of several variables, multiple integrals.

210. Surveying. 3 semester hours. Prerequisite: trigonometry. Mr. Ackley.

A course in field work, involving actual problems in surveying and leveling. The final test consists of field notes and a map from a personal survey of an irregular tract.

211. Introduction to Statistics. 2 semester hours. Prerequisite: one year of college mathematics. Dr. Everett.

The object of this course is to give the student a knowledge of logical principles and of methods of procedure underlying statistical analysis. The topics discussed will include measures of central tendency, of dispersion, and of relationship.

222. Descriptive Geometry. 3 semester hours. Mr. Huff.

For description of course see Department of Industrial Arts; page 170.

227. Mathematics of Finance. 3 semester hours. Prerequisite: one year of college mathematics. Dr. Everett.

Simple and compound interest, annuities, amortization and sinking funds, valuation of bonds and other securities, mathematics of depreciation, and of loan associations.

228. Mathematics of Insurance. 3 semester hours. Prerequisite: Mathematics of Finance 227. Dr. Everett.

An introduction to the mathematics of life insurance, including the theory of probability as related to life insurance, the theory and calculation of mortality tables, expectation of life, life annuities, premiums, and reserves.

230. College Geometry. 3 semester hours. Prerequisite: one year of college mathematics. Mr. Ackley, Mr. Bartoo.

While this course is designed primarily for those who plan to teach high-school mathematics, it will be of interest to anyone desiring to apply Euclidean methods to many interesting problems beyond the scope of a high-school text. The course consists of the study of such topics as geometric constructions, properties of the triangle, harmonic ranges and pencils, circle of Apollonius, inversions, poles and polars, and orthogonal and co-axial circles.

301T. Teaching of Secondary Mathematics. 3 semester hours. Prerequisite: analytic geometry. Mr. Blair, Dr. Everett.

The aim of this course is to give the prospective secondary-school teacher the best educational information concerning the scope of content and the teaching of secondary mathematics. While this is not primarily an academic course, the actual learning of subject matter is employed to a considerable extent as furnishing a most effective background for teaching and illustrating principles of instruction. This is supplemented by readings, lectures, and reports. This course is prerequisite to directed teaching in mathematics.

315A. History of Mathematics. 2 semester hours. Prerequisite: analytic geometry. Mr. Blair.

Treats of the history of geometry and trigonometry from earliest times to the present.

315B. History of Mathematics. 2 semester hours. Prerequisite: History of Mathematics 315A. Mr. Blair.

Treats of the history of arithmetic and algebra.

321. Differential Equations. 3 semester hours. Prerequisite: Calculus 205B. Mr. Blair.

An elementary course in ordinary differential equations.

322. Theory of Equations. 2 semester hours. Prerequisite: Calculus 205B. Mr. Ackley, Dr. Everett.

Complex numbers, properties of polynomial functions, trigonometric solution of equations, cubic and quartic equations, algebraic criteria for ruler and compass constructions, approximation to the roots of numerical equations, symmetric functions, determinants.

323. Solid Analytic Geometry. 2 semester hours. Prerequisite: Calculus 205B. Dr. Everett.

Coordinates of three dimensions, the plane, surfaces of the second degree, conicoids referred to their axes, plane sections of conicoids, generating lines of conicoids.

325. Theoretical Mechanics. 2 semester hours. Prerequisite: Calculus 205B. Mr. Blair.

The material of this course consists of the composition and resolution of translations by vector methods, without, however, making use of the notation of vector analysis. In linear and plane kinematics a critical study is undertaken of the following topics: velocity, acceleration, angular velocity, angular acceleration. In dynamics, mass, density, moments and centroids of particles, lines, areas, and volumes are studied.

331. Advanced Calculus. 3 semester hours. Prerequisite: Calculus 205B. Dr. Everett.

A review of the fundamentals of calculus. Continuity. Properties of definite integrals, with special reference to improper definite integrals, the Gamma function, Green's theorem, Laplace's equation.

OPEN TO GRADUATES

501. (D235). Teaching of Mathematics. 2 semester hours. Dr. Butler.

Attention is given to the place of mathematics in general education as provided in high schools and in the education of students preparing for rigorous and systematic courses in technical fields. Includes a careful survey of recent curriculum materials as well as of modern practices in teaching mathematics in secondary schools. Requires a systematic study of some well-defined problem.

MUSIC

HARPER C. MAYBEE
LEOTI C. BRITTON

H. GLENN HENDERSON
DOROTHEA SNYDER

Majors and Minors

A **minor** in music in the **Elementary Curriculum** may be obtained by having completed fifteen semester hours in excess of the required courses as a prerequisite, namely:

Foundations of Music 100A	2 semester hours
Foundations of Music 100B	2 semester hours
Music Education 204	2 semester hours

The fifteen semester hours minor will consist of:

Voice Culture 116A	2 semester hours
Ensemble Singing 306A, B	2 semester hours
Music Appreciation 307	3 semester hours

and eight semester hours selected from the music courses under advisement of the Staff of the Department of Music.

A **major** in music in the **Elementary Curriculum** has the same prerequisite as the minor. The twenty-four semester hours will include:

Voice Culture 116A, B	4 semester hours
Harmony 209A	4 semester hours
Ensemble Singing 306A, B	2 semester hours
Music Appreciation 307	3 semester hours

and eleven semester hours selected under advisement of the Staff of the Department of Music.

A **minor** in music in the **Secondary Curriculum** may be obtained by completing 15 semester hours in the Department of Music in excess of the prerequisite Fundamentals of Music 105A, B, 6 semester hours.

The following courses are required:

Harmony 209A	4 semester hours
Music Appreciation 307	3 semester hours
Ensemble—Vocal or Instrumental	2 semester hours

The remaining six semester hours may be selected from the music courses under advisement of the Staff of the Department of Music.

A **major** in music in the **Secondary Curriculum** may be obtained by completing 24 semester hours in excess of the prerequisite Fundamentals of Music 105A, B, 6 semester hours.

The following courses are required:

Harmony 209A, B	8 semester hours
Music Appreciation 307	3 semester hours
Ensemble—Vocal or Instrumental	4 semester hours

The remaining nine semester hours may be selected from music courses under advisement of the Staff of the Department of Music.

Students anticipating teaching music in both the Elementary and the Secondary Curriculum should meet the requirements of both courses as outlined in the catalog. Participation in the various musical organizations is essential for a musical development. A playing knowledge of the instruments used in the band and orchestra is strongly urged. Students should avail themselves of every opportunity within their range of possibilities so as to be able to sing, play a solo, orchestral or band instrument, or a piano accompaniment acceptably. A fine basic, fundamental musicianship with the ability to perform solos in public is an excellent asset in establishing a music teacher in a community.

COURSES FOR NON-SPECIALIZING STUDENTS

The Department of Music submits the following courses which may be taken as electives in any curriculum except the music curriculum:

100A Foundations of Music. 2 semester hours. Mrs. Britton.

In this course the fundamentals of music will be presented through teaching the students to read at sight in all keys and in a great variety of rhythms. The fundamentals of leadership through directing are here begun.

100B. Foundations of Music. 2 semester hours. Mrs. Snyder.

In this course, vocal technique is stressed. The material studied will be songs that will later be used in the directed teaching.

109. Rural School Music. 3 semester hours. Mrs. Synder.

This course consists of sight reading of unison songs, introduction of part-singing theory, methods of teaching music in the rural school, organization of music work in the school and the community. The importance and value of music in the life of school and community are emphasized; materials for school singing, community signing, appreciation work, and recreational play are considered.

109S. Music Appreciation for Rural Schools. 2 semester hours. Not offered in 1945. Mrs. Britton.

This course stresses beauty through music, as developed by means of a phonograph and records; the correlation of music with other school subjects; and, in general, rhythmic, melodic, and harmonic development.

110. Music Construction. 2 semester hours. Mrs. Britton.

The course is designed to train students in the Department of Physical Education who have a limited musical experience. Special stress is placed upon singing and melody writing, with emphasis upon the rhythmic forms.

134S. Summer School Choir. 1 semester hour. Rehearsals twice a week. Mrs. Snyder.

A summer-school choir will be organized open to all students having had choral experience. Material will be used that will be sung in the following spring at the High School Music Festivals.

204. Music Education. 2 semester hours. Mrs. Britton.

In this course the aim is to study a variety of methods of presenting material to children. The classroom becomes the laboratory in which many courses of study are experienced.

215. Aesthetic Discernments. 1 semester hour. Mr. Henderson, Miss Loutzenhiser, Miss Siedschlag.

For description of course see Department of Art, page 124.

306A, B. Ensemble Singing. 1 semester hour credit per semester. Mrs. Britton, Mrs. Snyder.

This course will be largely in the nature of a glee club, and students will be prepared to sing at social functions in their various groups. They will also from time to time become a part of the music festivals, such as the Bach Festival and the Messiah Festival.

307. Music Appreciation. 3 semester hours. Mrs. Britton.

This course is designed for students wishing a general cultural course to increase their knowledge and discrimination of music. Various types of music from the fundamental folk song and dance to the more complicated forms of song, symphony, oratorio, and opera are presented and discussed. Concerts and outstanding radio programs will form a background of part of the course.

Class meets 4 times a week.

COURSES FOR SPECIALIZING STUDENTS

105A. Fundamentals of Music. 3 semester hours. Mrs. Britton or Mr. Maybee.

This is a course for students preparing to teach or supervise music in the public schools. It presupposes a keen interest in music and the ability to sing music of school-grade difficulty and to play the piano or an orchestral instrument. The work includes a study of the development of musical theory, notation, rhythm, ear-training, scale construction, major and minor keys, interval work, rapid sight singing, chromatics in simple form, rounds, canons, and two- and three-part singing.

105B. Fundamentals of Music. 3 semester hours. Prerequisite: Fundamentals of Music 105A. Mr. Maybee.

The course includes sight reading, involving part singing; ear-training is stressed; oral and written response is given to hearing of simple melodic and rhythmic forms; sight reading, involving part singing and more difficult melodic and rhythmic problems, is presented. Melody writing involving the above problems is given in both major and minor keys.

Note.—An examination in the fundamentals of music is required before credit is given.

116A, B. Voice Culture. 2 semester hours credit per semester. Mrs. Snyder.

Stresses the fundamental processes of breath control and tone production. Group singing for each student every day, singing of songs in small groups, and some individual coaching are included.

130. Women's Glee Club. 2 semester hours credit for a year's work. Mrs. Snyder.

The Women's Glee Club of fifty is chosen from the chorus through competition. The object is to select students for special artistic training in ensemble work. The glee club sings before a number of high schools throughout the state, and takes an active part in the musical work on the campus and in the city.

131. Men's Glee Club. 2 semester hours credit for a year's work. Mr. Maybee.

Open to all men with musical ability who have had experience in singing. The club makes a concert tour during the spring vacation, in addition to filling numerous other engagements and taking an active part in the music life on the campus.

132. Orchestra. 2 semester hours credit for a year's work.

The orchestra is open to all students having had a reasonable amount of orchestral experience. Many fine compositions will be studied and played during the year. The orchestra will assist in the Messiah and other festivals. Many of the unusual instruments are available for the use of students.

133. Band. 2 semester hours of academic credit or 5 class hours of physical-education credit for the year.

This organization of from sixty to eighty members affords to the student who plays some instrument an opportunity for development in both marching and playing. The band plays an important part in the life of the school. Besides furnishing music at nearly all athletic events, concerts are given during the year on campus and at various high schools. Uniforms and many of the instruments are furnished.

134. Auxiliary Choir. 2 semester hours credit for a year's work. Mrs. Snyder.

The Auxiliary Choir is open to all students (men and women) who wish to obtain a knowledge of choral music. The choir participates in the annual Southwestern Michigan Messiah Festival at Christmas time and in the Southwestern College and High School Festival in May. Many from this organization find their way into the Women's Glee Club, Men's Glee Club, and College Choir.

209A, B. Harmony. 4 semester hours credit per semester. Prerequisite: Fundamentals of Music 105A, B, or consent of chairman of the department. Mr. Henderson.

This course includes scales, intervals, triads, inversions, dominant and secondary seventh chords, embellishments, and modulation. Practical application is emphasized by extensive work in ear training, keyboard, and visual work.

212A. History of Music. 4 semester hours. Prerequisite: Fundamentals of Music 105A, B. Mr. Maybee.

This course is designed to acquaint the student with the development of music in its relationship to the other arts; its close adherence to the laws of nature, its dependence upon science, and its place in a changing civilization. An attempt is made to suggest a working philosophy of music in the lives of people.

212B. Music Appreciation. 4 semester hours. Prerequisite: Fundamentals of Music 105A, B. Mrs. Britton.

This course includes a study of the masterpieces from the time of Bach and Handel down to and including the present-day composers. The development of the song, symphony, opera, oratorio, and various other music forms is worked out with the aid of piano, voice, victrola, and radio, bringing within the hearing of the students various interpretations of the master works.

216A, B. Voice Culture. 2 semester hours credit per semester. Prerequisite: Voice Culture 116A, B. Mr. Maybee.

The work in this course is designed to further the development of the first year's work. The class is divided into sections, with the idea of having voices of a similar character and quality work together for more intensive and individual study. Suggestions are made to individuals before the class, so that all may have the advantage of the work.

220. Fundamentals of Orchestral Instruments. 2 semester hours.

This course is designed to give an opportunity for students to learn the fundamental principles of tuning and playing the instruments used in the orchestra. Each student is required to learn to play at least three instruments.

221. Foundations of Band Instruments. 2 semester hours.

This course is designed to give the student an opportunity to learn the fundamental principles of tuning and playing the instruments of the band. Each student is required to learn to play at least three instruments.

230. College Choir. 2 semester hours credit for a year's work. Prerequisite: Voice Culture 116A, B, and Fundamentals of Music 105A, B, or equivalent. Mr. Maybee.

The College Choir is open only to members of the Women's Glee Club and the Men's Glee Club. The organization aims to develop and perpetuate a high standard of choral-ensemble singing. The Choir meets Wednesday from 7 to 9 P. M. Each year the Choir makes a number of appearances on the campus and before high schools and other organizations.

300T. Music Education. 2 semester hours. Prerequisite: Fundamentals of Music 105A, B. Mrs. Britton.

The aim of the course is to acquaint the student with the materials, methods, problems, procedure, and development of music in the first six grades. This course must precede directed teaching and is intended for those students who are majoring in music. It involves these topics: development of independent sight-singing, both syllables and words; two- and three-part singing; introduction of tonal and rhythmic problems found in music designed for these grades. Courses in music appreciation are discussed, and suitable material for the work is considered.

301T. Music Education. 2 semester hours. Prerequisite: Music Education 300T. Mr. Maybee.

This course presents methods of organizing classes and presenting school music in both junior- and senior-high school. It involves a study of the changing voice, voice testing, glee clubs, and all types of ensemble singing, with a study of suitable material. The problems of credit for outside music study and competitive contests are considered. Some training is given students in presenting operettas, cantatas, and chorus numbers.

302T. Music Education (instrumental). 2 semester hours. Prerequisite: fundamentals of band and orchestra instruments.

Class instruction such as is used in the grades and the high schools for the development of band and orchestra is stressed. Materials will be studied which will best serve organizations in the lower grades and the high school.

320A, B. Advanced Harmony and Musical Analysis. 3 semester hours credit per semester. Prerequisite: Harmony 209A, B. Mr. Henderson.

Use of modern chords, chromatic alteration, suspensions and modal harmony, followed by chords and form analysis in the work of the classic, romantic, and modern composers.

322A, B. Choral Literature. 1 semester hour credit per semester. Prerequisite: Fundamentals of Music 105A, B, Voice Culture 116A, B, and Glee Club. Mr. Maybee.

This course is intended to familiarize the student with choral literature for mixed voices, by means of reading through a large amount of material from the old school as well as the new. Many of the compositions will be prepared and presented in public performance.

OCCUPATIONAL THERAPY

MARION R. SPEAR

JANE E. THOMAS

In order to meet the increasing demands of both civil hospitals and those of the armed forces, the following courses are given in occupational therapy. They may be taken in any one of the following curricula: B. S. Degree with or without Teacher's Certificate and Diploma in Occupational Therapy or the Diploma course. These curricula are approved by the American Medical Association and graduates are qualified for registration in the American Occupational Therapy Association.

Students enrolling in this department will take their major in occupational therapy and their minors in biology and practical arts. It is expected that students will, as far as possible, choose the electives allowed in the curricula they are following from allied fields such as music, fine arts, or psychology.

During the student's first semester only, a supplementary fee of \$5.00 is charged for special lectures, field trips, memberships in State and National Occupational Therapy Associations, and delegates to these meetings.

Note.—The courses given below under Theory are open to occupational therapy students only; the courses under Therapeutic Occupations may be taken by those not enrolled in the Department of Occupational Therapy, with the consent of the instructors.

THEORY

210A. Theory of Occupational Therapy. 2 semester hours. Miss Spear.

Study of the history, purpose, and aims of occupational therapy from ancient to modern times. Special emphasis given to professional and hospital ethics and etiquette. Survey of present day trends and applications in the major medical fields. Supplemented by orientation trips to near-by hospitals and allied industries.

210B. Theory of Occupational Therapy. 2 semester hours. Miss Spear.

Specific instructions in applying occupational therapy in the various fields of service. Further emphasis on adaptation of training to meet patients' needs. Survey of public and private agencies offering facilities for the placement of the handicapped. Supplemented by field trips to hospitals, social agencies, and allied industries.

216. Applied Kinesiology. 2 semester hours. Prerequisite: Anatomy and Physiology (for Occupational Therapists) 215. Mrs. Thomas.

Study of body muscles, classified as to joint motion. Principles of normal muscle function, measuring and charting joint motion with arthrometer or goniometer, measuring and charting muscle strength with therapeutic exercises, and muscular re-education following disability or disease. Training given in this re-education of muscles through adaptation of occupations and exercise.

309. Theory of Occupational Therapy. 2 semester hours. Miss Spear.

An abridgment of the courses 210A and 210B. The same material is covered, but in condensed form and is adapted to the experience of the students. Special emphasis is placed upon present day trends in medical fields and in meeting the patient's needs.

