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Western Michigan University

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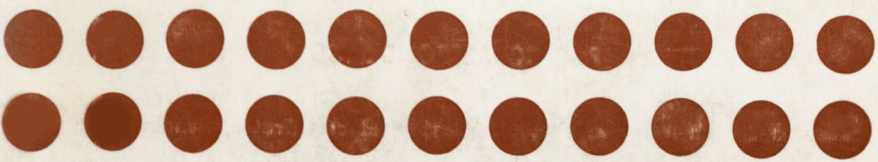
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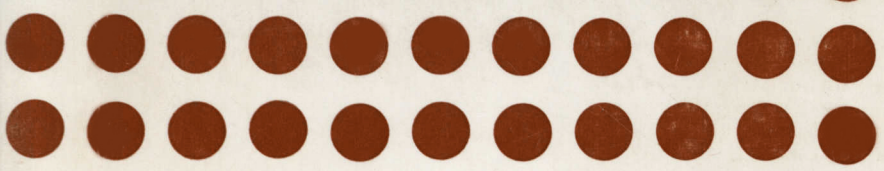


UNDERGRADUATE

# Bulletin



**Catalog &  
Announcements**



**1957**  
**1958**

**WESTERN MICHIGAN UNIVERSITY**

**Kalamazoo, Michigan**



WESTERN MICHIGAN UNIVERSITY is located in Kalamazoo, midway between Chicago and Detroit. It is served by the New York Central and Pennsylvania Railroads, by Lake Central and North Central Airlines. Three major highways and numerous bus routes connect the city with other mid-western cities. The population of greater Kalamazoo is nearly 100,000.

## DIRECTIONS FOR CORRESPONDENCE

### Director of Admissions

Admissions, College literature, Credits, Provisional certificates, Scholarships and Transcripts

### Comptroller

Business and financial arrangements

### Dean of the School of Applied Arts and Sciences

Matters relating to vocational education

### Dean of the School of Business

### Dean of the School of Education

Professional courses and permanent certification

### Dean of the School of Graduate Studies

Graduate offerings

### Dean of the School of Liberal Arts and Sciences

### Dean of Men or Dean of Women

Student housing and part-time employment

### Director of Counseling

Counseling and guidance

### Director of Field Services

Adult Education, In-Service courses and credits, Consultative services to schools, Speakers for special occasions

### Director of the Division of Military Science

R.O.T.C.

### Director of Placement

Teacher placement, Business and Industrial Placement

### Director of the Department of Rural Life and Education

Rural life and education, the community college-cooperative teacher education program and State limited certificates

### Director of the Summer Session

Summer session offerings

*Bulletin*

**WESTERN MICHIGAN UNIVERSITY**

**KALAMAZOO, MICHIGAN**

**UNDERGRADUATE CATALOG**

**1957-1958**

*with* **ANNOUNCEMENTS**

**FOR 1958-1959**

This university is a member of the North Central Association of Colleges and Secondary Schools, and of the American Association of Colleges for Teacher Education. It is approved by the Association of American Universities and the American Association of University Women.

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**VOL. 52, NO. 4**

**APRIL 1957**

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# 1957

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	1	2	3	4	5	..	..	..	..	..	1	2	..	..	..	..	1	2	3
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13	14	15	16	17	18	19	10	11	12	13	14	15	16	17	18	19	20	21	22	23
20	21	22	23	24	25	26	17	18	19	20	21	22	23	24	25	26	27	28	29	30
27	28	29	30	31	..	..	24	25	26	27	28	..	..	31	..	..	..	..	..	..
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APRIL							MAY							JUNE						
..	1	2	3	4	5	6	..	..	..	1	2	3	4	..	..	..	..	..	1	2
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
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JULY							AUGUST							SEPTEMBER						
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OCTOBER							NOVEMBER							DECEMBER						
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# 1958

JANUARY							FEBRUARY							MARCH						
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12	13	14	15	16	17	18	9	10	11	12	13	14	15	8	9	10	11	12	13	14
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22
26	27	28	29	30	31	..	23	24	25	26	27	28	..	23	24	25	26	27	28	29
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APRIL							MAY							JUNE						
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6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
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JULY							AUGUST							SEPTEMBER						
..	6	7	8	9	10	11	..	3	4	5	6	7	8	..	1	2	3	4	5	6
13	14	15	16	17	18	19	10	11	12	13	14	15	16	14	15	16	17	18	19	20
20	21	22	23	24	25	26	17	18	19	20	21	22	23	21	22	23	24	25	26	27
27	28	29	30	31	..	..	24	25	26	27	28	29	30	28	29	30	..	..	..	..
..	..	..	..	..	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..
OCTOBER							NOVEMBER							DECEMBER						
..	5	6	7	8	9	10	..	2	3	4	5	6	7	..	1	2	3	4	5	6
12	13	14	15	16	17	18	9	10	11	12	13	14	15	7	8	9	10	11	12	13
19	20	21	22	23	24	25	16	17	18	19	20	21	22	14	15	16	17	18	19	20
26	27	28	29	30	31	..	23	24	25	26	27	28	29	21	22	23	24	25	26	27
..	..	..	..	..	..	..	30	..	..	..	..	..	..	28	29	30	31	..	..	..