310. Theory of Occupational Therapy. 2 semester hours. Miss Spear.

Correlation of all theory courses in occupational therapy. Specific instruction in the organization and administration of an occupational therapy department. Includes ordering of equipment and material, maintaining an inventory of supplies, problems of office administration, and recording and disposal of finished articles. Supplemented by field trips to hospitals, social agencies, and allied industries.

THERAPEUTIC OCCUPATIONS

222A. Therapeutic Crafts. 2 semester hours. Miss Spear and Mrs. Thomas.

Course consists of various short-term projects, such as paper making, construction of favors, table decorations, designing and remaking seasonal greeting cards, graded projects for pediatrics, decorating fabrics by means of stenciling with textile paints, batik, or block print, and others.

222B. Therapeutic Crafts. 2 semester hours. Miss Spear and Mrs. Thomas.

Course consists of various short-term projects, such as articles constructed of waste materials, candle dipping and molding, chip carving, square knotting, puppetry and marionettes, making or recovering lamp shades, and others.

223. Stitchery. 4 semester hours. Mrs. Thomas.

Samples of every known simple and decorative stitch, such as Italian hem-stitching, Assissi, Swedish darning, and others are included; also knitting, crocheting, tatting, netting, quilting, and the assembling of projects.

224. Rug Making. 1 semester hour. Miss Spear.

The history and development of the art of rug making. Includes study of materials used and the making of sample rugs.

226. Basketry. 1 semester hour. Mrs. Thomas.

Construction of samples showing stitches used with raffia and pine needles. Also includes completed projects in reed, combining various weaves, borders, handles, and finishes.

227. Leatherwork. 1 semester hour. Mrs. Thomas.

Fundamental processes and techniques of leatherwork as used in occupational therapy. Includes designing, cutting, stamping, tooling, dyeing, and lacing of leather.

303. Weaving. 4 semester hours. Mrs. Thomas.

Designed to give a working knowledge of hand looms. Includes the history of textiles, assembling looms, functional adaptations of them for special treatments, reading and drafting patterns, warping and threading looms, and types of weaving.

304. Bookbinding. 2 semester hours. Mrs. Thomas.

Instruction in basic processes in construction of portfolio, scrap book, file, and sewn books, as well as pamphlet and magazine binding. Use of paper, cloth, vellum, and buckram are taught. Care and repair of books are included.

CLINICAL TRAINING**330. Neurology and Psychiatry.** 3 semester hours. Members of Hospital Staff. At Kalamazoo and other State Hospitals.

Consists of the history and clinical demonstration of mental diseases; their causes and methods of readjustment. Also a study of the structure and function of the nervous system. Study and emphasis of the application of work to individual needs given during practical training.

Note.—This course may be counted toward a minor in biology.

332. Clinical Subjects. 4 semester hours. Members of Hospital Staff. During clinical training at each hospital.

Consists of lectures by staff physicians on general medical and surgical conditions, orthopedics, tuberculosis, communicable diseases, cardiac diseases, blindness, and deafness.

334. Clinical Observations. 4 semester hours. Members of Hospital Staff. During clinical training at each hospital.

Consists of observations of clinical activities, including special treatments such as shock therapy, Kenney method for Poliomyelitis, hydrotherapy, and others; operations such as pneumothorax, skin graft, spinal fusion, thoracoplasty, and others; postmortems and dissection of cadavers; ward rounds with physicians, and clinics. Written reports must be submitted to this department.

351. Social Service in Hospitals. 3 semester hours. Members of Hospital Staff. During clinical training at each hospital.

Consists of lectures showing the relationship of the Social Service department to the hospital, and details of their work. Promotes an understanding between occupational therapists and social service workers necessary to their appreciation of each other and the interrelationship of the two departments.

352. Hospital Case Studies. 3 or 4 semester hours. Members of Hospital Staff. During clinical training at each hospital.

Complete and thorough case histories of typical patients observed in occupational therapy departments. Each history to include summary of background material emphasizing causes of or relations to patient's present con-

dition, and a special report on physical condition, treatment, and progress of patient in the occupational therapy department. Student must submit two case histories for each semester hour credit.

PHYSICAL EDUCATION FOR MEN

JUDSON A. HYAMES
JOHN W. GILL
FRANK C. HOUSEHOLDER
FRED S. HUFF

CLAYTON J. MAUS
ROBERT I. QUIRING
HERBERT W. READ
DONALD N. SCOTT

ROY J. WIETZ

A medical and physical examination is required of all students. The findings which grow out of this examination determine the type of physical-education program which the student will follow. An approved corrective and recreative program is prescribed for men who are physically unable to take part in active games and exercise.

In order that students may obtain the maximum returns from their physical-education program, it is recommended that they take the required physical education during their first and second years.

With the exception of the men who are majoring in physical education, students are permitted, upon recommendation of the coach, to substitute membership on an athletic squad for required physical education during the term in which the sport is in season.

Note.—In order to receive physical education credit for work on varsity and freshman athletic squads, a student must enroll in one of the physical-education courses and attend the first meeting of the class, at which time he will be given the opportunity of signing a card which will transfer him from the class to the varsity or freshman squad. This transfer card states under what conditions he will receive physical-education credit.

All students taking courses in this department are required to pay \$3.00 for laundry fee and towel and lock deposits. At the close of the semester there is a refund of \$1.75.

Physical Education Major

Required courses for twenty-four hour major:

General Athletics 105A, B	2 semester hours
Advanced Athletics and Gymnastics 205A, B	2 semester hours
History and Principles of Physical Education 206	3 semester hours
Fundamentals and Technique of Football 208	2 semester hours
Fundamentals and Technique of Basketball 209	2 semester hours
Fundamentals and Technique of Baseball 210	2 semester hours
Fundamentals and Technique of Track and Field 211	2 semester hours
Principles and Technique of Gymnastic Teaching 305	2 semester hours
First Aid and Athletic Training 306	3 semester hours
Swimming 310	1 semester hour
Playground and Community Recreation 320	3 semester hours

Strongly recommended electives:

Camping and Scouting 207	3 semester hours
Physiology of Exercise 307	2 semester hours
Psychology of Coaching 312	2 semester hours

Recommended electives:

Kinesiology 308	2 semester hours
Tests and Measurements in Physical Education 309	3 semester hours

Organization and Administration of Physical Education 302T is required of those who plan to do directed teaching in physical education.

Physical Education Minor

General Athletics and Elementary Gymnastics 105A.....	1 semester hour
Elementary Gymnastics and Outdoor Games 105B	1 semester hour
Psychology of Coaching 312	2 semester hours
Fundamentals and Technique of Football 208	2 semester hours
Fundamentals and Technique of Basketball 209	2 semester hours
Fundamentals and Technique of Baseball 210	2 semester hours
Fundamentals and Technique of Track and Field 211	2 semester hours
Playground and Community Recreation 320	3 semester hours

COURSES FOR NON-SPECIALIZING STUDENTS

Ten class hours of physical education are required of all men students for the curricula leading to a degree.

Five class hours of physical education are required of all men students for the Rural Elementary Curriculum which is two years in length.

101. Early American Dancing. 1 class hour. Miss Bottje, Miss Worner.

102S. Tennis. 2 class hours. Mr. Householder.

102A. Physical Education. Mr. Gill, Mr. Maus.

This course is planned to give a larger appreciation of the value of physical activity and through exercise and the participation in games to maintain in the student a high degree of health. Classes meet twice a week.

102B. Physical Education. Mr. Gill, Mr. Maus.

This course is a continuation of 102A, but participation is in the gymnasium. Seasonal games, including more mass play, such as circle games, relays, etc., are stressed. This course also includes some marching and formal gymnastics.

103A, B. Physical Education. Three days each week. Mr. Gill, Mr. Maus.

The content of these courses is similar to that of Physical Education 102A, B, with more work done because of the extra day required each week.

122. Social Dancing. 1 class hour. Miss McRoberts.

202A, B. Physical Education. Two days each week. Mr. Gill, Mr. Maus.

Courses for students beyond the freshman year. Some review of freshman courses with advanced work in recreational leisure-time activities.

203A, B. Physical Education. Mr. Gill, Mr. Maus.

Same as courses 202A, B, with additional day added for larger program.

COURSES FOR SPECIALIZING STUDENTS

105A. General Athletics and Elementary Gymnastics. 1 semester hour. Three days each week. Mr. Wietz.

This course covers material for mass playground and competitive games. The fundamentals of soccer, football, touch football, passball, baseball, and speedball; practice and theory. The activity is on the field during seasonable weather and transfers to the gymnasium for the fundamentals of gymnastics during the early winter months. The fundamentals of marching, calisthenics, and apparatus, in addition to gymnastic games, are covered indoors.

105B. Elementary Gymnastics and Outdoor Games. 1 semester hour. Three days each week. Mr. Wietz.

Virtually a continuation of 105A with gymnastics in the late winter months and a change to outdoor games in the spring. In addition to softball and other spring games, a track athletic program suitable for the playground is covered.

205A. Advanced Athletics and Gymnastics. 1 semester hour. Three days each week. Mr. Read.

This course covers material as initiated in 105A, but with more developed skills, and the angle of leadership is stressed. The work is outdoors during seasonable weather and transfers indoors to gymnastics during the early winter months.

205B. Advanced Gymnastics and Outdoor Games. 1 semester hour. Three days each week. Mr. Read.

Virtually a continuation of 205A, with gymnastics in the late winter months and a complete program of playground games outdoors in the spring. In addition, a track athletic program suitable for a playground is covered.

206 History and Principles of Physical Education. 3 semester hours. Mr. Hyames.

Courses formerly taught separately as History of Physical Education and Principles of Physical Education are combined in this course. Cycles in types of physical education practices are seen as related to political and economic cycles, while at the same time underlying principles common to all epochs have due consideration. The final effort is to arrive at guidance in setting up a sound program of physical education for the secondary schools. Lectures, assigned reading, discussions, and reports.

207. Camping and Scouting. 3 semester hours. Mr. Read.

Managing and planning of summer camps, including such topics as housing, sanitation, commissary, program, activities; administration of canoeing, hiking, swimming, and various other camp interests.

History, aims, and principles of the Boy-Scout movement. Methods of the patrol and troop are studied. Students are given the opportunity of practical experience in the various phases of scouting and woodcraft. Particular emphasis is placed on the value of the scout program in supplementing the influences of the home, church, and school life of the adolescent boy. Those completing the course satisfactorily are awarded the standard leader's diploma, issued by the Boy Scouts of America.

208. Fundamentals and Technique of Football. 2 semester hours. Mr. Gill, Mr. Wietz.

Fundamentals of football coaching, with special emphasis on catching, punting, kicking, blocking, interference, tackling, principles of line and back-field work, and the manner of playing the various positions. Building and formations of plays, generalship, signal systems, and scouting. Some problems of the coach. Study of the rules.

209. Fundamentals and Technique of Basketball. 2 semester hours. Mr. Read.

Theory and practice of basketball coaching. History and development of the game; study of offensive and defensive systems, with an exposition of underlying fundamentals and principles. Training and conditioning. Study of rules. Classroom work, supplemented with practice on gymnasium floor.

210. Fundamentals and Technique of Baseball. 2 semester hours. Mr. Gill, Mr. Hyames.

Theory and practice in base running, fielding, batting, and pitching; detailed study of each position; offensive and defensive team play; officiating; scoring; study of rules.

211. Fundamentals and Technique of Track and Field. 2 semester hours. Mr. Wietz.

The accepted forms of starting, hurdling, distance running, pole vaulting, discus and javelin throwing, and sprinting. Study of physical conditions affecting speed, endurance, and fatigue. The selection and preparation of contestants for the various track and field events. Managing and officiating of games and meets. Study of rules. Practice on the track.

302T. Organization and Administration of Physical Education. 3 semester hours. Mr. Hyames.

The planning of physical-education programs for city, village, and rural schools; the organization of health lessons, games, tests, meets, tournaments, and seasons of play; principles of supervision; construction and equipment of buildings, grounds, swimming pools, athletic fields, stadia.

305. Principles and Technique of Gymnastic Teaching. 2 semester hours. Mr. Hyames, Mr. Read.

The underlying principles used in the selection of activities of modern physical education in the United States; principles used in the selection of activities which are adapted to and suitable for elementary school, secondary school, and college. The course presents methods of class organization and conduct of the activities. The field covered includes mass games, organized games, relay races, stunts, combative events, natural activities on the apparatus, folk dances, clogging, marching, and calisthenics. Testing and grading results are included. An opportunity is given for practice in class instruction and visitation.

306. First Aid and Athletic Training. 3 semester hours. Mr. Scott.

Knowledge and skill in meeting emergencies, use of massage in treatment of sprains and bruises, use of hot and cold applications.

307. Physiology of Exercise. 2 semester hours. Prerequisite: Anatomy 211A, Physiology 211B. Mr. Wietz.

Fundamental principles underlying the physiology of muscle and nerve, with special application to physical activities. Study of the interrelationship of digestion, respiration, excretion, and internal secreting glands to muscular activity and efficiency. Study of the effects of over-exertion and fatigue.

308. Kinesiology. 2 semester hours. Prerequisite: Anatomy 211A, Physiology 211B. Mr. Wietz.

This course includes a study of the types of muscular activity; the mechanics involved in their performance; a detailed study of the muscles, ligaments, and joints used in gymnastic, athletic, and occupational movements, and their relation to the problems of bodily development and efficiency.

309. Tests and Measurements in Physical Education. 3 semester hours. Prerequisite: Anatomy 211A, Physiology 211B. Mr. Wietz.

A study of the historical development of measurements in physical education from the early anthropometric and strength tests, through the athletic-ability tests, up to a detailed consideration of the various types of tests now used in physical education.

310. Swimming. 1 semester hour. Mr. Read.

Instruction in the different strokes, resuscitation, and life saving.

312. Psychology of Coaching. 2 semester hours. Mr. Gill.

This course is designed primarily for those who are planning to make coaching a profession, although playground leaders will find the course helpful in working out their problems. The first part of the semester is given over to the discussion of certain principles of educational psychology and their application to athletics, along with a physiological analysis of the principal sports. The latter part of the semester is confined to athletic coaching. Some of the topics discussed are the following: getting ready to coach, planning the practice sessions, presenting material effectively, planning the season's campaign, playing the game; the "jinx" and how to handle it, the element of fear and how to conquer it; morale, personality, and will power; the personal touch in coaching.

320. Playground and Community Recreation. 3 semester hours. Mr. Hyames, Mr. Scott.

Nature and function of play; age periods and adaptation of activities; social environment; playground development, construction, management, and supervision. Practice in class instruction in games, story plays, handiwork, and other physical activities. A survey of recreational material, athletic and field meets. Laboratory work with training-school children required.

OPEN TO GRADUATES

580S. (F190). The Camp as an Educational Agency. 2 semester hours. Dr. West.

For description of course see Department of Education, page 146.

581S. (F208). Community Recreation. 2 semester hours. Dr. West.

For description of course see Department of Education, page 147.

585. (F213). Curriculum Problems in Physical Education and School Health. 2 semester hours.

For description of course see Department of Education, page 147.

PHYSICAL EDUCATION FOR WOMEN

CRYSTAL WORNER
MARY BOTTJE
ISABEL CRANE

DORIS A. HUSSEY
SARAH H. MCROBERTS
HELEN MERSON

DOROTHY VESTAL

The Department of Physical Education for Women aims to provide an interesting and beneficial program of physical activity for each student. Physical fitness of the individual for participation is determined by medical and physical examinations. No student is excused from physical education, but program adjustments are arranged to take care of those with physical handicaps.

Appropriate uniforms, obtainable at Western's Campus Store, are required for the various activities. All students will be charged seventy-five cents per semester for locker fees, of which twenty-five cents will be refunded.

Students other than those majoring in physical education may not earn more than three class hours of physical education in one semester. (A class hour is to be interpreted to mean one hour of class work each week for one semester.)

PHYSICAL EDUCATION MAJOR

Requirements in science and in physical education for students who wish to make physical education their major field are:

Group II. Science

General Biology 100A, B	8 semester hours
Hygiene 112	2 semester hours
Anatomy 211A	4 semester hours
Physiology 211B	4 semester hours

Group VII. Physical Education and Health

Physical Education Theory and Practice 151A, B	4 semester hours
Introduction to Physical Education 170	2 semester hours
Physical Education Theory and Practice 251A, B	4 semester hours
Elementary School Physical Education 270A, B	4 semester hours
First Aid 271	1 semester hour
Applied Anatomy 273	2 semester hours

Secondary School Physical Education 274A, B	3 semester hours
Health Education 285	2 semester hours
Methods in Physical Education 300T	2 semester hours
Administration and Organization 301T	2 semester hours
Physical Education Theory and Practice 351A, B	2 semester hours
Physical Education Theory and Practice 361A, B	2 semester hours
Individual Gymnastics 373	3 semester hours
Principles of Physical Education 374	2 semester hours
Community Recreation, Scouting, and Camp Fire 376	2 semester hours

TWENTY-FOUR HOUR MAJOR

(This is not to be confused with the requirements for students who are specializing in this field.)

Physical Education Theory and Practice	12 semester hours
Introduction to Physical Education 170	2 semester hours
Elementary School Physical Education 270A, B	4 semester hours
or	
Secondary School Physical Education 274A, B	3 semester hours
First Aid 271	1 semester hour
Health Education 285	2 semester hours
Principles of Physical Education 374	2 semester hours
Community Recreation, Scouting, and Camp Fire 376	2 semester hours

PHYSICAL EDUCATION MINOR

Required:

Physical Education Theory and Practice	6 semester hours
(This is the equivalent of 18 class hours of physical education practice.)	
Elementary School Physical Education 270A, B	4 semester hours
or	
Secondary School Physical Education 274A, B	3 semester hours

Elective:

The remaining five or six hours may be selected from the following courses:	
Introduction to Physical Education 170	2 semester hours
First Aid 271	1 semester hour
Health Education 285	2 semester hours
Community Recreation, Scouting, and Camp Fire 376	2 semester hours

It is advisable for any student who wishes to be recommended by the department for the teaching of physical education to take as electives Methods in Physical Education 300T, 2 semester hours, and Directed Teaching in Physical Education, 4 semester hours. These courses may not be included in the 24 semester hours required for the major nor in the 15 semester hours required for the minor.

PHYSICAL EDUCATION COURSES FOR WHICH CLASS HOURS OF CREDIT ARE GIVEN

100. Physical Education. Miss Bottje, Miss Vestal.

The aim of this course is to give the student an understanding of the values of participation in physical activities, and to aid her in determining her physical abilities and needs. A variety of activities with some lectures and discussion will be included.