# COLLEGE CALENDAR 1957-58

## FALL SEMESTER

September 16, Monday	Freshman Orientation
September 17, Tuesday	Registration, Juniors and Seniors
September 18, Wednesday	Registration, Sophomores and Freshmen
September 19, Thursday	Classes Begin
September 21, Saturday	Registration, Graduate School
November 13, Wednesday	Principal-Freshman Conference
November 27, Wednesday noon	Thanksgiving Recess begins
December 2, Monday	Classes Resume
December 20, Friday noon	Christmas Recess begins
January 6, Monday	Classes Resume
January 24-31	Final Examinations
January 26	Mid-Year Commencement
February 1, Saturday	Semester closes

## SPRING SEMESTER

February 8, Saturday	Registration, Graduate School
February 9, Sunday	Orientation—New Freshmen
February 10, Monday	Registration, Juniors and Seniors
February 11, Tuesday	Registration, Sophomores
February 12, Wednesday	Registration, Freshmen
February 13, Thursday	Classes Begin
April 4, Friday noon	Easter Recess
April 14, Monday	Classes Resume
May 30, Friday	Memorial Day
June 6-13	Final Examinations
June 14, Saturday	Semester closes
June 14, Saturday	Commencement

## SUMMER SCHOOL

June 23, Monday	Registration, 1st session
June 24, Tuesday	Classes Begin
July 4, Friday	Independence Day
July 31, Thursday	Commencement
August 1, Friday	Session Closes
August 4, Monday	Registration, 2nd session
August 15, Friday	Session Closes

## FALL SEMESTER 1958-59

September 15, Monday	Freshman Orientation
September 16, Tuesday	Registration, Seniors and Juniors
September 17, Wednesday	Registration, Sophomores and Freshmen
September 18, Thursday	Classes begin
September 20, Saturday	Registration, Graduate School

## PART I— *Administration*

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### STATE BOARD OF EDUCATION

CHARLES G. BURNS  
WALTER F. GRIES

STEPHEN S. NISBET  
CLAIR L. TAYLOR

### STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

CLAIR L. TAYLOR

### EXECUTIVE COUNCIL OF PRESIDENTS

CHARLES L. ANSPACH  
Central Michigan College

PAUL V. SANGREN  
Western Michigan University

EUGENE B. ELLIOTT  
Eastern Michigan College

EDGAR L. HARDEN  
Northern Michigan College

### OFFICERS OF ADMINISTRATION

Paul V. Sangren, Ph.D., President

Russell H. Seibert, Ph.D., Vice President for Academic Affairs

L. Dale Faunce, Ed.D., Vice President for Student Services and Public Relations

Cornelius B. MacDonald, M.A., Comptroller

John A. Goldsworth, Superintendent, Buildings and Grounds

James H. Griggs, Ed.D., Dean, School of Education

George H. Hilliard, Ph.D., Director, Counseling and Guidance

George E. Kohrman, Ed.D., Dean, School of Applied Arts and Sciences and  
Director, Summer Session

Elizabeth E. Lichty, Ph.D., Dean of Women

Vern E. Mabie, M.A., Director of Placement and Alumni Relations

George G. Mallinson, Ph.D., Dean, School of Graduate Studies

Clayton J. Maus, M.S., Registrar and Director of Admissions

Gerald Osborn, Ph.D., Dean, School of Liberal Arts and Sciences

Arnold E. Schneider, Ph.D., Dean, School of Business

Donald N. Scott, M.A., Manager, Union Building and Residence Halls, and  
Assistant Dean of Men

J. Towner Smith, M.A., Dean of Men

Otto Yntema, M.A., Director, Field Services

Leonard Gernant, M.A., Associate Director, Field Services

Richard Barron, M.A., Assistant Director of Alumni Relations



Sterling Breed, B.S., Assistant Dean of Men  
 Bernice G. Hesselink, Assistant Comptroller  
 Elizabeth Householder, B.S., Assistant Dean of Women  
 John G. Hungerford, M.A., Assistant Director, Union Building  
 Keith W. Smith, Ph.D., Assistant Registrar  
 John E. Visser, Ph.D., Assistant to the Registrar  
 Robert H. Williams, B.S., Assistant Superintendent, Buildings and Grounds

### STAFF

Irving Barber	Supervisor, Grounds Service
Homer M. Dunham, B.A.	Athletic Records and Publicity
Eva Falk, B.A.	Secretary, Dean of Women
Margaret Feather, B.A.	Secretary, Dean of Men
Kenneth R. Hawkins, M.A.	Assistant Manager, Campus Stores
Edna L. Hirsch, B.S.	Secretary, Counseling
Virginia M. Jarman	Secretary, Campus School
Lloyd E. Jesson, B.A.	Secretary to the President
Eleanor Linden, B.S.	Secretary, Teacher Education
John W. Randall	Director, Food Services
Myrna Ross	Secretary, Adult Education
Lucille E. Sanders, B.A.	Secretary, Rural Life and Education
Leah M. Smith	Secretary, Extension
John M. Thompson	Manager, Campus Stores
Ralph Willis	Supervisor, Janitorial Services

## ADMINISTRATIVE GROUPS

### THE ADMINISTRATIVE COUNCIL

The Council meets weekly to keep informed on college affairs, to fix general administrative policies, and to coordinate and unify administrative decisions, practices, and services designed to promote the educational program of the college.

The members of the Council are: The President, Vice President for Academic Affairs, Vice President for Student Services and Public Relations, Comptroller, Registrar, Director of Field Services, Director of Counseling, and the five deans of the academic schools.

### THE FACULTY COUNCIL

The Council meets each month to deal with such problems as may be delegated to it; to receive and consider recommendations and suggestions proposed by members of the Faculty, and to recommend to the President or Faculty changes in policy and procedures.

Terms expiring 1957—George Bradley, Bernyce Cleveland, Leo Stine, Dale Faunce, John Freund, Eunice Herald.

Terms expiring 1958—Verne Fuller, Albert Becker, Zack York.

Terms expiring 1959—Willis Dunbar, Robert Russel, Mathilde Steckelberg. M.E.A. Representative—Dominic Leonardelli.

Ex officio, Paul V. Sangren, Russell Seibert.

### THE ATHLETIC BOARD OF CONTROL

Cornelius B. MacDonald, Comptroller, Chairman; Dale Faunce, Vice President for Student Services and Public Relations; Mitchell J. Gary, Director of Athletics; William J. Berry, Robert B. Trader, Wm. V. Weber, John W. Gill, appointed by the President; Clayton J. Maus, Registrar; President of the W Club; Sports Editor of *The Western Herald*; President of the Student Council.