101. Early American Dancing. Miss Bottje, Miss Worner.

- 105. Physical Education.** Prerequisite: Physical Education 100. Miss Bottje, Miss Hussey, Miss Merson.
Volleyball and folk dancing are emphasized. Tactics and gymnastics are included.
- 106. Physical Education.** Prerequisite: Physical Education 100. Miss Bottje, Miss Hussey, Miss Vestal.
Indoor work in stunts, self-testing activities, and games. This is followed by field sports and baseball.
- 107. Physical Education.** Miss Hussey.
A daily rest period for students who are physically unable to participate in class activity and for whom other substitution is undesirable.
- 108A, B. Restricted Exercise.** Miss Bottje, Miss Vestal.
Exercise for restricted groups. Hiking, bowling, quoits, archery, and light activity suited to the season.
- 109. Individual Gymnastics.** Miss Hussey, Miss Merson.
A course for remedial exercise for students who do not pass the physical examination. Credit will be given in this course for one repetition only.
- 110. Swimming.** Prerequisite: Physical Education 100. Miss Bottje, Miss Hussey, Miss McRoberts, Miss Merson.
Swimming, diving, and life-saving.
In classes meeting one and two hours per week a laundry fee of twenty-five cents each semester will be charged; in classes meeting three or more hours per week this fee will be fifty cents.
- 111. Basketball.** Prerequisite: Physical Education 100. Miss Bottje, Miss Vestal, Miss Worner.
- 112. Softball.** Prerequisite: Physical Education 100. Miss Merson, Miss Vestal.
- 113. Tennis.** Prerequisite: Physical Education 100. Miss Bottje, Miss Hussey, Miss Merson, Miss Vestal, Miss Worner.
- 114. Golf.** Prerequisite: Physical Education 100. Miss Vestal.
Practice of form for the various shots, with some work on the course.
- 115. Folk Dancing.** Prerequisite: Physical Education 100. Miss Worner.
Folk dances, country dances, and clogs.
- 116. Advanced Swimming.** Prerequisite: Physical Education 100. Miss Hussey.
A course in swimming and life-saving; open to students who have passed the beginners' swimming test.
- 117. Winter Sports.** Prerequisite: Physical Education 100. Miss Merson.
Skiing, skating, and hiking during the winter season.
- 118. Archery.** Prerequisite: Physical Education 100. Miss Vestal.
- 119. Tap Dancing.** Prerequisite: Physical Education 100. Miss McRoberts.
- 120. Badminton.** Prerequisite: Physical Education 100. Miss Bottje, Miss Hussey, Miss Merson, Miss Vestal.
Minor individual sports such as shuffleboard, ring tennis, bowling, ping-pong, and badminton.
- 121. Modern Dance.** Prerequisite: Physical Education 100. Miss McRoberts.
Individual and group study of expression through rhythmical movement. Development of bodily coordination and control.

- 122. Social Dancing.** 1 class hour. Miss McRoberts.
- 233. Rural School Physical Education.** Prerequisite: Physical Education 100. Miss Bottje.
Indoor and outdoor programs for mixed-age groups. Ideas for track meets, picnics, play days, holiday programs, and student leadership systems.
- 330. Early Elementary Physical Education.** Prerequisite: Physical Education 100. Miss Bottje.
A study of the physical, mental, and social nature of children in the early-elementary group and of activities suited to their needs.
- 331. Later Elementary Physical Education.** Prerequisite: Physical Education 100. Miss Vestal.
A study of needs and interests of pupils of later-elementary grades in physical education, and presentation of physical-education activities suited to that age.
- 332. Secondary School Physical Education.** Prerequisite: Physical Education 100. Miss Vestal.
A course giving in theory and practice physical-education activities suitable for high-school students.
- 334S. Public School Physical Education.** Prerequisite: Physical Education 100. Miss Crane, Miss Vestal.
A survey of the needs and interests of children along physical education lines and presentation of suitable activities.

PHYSICAL EDUCATION COURSES FOR WHICH SEMESTER HOURS OF CREDIT ARE GIVEN

- 151A. Physical Education Theory and Practice.** 2 semester hours. Miss Hussey, Miss Vestal, Miss Worner.
Fundamental skills, body mechanics, folk dancing, social dancing, swimming, and hockey or soccer.
- 151B. Physical Education Theory and Practice.** 2 semester hours. Miss Hussey, Miss Vestal, Miss Worner.
Baseball, social dancing, folk dancing, tennis, and swimming.
- 170. Introduction to Physical Education.** 2 semester hours. Miss Worner.
A brief historical survey of physical education, with a study of its relation to social and political ideals of different periods. Discussion of present objectives and types of activities most helpful in the realization of aims.
- 171A. First Aid.** 1 semester hour. Miss Vestal.
The standard course in first aid, leading to the Red Cross certificate.
- 171B. Advanced First Aid.** 1 semester hour. Prerequisite: First Aid 271A. Miss Vestal.
Additional practice in first aid techniques. The Red Cross advanced certificate is awarded for satisfactory completion.
- 236S. Camp Fire and Girl Scout Activities.** 1 semester hour. Not offered in 1945. Miss Worner.
Program planning and activities for girls' clubs.
- 251A. Physical Education Theory and Practice.** 2 semester hours. Miss Bottje, Miss Hussey, Miss McRoberts.
A selection of activities for the elementary-school age level in relationship to the development of the fundamental skills and play interests.

- 251B. Physical Education Theory and Practice.** 2 semester hours. Miss Bottje, Miss McRoberts, Miss Merson.
An activity program which affords an opportunity for organization and participation in simple games, simple team games, stunts, track and field, skills tests, rhythms and dances.
- 270A. Elementary School Physical Education.** 2 semester hours. Miss Crane.
Concerned with the play interests, needs, and characteristics of children at the elementary-school level. An analysis of activities in terms of these needs.
- 270B. Elementary School Physical Education.** 2 semester hours. Miss Crane.
Contribution of play to the physical, mental, emotional, and social growth of children. Organization of groups and activities as a means of developing a physical-education curriculum.
- 273. Applied Anatomy.** 2 semester hours. Prerequisite: Anatomy 211A. Physiology 211B. Miss Hussey.
Analysis of the mechanics of bodily movement. A study is made of the location and action of the large muscles in developmental activities and exercises.
- 274A. Secondary School Physical Education.** 2 semester hours. Miss Vestal.
A study of the rules and methods of coaching team games of secondary level; also, experience in the organization and management of tournaments and play days.
- 274B. Secondary School Physical Education.** 1 semester hour. Miss Vestal.
A study of the rules and methods of coaching individual sports of secondary level, such as tennis, archery, and badminton.
- 276. Community Recreation, Scouting, and Camp Fire.** 2 semester hours. Miss Worner.
The study of the organization and administration of community play. Students beyond the sophomore year may elect this course by obtaining permission from the instructor.
- 285. Health Education.** 2 semester hours. Miss Worner.
For description of course see Department of Education, page 146.
- 300T. Methods in Physical Education.** 2 semester hours. Prerequisite: Introduction to Physical Education 170. Miss Bottje.
Fundamental principles underlying the selection of subject matter and the technique of teaching gymnastics, games, and rhythmic work for elementary and high-school pupils. Opportunity for observation and making of lesson plans.
- 301T. Administration and Organization of Physical Education.** 2 semester hours. Prerequisite: Methods in Physical Education 300T. Miss Crane, Miss Worner.
This course presents the problems that arise in the everyday experience of the instructor. Among the topics considered are administration of activities, physical examinations, excuses, special cases, records, schedules, and relations with other services in the school.
- 333S. Recreational Activities.** 1 semester hour. Not offered in 1945. Miss Worner.
Games, stunts, and rhythmic activities for children and for adult groups, including suitable activities for camps and for outings.
- 335. Organized Sports for High School.** 2 semester hours. Miss Bottje.
A course for students who wish to be prepared to organize a program of volleyball, fieldball, basketball, and other sports for high-school girls.

351A. Physical Education Theory and Practice. 1 semester hour. Miss Vestal.

This course continues through the year and offers instruction in the theory and practice of group and team games of secondary level, individual sports, such as ping-pong and ring tennis, and practice in marching, gymnastics, apparatus, tumbling, and dance.

351B. Physical Education Theory and Practice. 1 semester hour. Miss Vestal.

A continuation of instruction in the theory and practice of activities suitable for secondary-school level.

361A. Physical Education Theory and Practice. 1 semester hour. Miss McRoberts, Miss Vestal.

Advanced work in sports, swimming, and dancing, with opportunities for teaching and officiating.

361B. Physical Education Theory and Practice. 1 semester hour. Miss McRoberts, Miss Vestal.

Continuation of the work begun in 361A with changes in the sports to suit the season.

373. Individual Gymnastics. 3 semester hours. Prerequisite: Anatomy 211A, Physiology 211B, Applied Anatomy 273. Miss Hussey.

The study of preventive as well as prescribed exercise for remedial defects in case of curvature and physical abnormalities. Practice with patients will be given.

374. Principles of Physical Education. 2 semester hours. Prerequisite: Methods in Physical Education 300T. Miss Worner.

A study of the derivation of the principles of physical education, their relation to aims and objectives, and types of programs that develop through application of these principles.

OPEN TO GRADUATES

580S. (F190). The Camp as an Educational Agency. 2 semester hours. Dr. West.

For description of course see Department of Education, page 146.

581S. (F208). Community Recreation. 2 semester hours. Dr. West.

For description of course see Department of Education, page 147.

585. (F213). Curriculum Problems in Physical Education and School Health. 2 semester hours.

For description of course see Department of Education, page 147.

PHYSICS

PAUL ROOD

WALTER G. MARBURGER

GROVER C. BAKER

The Department of Physics offers two types of courses: (1) those for students who while not planning to specialize in science want an appreciation of the important part physics plays in every day life; and (2) those for individuals who intend to major or minor in the subject. Physical Science 100A, B, Household Physics 202, and Astronomy 210 belong to the former group; and the remainder of the courses listed below belong to the latter. Courses 203A and 203B belong in both groups.

A major in physics consists of 24 semester hours. It must include Mechanics, Sound, and Heat 203A and Electricity and Light 203B, together with 16 semester hours chosen from the following courses: Physical Science 100A, B, (2 semester hours counted in physics), Problems 204A, B, Astronomy 220,

Statics 320, Atomic Physics 340, Light 350, Introduction to Electronics 361, Electrical Measurements 362, Principles of Radio Communication 365, Laboratory Techniques 390, Advanced Laboratory Physics 399.

A minor in physics consists of 15 semester hours. Eight of these hours must be in Mechanics, Sound, and Heat 203A and Electricity and Light 203B. The remainder may be chosen from the courses listed above, with the exception of Astronomy 220 and Advanced Laboratory Physics 399.

By arrangement with the Department of Chemistry, a major in physical science may be made by taking 8 semester hours of chemistry and 16 semester hours of physics. A minor may not be made by combining physics and chemistry.

Two of the six semester hours earned in Physical Science 100A, B may be counted toward a major or a minor in physics.

Students wishing to do directed teaching in physics must offer a major or minor in this field. It is advisable that a considerable portion of the major or minor be completed before making application for directed teaching. The postponement of directed teaching until the student's senior year is strongly recommended. Application for directed teaching in physics must be approved by the chairman of the department.

100A, B. Physical Science. 3 semester hours each semester. Two of the six semester hours earned may be counted in each of the fields of chemistry, geology, and physics. Dr. Berry, Mr. Marburger, Dr. Osborn, Dr. Rood.

This course is designed for students who are not planning to specialize in any of the physical sciences but who desire a general background in this field. The course offers a correlated presentation of selected topics in astronomy, chemistry, geology, meteorology, and physics.

It aims through lectures, discussions, and numerous demonstrations to bring to each student a measure of scientific knowledge and understanding, and an appreciation of the value of the scientific method as well as the role of the physical sciences in modern life.

202. Household Physics. 2 semester hours.

A course designed to help students appreciate and interpret the problems which arise in the home, such as volume and weight relationships, temperature control by thermostats, refrigeration, insulation, meter reading, computation of light and gas bills, electrical devices, illumination problems, etc. Open only to women students.

203A. Mechanics, Sound, and Heat. 4 semester hours. Prerequisite: high-school physics or Physical Science 100A, B. Mr. Baker, Mr. Marburger, Dr. Rood.

A general course dealing with the laws governing velocities, forces, and energy and their applications. Two lectures, two recitations, and one two-hour laboratory period per week. Freshmen may elect this course on consultation with their department chairman.

203B. Electricity and Light. 4 semester hours. Prerequisite: Mechanics, Sound, and Heat 203A, and (for engineering students) Problems 204A. Mr. Baker, Mr. Marburger, Dr. Rood.

A study of static and current electricity, magnetism, and light. Two lectures, two recitations, and one two-hour laboratory period per week. Freshmen may elect this course on consultation with the department chairman.

204A. Problems. 1 semester hour. Mr. Baker, Mr. Marburger, Dr. Rood.

A course in the solution of problems in mechanics, sound, and heat. It is recommended for all students taking 203A and is required of all engineering students. Freshmen may elect this course on consultation with the department chairman.

204B. Problems. 1 semester hour. Mr. Baker, Mr. Marburger, Dr. Rood.

A course in problems to accompany Electricity and Light 203B. It is recommended for all students taking 203B and is required of all engineering students. Freshmen may elect this course on consultation with the department chairman.

210. Astronomy. 3 semester hours. Dr. Rood.

A non-mathematical course in descriptive astronomy, which will serve as an aid to students in general science and to others who may desire an understanding of the elements of the subject. Open to students of all curricula.

300T. Teaching of Physical Science. 2 semester hours. Prerequisite: a major or minor in physics or chemistry. Mr. Marburger, Dr. Osborn.**320. Statics.** 3 semester hours. Prerequisite: Mechanics, Sound, and Heat 203A, Electricity and Light 203B, Calculus 205A, B. Dr. Rood.

This course, together with Modern Physics 340, provides a second year of college physics. It also satisfies the requirements for a course in statics in mechanical engineering. The course includes a study of the general principles of forces in equilibrium, and their application to hanging cables, problems involving friction, frameworks of various kinds, and the loading of structures.

340. Atomic Physics. 3 semester hours. Prerequisite: Mechanics, Sound, and Heat 203A, Electricity and Light 203B, Calculus 205A, B. Dr. Rood.

A study is made of the electron, natural and artificial radio-activity, photoelectricity, and the structure of nuclei.

350. Light. 3 semester hours. Prerequisite: Mechanics, Sound, and Heat 203A, Electricity and Light 203B, Calculus 205A, B. Not offered in 1945-1946. Dr. Rood.

A study of the laws of physical optics: lectures, demonstrations, and laboratory experimentation on wave motion; reflection and refraction of light; interference; diffraction; polarization; the quantum theory; and spectra.

361. Introduction to Electronics. 3 semester hours. Prerequisite: Electricity and Light 203B. Mr. Marburger.

This course, which is introductory to all intermediate courses in electricity, deals with the following general topics: circuit laws and elementary methods of circuit analysis; the functions of resistors, inductors, and capacitors; resonant circuits and tuning; coupled circuits; power ratios and gains in amplifiers and attenuators; simple filters; thermionic emission and electron tubes; tube rectifiers, amplifiers, and oscillators; radio transmission and reception; thyratrons and other gaseous control tubes; photoelectric control devices.

Three lecture-recitations and one two-hour laboratory period per week.

362. Electrical Measurements. 3 semester hours. Prerequisite: Introduction to Electronics 361. Mr. Marburger.

This course deals chiefly with direct-current theory and measurements, together with the measurement of magnetic quantities. Standard laboratory methods of measuring potential differences, current, resistance, and power are investigated experimentally. Ballistic galvanometer methods are studied. Fluxmeters are used in measuring magnetic flux. Experimental B-H and magnetic hysteresis curves for samples of iron and magnetic alloys are determined. In this course, more emphasis is placed on techniques of measurement and precision methods than in the earlier courses.

Two lectures and two two-hour laboratory periods per week.

365. Principles of Radio Communication. 3 semester hours. Prerequisite: Introduction to Electronics 361, Calculus 205A. Mr. Marburger.

The physical principles involved in radio communication form the basis of this course. Some of the topics considered are: amplification and amplifiers for both audio and radio frequencies; oscillations and conventional types of oscillators; amplitude and frequency modulation; demodulation and systems of detection; radiation and antenna systems. The laboratory work provides experience in: A. C. bridge methods for measuring impedances both at audio and at radio frequencies; measuring frequency; measuring radio frequency currents and voltages; determining the frequency and amplitude responses of an amplifier; testing and adjusting oscillators; measuring field intensities.

Three lecture-recitations and one two-hour laboratory period per week.

390. Laboratory Techniques. 1 semester hour. Mr. Baker.

This course requires two hours a week in the laboratory. Open to students of physics and a limited number of students from other fields of science.

399. Advanced Laboratory Physics. Credits depending upon work accomplished. Prerequisite: Mechanics, Sound, and Heat 203A, Electricity and Light 203B, and experience in other courses offered in the department. Mr. Baker.

This course should be elected by students only after consultation with the chairman of the department.

OPEN TO SENIORS AND GRADUATES

440. (105). Modern Physics. 3 semester hours. Prerequisite: same as for Statics 320. Dr. Rood.

A study of certain of the developments in physics since 1896. Beginning with the discovery of the electron, it covers the successive developments in the emission of electricity from hot bodies, photo electricity, x-rays, radio activity, both natural and artificial, the Bohr theory, and the theory of special relativity.

PSYCHOLOGY

THEODORE S. HENRY

HOMER L. J. CARTER

DOROTHY J. MCGINNIS

General Psychology 200 is prerequisite to all other courses in this department, except course 202, and, with Elementary Experimental Psychology 201, constitutes a basic year of work. Approach to the field of clinical psychology is afforded by courses 302, 305, 307, and 309. A minor in psychology may be obtained by completing not less than nine hours of work subsequent to courses 200 and 201. Twelve hours from this department will satisfy Group II of the degree requirements.

Students expecting to do graduate work in education should bear in mind the fact that graduate schools of education universally require general psychology as a prerequisite for entrance.

200. General Psychology. 3 semester hours. Dr. Henry.

This course affords a brief survey of the field of general psychology.