### FACULTY STANDING COMMITTEES FOR 1957-1958

Faculty members are usually appointed for three-year terms. The numerals on the left indicate the number of years the person has yet to serve.

## FACULTY COMMITTEES

## ADMISSIONS AND SCHOLARSHIP

W. Marburger, Chairman

1. Bradley, Hilliard, Osborn
2. Ellis, Sadler, Trader
3. Kemper, Maus, Manis

## EDUCATIONAL POLICIES

G. Osborn, Chairman

1. Kohrman, Limpus, Meyer, Seibert
2. Crawford, Mabie, Mallinson, Wend
3. E. Carter, Griggs, Maus, Schneider, Stokes

## GRADUATE COUNCIL

G. Mallinson, Chairman

1. Frederick, Kuffel, W. C. VanDeventer
2. G. Cooper, Moore, F. Rogers
3. Griggs, Kohrman, Mallinson, Osborn, Schneider

## INSTITUTIONAL SERVICE

O. Yntema, Chairman

1. Berry, Wend, Yntema
2. Brueckheimer, Hilliard, Stine
3. Garneau, McClure, Nadelman

## PUBLIC RELATIONS

W. Dunbar, Chairman

1. Garneau, Kercher, MacFee, Strong
2. Dunbar, MacDonald, K. Smith
3. Ackerman, Faunce, C. Smith

## RESEARCH

O. Frederick, Chairman

1. Archer, Kercher, Kohrman
2. Bryan, Kruglak, Kuffel
3. Frederick, Greenberg, D. Jackson

## STUDENT ACTIVITIES

T. Smith, Chairman

1. Russell, McClure, plus five students
2. T. Smith, Swickard
3. E. Householder, Jones

## VISITATION

C. Maus, Chairman

1. Mabie, MacFee, Maus, Null
2. Dunbar, Gernant, Schroeder
3. Lawson, Rice, Russell

## SCHOLARSHIP, LOAN, GRANTS IN AID

1. Butler, Ford, Lichty, T. Smith
2. MacDonald and Maus, Co-Chairmen

## TEACHER EDUCATION AND RELIGION

L. Gernant, Chairman

Bowers, S. Clark, Cooper, Crisman, Diehm, Engbretson, Engels, Flapan, Frederick, Friedmann, Greenberg, Hinds, C. Hunt, M. Hunt, Leonardelli, Loew, MacFee, Mowen, Nicolette, Overton, Ramstad, K. Rogers, Schroeder, Smutz, Stine, W. C. VanDeventer, Ward, Woods, Yntema

Ex officio: Vice President for Academic Affairs and the Chairman of the Educational Policies Committee



# THE FACULTY

1956-1957

## EMERITI

Laverne Argabright, M.A.  
 Helen M. Barton, M.A.  
 Grover C. Bartoo, M.A.  
 Amelia Bauch, M.A.  
 Elsie L. Bender, M.A.  
 Jane A. Blackburn, M.A.  
 Harold Blair, M.A.  
 Mary Bottje, M.A.  
 William R. Brown, Ph.D.  
 Grace L. Butler, M.A.  
 William H. Cain, M.A.  
 Cora Ebert, M.A.  
 Edith M. Eicher, M.A.  
 John P. Everett, Ph.D.  
 Anna L. French  
 Marion I. Hall, M.A.  
 Lucia C. Harrison, M.S.  
 H. Glenn Henderson, M.M.  
 M. Amelia Hockenberry, B.A.  
 John C. Hoekje, M.Ed.  
 Leslie A. Kenoyer, Ph.D.  
 James O. Knauss, Ph.D.  
 Katherine A. Mason, M.A.  
 Eloise McCorkle, M.A.  
 Florence E. McLouth  
 Ray C. Pellett, L.H.D.  
 Effie B. Phillips, M.A.  
 Herbert W. Read, M.A.  
 Sophia Reed, M.A.  
 Nancy E. Scott, Ph.D.  
 G. Edith Seekell, M.A.  
 Laura A. Shaw, M.A.  
 Marion J. Sherwood, M.A.  
 Bess Baker Skillman, M.A.  
 George Sprau, M.A.  
 Roxanna A. Steele, M.A.  
 Louise B. Steinway, M.A.  
 Louise F. Struble, M.A.  
 Clella Stufft, M.A.  
 Jean Vis, M.A.  
 Elmer C. Weaver, M.A.  
 Wynand Wichers, LL.D.  
 Elmer H. Wilds, Ed.D.  
 Myrtle Windsor, M.A.

Associate Professor of Biology  
 Assistant Professor of Education  
 Professor of Mathematics  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Professor of Mathematics  
 Associate Professor of Physical Education  
 Professor of English  
 Assistant Professor of Education  
 Professor of Mathematics  
 Assistant Professor of Education  
 Associate Professor of English  
 Professor of Mathematics  
 Librarian  
 Assistant Professor of Education  
 Associate Professor of Geography  
 Associate Professor of Music  
 Associate Professor of Languages  
 Dean of Administration—Registrar  
 Professor of Biology  
 Professor of History  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Dean of Men  
 Assistant Professor of Education  
 Associate Professor of Physical Education  
 Professor of Home Economics  
 Professor of History  
 Associate Professor of History  
 Professor of Speech  
 Associate Professor of Industrial Education  
 Assistant Professor of Education  
 Professor of English  
 Associate Professor of Education  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Assistant Professor of Education  
 Professor of Industrial Arts  
 Vice President  
 Professor of Education  
 Assistant Professor of Languages

**FACULTY**

- Donald H. Ackerman, Assistant Professor of Political Science  
B.A., M.A., D.S.S., Syracuse
- Rachel Acree, Associate Professor of Home Economics  
B.S., Kentucky; M.A., Teachers College, Columbia
- David Adams, Assistant Professor of Education  
B.A., Ohio Wesleyan; M.A., New York University
- Sam B. Adams, Assistant Professor of Music  
B.A., Kentucky; M.A., Teachers College, Columbia
- John Alger, S.F.C., Instructor, R.O.T.C.
- Francis W. Allen, Annex Librarian  
B.S., Colby College; A.B.L.S., A.M.L.S., Michigan
- Agnes E. Anderson, Assistant Professor of Business Studies  
B.S., Ferris Institute; M.S., Tennessee
- James O. Ansel, Associate Professor of Rural Life and Education  
B.A., Western Michigan University; M.A., Northwestern; Ed.D., Teachers College, Columbia
- Thelma E. Anton, Assistant Professor of English  
B.A., Michigan; M.A., Middlebury College
- Hubert G. Archer, Superintendent, Paw Paw Schools  
B.A., Central Michigan College; M.A., Michigan
- Maude W. Arthur, Associate Professor, Paw Paw Schools  
M.Pd., Colorado State Teachers College; B.A., Iowa State Teachers College; M.A., Teachers College, Columbia
- Eston J. Asher, Assistant Professor of Psychology  
B.S., M.S., Ph.D., Purdue
- Keith D. Bailey, Assistant Professor, Campus School  
B.S., M.A., Western Michigan University
- Lee O. Baker, Assistant Professor of Agriculture  
B.S., Wisconsin State College; M.S., Wisconsin
- Betty E. Barnes, Instructor in Biology  
B.A., Kalamazoo College; M.S., Wisconsin
- Richard C. Barron, Assistant Director of Alumni Relations  
B.A., Western Michigan University; M.A., University of Michigan
- Harriette V. Bartoo, Professor of Biology  
B.A., Hiram; Ph.D., Chicago
- Edwin F. Beal, Associate Professor of Business Studies  
B.A., Ohio Wesleyan; M.S., Ph.D., Cornell
- Edith Carlson Beals, Assistant Professor, Paw Paw Schools  
B.M., MacPhail School of Music
- Albert B. Becker, Professor of Speech  
B.A., Western Michigan University; M.A., Michigan; Ph.D., Northwestern
- Fred A. Beeler, Professor of Mathematics  
B.S., University of Alaska; M.A., Indiana; Ph.D., Michigan

- Isabel Beeler, Associate Professor, Counseling and Guidance  
R.N., Ford Hospital, Detroit; B.S., M.A., Michigan
- Robert P. Behling, Assistant Professor of Business Studies  
B.S., B.A., University of Denver; M.S., Illinois
- Myrtle T. Beinbauer, Assistant Professor of Economics  
B.A., M.A., Drake; Ph.D., Minnesota
- Elmer R. Beloof, Associate Professor, Campus School  
B.M., B.B.S., Illinois; M.A., Ed.D., Teachers College, Columbia
- Margaret Felts Beloof, Assistant Professor of Music  
B.S.M., Oberlin
- John L. Bendix, Assistant Professor of Industrial Arts  
B.S., Stout Institute; M.A., Minnesota
- Owen L. Berger, Assistant Professor of Music  
B.M., M.M., Boguslawski College of Music; B.S., M.A., Teachers  
College, Columbia
- Ada E. Berkey, Reference Librarian  
B.A., Mount Holyoke; A.B.L.S., Michigan; M.A., Iowa
- William J. Berry, Head, Department of Geography and Geology  
B.A., Iowa State Teachers College; M.S., Ph.D., Chicago
- Henry J. Beukema, Associate Professor of Industrial Technology  
B.S., Western Michigan University; M.A., Michigan
- Howard F. Bigelow, Professor of Economics  
B.A., Wesleyan University; M.A., Harvard
- Arthur Birkby, Associate Professor of Music  
B.S., Temple University; A.T.C.L., Trinity College, London;  
Mus.M., Mus.D., Philadelphia Conservatory
- Donald J. Black, Assistant Professor of Industrial Technology  
B.A., Kalamazoo College; B.S.R.E., Valparaiso Technical Institute;  
M.A., Western Michigan University
- Ruth Boot, Assistant Professor, Paw Paw Schools  
B.S., Illinois; M.Ed., Wayne
- Samuel K. Boot, Captain, Assistant Professor, R.O.T.C.  
B.A., William and Mary
- Donald E. Boven, Assistant Professor of Physical Education, Men  
B.S., M.A., Western Michigan University
- Robert S. Bowers, Professor of Economics  
B.A., Kansas Wesleyan; M.A., American University; Ph.D., Wisconsin
- James W. Boynton, Associate Professor of Chemistry  
B.A., Western Michigan University; M.S., Michigan
- William L. Boynton, S.F.C., Instructor, R.O.T.C.
- George E. Bradley, Associate Professor of Physics  
B.A., Miami; M.S., Ph.D., Michigan
- Sterling Breed, Assistant Dean of Men  
B.S., Western Michigan University