201. Elementary Experimental Psychology. 3 semester hours. Dr. Henry.

An introduction to laboratory methods through experimental work in the general field of sensory, imaginal, and affective experience; perception, memory, learning, etc. One lecture and four hours in the laboratory each week.

202. General Psychology (for Nurses). 2 semester hours. Dr. Henry.

An introductory course in general psychology intended to fit the needs of students of nursing. Not open to regular students. It covers the 4 units recommended in the *Curriculum Guide for Schools of Nursing*, namely, the "Nature and Methods of Psychology"; the "Biological and Social Basis of Behavior"; "Essentials of Learning"; and "Personality and Adjustment".

204. Applied Psychology. 2 semester hours. Dr. Henry.

A study of the psychological factors in occupational choice and adjustment; and the implications of psychology for advertising and selling and for the field of industry.

205. Comparative Psychology. 2 semester hours. Dr. Henry.

A general treatment of the behavior, sensory and perceptual processes, and learning of the lower animals as bearing on the problem of the evolution and development of human mental life.

207. Psychology of Personality. 3 semester hours. Mr. Carter.

This course will consider the individual as a biological and social unit, relating each group of factors to the development of personality. Attention will be given to the differentiation of the individual; individual differences and abilities, personality, attitudes, and adjustment; modification of behavior; varieties of adjustive behavior; and behavior deviations.

302. Laboratory in Psychological Testing. 3 semester hours. Mr. Carter, Miss McGinnis.

A broad basic course for teachers and others interested in the field of psychology, clinical work, or sociology. The course will consider selection, administration, and interpretation of tests used for elementary and secondary schools; the use of tests in classification, diagnosis, prognosis, and educational and vocational guidance; the principles of teacher-made tests, and the effect of testing on marking systems. A competency in minimal statistics will be developed. Two hours of lecture and two hours of laboratory work each week.

305. Abnormal Psychology. 3 semester hours. Dr. Henry.

A discussion of the causes, nature, and forms of mental abnormality.

307. Mental Testing. 2 semester hours. Mr. Carter.

The primary purpose of this course is to give the student careful training in the administration and interpretation of the Revised Stanford-Binet Scale. Students will be required to administer the test to twenty individuals and to interpret their findings in terms of the life history of each individual tested. The work of the course consists of reports, laboratory demonstrations, and individual testing. This intensive training in Binet testing should be followed by at least five months of intern work in an institution or psychological clinic.

309. Clinical Psychology. 2 to 4 semester hours. Prerequisite: Abnormal Psychology 305, Mental Testing 307, or consent of instructor. Mr. Carter.

Two one-hour periods each week, including staff conference. Clinical studies of pupils presenting psycho-educational problems, such as behavior difficulties, deficiencies in reading, educational and social maladjustment. Work of the course involves individual case studies, home visits, interviewing, conferences, laboratory and clinical procedure. Theory and practice of the case study, including case history, and physical, psychological, and educational examinations, as well as interpretation and treatment, will be considered. Detailed work of the course is carried out under the direction of the Psycho-Educational Clinic.

Note.—A student may elect this course a second time. Repetition does not involve repetition of content but additional practice in procedure.

RURAL LIFE AND EDUCATION

WM. MCKINLEY ROBINSON

ANNA L. EVANS

Additional information relating to the work of the Department of Rural Life and Education may be found on the following pages:

Opportunities in the field of rural life and education, page 62.

Facilities for training for work in rural life and education available at Western Michigan College of Education, page 40.

Certificates granted and degrees conferred, pages 80, 81, 82, 94, 95.

Provision for training teachers of agriculture, pages 63, 97, 120.

All courses except Curriculum 145, Introduction to Directed Teaching 240, and Directed Teaching 271 are offered in rotation each third summer session.

Advanced courses in the field of rural life and education are those numbered 345 and over,

145. Curriculum. 3 semester hours. Miss Evans.

A study of the elementary-school child as a background for the examination of the various areas of the elementary-school curriculum; a survey of these areas, together with some reference to the research in the several fields and the present-day classroom practices in each; a detailed study of the *Michigan State Course of Study*; and a brief comparison of the *Michigan State Course of Study* with the courses of other states.

240. Introduction to Directed Teaching. 3 semester hours. Miss Evans.

A study of the general principles of teaching, with particular application to rural-school situations. Textbook discussions, supplementary reading, and observations in the training school are required. Prerequisite to directed teaching.

240. Rural Economics. 3 semester hours. Dr. Robinson.

The fundamental principles of economics are considered in terms of rural life, both as they relate to the local community and to the national and international scene. Professional as well as economic interpretation is given those topics touched upon in the elementary and secondary school curricula; notably, conservation, agricultural extension services, cooperatives, insurance, consumer education, etc.

240. Rural Sociology. 3 semester hours. Dr. Robinson.

The sociology of life in the rural environment, with thought to the promotion of rural welfare, is dealt with in this course. Emphasis is placed upon those considerations most affecting or affected by the school and its program; such as, the community, population trends and movements, social institutions, health facilities, child labor, and isolation. A number of textbooks, current magazines, and pamphlets are used.

245. Rural Sociology. 3 semester hours. (Primarily for students in other than rural curricula.) Dr. Robinson.

Through acquaintance with the wealth of material now available and being added to constantly by various research agencies, it is hoped to make for better rural-urban understandings and relationships, particularly within the profession of education. This course is also suited to the needs of those expecting to work in rural communities in the several service occupations and professions other than education.

271. Directed Teaching. 3 semester hours.

The Hurd One-Teacher School and the Portage Rural Agricultural School provide directed-teaching facilities for students enrolled in the rural department. A selected group of rural students is permitted to do practice teaching while in residence for six weeks, each in a one-teacher school district in one of the several counties in the service area of the college. For this work 5 instead of 3 semester hours credit is given. For description of courses in Directed Teaching, see pages 143 to 144.

340. Rural Education. 2 semester hours. Dr. Robinson.

This course deals with the problems common to schools, particularly insofar as they are peculiar to rural schools; such as, the community centered school, public relations, support and control of schools, the county commissioner of schools, the state department of public instruction, compulsory attendance, consolidation and transportation, the school plant, school supplies and equipment, integration and articulation of the school system, professional relationships, and school law.

345, 346. Rural Education. (Seminar). 4 semester hours, two hours each semester. Prerequisite: consent of instructor. Dr. Robinson.

This seminar course is for advanced students. Problems related to the curriculum, teaching, supervision, and administration of all types of rural schools and to pre-service and in-service education of teachers are studied. Reports by individual members may be on minor problems given each semester or on a major problem given at the end of the second semester. An abundance of resource material, as well as laboratory work in rural schools, is utilized.

345, 346. Rural Life. (Seminar). 4 semester hours, two hours each semester. Prerequisite: consent of instructor. Dr. Robinson.

In the first semester critical study of a recent textbook in rural sociology is supplemented with references including research studies representing primarily the essentials in wholesome social life. In the second semester, an analysis of social research is the subject of class discussion, members of the class devising forms and schedules for a rural community study. A minor study within the scope of available time is undertaken.

348. Special Problems of Village and Consolidated Schools. 2 or 3 semester hours, depending on amount of field work done. Dr. Robinson.

Discussion of the following and other topics as related to village and consolidated schools; aims and functions of the school in relation to the community; school law; location and planning of buildings; transportation; selection of teachers; salaries; tenure; supervision; in-service education; classification of pupils; records and reports; the junior high school; curriculum; extra-curricular activities; publicity; and the Parent-Teacher Association. The course includes trips to nearby schools.

SOCIAL SCIENCES

FLOYD W. MOORE
HOMER ARNETT
HOWARD F. BIGELOW
ROBERT S. BOWERS
GEORGE O. COMFORT
LEONARD C. KERCHER
JAMES O. KNAUSS

EDWIN M. LEMERT
MARGARET E. MACMILLAN
ARTHUR J. MANSKE
MILDRED S. NUTTEN
NANCY E. SCOTT
D. C. SHILLING
CHARLES R. STARRING

OTTO YNTEMA

"Social Sciences" is a group title including the four separate and distinct departments of (1) Economics, (2) History, (3) Political Science, and (4) Sociology. Advisers should bear this fact in mind in helping students plan their work. It is frequently desirable that students majoring in one department of this group should minor in another. Candidates for the A. B. degree who major in any department of this group are advised to take a minimum of six semester hours in at least two of the other coordinate departments in the group.

Students who select a group major in social sciences are required to present at least one minor in a field of study not represented in the social science field.

A group minor in social sciences requires a minor of 19 semester hours including acceptable courses in at least three of the departments in the Social Science Division.

Introduction to Contemporary Society 101A, B may be counted toward a group major in social science; a major in economics, political science, or sociology; or the two courses may be counted as 3 semester hours of credit toward a minor in economics, political science, or sociology.

Teaching of the Social Studies 300T does not count toward either a major or a minor. (See page 80.)

Additional information of a more specific nature follows the departmental headings below.

101A. Introduction to Contemporary Society. 3 semester hours. Mr. Bowers.

This course is designed to provide an integrated study of economic, social, and political institutions and problems; to introduce the student to the scientific attitude and approach toward social problems; and to furnish a basis for the correlation of later specialized courses. The economic, social, and political order that preceded the Industrial Revolution is contrasted with contemporary society. The processes of transformation by which these changes were brought about are traced with a view to providing a suitable background for the understanding of the major social problems of the present day.

101B. Introduction to Contemporary Society. 3 semester hours. Prerequisite: Introduction to Contemporary Society 101A. Mr. Bowers.

This course is a continuation of 101A listed and described above.

300T. Teaching of the Social Studies. 2 semester hours. Prerequisite: nine hours credit distributed between two social sciences. Not offered in 1945-1946.

This course is intended for students in the later-elementary and the secondary school groups. It deals with the nature, aims, content, organization, presentation, and testing of the social studies. Attention is given to the evaluation of texts, the planning of lessons, the selection and gradation of collateral reading, and the correlation of the social studies with the other branches of the curriculum and with the various activities of the school.

ECONOMICS

Courses in economics are designed (1) to contribute to general education by attempting to make students more familiar with the ways and means by which men make their living in modern times; (2) to fulfill the requirements for the training of teachers in certain professional groups, such as commerce and business administration; and (3) to furnish courses and explore areas of economic thought which are prerequisite to graduate study and are recommended as pre-professional in business administration, engineering, journalism, law, medicine, and social work.

Introduction to Contemporary Society 101A, B may be counted as 6 semester hours toward a major in economics or as 3 semester hours toward a minor in economics.

All majors and minors in economics must include Principles of Economics 220A, B. These two courses are prerequisite to all other courses offered in the economics department.

220A. Principles of Economics. 3 semester hours. Mr. Bigelow, Mr. Bowers, Dr. Moore.

A study of the fundamental principles of economics and their application to some of the more important of our economic problems. Special emphasis is placed on the laws of price, the fundamental principles involved in production, and the principles underlying our monetary and banking systems. A

few problems, such as those presented by the business cycle, inter-regional trade, business organization, and marketing, are frequently included.

Note.—Principles of Economics 220A and 220B form a single course, which is prerequisite to advanced work in the field. A student planning to take only a single semester's work in economics should consult with the instructor before electing Principles of Economics 220A.

220B. Principles of Economics. 3 semester hours. Prerequisite: Principles of Economics 220. Mr. Bigelow, Mr. Bowers, Dr. Moore.

Primary emphasis is placed upon the principles involved in what is technically known as distribution of wealth. The list of problems studied includes railroad regulation, the control of industrial monopolies, risk bearing, insurance, speculation, public finance, taxation, employment relations, and proposed forms of our economic system.

221A. Money and Credit. 2 semester hours. Prerequisite: Principles of Economics 220A, B. Mr. Bigelow.

In this course an examination is made of the evolution and functions of money, monetary standards, and credit. Some attention is given to the history of currency in the United States, experiments with paper money, and price-level control, together with considerable factual material relative to credit and credit instruments.

221B. Money and Credit. 2 semester hours. Prerequisite: Money and Credit 221A. Mr. Bigelow.

This course is a continuation of 221A, stressing mainly the financial institutions of our present economic system. Commercial, saving, and investment banking, building and savings associations, Federal and semi-governmental financial institutions, consumptive credit agencies, the Federal Reserve System, and banking reform in the United States and abroad are among the subjects studied.

223. Economics of Consumption. 3 semester hours. Mr. Bigelow.

A study of the present-day problems of the consumer. It helps to establish rational standards of expenditures, based on a careful analysis of human wants and on a consideration of the consumer's available income and of the existing standards of living. Careful analysis is made of the marketing system, investment, insurance, the recent development of installment buying, and the wise use of credit by the consumer.

240. Rural Economics. 3 semester hours. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 204.

320. Public Finance. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Work in government may be substituted in special cases by permission of the instructor. Mr. Bigelow.

A study of public expenditure, revenues, debts, and problems of fiscal administration. Deals with the characteristics of and trends in public expenditures; the sources of government income; the principles and problems of taxation; an analysis of typical modern taxes, such as the general property tax, income tax, inheritance tax, and customs duties; the use of public credit; and the budget system and other methods of fiscal administration.

321. Business Administration. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Dr. Moore.

This course deals with the elementary principles of internal organization and management of industrial enterprises. It includes a discussion of the nature of modern industry; plant location and types of construction; material equipment and power; planning and routing; statistics and accounting; marketing methods and problems; production management; personnel administration; purchasing, traffic, credit, and collections.

322. Corporations. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Mr. Bigelow.

A study of the place of the corporation in modern business life. Consideration is given to the problems of organization, direction, finance, and control, from the point of view of the promoter, the manager, the creditor, the investor, and the public.

323. Marketing. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Dr. Moore.

A study of the principles, methods, and problems of marketing. The following are some of the topics covered in this course: the marketing functions; the marketing of farm products, raw materials, and manufactured goods; the operation of middlemen and their place in the market structure; retail types and policies; consumer and producer cooperation; market finance; brands and trade names; specialization; price maintenance; unfair competition; cost of marketing; prices and price factors; general criticism of existing market structure and proposals for its reform.

324. Transportation. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Mr. Bowers.

An analysis of the various means of transportation, of the problems of service, cost, and revenues, and of the development of government regulation. The problem of transportation is considered as one of coordinating the various means of transportation into an efficiently related whole serving the best interests of consumers, owners, and employees.

325A. Labor Problems. 2 semester hours. Prerequisite: Principles of Economics 220A, B. Mr. Bowers.

An analysis of the nature and underlying causes of the problems facing the worker in modern economic society.

325B. Labor Problems. 2 semester hours. Prerequisite: Labor Problems 325A. Mr. Bowers.

A study of the methods by which workers, employers, and the public have been and now are attempting to solve labor problems. Present programs are evaluated in the light of underlying economic principles in order to develop sound thinking about these problems.

326. Business and Government. 3 semester hours. Prerequisite: Principles of Economics 220A, B. Work in government may be substituted in special cases by permission of the instructor. Dr. Moore.

The relations of the government to public service corporations and to private businesses. The course includes a study of the necessity for regulation, franchises, intermediate permits, public utility commissions, principles of valuation, rate-making, service, capitalization, government ownership, legal and constitutional aspects of regulation, control of corporations and trusts, regulation of competition, government encouragement of business, and national policies toward business. During the war period major attention is given to the economics of war and the economics of reconstruction.

327. Contemporary Economic and Governmental Problems. 3 semester hours. Dr. Comfort.

For description of course see Political Science, course number 337, page 215.

328. Comparative Economic Systems. 2 semester hours. Prerequisite: Principles of Economics 220A, B. Mr. Bowers.

Economic institutions and conditions are critically examined in relation to capitalism, the cooperative movement, theoretical socialism, theoretical communism, and the actually-operating economies of Soviet Russia, Fascist Italy, and National Socialist Germany.

OPEN TO SENIORS AND GRADUATES

422. (152). Price Theories and Policies. 2 semester hours. Prerequisite: Principles of Economics 220A, B. Dr. Moore.

A re-examination of the forces which, normally, determine price, together with an analysis of special types of markets and price policies which currently affect our price system.

425. (193). Consumption and Standards of Living. 2 semester hours. Prerequisite: Principles of Economics 220A, B, or consent of instructor. Mr. Bigelow.

A comparative study of standards and levels of living, designed to acquaint the student with the ways people actually live in different types of communities at various economic levels. Methods by which teachers can learn about the standards and levels of living of their pupils and of the communities in which they live and work, the relationship of standards and levels of living to consumer choice, and an analysis of the complicated psychological, technological, economic, and social processes involved in increasing the satisfaction to be derived from living are considered. Included is sufficient comparative study of the theories of consumption held by the principal schools of economic thought to enable the student to understand and evaluate current thinking about consumption problems.

428. (255). History of Economic Thought. 2 semester hours. Prerequisite: not fewer than 12 semester hours in economics. Dr. Moore.

The course aims to give the student the historical background for modern economic thinking. Beginning with the leaders of ancient economic thought, the main currents of such thinking are brought down through feudalism, mercantilism, the physiocrats, Adam Smith's influence, the English classical school, socialistic tendencies, and the controversial theories of the present experimental era.

HISTORY

The Department of History offers two sequences of courses designed to give a survey of the history of Europe, namely, (1) Foundations of Western Civilization 100A, B, 6 semester hours, and (2) Ancient and Medieval Civilization 105 A, B, and Modern Europe 108 A, B, 12 semester hours. Credit is not given for both Foundations of Western Civilization 100A and Ancient and Medieval Civilization 105 A, B; nor is credit given for both Foundations of Western Civilization 100B and Modern Europe 108 A, B.

Students who are preparing to teach history in high school are advised to take the longer sequence in European history, 105A, B and 108A, B, rather than the shorter sequence, 100A, B. Courses 100A, B are offered to meet the needs of students who can take only one year of European history but who wish to gain a general knowledge of the origins and development of our Western Civilization.

Students preparing to teach in the later-elementary grades are advised to take one of the sequences in European history and a sequence of courses in United States history.

Students who have had a thorough course in United States history in high school and have made good grades in the subject should not take United States History 201A, B, but should instead select advanced courses in the field—305A, B; 306A, B; 312; 313; 317; 406B; 418.

Students are advised not to take both English History 109A, B, and 100A, B, 105A, B, or 108A, B, except in special cases. English history is offered primarily to meet the needs of students who are pursuing the pre-law curriculum (see page 100), and students who are specializing in English literature.