- Lawrence J. Brink, Associate Professor of Industrial Arts  
B.A., Western Michigan University; M.A., Michigan
- Alan S. Brown, Assistant Professor of History  
B.A., M.A., Ph.D., Michigan
- Charles T. Brown, Professor of Speech  
B.A., Westminster College; M.A., Ph.D., Wisconsin
- Helen Brown, Assistant Professor of Physical Education, Women  
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- Vera Jean Russell, Instructor, Campus Nursery School  
B.S., Western Michigan University
- William A. Sack, Assistant Professor, Campus School  
B.A., Western Michigan University
- David F. Sadler, Assistant Professor of English  
B.A., Antioch; M.A., Ph.D., Minnesota
- Howard P. Sanborn, Assistant Professor, Paw Paw Schools  
B.S., M.A., Colorado A. & M.
- Paul V. Sangren, President, Western Michigan University  
B.A., M.A., Eastern Michigan College; M.A., Ph.D., Michigan; LL.D., Ferris Institute
- Hazel E. Cleveland Saye, Circulation Librarian  
B.A., Western Michigan University; A.B.L.S., Michigan
- Robert W. Schieber, Assistant Professor of Music  
B.M., Illinois Wesleyan; M.M.E., Indiana
- Merle J. Schlosser, Associate Professor of Physical Education, Men  
B.S., M.S., University of Illinois
- Richard H. Schmidt, Associate Professor of Psychology  
B.S., M.A., Ed.D., Oklahoma A. & M.
- Arnold E. Schneider, Dean, School of Business and Head, Department of Business  
B.S., Iowa State Teachers College; M.A., Iowa; Ph.D., Michigan
- Neil L. Schoenhals, Associate Professor, Campus School  
B.S., Western Michigan University; M.A., Michigan
- William A. Schreiber, Assistant Professor of Industrial Technology  
B.A., Cooper Union College
- Esther D. Schroeder, Associate Professor of Education  
B.S., Bemidji State Teachers College; M.A., George Peabody College for Teachers
- Alexander Schuster, Professor of Music  
Graduate of Odessa Conservatory and of the Hochschule, Berlin
- John J. Schuster, Instructor in Music  
B.S., M.S., Illinois
- Donald N. Scott, Manager, Union Building and Residence Halls and Assistant Dean of Men  
B.S., Illinois; M.A., Columbia

- Frank S. Scott, Associate Professor of Industrial Technology  
B.S., M.S., Purdue
- Avis L. Sebaly, Professor of Education  
B.A., Western Michigan University; M.A., Ph.D., Michigan (on leave)
- Robert C. Seber, Assistant Professor of Mathematics  
B.A., Coe College; M.S., Ph.D., Iowa
- Russell H. Seibert, Vice President for Academic Affairs and Professor of History  
B.A., College of Wooster; M.A., Chicago; Ph.D., Ohio State
- Helen G. Sellers, Assistant Professor of English  
B.A., Michigan State; M.A., Wisconsin
- Ann M. Shaw, Assistant Professor of Speech  
A.A., Colorado Women's College; B.S., M.A., Northwestern
- Ethel Shimmel, Associate Professor, Campus School  
B.A., Western Michigan University; M.A., Teachers College, Columbia
- Lydia Siedschlag, Professor of Art  
B.A.E., Art Institute, Chicago; M.A., Teachers College, Columbia
- Thomas C. Slaughter, Associate Professor of Physical Education, Men  
B.S., Western Michigan University; M.A., Michigan
- Charles A. Smith, Associate Professor of English  
B.A., Western Michigan University; M.A., Michigan
- J. Townner Smith, Dean of Men  
B.A., Western Michigan University; M.A., Michigan
- Keith W. Smith, Assistant Registrar  
B.S., M.S., Indiana State Teachers College; Ph.D., Purdue
- M. Elizabeth Smutz, Assistant Professor, Campus School  
B.A., Oberlin College; M.A., Teachers College, Columbia
- Ruth Smythe, Assistant Professor, Paw Paw Schools  
B.S., Eastern Michigan College; M.A., Michigan
- Carl B. Snow, Associate Professor of Education  
B.S., Western Michigan University; M.A., Columbia
- Dorothea S. Snyder, Associate Professor of Music  
B.A., Western Michigan University; M.A., Michigan
- Emil J. Sokolowski, Assistant Professor of Business Studies  
B.S., Detroit Institute of Technology; M.A., Michigan
- Hobart H. Sorenson, Assistant Professor of Speech  
B.A., Iowa; M.A., Teachers College, Columbia
- Raymond F. Sorenson, Associate Professor of Physical Education, Men  
B.S., Western Michigan University; M.A., Michigan
- David Soule, Consultant in Field Services  
B.S., Western Michigan University; M.A., Iowa State
- Marion A. Spalding, Assistant Professor, Paw Paw Schools  
B.A., Western Michigan University; M.A., Teachers College, Columbia
- Nellie E. Sparks, Assistant Professor, Campus School  
B.S., M.S., Illinois State Normal
- Marion R. Spear, Head, Department of Occupational Therapy  
B.S., Massachusetts School of Art; A.M., Michigan

- Opal Stamm, Assistant Professor of Home Economics  
B.A., Berea College; M.A., Teachers College, Columbia
- Charles R. Starring, Associate Professor of History  
B.A., M.A., Columbia
- Mathilde Steckelberg, Head, Department of Languages  
B.A., Nebraska; M.A., Teachers College, Columbia
- Edwin B. Steen, Professor of Biology  
B.A., Wabash College; M.A., Columbia; Ph.D., Purdue
- Fred Stevens, Assistant Professor, Campus School  
B.S., M.A., Western Michigan University
- Elaine L. Stevenson, Assistant Professor of Art  
B.A., Western Michigan University; B.A.E., The Art Institute of Chicago; M.A., Ohio State
- Leo C. Stine, Associate Professor of Political Science  
B.Ed., Illinois State Normal; M.A., Ph.D., Illinois
- Bess L. Stinson, Associate Professor, Campus School  
B.S., M.A., George Peabody College for Teachers
- Katharine M. Stokes, Head, College Library  
B.S., Simmons College; A.M.L.S., Michigan
- Cyril L. Stout, Professor of Geography and Geology  
B.S., Knox College; Ph.M., Wisconsin; Ph.D., George Peabody College for Teachers
- Keith V. Stout, Assistant Professor, Hurd School  
, B.S., Central Michigan College
- Russell A. Strong, Publicity Director  
B.A., Kalamazoo College
- Sara Jane Stroud, Assistant Professor, Campus School  
B.A., Kalamazoo College; M.A., Western Michigan University
- Julius Stulberg, Professor of Music  
B.S., M.A., Michigan State
- Charlotte B. Sumney, Assistant Professor of Psychology  
B.S., Western Michigan University; M.A., Michigan
- Sara R. Swickard, Professor of Education  
B.S., M.A., Ph.D., Ohio State
- Marion Tamin, Assistant Professor of Languages  
Ph.B., Chicago; M.A., Teachers College, Columbia
- Betty Taylor, Associate Professor of Home Economics  
B.S., Iowa State College; M.A., Teachers College, Columbia
- Robert D. Taylor, Assistant Professor, Campus School  
B.A., Western Michigan University; M.A., Michigan
- Nancy L. Thomas, Assistant Professor, Campus School  
B.S., M.A., Western Michigan University
- Robert B. Trader, Associate Professor of Business Studies  
B.S., Indiana; M.S., Pittsburgh