A major in history should include at least 12 semester hours in courses numbered above the one hundreds; and at least part of the higher-number courses must be selected from those that deal intensively with a short period, and, therefore, afford students a better opportunity to become acquainted with methods of advanced historical study—305A, B; 306A, B; 308; 309; 315; 316; 319; 406 B; 418.

A minor in history should include at least 3 semester hours in courses numbered above the one-hundreds.

Since a reading knowledge of French or German, or both is helpful in advanced courses in history and essential in graduate work in the field, students majoring in history are urged to elect at least two years of French or German.

Students who desire to major or minor in history should confer with the departmental adviser for history as early in their college careers as possible; and those majoring or minoring in history are required to confer with the departmental adviser before enrolling in courses in their junior and senior years. (See page 79.)

100A. Foundations of Western Civilization. 3 semester hours. Not offered in 1945-1946.

This course is designed to acquaint students with those civilizations of the past that have made major contributions to the modern world. It is essentially a history of culture. It treats various periods so as to reveal their nature, their interrelationships, and their contributions to contemporary society.

100B. Foundations of Western Civilization. 3 semester hours. Prerequisite: Foundations of Western Civilization 100A. Not offered in 1945-1946.

This course is a continuation of Foundations of Western Civilization 100A.

105A. Ancient and Medieval Civilization. 3 semester hours.

Development of civilization to 27 B. C. Contributions of the cultures of the Nile Valley, the Fertile Crescent, and the Aegean basin to the Greeks and to modern civilization; rise of the Greek city-states; development of Athenian democracy and culture of the age of Pericles; the Athenian empire; failure of the Greeks to unify; Alexander and Hellenistic civilization; rise of the Roman republic; struggle of the orders; conquest of Italy and the Mediterranean; break-up of the Roman republic; Roman culture and ideals.

105B. Ancient and Medieval Civilization. 3 semester hours.

Development of civilization from 27 B. C. to 1500 A. D. Augustus and the Augustan age; success, peace, and prosperity of the Roman Empire; rise of Stoicism and Christianity; forces of decay and attempts to arrest them; Diocletian and Constantine; barbarian invasions; the Frankish Empire and Charlemagne; monasticism; Justinian and the Byzantine Empire; Mohammedans; Norsemen; the feudal age; the Christian church; the crusades; the rise of towns and commerce; rise of France and England.

108A. Modern Europe. 1500-1815. 3 semester hours. Dr. Scott, Mr. Starring.

A study of the Reformation and the religious wars which followed it; the struggle between Spain and England; the rise of the Dutch Republic; the growth of absolutism in France; the establishment of parliamentary supremacy in England; the rise of Russia and Prussia; the world-wide colonial conflict between France and Great Britain; social and political ideas of the eighteenth century; the French Revolution; and the era of Napoleon.

108B. Modern Europe, 1815 to the Present Time. 3 semester hours. Dr. Scott, Mr. Starring.

The reactionary period after 1815; the industrial revolution; the liberal and national movements of the nineteenth century; the Near-Eastern question; the expansion of Europe in Asia and Africa; international relations; the World War; the peace treaties; causes and progress of the present war.

109A. English History to 1689. 3 semester hours. Dr. Scott.

The course deals with all aspects of English history, social, economic, political, cultural, and religious, but emphasizes constitutional and legal developments. Scotland and Ireland are given brief attention.

109B. English History, 1689 to the Present. 3 semester hours. Dr. Scott.

A general survey of British history for the period, with emphasis as in 109A. The course includes the history of the acquisition and government of the British Empire and the relations of Great Britain and Ireland.

201A. United States History to 1860. 3 semester hours. Dr. Comfort, Dr. Knauss, Dr. Macmillan, Mr. Starring.

This course begins with the European background of American history, traces the origin and growth of the colonies, considers their relations to the mother country, and gives special attention to the causes and course of the Revolution and to the beginnings of state and national government. A study is made of the first seventy-five years of national existence, showing the country's territorial, social, political, and economic changes.

201B. United States History, 1860 to the Present Time. 3 semester hours.

Dr. Comfort, Dr. Knauss, Dr. Macmillan, Mr. Starring.

The course of the Civil War and its results are discussed. The development of the nation from an agricultural country to an industrial world power is studied, together with the simultaneous social, cultural, and political changes.

305A. United States History, 1783-1815. 2 semester hours. Prerequisite: six semester hours of history. Not offered in 1945-1946.

An intensive study of selected topics dealing with the making of the Constitution of the United States, the launching of the new federal government, and the problems of the young republic. The course is conducted as a pro-seminar. A principal object is to acquaint students with the various classes of historical materials and to introduce them to methods of advanced historical study.

305B. United States History, 1845-1877. 2 semester hours. Prerequisite: six semester hours of history.

This course is primarily concerned with the great sectional quarrel over slavery, secession, the Civil War, and Reconstruction. It is conducted in the same manner as 305A.

306A. United States History, 1877-1901. 2 semester hours. Prerequisite: six semester hours of history. It is desirable that the student shall have had Principles of Economics 220A, B, American National Government 230, and American State and Local Government 231.

The course deals with the problems of politics of an era of rapid economic expansion. It is conducted as a pro-seminar. An effort is made to use some of the more available sources and to compare and weigh divergent historical interpretations.

306B. United States History, 1901 to the Present Day. 2 semester hours. Prerequisite: six semester hours of history. It is desirable that students shall have had Principles of Economics 220A, B, American National Government 230, and American State and Local Government 231. Not offered in 1945-1946. Dr. Comfort.

A study of the more immediate historical background of present-day problems, issues, and policies. The course is conducted in a manner similar to that of 305A, B, and 306A, but a greater effort is made to present a complete outline.

307. Latin American History. 2 semester hours. Dr. Knauss.

A survey of the history of the Latin American countries. Particular attention is given to the political, the economic, and the social institutions and problems of Latin America.

308. European Diplomatic History, 1878-1919. 3 semester hours. Dr. Scott.

A study of the causes of the World War as revealed by an analysis of the principal diplomatic documents; the military events of the war; the revolutionary movements leading to the fall of the central and eastern empires and the creation of new states; the peace settlement.

Note.—Courses 308, 309 represent consecutive work in recent European history for juniors and seniors. Each unit, however, may be taken separately. A general knowledge of European history, such as may be gained from 100A, B; 108A, B, or 109A, B, is necessary for an effective understanding of the material studied in these courses.

309. Europe Since the World War. 3 semester hours. Dr. Scott.

A study of post-war reconstruction; the problems growing out of the peace treaties, reparations, war-debts, and revisionism; successive changes in Italy, Russia, and Germany; the Spanish War; political aspects of the economic tension; causes and progress of the present war.

Note.—See note under European Diplomatic History 308.

311. Economic History of Europe. 3 semester hours.

A study of the evolution of the economic institutions of Europe. The emphasis is upon the interrelationships of the various parts of the economic system at different stages and the causes of the changes that have occurred.

312. Economic History of the United States. 3 semester hours.

A general survey of the subject. The object is to give a description of economic growth and expansion in the United States and of the changes that have occurred in technology, economic organization, and standards of living and to account for and evaluate such changes. A general knowledge of United States history, such as may be gained from 201A, B, is presupposed.

313. History of Michigan. 3 semester hours. Dr. Knauss.

A course designed to show the development of the contemporary political, social, and economic status of Michigan. The relation of the history of the state to that of the nation is stressed.

314. History of China and Japan. 2 semester hours. Dr. Knauss.

A course designed to show in outline the development of civilization in the two countries. A study is made of their chief present-day problems.

315. Downfall of the Old Regime, to 1792. 2 semester hours. Not offered in 1945-1946.

A study of the life and thought of the eighteenth century, with special emphasis upon France; the causes of the French Revolution; belated efforts at reform; and the overthrow of the French Monarchy.

Note.—Courses 315 and 316 represent consecutive work in European history for juniors and seniors. Each unit, however, may be taken separately. Students are expected to have taken an introductory course in European history.

316. The French Republic and Napoleon, 1792-1815. 2 semester hours. Prerequisite: Downfall of the Old Regime 315. Not offered in 1945-1946.

A study of the First French Republic; the effect of war upon the revolutionary movement in France; the Directory, the Consulate, and the Napoleonic Empire; and the spread of revolutionary principles throughout Europe.

Note.—See note under course 315 above.

317. Constitutional History of the United States. 3 semester hours. Dr. Shilling.

A study of the evolution of the political institutions of this country from colonial times to the present with emphasis on the growth of the federal constitution. A general knowledge of United States history, such as may be gained from 201A, B, is presupposed.

- 319. History of Russia.** 2 semester hours. Prerequisite: six hours of history. Dr. Scott.

This course consists of two parts: (1) a series of lectures, accompanied by reading, stressing those phases in the evolution of the Russian people necessary to an understanding of the present; (2) a critical analysis by the student, based upon at least two texts and wide collateral reading of books representing different viewpoints, of conditions and tendencies in present-day Russia in order more fully to understand her economic, social, and political potentialities.

OPEN TO SENIORS AND GRADUATES

- 404. (162). The Era of the American Revolution 1763-1787.** 2 semester hours. Dr. Macmillan.

The causes, character, and consequences of the American Revolution.

- 406B. (182). United States from the Spanish-American War to the Present.** 2 semester hours.

Special emphasis upon the progressive movement, post-World War readjustments, the New Deal, and our entrance into the Second World War.

- 418. (177). The Old South.** 3 semester hours.

A study of economic, social, and cultural conditions in the ante-bellum South with emphasis on the plantation system and Negro slavery and the social and political philosophy of Southern leaders.

OPEN TO GRADUATES

- 510. (281). Studies in Modern European History: Race Conflict in Central Europe.** 3 semester hours. Dr. Scott.

Migration and settlement of Germans, Czechs, Slovaks, and Magyars in central Europe; history of the kingdom of Bohemia, especially in the period of its greatest influence; the question of a specifically Czech culture; racial difficulties in the Hapsburg monarchy; diplomatic and revolutionary movements of 1914-1918; the peace settlement; domestic and foreign policy of Czechoslovakia; Munich and its results.

- 511. (282). Studies in Modern European History: The Impact of the Present War on National Groups of Eastern Europe.** 3 semester hours. Dr. Scott.

Migration and settlement of peoples of Eastern Europe; study of those periods of their early history, respectively, which gave them identity and the right to call themselves nations; revolutionary changes 1914-1918 and degree of progress since 1918; significance to them and to the world of German or Russian encroachment.

- 513. (201). Studies in Michigan History.** 2 semester hours. Dr. Knauss.

Studies in the history of Michigan since its admission as a state. Attention is given to the critical use of historical materials and the preparation of bibliographies.

- 519. (262). Studies in Russian History.** 3 semester hours. Dr. Scott.

The course consists of (1) lectures and reading on those phases of Russian history necessary for an understanding of the present, and (2) the critical study and use of historical materials in the preparation of papers on topics of current significance along two general lines: (a) problems connected with Russia's borderlands, such as the Baltic states, Poland, and the Ukraine; (b) the evolution of Soviet institutions.

POLITICAL SCIENCE

In this division of the social sciences the student has an opportunity to further his acquaintance with the theory and workings of governments at various levels, the nature of political processes and organization, and the privileges and obligations of a citizen. The significance of such knowledge is recognized by the fact that many of the states require that some instruction in this field be given in all tax-supported institutions of higher learning. The Michigan requirement may be met by any one of the following courses: American National Government 230, American State and Local Government 231, or Survey of American Government 234.

Majors and minors in the social sciences should include, if possible, American National Government 230 and American State and Local Government 231. Introduction to Contemporary Society 101A, B may be counted as 6 semester hours toward a major in political science or as 3 semester hours toward a minor in political science.

230. American National Government. 3 semester hours. Dr. Comfort, Dr. Shilling.

A study of the national government of the United States, including its structure, functions, and operations, with special stress on the last two.

231. American State and Local Government. 3 semester hours. Dr. Comfort, Dr. Shilling.

Since the citizen has many contacts with the state, city, and county government, an effort is made to acquaint the student with the organization, aims, and problems of state, county, and municipal government. Special emphasis on Michigan.

234. Survey of American Government. 2 semester hours. Dr. Comfort, Dr. Shilling.

This course covers our national, state, and local governments and is intended for those who do not find time for the more extensive study in American Government 230 and American State and Local Government 231.

330. Political Philosophies. 3 semester hours. Prerequisite: American National Government 230 and American State and Local Government 231, or consent of instructor. Dr. Shilling.

An attempt is made to introduce the student to a selected portion of the political thought that has influenced the thinking of all ages and areas. The approach is a historical one, the method consisting of a study of the author, his times, and his contribution to political thought.

331. Public Administration. 2 semester hours. Prerequisite: American National Government 230 or State and Local Government 231. Dr. Comfort.

Analyses of the principles of administrative organization and supervision, and of fiscal and personnel agencies, with special reference to current problems in American government.

332. County and Township Government. 2 semester hours. Desirable antecedent: American National Government 230, American State and Local Government 231. Not offered in 1945-1946. Dr. Shilling.

The course deals with rural government in the United States, with special emphasis upon Michigan. Following a brief discussion of the historical development of rural government, a more detailed study is made of the functions of county, township, and village government and their relation to the state, the types of organization, and problems of administration. A critical appraisal is made of rural government, together with a study of recent changes and plans proposed for further reorganization, especially in Michigan.

333. Political Parties. 3 semester hours. Prerequisite: American National Government 230, American State and Local Government 231, or consent of instructor. Dr. Shilling.

A detailed study of the nature and activities of the political parties of the United States, including their rise, development, and mechanism. Elections, ballots, and civil service are given emphasis. Some use is made of laboratory materials.

335. Comparative Governments (Democracies). 3 semester hours. Prerequisite: American National Government 230 or six hours of Modern European History. Not offered in 1945-1946. Dr. Shilling.

The organization and procedure of the political institutions of England, the British self-governing dominions, and Switzerland, together with an examination of the political trends and forces challenging or reshaping Democratic institutions.

336A. Constitutional Law. 3 semester hours. Prerequisite: American National Government 230 and American State and Local Government 231, or consent of instructor. Dr. Comfort.

The principles of government in the United States as seen in judicial decisions are considered. Leading cases in Constitutional Law dealing with the nature of the Constitution and with the powers of Congress will be read and discussed.

336B. Constitutional Law. 3 semester hours. Prerequisite: American National Government 230 and American State and Local Government 231, or consent of instructor. Dr. Comfort.

In this course the nature of citizenship, the powers of the President, and the position of the states are studied through judicial decisions. Credit is given for either 336A or 336B taken separately.

337. Contemporary Economic and Governmental Problems. 3 semester hours. Prerequisite: Principles of Economics 220A, B, or American National Government 230 and American State and Local Government 231, or consent of instructor. Dr. Comfort.

A practical study of some of the more important politico-economic and politico-social problems, recent and pending in Congress and in state legislatures.

338. International Law. 3 semester hours. Prerequisite: six semester hours of government or consent of instructor. Dr. Comfort.

Relations of nations in war and in peace, and the accepted usages regarding the rights of neutrals and belligerents, contraband, blockade, visit and search, changes of sovereignty, extradition, expatriation, and similar subjects. Changes brought about by the World War. Alternates with Constitutional Law 336A, B.

OPEN TO SENIORS AND GRADUATES

430. (184). American Political Thought. 2 semester hours. Prerequisite: American National Government 230, American State and Local Government 231. Dr. Shilling.

A survey of the leading American contributions to our political thought, grouped around each of several great eras and issues of our national development. Lectures, textbook, and source material will be used.

431. (141). Municipal Government and Administration. 2 semester hours. Prerequisite: American National Government 230 and American State and Local Government 231, or equivalent. Dr. Shilling.

The first part of this course consists of an analysis of the political, legal, and sociological aspects in the development of American cities. The main emphasis, however, will be placed upon administration, studying such serv-

ices as planning, zoning, police, welfare, utilities, and public works. Problems of metropolitan communities will be considered. Considerable source materials will be used.

432. (136). American Local Rural Government. 2 semester hours. Prerequisite: American State and Local Government 231 or written consent of instructor. Dr. Shilling.

A survey of the governmental organization and functions of counties, townships, and villages.

434. (132). Legislative Process. 2 semester hours. Prerequisite: American National Government 230 or American State and Local Government 231. Dr. Comfort.

An introductory study of the processes by which federal and state laws are made.

439. (163). Foreign Policy of the United States. 2 semester hours. Prerequisite: six hours of political science or six hours of United States history. Dr. Shilling.

A survey of the diplomatic history of the United States from the American Revolution to the outbreak of World War II.

SOCIOLOGY

Courses in sociology are designed (1) to give students in general a better understanding of the significant social factors and processes of modern life; (2) to meet the needs of students preparing to teach in the social-science field; (3) to prepare students to do graduate work in the field of sociology; and (4) to stimulate interest in and provide some prerequisite study for the profession of social work.

Introduction to Contemporary Society 101A, B may be counted as 6 semester hours toward a major in sociology or as 3 semester hours toward a minor in sociology.

Students who desire to major or minor in sociology should plan their work with an instructor in the department as early in their college career as possible. Courses 241 and 242 are intended to give the student a general knowledge of human relationships and of the more outstanding social problems. They are required of all students majoring or minoring in sociology and should constitute a minimum selection for students preparing to teach "Community Civics." All courses may be taken separately, and may be taken in any order by students who have had the prerequisite courses.

For students interested in social work there has been prepared a recommended curriculum for pre-professional education. Those students desiring to confer about the field of social work or about the recommended curriculum should see Dr. Kercher, Dr. Lemert, or Dr. Shilling. (Department of Social Sciences.)

240. Rural Sociology. 3 semester hours. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 204.

241. Principles of Sociology. 3 semester hours. Dr. Kercher, Dr. Lemert.

A study of man's social nature and of the social world in which he lives. The biological, social, and cultural factors underlying the development of human personality are considered. Chief emphasis, however, is placed upon an analysis of various forms and processes of group association, including such topics as the forms of collective behavior, the structure and functions of community organization, the nature of social interaction, and the character of social change.

242. Modern Social Problems. 3 semester hours. Prerequisite: Principles of Sociology 241. Mr. Bowers, Dr. Kercher, Dr. Lemert.

A general survey of some of the major social problems now confronting American society, such as family disorganization, physical and mental ill health, economic insecurity, juvenile delinquency and crime, population changes, and industrial hazards. Special consideration is given to the cultural background and the social significance of these problems as well as to the various public and private proposals for their alleviation.

243. Social Psychology. 2 semester hours. Prerequisite: Principles of Sociology 241. Dr. Lemert.

A study of the social and cultural aspects of individual personality, together with an analysis of the problems of personal adjustment that arise from the interaction of personalities and from the relation of the individual to the social environment in general. The major divisions of the course include the nature of the individual and society, the processes of socialization, the character of human personality and its problems of adjustment, and the meaning of social situations in personal behavior.

244. Sociology (for Nurses). 2 semester hours. Dr. Lemert.

An introductory course in sociology especially adapted to the needs of students of nursing. Not open to regular students. A study of the biological social, and cultural factors involved in the development of human personality, with emphasis on the community setting of personality growth. Attention will be paid to personality disorganization and to problems of health and professional organization.

245. Rural Sociology. 3 semester hours. Primarily for students not in rural curricula. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 204.

246. Juvenile Delinquency and the Community. 3 semester hours. Dr. Kercher.

A course organized specifically for off-campus instruction with residence credit. It is designed so as to make maximum use of the research opportunities, the leadership, the youth service agencies and the other social resources of the immediate community in which it is taught. Attention is centered upon both the delinquent personality and the delinquency situation. The character, causes, treatment, and prevention of delinquent behavior are considered. Each student is expected to carry through a study project in which some aspect of the delinquency problem in the local community is analyzed.

247. Problems of Family Life. 3 semester hours. Prerequisite: Principles of Sociology 241. Dr. Lemert.

A study of the institutional functions of the family, with particular attention to their nature, history, and problems. An emphasis will be laid also on the inter-personal adjustments of family life.

248. Cultural Anthropology. 3 semester hours. Dr. Kercher.

Although this course deals primarily with cultural anthropology it opens with a brief survey of physical anthropology, particularly as it relates to the evolution, character, and distribution of modern races. There follows a descriptive and comparative study of the cultures of primitive peoples; their technology, art, social life, and religion. The course concludes with a consideration of the origins and functional interrelationships of significant aspects of contemporary culture.

325. Marriage and Family Relationships. 2 semester hours. Miss Reed and others.

For description of course see Department of Home Economics, page 167.

Note.—Not to be counted toward major and minor requirements in social science, but acceptable toward Group III.

340. Urban Community. 2 semester hours. Prerequisite: Principles of Sociology 241. Dr. Lemert.

A study of community life as influenced by the processes of industrialization and urbanization. The rural community, the small town, the small city, and the metropolis will be studied in some detail from the standpoint of personality and social organization. Community problems and social planning for community life will also be given appropriate consideration.

342. Criminology. 3 semester hours. Prerequisite: Principles of Sociology 241. Dr. Kercher.

A study of crime as a social problem. Beginning with a survey of the various theories of crime and punishment, both past and present, this course leads to an analysis of the various factors involved in criminal conduct; a critical study of the organization and functioning of American police systems and of the American courts; a survey of the problems of penology, including prison types, prison government, prison labor, parole, and probation; and, finally, a consideration of crime prevention. Visits to institutions may be arranged.

343. Population. 3 semester hours. Prerequisite: Principles of Sociology 241. Dr. Kercher.

Four objectives will be attempted in this course: first, a review of population theory from Malthus to the present; second, a survey of the outstanding facts with respect to quantitative and qualitative changes in world population, but more especially in the population of the United States; third, an analysis of the causal factors underlying contemporary changes; and fourth, an interpretation of the social and biological significance of present population trends.

344. History of Social Thought. 2 semester hours. Prerequisite: Principles of Sociology 241. Dr. Kercher.

A critical survey of the social thinking of outstanding students of society, from Plato to those of modern social science. The development of social theory is stressed, and an endeavor is made to appraise the contributions of various individual thinkers and of different schools of thought.

345, 346. Rural Life. (Seminar). 4 semester hours, two hours each semester. Prerequisite: consent of instructor. Dr. Robinson.

For description of course see Department of Rural Life and Education, page 205.

348. Principles of Social Work. 4 semester hours. Prerequisite: consent of instructor. Dr. Lemert, Mrs. Nutten.

A course designed for students without social-work experience. It constitutes a general introduction to the basic principles and processes of social case work. The problem of the most effective approach to the individual and his social situation is discussed. Case material is analyzed to acquaint the student with the characteristic methods and processes of social case work in its community setting. This course is prerequisite to other courses in case work, except for students with approved case-work experience.

349. Social Work Practice. 3 semester hours. Prerequisite: Principles of Social Work 348, or consent of instructor. Dr. Lemert.

A continuation of Principles of Social Work 348, with emphasis on the evaluation of selected case material, the technique of the interview, and case recording. All students are required to complete a minimum of 100 hours of supervised field work with either a case-work or a group-work agency. Each student will have a weekly conference with the instructor on his particular field-work problem. Placement of a student for field-work experience will depend on his particular interests and abilities. Such agencies as the Federal Emergency Relief Administration, Federal Transient Bureau, Kalamazoo State Hospital, Civic Improvement League, Visiting Teacher, and

Nursery School will offer practice in social case work. Social group-work experience may be obtained through the Y. M. C. A., Y. W. C. A., Boy Scouts, Girl Scouts, City Recreation Department, and Douglas Community Center.

350. The Community and the School. 3 semester hours. Prerequisite: Principles of Sociology 241 or equivalent. Dr. Kercher.

A study of the social functions of education in promoting constructive community life. Two objectives dominate the course. The initial purpose is to acquire general insight into the character of our social order, and also to acquire an understanding of the principal social problems that signify failure in communal living today. The second major objective is to develop the subject matter, the curricular organization, and the methods of instruction that would make the school an effective instrument in bringing about desirable community change. When offered off-campus for resident credit each student, working singly or in small committees, is expected to develop a complete instructional unit for practical classroom use in dealing with some social problem having significant local implications.

351. Social Service in Hospitals (for Occupational Therapists). 3 semester hours. Members of Hospital Staff.

For description of course see Department of Occupational Therapy, page 189.

352. Hospital Case Studies (for Occupational Therapists). 3-4 semester hours. Members of Hospital Staff.

For description of course see Department of Occupational Therapy, page 189.

OPEN TO SENIORS AND GRADUATES

441. (158). Social Control. 3 semester hours. Prerequisite: Principles of Sociology 241 or equivalent. Dr. Lemert.

A consideration of the agencies and means of social control from the standpoint of their relation to different socio-economic systems. Treatment of ridicule, gossip, rewards, coercion, propaganda, and censorship. Term projects in special areas of control.

445. (162). Cooperative Social Organization. 2 semester hours. Prerequisite: Principles of Sociology 241 or equivalent. Dr. Kercher.

A study of cooperative social organization and enterprise. Five aspects of the subject are emphasized: first, the principles underlying cooperative organization; second, the history and character of major historical cooperative movements; third, the forms and manifestations of cooperative enterprise today; fourth, the organization and operating of cooperative enterprise; and fifth, the rôle of cooperative enterprise in present-day society.

446. (159). Juvenile Delinquency. 3 semester hours. Dr. Kercher.

Extent, causes, and methods of control of juvenile maladjustment.

447. (118). Migrations. 2 semester hours. Prerequisite: Principles of Sociology 241 or equivalent. Dr. Kercher.

A study of major human migrations. While world trends, both historical and contemporary, are surveyed, major stress is placed on modern movements into and within the United States. The nature of these migrations, the factors responsible for them, and the problems arising in relation to them are emphasized.

OPEN TO GRADUATES

543. (115). Advanced Population Studies. 2 semester hours. Principles of Sociology 241 or equivalent. Dr. Kercher.

This course deals primarily with the quantitative and qualitative aspects of population trends in the United States, but is also concerned with the quantitative aspects of the world population situation. The basic objectives

are: to become familiar with the theory and concepts of population movement, to acquire knowledge of the major facts of contemporary population changes, to understand their underlying causes, to interpret their significance, and to evaluate the social policies aiming to control them.

547. (160). Advanced Studies in the Family. 2 semester hours. Prerequisite: Principles of Sociology 241 or equivalent. Dr. Lemert.

The major aspects of family life will be explored. Attention will be directed to historical family organizations, the family in other cultures, changing institutional functions, major family problems, and family disorganization and reorganization.

548. (258). Psychiatric Information for Social Workers. 2 semester hours.

An introduction to the field of mental and nervous diseases. Organic and functional psychoses and psychoneuroses and their social implications.

549. (243). Child Psychiatry. 2 semester hours.

Discussion of causation, symptomatology, prognosis, and treatment of mental and emotional maladjustments of childhood.

550. (270). Mental Hygiene in Social Science Work. 2 semester hours.

This course presupposes the completion of Social Work 269, or its equivalent. It is a continuation of the study of fundamental biological, psychological, and social factors in childhood which later determine mechanisms of behavior in adult life. Various types of symptomatic behavior studied with interpretation of causes. Case studies submitted with critical analysis of cause and effect relationships operating in the lives of the clients involved in a treatment situation.

SPEECH

LAURA V. SHAW
ALBERT B. BECKER
WALLACE L. GARNEAU

ANNA E. LINDBLOM
FRANK ROBINSON
CHARLES VAN RIPER

A major sequence in speech consists of courses 105A, B, 206, 210, 215, 225, 231, 320, and one other course.

A minor sequence in speech consists of courses 105A, B, 206, 210, and other courses totaling 6 semester hours.

A minor sequence in speech correction consists of courses 105A, 230, 231, 318, 319.

For students specializing in English, courses 105A, B, 210, 310, 315, and 316 are recommended.

Students majoring in speech are strongly urged to minor in English.

99. Special Speech Problems. Non-credit course, Dr. Van Riper.

This course is designed to meet the needs of students with emotional conflicts or speech difficulties. Emphasis is placed upon the solution of the individual speech problem through applied mental hygiene and intensive speech practice.

105A. Fundamentals of Speech. 3 semester hours. Mr. Becker, Mr. Garneau, Miss Lindblom, Miss Shaw.

The basic course for all work in the department. A study and application of the fundamental principles underlying the use of the voice and the body for effective communication. Credit will be given for this course alone, but it is strongly urged that 105A and 105B be taken as a unit.

105B. Fundamentals of Speech. 3 semester hours. Prerequisite: Fundamentals of Speech 105A. Mr. Becker, Mr. Garneau, Miss Lindblom, Miss Shaw.

Further study of principles, with additional opportunity for individual practice. Students interested in speech are advised to elect both 105A and 105B the first year.

106. Informal Speaking. 3 semester hours. Prerequisite: Fundamentals of Speech 105A. Mr. Becker, Mr. Garneau.

Study and practice of speech appropriate to such private and semi-public situations as conversation, committee meetings, and group discussion, with some attention also given to informal public speaking.

Note.—This course is intended for those who have had Fundamentals of Speech 105A and who plan to work in speech.

201. Parliamentary Usage. 1 semester hour.

Designed for upperclassmen who desire some knowledge of how to organize meetings and conduct business according to parliamentary procedure. Study of such matters as motions and their order of precedence, committees and their duties, and election of officers. Constant application in the classroom of the principles studied.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group I.

206. Public Speaking. 2 semester hours. Prerequisite: Fundamentals of Speech 105A, B. Mr. Becker, Miss Lindblom.

Introductory study of the rhetorical principles of public speech and audience psychology. The primary aim is to develop clear thinking, and ease and effectiveness in speaking. Frequent opportunity for platform work is given. Designed for upperclassmen.

210. Interpretive Reading. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B. Mr. Garneau, Miss Shaw.

Analysis and oral interpretation of the more simple types of prose and poetry.

215. Acting. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210, or consent of instructor. Miss Shaw.

Improvisation and practical work on the stage. Through class discussion and criticism from the instructor, the student acquires an understanding of the basic principles of the art of acting.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group I.

220. Stage Design. 2 semester hours. Not offered in 1945-1946.

A course for speech and art students. It deals with the basic problems of the visual aspect of play production, and considers elementary art principles and technique as applied specifically to stage design. Members work in conjunction with the Players Club in staging laboratory and midwinter productions. No special art training or theatrical experience is required.

Note.—This course may be counted for credit in art but not toward fulfillment of a minimum requirement in Group I.

225. Argumentation and Debate. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, or consent of instructor. Miss Lindblom.

A thorough study of the principles of argumentation and frequent practice in debating current public questions. Attention is also given to the problems of coaching and judging debates. Students planning to participate in intercollegiate debate are advised, so far as possible, to elect this course first.

226. Intercollegiate Debating. Maximum of 6 semester hours allowed during college course, and not more than 2 semester hours each year. Miss Lindblom.

Application of argumentative principles to actual platform debate. The basis of this forensic practice is the intensive study of the questions used for intercollegiate debate.

230. Introduction to Speech Correction. 3 semester hours. Dr. Van Riper.

A course designed to acquaint the student with the scope, history, and nature of speech correction. Topics considered are: the development of speech in the child, the psychology of the speech defective, the relationship of speech disorders to reading disabilities, and other psycho-educational problems.

231. Principles of Speech Correction. 3 semester hours. Dr. Van Riper.

A course intended especially for students in speech, speech correction, special education, and elementary education. The course is designed to acquaint the student with the general principles of speech correction as they relate to the types, causes, and development of the various speech disorders.

240. Introduction to Radio Speaking. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210 or Public Speaking 206, or consent of instructor. Mr. Garneau.

A study of radio technique, giving practice in various types of announcing, and adapting interpretive reading and acting to the microphone. History of radio and radio terminology will be studied. Special emphasis will be placed on the use of radio as a teaching device in the classroom. Visits to various studios will be arranged, and students will participate in broadcasts over a local station. Classroom, 5 times a week.

241. Radio Production. 3 semester hours. Prerequisite: Introduction to Radio Speaking 240 or consent of instructor. Mr. Garneau.

The class will study production techniques employed in radio and recording. Each person will be given practice in handling controls, in arranging sound effects, musical effects, and other details peculiar to radio.

250. Lip Reading and Problems of the Deaf and Hard of Hearing. 2 semester hours. Mr. Robinson.

To introduce the student to lip reading as an aid in understanding spoken language. Emphasis is placed upon the different methods of lip reading used in this country. Frequent opportunity for practice is given. Topics considered are: general problems of the deaf and hard of hearing, testing procedures, hearing and hearing aids, and lip reading.

300T. Applied Speech Correction. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Principles of Speech Correction 231, and consent of instructor. Dr. Van Riper.

This course is for students interested in the actual practice of speech correction. The course will involve training in the remedial treatment of speech defectives in the college clinic and schools associated with the college, service in a traveling speech clinic, and the study of the principles of clinical practice.

306. Advanced Public Speaking. 2 semester hours. Prerequisite: Fundamentals of Speech 105A and Informal Public Speaking 206, or consent of instructor. Miss Lindblom.

Advanced study of speech composition and audience psychology, analysis of model speeches, and frequent practice in constructing speeches for special occasions. Students interested in coaching or participating in oratorical contests will find this course useful.

308A. Principles of Forensics. 1 semester hour. Prerequisite: a major or minor in speech and consent of the instructor. Miss Lindblom.

For students who expect to direct forensic activities in connection with other teaching duties. The course includes the principles of teaching debate and other forms of public speaking. Opportunities will be given for directing local speaking activities.

308B. Principles of Forensics. 1 semester hour. Prerequisite: Principles of Forensics 308A. Miss Lindblom.

A continuation of the work done in 308A.

310. Advanced Interpretive Reading. 2 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210, Acting 215. Miss Shaw.

Advanced work in the oral interpretation of literature, with special emphasis on character delineation.

315. Acting. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210, Acting 215. Miss Shaw.

A continuation of the work done in Acting 215, with more intensive work in the techniques of creative acting. Each student will create at least one rôle in a play.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group I.

316. Oral Interpretation of the Drama. 2 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210, Acting 215, and Advanced Interpretive Reading 310, or consent of instructor. Miss Shaw.

Platform reading of the one-act and the three-act play. Through class analysis and criticism, a basis for judging the drama is established.

318. Phonetics. 3 semester hours. Dr. Van Riper.

This course is designed to acquaint the student with the standard of pronunciation, with the methods of sound formation and phonetic transcription, and with the application of these methods to foreign language, dialect, interpretive reading, dramatics, and speech correction.

319. Basic Voice and Speech Science. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B. Dr. Van Riper.

This course is for students majoring in speech or speech-correction. Topics considered include: anatomy and physiology of hearing; speech and hearing; anatomy and physiology of articulation and phonation; the neurological organization of the speech function; the physics and physiology of quality, pitch, and intensity; and the psychology of speech.

320. Play Production. 3 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Interpretive Reading 210, Acting 215, and consent of instructor. Miss Shaw.

Methods of staging plays, including stage settings, costumes, and make-up. Plays are presented by the class. Each student directs at least one play.

Note.—This course may not be counted toward fulfillment of a minimum requirement in Group I.

331. Stuttering and Allied Disorders. 3 semester hours. Prerequisite: Principles of Speech Correction 231. Dr. Van Riper.

This course is designed to provide the student with more detailed knowledge of the nature, causes, development, and treatment of the more serious speech disorders. The literature of stuttering, cleft palate, deaf, and aphasic individuals will be surveyed, and the various methods of treating these disorders will be described in detail.

Case studies and presentation will be provided.

340S. Radio Workshop. 4-6 semester hours. Mr. Garneau.

An extensive six-weeks course designed primarily for three groups of people: (1) for college students who have had the equivalent of three semesters of college speech work and who desire an extensive survey of the field of educational radio; (2) for teachers in elementary and secondary schools who wish to establish radio as an activity in their classes, or to plan and produce educational programs in cooperation with their local stations; and (3) for those who wish a survey of the radio speaking field or practice in script preparation. The entire group will meet together mornings, daily five days a week, to discuss the field of educational script writing and simple techniques with the director, to work on individual problems, and to group rehearsals. Special emphasis will be placed on the use of radio and recording as a motivation device in the classroom.

341. Utilization of Radio and Recordings in the Classroom. 2 semester hours.

Prerequisite: junior standing. Mr. Garneau.

An exhaustive study will be made of the sources of radio programs and transcriptions available to supplement other teaching aids. Educational programs and transcriptions will be studied and evaluated. The group will study methods of preparation for utilization, techniques of class-listening, and follow-up procedures. Each student will be given an individual utilization project. Resource persons will be brought in.