- Frederick H. Trezevant, Assistant Professor of Languages  
B.A., M.A., Mexico City College
- Adrian Trimpe, Head, Department of Distributive Education  
B.S., Western Michigan University; M.A., Michigan
- Carola P. Trittin, Assistant Professor of Paper Technology  
B.A., Lawrence
- Iona L. Troyer, Assistant Professor, Hurd School  
B.S., Central Michigan College; M.A., Teachers College, Columbia
- Dean R. Tyndall, Assistant Professor of Occupational Therapy  
B.S., Western Michigan University
- Leo C. VanderBeek, Assistant Professor of Biology  
B.A., Western Michigan University; M.S., Ph.D., Michigan
- Clarence N. VanDeventer, Associate Professor of Industrial Technology  
B.S., Wisconsin State Teachers College
- William C. VanDeventer, Head, Department of Biology  
B.A., Central College; M.A., Ph.D., Illinois
- Ruth VanHorn, Associate Professor of English  
B.A., M.A., Michigan
- Charles VanRiper, Professor of Speech  
B.A., M.A., Michigan; Ph.D., Iowa
- Gertrude VanZee, Cataloguing Librarian  
B.A., Hope College; M.A.L.S., Michigan
- John E. Visser, Assistant to the Registrar  
B.A., Hope College; M.A., Ph.D., Iowa
- Reva Volle, Associate Professor of Home Economics  
B.S., Illinois; M.A., Teachers College, Columbia
- George Vuicich, Assistant Professor, Campus School  
B.A., M.A., Iowa
- Louise J. Walker, Associate Professor of English  
B.A., Albion College; M.A., Columbia
- Ruth L. Walker, Assistant Professor, Campus School  
B.A., M.A., Western Michigan University
- Roy G. Walters, Assistant Professor, Campus School  
B.S., Minnesota State Teachers College; M.A., Western Michigan University
- William T. Ward, Principal, Paw Paw Schools  
B.S., Central Michigan College; M.A., Michigan State
- Ernest Weber, Assistant Professor, Campus School  
B.A., Western Michigan University; M.A., Teachers College, Columbia
- William V. Weber, Head, Department of Political Science  
B.A., M.A., Ph.D., Iowa
- William R. Weeks, Assistant Professor of Industrial Technology  
B.S., Wayne

- Walter F. Wegner, Instructor, Paw Paw Schools  
B.S., Wisconsin State College
- Jared S. Wend, Assistant Professor of Economics  
B.A., Middlebury; M.A., Ph.D., Michigan
- Roberta M. Westra, Instructor, Paw Paw Schools  
B.A., Western Michigan University
- Robert B. Wetnight, Associate Professor of Business Studies  
Ph.B., Toledo; CPA
- Charles D. Whatley, Jr., Assistant Professor of Sociology  
B.A., M.A., Texas; Ph.D., Tulane
- Paul G. White, Associate Professor of Physical Education, Men  
B.S., Michigan; M.S., Springfield
- William A. Wichers, Assistant Professor of Industrial Technology  
B.A., Hope College; Certificate, Boeing School of Aeronautics;  
M.A., Western Michigan University
- Roy J. Wietz, Associate Professor of Physical Education, Men  
B.S., Illinois; M.A., Columbia
- Glade Wilcox, Associate Professor of Industrial Technology  
B.Ed., Western Illinois; M.S., Illinois; Ed.M., Indiana
- Merrill R. Wiseman, Professor of Biology  
B.A., Ohio Northern; M.S.P.H., Michigan
- Gertrude Wolinski, Assistant Professor of Mathematics  
M.Ph., University of Warsaw, Faculty of Mathematics
- John W. Woods, Assistant Professor of English  
B.S., M.A., Indiana
- Crystal Worner, Head, Department of Physical Education, Women  
B.A., Eastern Michigan College; M.A., Michigan
- Otto Yntema, Director, Field Services  
B.A., M.A., Hope College
- Zack York, Head, Department of Speech  
B.A., Western Michigan University; Ph.D., Wisconsin
- Elaine Zimmerman, Assistant Professor of Chemistry  
B.A., B.S., Greenville College; M.S., Purdue
- Theo C. Zimmerman, Instructor in Industrial Arts  
B.S., M.A., Western Michigan University
- Milton H. Zoschke, Instructor, Paw Paw Schools  
B.A., Franklin College; B.S., M.A., Western Michigan University

# MICHIGAN VETERANS VOCATIONAL SCHOOL

The Michigan Veterans Vocational School is a state institution under the supervision and management of the State Board of Education and is operated in conjunction with Western Michigan University. The major objectives of the school are to furnish the best possible vocational and trade training for veterans, and, as far as possible, to be a center for the rehabilitation of non-veterans authorized to take such training under Public Law 113. It is located on the north side of Pine Lake, 22 miles north of Kalamazoo.