342. Introduction to Radio Script-writing. 2 semester hours. Prerequisite: junior standing and consent of instructor. Mr. Garneau.

An analysis will be made of radio scripts—commercial, sustaining, and educational. The class will study techniques of radio which present special problems to the radio script-writer. Emphasis will be placed on preparing scripts in various subject-matter fields. Resource persons will be brought in.

OPEN TO GRADUATES

540S. (151). Fundamentals of Broadcasting. 2 semester hours. Prerequisite: Fundamentals of Speech 105A, B, Public Speaking 206 or Interpretive Reading 210, or consent of instructor. Mr. Garneau.
Instruction concerning every department of the broadcasting studio.

TRADE AND INDUSTRIAL EDUCATION

DEYO B. FOX
HEBER B. BENDER
HERBERT E. ELLINGER

GEORGE R. MILLER
JOHN H. PLOUGH
ELMER C. WEAVER

RALPH O. WILLIAMS

AVIATION MECHANICS

A two-year curriculum in vocational training prepares students, if licensing requirements are met, for positions as licensed airplane mechanics, licensed engine mechanics, and airplane factory mechanics. Successful completion of the course leads to a diploma in aviation mechanics.

Applications are considered in the order received, but preference is given those presenting superior credentials.

Entrance requirements: graduation from high school, mechanical aptitude of high order, and recommendation of high-school principal or superintendent.

A transcript of high-school credits must be filed in advance with the registrar when application is made.

Tuition: In addition to the tuition and fees required of all students, a laboratory fee of \$15.00 is charged each semester.

Students in aviation mechanics may elect certain general college courses upon recommendation of the adviser.

The departmental adviser reserves the right to dismiss, after a semester's tryout, any student who fails to exhibit superior skills or to maintain high standards in the various courses presented.

Because of limitations of equipment and personnel, college students working for a degree may not elect aviation subjects in 1945-1946.

150. Aircraft Electricity. 2 semester hours. Mr. Williams.

Fundamentals of electricity and their applications to the electrical units installed in the airplane: the magneto, starter, generator, lighting circuits, and various electrical controls.

151. Machine Shop. 3 semester hours. Mr. Miller.

Fundamental practice in hand- and machine-tool working of metals, sawing, filing, fitting, drilling, and tool grinding. Operation and use of the engine, lathe, shaper, and milling machine.

152. Aircraft Construction. 2 semester hours. Mr. Miller.

Fundamental practice in safe operation and use of machine wood-working tools needed in the repair and maintenance of wood-airplane structures. Construction of wood forms and die blocks used in shaping sheet metal.

153A. Engine Assembly. 4 semester hours. Mr. Ellinger.

Lectures and demonstrations in disassembly, inspection, and assembly of the aircraft engine. Selection and use of wrenches and special tools. Study of relationship of parts and their functions. Assembly precautions and procedures.

153B. Engine Assembly. 4 semester hours. Mr. Ellinger.

Overhaul and block-testing aircraft engines, timing, valve setting, and other adjustments.

154. Material Specifications and Blueprint Reading. 2 semester hours.
Mr. Plough.

A course in the identification and classification of aircraft component parts, their specifications and construction as specified in factory blueprints and drawings.

155. Aircraft Instruments. 2 semester hours. Mr. Williams.

Fundamentals of design, construction, and operating principles of the instruments used in aircraft.

156. Engine Accessories. 4 semester hours. Mr. Ellinger.

Carburetion, fuel pumps, filters, and mechanical starting systems are studied as to methods and practices in servicing these units.

157. Aircraft Welding. 2 semester hours. Mr. Bender.

Practice on the fundamentals of oxyacetylene and arc welding in approved repair procedures, and the testing of welds to assure high-strength standards.

160. Metal Fittings. 2 semester hours. Mr. Miller.

A course covering the use of hand metal-working tools; doing precision work in layout, cutting, and shaping airplane fittings, including a study of metals; stresses and designs of fitting.

161A. Aircraft Repair. 3 semester hours. Mr. Ellinger and Mr. Weaver.

Training in repair and alteration of aircraft conforming to standards and practices set up by the Civil Aeronautics Administration. Instruction in layout, sewing, and application of fabric coverings, rib stitching, tape application, and doping of fabric surfaces. Refinishing of fabric and metal surfaces, using spray-gun equipment.

161B. Aircraft Repair. 3 semester hours. Mr. Ellinger and Mr. Weaver.

Continued training in approved repair procedures as applied to spar splices, rib repairs, welded tubular structures, rigging, and final inspection of aircraft.

162A. Aero Drafting. 3 semester hours. Mr. Plough.

Preparation of working drawings and dimensioned free-hand sketches of various aircraft parts, subject to alteration and repair as required by the Civil Aeronautics Administration.

162B. Aero Drafting. 2 semester hours. Mr. Plough.

Continuation of Aero Drafting 162A, with particular emphasis on increased skill and proper dimensioning of working drawings used in the aircraft trade.

211. Metal Processing. 2 semester hours. Prerequisite: Engineering Materials 210. (See Department of Chemistry, page 140). Mr. Weaver.

A study of the manufacture, properties, and identification of carbon and alloy steels. The effects of mechanical working, heat treating, and welding of various steels are determined. Attention is given to design, equipment, and practices used in industry. About one-third of the course is devoted to the study of welding. One recitation and one three-hour laboratory period each week.

236A. Primary Pilot Training Ground School. 3 semester hours. Mr. Drake.

This course and 236B are given in conjunction with the Civilian Pilot Training Program. It prepares the student for the written part of a private pilot's examination. The subject matter includes fundamentals of navigation, civil air regulations, meteorology, and general service of aircraft.

236B. Advanced Pilot Training Ground School. 5 semester hours. Mr. Drake.

Classroom and laboratory work covering material necessary for a commercial pilot's license. The division of study is advanced navigation (including radio and celestial navigation), aerodynamics, aircraft, aircraft power-plants, aircraft instruments, and general service of aircraft. Laboratory work is given in aircraft, aircraft power-plants, and aircraft instruments.

252. Sheet Metal. 3 semester hours. Mr. Bender.

Practice in fabrication of sheet-metal aircraft parts, involving forming, bumping, use of wood forms and die blocks, seaming, riveting, and patch repairs of approved type.

253. Aerodynamics. 2 semester hours. Mr. Plough and Mr. Weaver.

Study of air in motion, forces of gravity, lift, thrust, drag and the axes of rotation, stability and control, and load factors of significance to the airplane pilot, mechanic, or rigger.

254. Propellers. 3 semester hours. Mr. Bender and Mr. Weaver.

Study of inspection, maintenance, and servicing of wood and metal propellers; hydromatic and electric variable pitch propellers as used on modern aircraft.

255. Instrument Repair. 3 semester hours. Mr. Williams.

Use of test apparatus in the checking and repair of aircraft instruments.

256. Aerodynamics. 2 semester hours. Mr. Plough and Mr. Weaver.

Study in the theory of air in motion and the design characteristics of aircraft now in use. Factors involving performance in terms of maximum speed, landing speed, gliding angle, rate of climb, and fuel range are plotted and analyzed.

257. Hydraulics. 3 semester hours. Mr. Bender and Mr. Weaver.

Study of fundamentals of aircraft hydraulics, repair, service and maintenance of hydraulic landing gear, brakes, flaps, and retracting tail-wheel assemblies.

258. Aircraft Radio. 3 semester hours. Mr. Williams.

Fundamentals of design, construction, and operating principles of aircraft radio. Practice in testing, over-haul, and maintenance of radio transmitters and receivers.

261. Heat Treat. 3 semester hours. Mr. Miller.

A practical course in the heat treatment of aircraft metal alloys, using the muffle furnace, pyrometer control, and hardness testing with the schlerscope.

269. Conference Methods. 3 semester hours. Mr. Plough.

Development of the personality of the individual through practice in organizing and presenting materials for group discussion and in giving demonstrations and lectures on various subjects assigned.

270. Employment Problems. 3 semester hours. Mr. Miller.

Practice in the technique of seeking employment, writing applications, contacting employers, and the use of the personal interview by the prospective employee. Of value to seniors.

MACHINE SHOP

A three-year curriculum giving training for machine tool operators, machinists, tool and die makers. The curriculum consists of a number of unit courses which are based upon the training needs of machine tool operators. With this arrangement the special training needs of each individual can be met. The machine tool operator need elect only one course covering a specific machine and include the related subjects applying to complete training, in a four months period. The machinist elects a series of unit and related subjects courses to complete two years of training as a "machinist".

The tool and die making curriculum follows the two-year machinist's course which is a prerequisite. However, the individual with previous machine shop experience that is deemed satisfactory may elect the tool and die making course. If a deficiency in knowledge and skills exists, such unit courses as apply must be completed as will make up the deficiency.

Note.—An operator's certificate of competency will be issued each student successfully completing a unit course. A vocational certificate will be granted each student successfully completing the one-year tool and die course.

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

Note.—Students can begin courses on the first day of any calendar week following proper enrollment and payment of tuition and fees. Successful students will be requested to purchase reference books and tools when needed.

Unit Courses**163. Lathe Operation.** 6 semester hours. Mr. Miller.

Basic lathe operation is taught in this course covering care of the lathe, safe practices, production methods and set ups involving turning, boring, facing, drilling, reaming, tapping, inside and outside threading, and angle turning on chuck and bar work. The use of lathe accessories and measuring tools and other related information will be given at the machine when needed. Safety precautions will be stressed at the time of each operation.

16 weeks. 180-240 hours.

164. Drill Press Operation. 6 semester hours. Mr. Miller.

Practical experience is given in the use of the single spindle, multiple spindle, and radial drills, using drill jigs and other holding devices to perform tapping, drilling, spot facing, counter-boring, reaming, and other operations to production limits. The selection of proper speeds and feeds and the use of proper coolants for the job are given special attention. Some layout work prior to drilling operations is included along with safety precautions to

observe in each operation. Training includes the proper grinding of drills suited to the various metals encountered.

16 weeks. 180-240 hours.

165. Milling Machine Operation. 6 semester hours. Mr. Miller.

Practical experience is given in a wide variety of modern tool set ups on the plain, universal, and vertical milling machines, using special fixtures adapted to the various types of milling operations. Special care of milling machines and safe operation are stressed. The use of measuring tools for checking production tolerances is given along with the proper selection of cutting speeds, feeds, and selection of coolants. Simple indexing, precision drilling, and boring are a few of the operations performed.

16 weeks. 180-240 hours.

166. Shaper and Planer Operation. 6 semester hours. Mr. Miller.

This course covers the finishing of various metal parts to blueprint specifications. The grinding of tools and the set up procedures for holding work to prevent distortion are given special attention. In addition to the finishing of flat surfaces, instruction is given in the layout of work necessary to machine formed parts, to cut keyways and splines, to perform slotting and radius cutting operations.

16 weeks. 180-240 hours.

167. Grinder Operation. 6 semester hours. Mr. Miller.

This is a combination course requiring the set up and operation procedures on the cylindrical grinder, surface grinder, and the tool and cutter grinder. Production grinding procedures will be followed, including the mounting and truing of grinding wheels. It will include the use of measuring tools and indicators, the selection of coolants, the uses of special driving and holding devices. Careful attention is given to selection of grinding wheels, cutting speeds and feeds to secure commercial grade finish on a variety of different metals.

16 weeks. 180-240 hours.

168. Screw Machine Operation. 6 semester hours. Mr. Miller.

This course offers basic training which is essential for set up men on the screw machine. Standard set ups include drilling, turning, shoulder turning, threading and cutoff. The set ups are made from blueprint specifications of machine parts and include all operations from tool grinding through inspection of parts completed. Special attention is given to use of special attachments and their use in modern production.

16 weeks. 180-240 hours.

169. Bench Work and Assembly. 6 semester hours. Mr. Miller.

This course is based on the selection and proper use of hand tools used by the machinist. Operations in hand reaming, tapping, filing, and scraping are given to familiarize the student with the various types of "fits" used in machine assembly. Balancing of parts, "running in", and final adjustment of machines built in the shops give a well-rounded experience.

16 weeks. 180-240 hours.

170. Layout and Inspection. 6 semester hours. Mr. Miller.

A basic course dealing with methods and tools used in layout work on machine parts. Practice in use of the Machinery Handbook for formulae and mathematical short cuts is included. In inspection, special instruments and the various types of gauges used in checking to close tolerances. Some material testing experience is included, using the Rockwell and the Riehle Testing machines.

16 weeks. 180-240 hours.

TOOL AND DIE MAKING

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

171. Tool Making. 6 semester hours. Mr. Miller.

A course leading to the development of superior skills in the precision operation of machine tools. Considerable time is spent in the machining and heat treat of alloy steels. Special tools are designed and fabricated in the shop and their efficiency determined when used in production operations.

16 weeks. 240 hours.

172. Jigs and Fixtures. 6 semester hours. Mr. Miller.

A course in the design and construction of jigs and fixtures for holding in drilling, planing, and milling operations, that speed up production and assure the exact duplication of parts in quantity.

16 weeks. 240 hours.

173. Die Making. 6 semester hours. Mr. Miller.

A course in the design of dies used to blank, bend, form, or mould duplicate metal parts. The selection and characteristics of tool steels used for die construction and their heat treat are given special attention.

16 weeks. 240 hours.

TRADE DRAFTING

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

174. Elementary Trade Drafting. 6 semester hours. Not offered in 1945-1946.

Practical work assignments are given at the start, involving the sketching of machine parts. Blueprints are examined and explained, to acquaint the student rapidly with the conventions and symbols used in machine drafting. The Machinery Handbook is used for reference to familiarize the student with materials, specifications, and tolerances, limits and standards common to production work.

16 weeks. 240 hours.

175. Trade Drafting. 6 semester hours. Not offered in 1945-1946.

Use of drafting instruments in the production of high grade machine drawings and tracings of machine parts and assemblies. The beginning elements of machine design are introduced, a study is made of metals and their properties and adaptability for use in machine parts, and observation in the machine shop gives an insight into the machinability of various metals and the design of parts that facilitate machining operations.

16 weeks. 240 hours.

176. Trade Drafting. 6 semester hours. Not offered in 1945-1946.

Advanced drafting procedures, short cuts and kinks in drafting procedures. Detail design from assembly sketches of small machines, giving a consideration of the production cost in overhead, labor, and materials.

16 weeks. 240 hours.

177. Trade Science. 3 semester hours. Mr. Plough.

A course in simple mechanics of forces and motions applicable to trade practices and processes that are common in the handling of tools and materials in the shop.

16 weeks. 80 hours.

178. Trade Mathematics. 3 semester hours. Mr. Plough.

A course presenting the mathematics needed in solving typical shop problems using arithmetic, algebra, and trigonometry as may be needed. Short cuts are pointed out in using the Machinery Handbook for simple formulae

that help in the solution of problems that arise in connection with machine tools and materials.

18 weeks. 90 hours.

179. Trade English. 3 semester hours. Mr. Plough.

A course planned to aid the tradesman in the use of language, leading to reading, understanding, and clear expression in talking and writing.

16 weeks. 80 hours.

WELDING*

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

180. Oxy-Acetylene Welding. 6 semester hours. Mr. Bender.

A course to train gas welding operators to fabricate sheet steel products. Safety precautions, care and operation of welding equipment, selection of tips and welding rods for the various types of welding materials. Leads to the qualifying tests for certified welders.

16 weeks. 240 hours.

181. Arc Welding. 6 semester hours. Mr. Bender.

A course to train arc welding operators to fabricate sheet steel and other materials. Selection of welding rods and current setting for various types of welding horizontal, vertical, and overhead welding and the related techniques are stressed. Leads to qualifying tests for the certified arc welder.

16 weeks. 240 hours.

* Note.—Related trade science, trade mathematics, trade English, and trade drafting are elected with either welding course.

SHEET METAL*

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

182. Sheet Metal. 6 semester hours. Mr. Bender.

This introductory course covers the classification and use of sheet metals and the layout of small parts production using seaming, beading, and turning tools, riveting, soldering, and spot welding.

16 weeks. 180-240 hours.

183. Sheet Metal. 6 semester hours. Mr. Bender.

This advanced course covers the fabrication of light and heavy plate sheet stock, introducing welding, brazing, and torch cutting in the assembly of light machines, containers, and parts.

16 weeks. 180-240 hours.

184. Sheet Metal. 6 semester hours. Mr. Bender.

This more advanced course covers the fabrication of cabinet sheet metal products employing the use of the press brake, spot welder, and spray finishing of production units and assemblies.

16 weeks. 180-240 hours.

185. Sheet Metal Drafting. 3 semester hours. Mr. Bender.

An introductory course including shop sketching and layout of patterns and templates used in producing duplicate parts in sheet metal.

16 weeks. 80 hours.

186. Sheet Metal Drafting. 3 semester hours. Mr. Bender.

An advanced course in shop drafting employing pattern fabrication using parallel line method, radial line method, and triangulation.

16 weeks. 80 hours.

187. Sheet Metal Drafting. 3 semester hours. Mr. Bender.

A more advanced course including drafting and design of simple dies used in forming sheet metal products.

16 weeks. 80 hours.

*Note.—Related trade science and trade mathematics are elected with the sheet metal course.

RADIO

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

188. Radio Service and Maintenance. 12 semester hours. Mr. Williams.

A first course in radio. At the completion of this first course in radio the student should have a good knowledge of the fundamentals of radio circuits and be able to service and maintain less complicated radio equipment. He should also be able to meet the qualifications of the Federal Communications Commission for the Restricted Radio Telephone Operator permit under the privileges of which he might be employed as a radio telephone operator in police, broadcast, or stations operating in the emergency services.

16 weeks, 35 hours per week.

Instruction Units**1. Radio Mathematics.**

Application of algebra and elementary trigonometry to radio problems.

16 weeks. 80 hours.

2. Basic Electricity.

Fundamentals of electricity and electrical circuits including motors, generators, and batteries.

First 8 weeks. 120 hours.

3. Radio Theory.

Fundamentals of radio and vacuum tube circuits, circuit analysis, transmitters, and receivers.

Section 8 weeks. 120 hours.

4. Basic Radio Laws.

Rules and regulations of the Federal Communications Commission that apply to the operation of all transmitting stations.

First 8 weeks. 20 hours.

5. Radio and Electrical Laboratory.

Laboratory exercises in the use of tools, connecting basic electrical circuits, construction of, and trouble shooting in radio and audio frequency circuits.

16 weeks. 220 hours.

189. Advanced Radio Service and Maintenance. 12 semester hours. Prerequisite: Radio Service and Maintenance 188, or equivalent background at the discretion of the instructor. Mr. Williams.

At the completion of this second course in radio the student should have picked up sufficient knowledge and experience so that he can not only qualify as a repairman and maintainer on all types of radio equipment, but also be able to pass the examinations given by the Federal Communications Commission for radio telephone second or first class license. The holder of this license may be employed as an operator in any broadcast, police, or other radio station using voice, facsimile or television, but not wireless code. Radio Telephone first class is the highest type of Federal license for radio telephone operation and authorizes the holder to make repairs and adjustments on transmitters of all types.

16 weeks, 35 hours per week.

Instruction Units

1. Radio Mathematics.

The application of mathematics to radio and electrical problems.
16 weeks. 80 hours.

2. Radio Circuit Analysis.

Problems involving inductance, capacitance, and resistance, selectivity, and filters.
16 weeks. 80 hours.

3. Advanced Radio Theory.

Theory of operation of advanced radio circuits found in amplitude and frequency modulated systems, antennae, and cathode ray tube applications.
16 weeks. 160 hours.

4. Radio Laws.

Rules and regulations of the Federal Communications Commission as required for Radio Operators Licenses issued by the Commission.
16 weeks. 40 hours.

5. Radio Laboratory.

Work experience in construction, adjustment, and operation of various radio communications equipment; testing and frequency measurements.
16 weeks. 200 hours.

190. Radio Communications. 12 semester hours. Prerequisite: Radio Service and Maintenance 188 and Advanced Radio Service and Maintenance 189, or equivalent at the discretion of the instructor. Mr. Williams.

A third course in radio for those who wish to qualify for radio operator positions and hold both voice and code licenses under the Federal Communications Commission.

At the completion of this course the student should be able to pass any examination given by the licensing authority and be qualified to operate in any radio station. He should also by this time have developed sufficient interest and practical background to take advanced courses in radio engineering and electronics leading to employment in the fields of research, design, and development of radio and industrial electronic circuits and devices.

16 weeks, 35 hours per week.

Instruction Units

1. International Morse Code and Procedure.

Code practice, and study and experience in the use of standard commercial procedure. Finish with a speed of 20 words per minute.
16 weeks. 160 hours.

2. Radio Laws.

Review, and advanced study of the rules and regulations of the Federal Communications Commission.
16 weeks. 40 hours.

3. Radio Theory and Circuit Analysis.

Lecture and problems. Review, and advanced study in radio circuit analysis with special emphasis on knowledge necessary to meet the requirements of the radio licensing authority for both radio telephone and telegraph.
16 weeks. 160 hours.

4. Radio Laboratory.

Diversified experience to fit the needs of the individual. This may consist of such experience as construction, testing, and operation of radio equipment, monitors, cathode ray circuits, etc., as the need arises.

16 weeks. 200 hours.

191. Industrial Electronics. 12 semester hours. Prerequisite: Radio Service and Maintenance 188 and Advanced Radio Service and Maintenance 189, or equal background in fundamentals. Mr. Williams.

A third semester course in industrial applications of vacuum tubes and circuits. Upon completion of the course the student should have a basic understanding of the industrial electronic circuits in use today and be skilled enough in their construction and maintenance to enable him to hold a job as electronics serviceman in a factory having such equipment, or work in the engineering department of a factory producing such equipment. He might also set himself up as a free-lance electronics maintenance and repairman.

16 weeks, 35 hours per week.

Instruction Units**1. Review of Mathematics.**

Solution of problems related to electronic circuits and tubes.
16 weeks. 80 hours.

2. Industrial Vacuum Tubes.

Special tubes, their characteristics and applications.
16 weeks. 80 hours.

3. Industrial Electronic Circuits.

Typical industrial electronic circuits and their operating characteristics.
16 weeks. 160 hours.

4. Electronic Laboratory.

Work experience in the construction of typical circuits and devices, testing and operation of controls, timers, protective equipment, relays, R. F. heaters, etc.

16 weeks. 240 hours.

TRANSPORTATION MAINTENANCE

Tuition: In addition to the regular tuition and fees required of all students, a laboratory fee of \$35.00 is charged each semester.

192. Industrial Maintenance. 12 semester hours. Mr. Plough.

Practical experience is given in a variety of service operations in plumbing and heating, sheet metal, concrete, carpentry, light and power, wiring, motor and machine repair. 130 class hours, 500 shop hours.

16 weeks, 35 hours per week.

Note.—Trade Science 177 or Trade Mathematics 178 may be elected and included in this course if desired.

193A. Transportation Maintenance. 12 semester hours. Mr. Weaver.

Practical experience is given in a variety of service operations in automobile, truck, and bus repair, including lubrication, ignition, carburetion, starters and generators, engine tune-up, engine, clutch, transmission, universals, rear axle, brakes, wheel and chassis alignment, tire inspection, metal finishing and painting. 130 class hours, 500 shop hours.

16 weeks, 35 hours per week.

193B. Transportation Maintenance. 12 semester hours. Mr. Weaver.

A continuation of course 193A, with an opportunity for specialization in a selected service area, such as engine rebuilding, brake service, metal finishing, etc.

16 weeks, 35 hours per week.

Note.—A cooperative plan, embracing part time employment, is projected to include work experience with local dealers and service station operators.

INDEX

	Page		Page
Academic requirements	76-84	Clear Lake Camp	22, 58
Academy	67	Clothing and textiles	164-165
Accelerated programs	85, 95	Clubroom, Women's League	74
Administration building	36	College calendar	7
Administration, officers of	8	Committees of Faculty	32-33
Admission by examination	44-45	Correspondence with Western, di- rections for	4
Admission, conditions of	41-45	Counselors	33, 46
Advanced credits	42	Country Life Club	68
Advisers	33, 46	County Commissioners Summer Conference	58
Advisory system	46	Course numbers, significance of	49-50
Agriculture curriculum	97	Credit in semester hours	50
Agriculture, description of courses	120-122	Credit relations with other colleges and universities	46
Agriculture, equipment for	38, 122	Credit, transfer of	46, 48
Agricultural high schools	63	Credit, unit of	50
Alpha Phi Omega	67	Curricula for Teachers	87-95
Alumni Association	57	Curricula Advisers	33, 46
Alumni Secretary	22		
Alumnus Scholarship	54	Dance Club	68
Amelia Biscomb Loan Fund	54	Debate Scholarship and Loan Fund	54
Anatomy, physiology, hygiene	127-129	Debating	68
Arista	70	Degrees defined	77-78
Art collection	57	Degree requirements	77-84
Art curriculum	122	Degrees and certificates	80-84
Art, description of courses	122-125	Dentistry curriculum	98
Art Club	68	Der Deutsche Verein	69
Assembly	68	Details of courses	120-234
Athletic Plant	36-37	Directed Teaching	143-144
Athletics	61	Directions to new students	4
Attendance at Commencement	48	Dormitories	38-39, 40, 52-53
Auditors fees	51	Drawing courses	169-170
Auxiliary choir	71, 186	Dropping courses	47
Auxiliary choir, credit for	49, 186	Dwight B. Waldo Memorial Fund	54-55
Aviation Mechanics Curriculum	112		
Aviation Mechanics, description of courses	224-227	Early Elementary Club	69
Awards and Prizes	53	Economics, description of courses	206-209
		Education, description of courses	141-152
Bachelor of Arts degree, require- ments	77-84	Education, elective courses in	144-152
Bachelor of Science degree, require- ments	77-84	Education, required courses in	142-144
Band	71, 186	Educational Service Library	39, 58
Band, credit for	49, 186	Elementary curriculum	88
Biology, description of courses	125-131	Elementary education	144-146
Biology, equipment for	38	Elementary Education certificate	80-83
Botany, description of courses	129	Employment	53
<i>Brown and Gold</i>	75	English, description of courses	152-158
Buildings and material equipment	36-41	Engineering curriculum	98-99
Bureau of Education Measurement and Research	57-58	Enrollers, curricula	32
Business administration curriculum	97	Enrollment, instructions for	46-47
Business Education, curricula	93, 109-111	Entrance by transfer	42
Business Education, description of courses	131-138	Entrance examinations	44-45
Business Education, equipment for	37	Entrance requirements	42-45
		Entrance tests	45
Cafeteria	31, 52-53	Equipment	36-41
Calendar	6	Ernest Burnham Rural Life Fund	55
Calendar announcements, 1945-1946	7	Estimate of expenses	52
Campus High School	40	Examinations	47
Campus Store for students	53	Expenses	50-53
Campus Training School	39	Extension Division	59
Carnegie Gift of Books and Pic- tures	58	Extempore Speaking and Oratory	69
Certificates	80-84	Extra-curricula Activities, regula- tions for	66-67
Charles Van Eeuwen Command	68	Extra studies	47
Chemistry, description of courses	138-141		
Chemistry, equipment for	38	Faculty, the	9-31
Choir, College	71, 187	Faculty Council	31
Choir, credit for	49, 187	Faculty committees	32-33
Classical Club	68	Fannie Ballou Memorial Fund	55
Classification of students	46	Fees, Laboratory and course	123, 126, 135, 136, 138, 143, 164, 188, 190, 196, 224, 227, 229, 230, 231, 233
Class load	46-47		

	Page		Page
Fees, Tuition, etc	50-52, 59, 119	Kappa Rho Sigma	70
Fellowships, Graduate	54	Katherine Mulry Johnson Scholarships	55
Field courses	128, 130, 162, 189	Kellogg Foundation Scholarship Funds	55
Foods and Nutrition	166	Kleinstueck Wild Life Preserve	38, 60
Forensic Board	69	Languages, description of courses	173-177
Forestry curriculum	99	Late enrollment fee	51, 118
French, description of courses	173-174	Later Elementary Club	71
French Student Scholarship Fund	55	Latin, description of courses	176-177
Freshman adviser	33, 46	Lavina Spindler Hall for Women	38-39, 52-53
Freshman Days	45	Law curriculum	100-101
Freshmen, regulations governing	45, 46	LeCercle Francais	71
Future Teachers of America	69	LeRoy H. Harvey Memorial Loan Fund	55
General Degree curriculum	86	Library Building	37
General equipment	36-41	Library, facilities	37
Geography, description of courses	158-163	Library, description of courses	177
Geography and Geology, equipment for	38	Library Science curriculum	101
Geology, description of courses	163	Library Staff	30
German, description of courses	175	Limited certificate	80-83
Glee Clubs	71	Limited curriculum	94
Gleen Club, credit for	49	Literature, description of courses	153-158
Government Lectures	84	Loan funds	54-57
Graduation fees	51	Location of Western Michigan College of Education	36-36
Graduate Courses 129, 131, 137, 138, 141, 145, 146, 147, 148, 149, 150, 151, 152, 153, 158, 162, 163, 172, 183, 194, 199, 202, 209, 213, 215, 216, 219, 220, 224		Low Scholarship list	49
Graduate Division, details of	114-119	Machine Shop curriculum	112
Graduate scholarships and fellowships	54	Machine Shop, description of courses	227-228
Graduation requirements	48, 80-84	Majors and Minors	79-80
Greenhouse	38	Map of Campus	2
Ground School, Pilot Training	226	Marking system	48
Group requirements	78	Mathematics Club	71
Gymnasium, Men's	36-37	Mathematics, description of courses	178-183
Gymnasium, Women's	41	Mattie Lee Jones Memorial Loan Fund	55
Health Service	39, 60	Mechanical Trades Building	37-38
Helen Statler Fund	55	Medical Technology curriculum	103
Henry B. Vandercook Hall for men	40, 52	Medicine curricula	102
<i>Herald</i> , the	75	Memorial funds	54-57
High Scholarship list	48	Men's Dormitory	40, 52
High School	40	Men's Glee Club	71, 185
History, description of courses	209-213	Men's Gymnasium	36-37
History of Western Michigan College of Education	34-35	Men's Union	71
Home Economics Club	70	Mentally Retarded, curriculum for teachers of	90
Home Economics curriculum	164	Metal courses	170
Home Economics, description of courses	164-168	Music curriculum	183-184
Home Economics Education	168	Music, description of courses	184-187
Home Management	166-168	Music Organizations	71
Honor points	48	Natural Science Club	71
Honorary societies	70	Nature study, description of courses	129-130
Honors in course	47	Navy College Program-V12	60
Housing accommodations	52-53	Non-degree candidates	41
Housing regulations	52-53	Nurses Club	72
Hurd One-Teacher Rural School	40	Nursing curriculum	104
Hyames Baseball Field	37	Occupational Therapy Club	72
Identification photo	45	Occupational Therapy curricula	91, 105, 106
Industrial Arts Building	37	Occupational Therapy, description of courses	187-190
Industrial Arts curricula	168	Officers of administration	8
Industrial Arts, description of courses	169-172	Office staff	31
Industrial Arts, equipment for	37	Omega Delta Phi	72
Industrial Arts Union	70	Orchestra	71, 185
Information for new students	4	Orchestra, credit for	49, 185
International Relations Club	70	Oscar S. Trumble Exchange Club Scholarships	56
Journalism curriculum	100		
Kalamazoo Kiwanis Educational Aid Fund	55		
Kappa Delta Pi	70		

	Page		Page
Paul H. Todd Scholarship	56	Sheet Metal, description of courses	230-231
Paw Paw Large Village School	40	Shop courses	169
Permanent Certificate	82	Sigma Tau Chi	70
Personnel and Guidance	39	Sigma Tau Gamma	73
Philosophy, description of courses	151	Social Sciences	205-220
Physical education and athletics	61	Social Work curriculum	107
Physical education, equipment for	36-37, 41	Sociology, description of courses	216-220
Physical Education for Men curriculum	190-191	Spanish, description of courses	177
Physical Education for Men, description of courses	191-194	Special Education	64-65
Physical Education for Women curriculum	194-195	Special Education curricula	90-92
Physical Education for Women, description of courses	195-199	Speech Clinic	64-65
Physics, description of courses	199-202	Speech Club	73
Physics, equipment for	38	Speech Correction curriculum	92
Pi Gamma Mu	70	Speech, description of courses	220-224
Pi Kappa Rho	72	Spindler Hall for Women	38-39, 52-53
Pilot Training, Ground School	226	State Board of Education	8
Placement Bureau	61-62	State D.A.R. Scholarship Loan Fund	36
Players	72	State Limited certificate	80-83
Political Science, description of courses	214-216	State Limited curriculum	94
Portage Center Consolidated School	40	Stone D.A.R. Student Loan Fund	56
Pre-Medical Club	72	Student activities	67-75
Pre-professional, Non-teaching Professional and Combined curricula	96-107	Student advisers	33, 46
Printing courses	171	Student Association	73
Prizes and Awards	53	Student Council	73
Psycho-Educational clinic	39, 62	Student Directory	75
Psychology, description of courses	202-203	Student Health and Personnel Building	39
Psychology, equipment for	39	Student Health Loan Fund	56
Psychology Forum	72	Student Organizations	67-75
Purpose of Western Michigan College of Education	34, 76	Student publications	75
Radio curriculum	112	Student Science Club	73
Radio, description of courses	231-233	Subject groupings	77
Radio Broadcasting Studio	39	Summary of enrollment, 1943-1944	36
Reading Laboratory	62	Survey courses	124, 200, 206, 210
Refund of fees	51-52, 119	Table of Contents	5
Registration, routine of	42, 45	Tau Kappa Alpha	70
Remunerative occupation	53	Teachers of Occupational Therapy	64
Renewals	82-83	Tennis courts	37
Residence for women	38-39, 40-41, 52-53	Theatre	39
Residence requirements	50	Theta Chi Delta	73
Retailing, Cooperative Program in (Two Years)	110	Theta Pi Alpha	74
Rhetoric, description of courses	152-153	Three year certificate	80-83
Richland Township Unit School	40	Temporary Building	37
Rural Elementary (Two Year) curriculum	94	Todd Art Collection	57
Rural Education degree	95	Tool and Die Making curriculum	112
Rural Life and Education, description of courses	204-205	Tool and Die Making, description of courses	229
Rural Life and Education, opportunities in the field of	62-63	Trade and Industrial Education curricula	112-113
Safety Education	146	Trade and Industrial Education, description of courses	224-234
Scholarship funds	54-57	Trade Drafting curriculum	113
Scholarship index	48	Trade Drafting, description of courses	229
Scholarship list	48, 49	Training School Building	39
Scholarships, graduate	54	Training Schools	39-40
Scholarships, undergraduate	54	Transportation Maintenance curriculum	113
Science Building	38	Transportation Maintenance, description of courses	233-234
Second Bachelor's degree	78	Transcripts	48
Secondary Education certificate	80-83	Transfer of credits	42
Secondary curriculum	89	Tuition	50-52, 59, 119
Secretarial Science and Office Management curriculum	109	Undergraduate curricula	85-113
Secretarial Training (Two Years)	111	Undergraduate Scholarships	54
Senate	72	Union Building	40
Sheet Metal curriculum	112	Unit of Credit, definition of	50
		Vandereock Hall for Men	40, 52
		Veterans' Counselor	39
		Vocational Business Curriculum	93
		Vocational Education	65

	Page		Page
Vocational Education curricula	108-113	<i>Western Michigan Herald</i>	75
Vocational Home Economics	108, 163	Wild Life Preserve	38, 60
Waldo Stadium	37	Withdrawal from courses	47
Wallace B. Marshall Memorial Fund	56	Women's Clubroom	74
Walwood Hall	40	Women's Dormitories	38-39, 40-41, 52-53
Walwood Hall, Residence for Women	40-41, 52-53	Women's Glee Club	71, 185
W. Club	74	Women's Gymnasium	41
Welding curriculum	113	Women's League	74
Welding, description of courses	230	Women's Physical Education As- sociation	74
Western Merrie Bowmen	74	Work, opportunities for	53
William McCracken Loan Fund	56	Young Men's Christian Association	74
W.M.C.E. Competitive Scholarship Fund	56	Young Women's Christian As- sociation	74
W.M.C.E. <i>News Magazine</i>	57	Zoology, description of courses	130-131
W.M.C.E. Student Loan Fund	57		