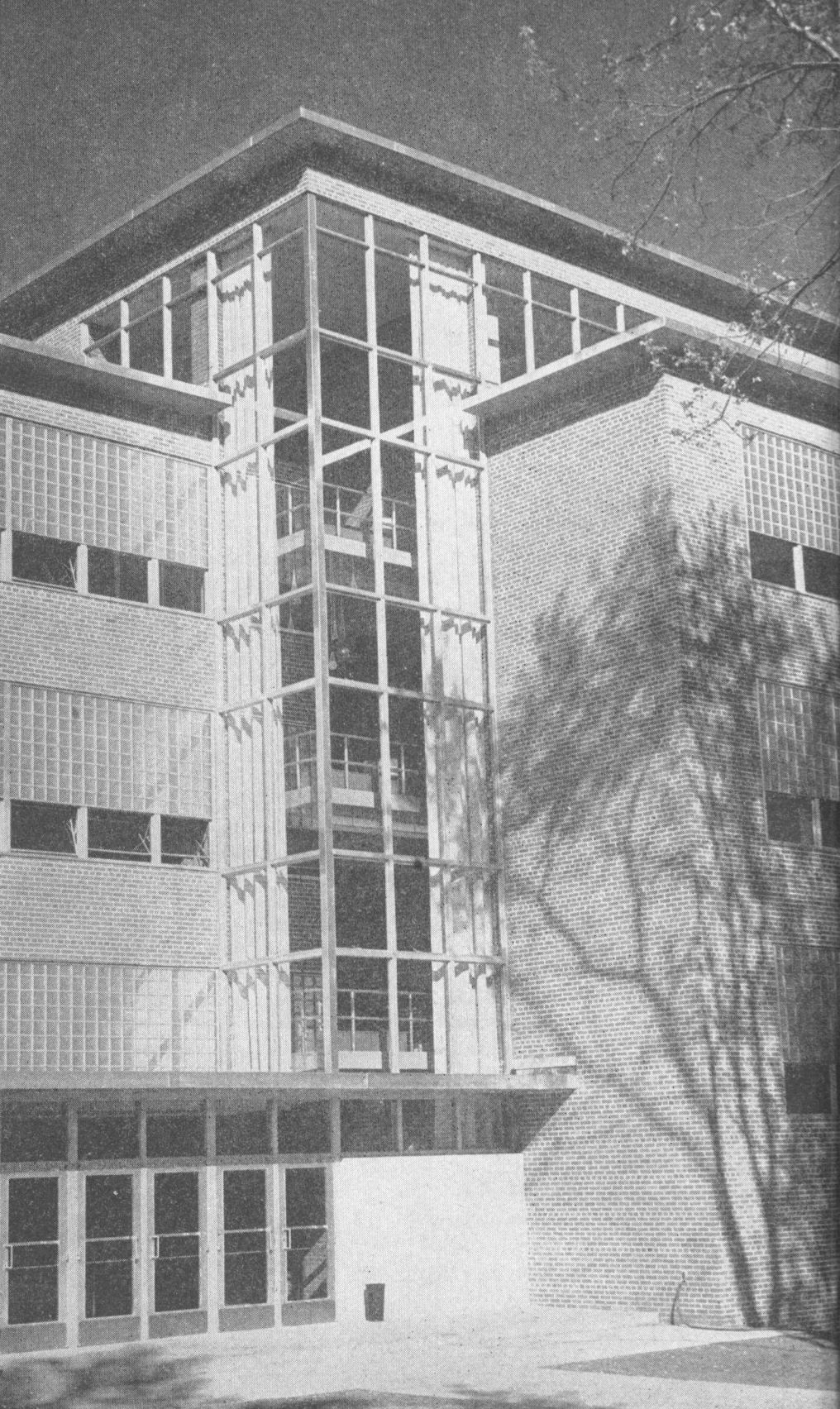
Direct application for admission may be made to the school by writing Michigan Veterans Vocational School, Pine Lake, Doster, Mich.

## ADMINISTRATION

Oscar E. Harrington, M.A. B.S., Michigan State; M.A., Michigan.	Director
Lloyd G. Chapman, M.A. B.A., Hope College; M.A., Michigan.	Counselor and Assistant Director
Jeptha F. Turnage	Business Manager
Ann W. Dobbyn, R.N. R.N., Harper Hospital School of Nursing, Wayne; Public Health Training, Michigan	Health Service

## INSTRUCTORS

William A. Alber	Business Machine Repair
James Y. Buchanan	Upholstering
Kenneth Buelow, B.S., Michigan State	Recreation Director
Lloyd Decker, M.A. B.A., Stout Institute; M.A., Michigan.	Architectural and Machine Drafting
Harold Andersen	Watch Repair
Claude A. Harrington	Radio and Television
Robert Heydenberk, M.A. B.S., M.A., Western Michigan University.	Wood-Working
Jacob Kandell	Appliance Repair
Lloyd I. Meadows, M.A. B.S., M.A., Western Michigan University.	Business Education
Kenneth Reemtsen	Appliance Repair
Raymond Selkirk	Machine Shop
Clarence Sundquist, B.S. B.S., Central Michigan College.	Printing



# WESTERN MICHIGAN UNIVERSITY

Western Michigan University was established by an act of the Legislature in 1903 as Western State Normal School. The state constitution places the college under the authority of the State Board of Education which consists of four members elected by the people of Michigan.

The first school year began in June, 1904, with Dwight B. Waldo as Principal. In 1905 the first building, now known as the Education Building, was completed on the original campus which lies east of Oakland Drive and contained 20 acres of land. The college now occupies more than 400 acres. After 32 years of service President Waldo tendered his resignation and became President Emeritus. During his tenure of office the school grew from a two-year normal school into a college which was recognized as an outstanding leader in the field of education. Dr. Paul V. Sangren, a member of the faculty since 1923, became President of the college in August, 1936. Since that time there has been a rapid growth in students, physical facilities, and the scope of the college curricula and services.

From time to time the Legislature has defined the character and objectives of the university. It has repeatedly declared that the purpose of the institution "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". True to this responsibility the university has always stood for two things paramount and inseparable in an institution for the training of teachers:

1. A thorough grounding in such fields of knowledge 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.

While Western has remained true to the original purpose for which it was founded, the growing educational needs of the state have resulted in an expansion of the original intent until the college has come to be recognized as a regional college of broad scope. Western Michigan University is still one of the leading teaching training institutions of the United States, but it also has large numbers of students pursuing courses in the liberal arts, in the pre-professional and in the vocational fields.

During the first 53 years of the college a single administrative system sufficed, but in 1956 the administration of the university was completely revised to recognize the multiple nature of its programs. Five schools, each with its own dean, were organized: Applied Arts and Sciences, Business, Education, Liberal Arts and Sciences, and Graduate Studies. In February, 1957, the name was changed to Western Michigan University by action of the state legislature.

## PROGRAM OF STUDY

The program of study for the first and second years is organized:

1. to provide the student with essential factual information, to give him

◀ Administrative functions of the college are centered in this modern, west campus structure. Social studies and languages classes meet here.

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; and

2. to prepare the student for undertaking the more advanced and specialized work embraced in the curricula of the third and fourth years or for more advanced work elsewhere.

This program represents sixty semester hours of work, at least half of which must fall in the Divisions of Basic Studies, Languages and Literature, Science, and Social Science. The student must complete during the first year at least two semesters of Communication or College Writing.

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

The program of study for the third and fourth years is organized:

1. to provide intensive cultivation of the fields of the student's special or professional interest; and
2. to broaden his general education.

The University offers the following degrees:

Bachelor of Art  
 Bachelor of Science  
 Bachelor of Music  
 Bachelor of Business Administration

It also conducts a graduate program leading to a master's degree with specialization in Education.

## ACCREDITATION

In 1927 the university was placed on the approved list of the North Central Association of Colleges and Secondary Schools; in 1928 on the approved list of the National Council for Accreditation of Teacher Education; in 1941 on the approved list of the Association of American Universities; and in 1951 achieved membership in the National Association of Schools of Music.

## ENROLLMENT DATA

Undergraduate		Graduate	Totals
1087	Summer, 1954	577	1664
4687	Fall, 1954	417	5104
4555	Spring, 1955	428	4983
1228	Summer, 1955	705	1933
5281	Fall, 1955	469	5750
5033	Spring, 1956	478	5511
1367	Summer, 1956	744	2111
5924	Fall, 1956	569	6493

# *Admission, Degrees and Certificates*

## **ADMISSION**

Qualified students will be admitted at the opening of any semester or summer session after their applications have been accepted.

As the training of the mind is the first function of the university, the applicant's most important qualification is the intellectual capacity to carry on college work successfully. The best evidence of this capacity is a superior academic record attained in the student's previous schooling. Beyond this first requirement, the applicant's character, personality, promise and special abilities will also be considered by the Committee on Admissions. The university will arrange personal interviews whenever they are deemed desirable.

Admission to the university is a privilege that carries with it some responsibilities. The university reserves the right to cancel matriculation and to require withdrawal whenever it becomes evident that the student is not conforming to the university's standards of scholarship and conduct.

To prepare for the university, a high school student should carry a good proportion of academic courses (languages, mathematics, science, history) and should do a good quality of work in them. He should carry the high school prerequisites to his intended curriculum as they are made known to him in consultation with his principal or counselor. Although he may be admitted to the university without these prerequisites, he will be required to make them up before he can proceed in his chosen curriculum.

## **METHODS OF ADMISSION**

Students may be admitted in any one of the following ways:

1. Admission by certificate: A graduate of a high school, academy or equivalent may be admitted upon presentation of an acceptable written record.
2. Admission by examination: A person who does not qualify for admission by certificate may be admitted by passing examinations prescribed by the university.
3. Admission under the secondary school-college agreement: A graduate qualified under this agreement will be admitted provided he is recommended by the school as having the ability to handle university work satisfactorily.
4. Admission by advanced standing: A student wishing to transfer from another accredited college, university or junior college, or from a Michigan county normal, may be admitted upon presentation of an acceptable written transcript of credits showing honorable dismissal. This transcript must be official, mailed directly from the institution previously attended to the registrar of this university. Transferred credits, except

those from Michigan county normals, will be acceptable only when they have been earned at a college which at the time was accredited by the North Central Association of Colleges and Secondary Schools, by an equivalent organization or by the Michigan Commission on College Accreditation. The maximum credit which may be accepted from a junior college is sixty semester hours in addition to physical education. Each transfer case is handled individually, with separate evaluation of credit.

5. Admission as a special student: A person who holds a Bachelor's Degree or a higher degree for which it is prerequisite, may be admitted to the university as a special student upon presentation of credentials showing that he holds such degree or degrees. A person twenty-one years of age or older who wishes to study at this university may be admitted by the Registrar with the approval of the President, provided he is unable to furnish other credentials upon which his admission might be based. Before any special student can receive a degree or certificate from this university, he must have met the requirements for admission prescribed under the other admission procedures numbered 1-4 above.
6. Admission as a guest: One who is regularly matriculated at another college may be admitted as a guest student. The student assumes full responsibility for determining whether or not the courses he takes at this university will apply on his program of study. A guest matriculant is urged to have the courses to be taken approved in advance by the Registrar of the university to which the credits are to be transferred. The principal or counselor of the student will be asked to recommend him only with respect to his moral character.

## APPLICATION FOR ADMISSION

### Freshmen

1. A prospective freshman should request an official application form from the Registrar or his high school principal and complete that part as directed in the application.
2. The application should then be returned to the high school principal who will be responsible for including his high school personal data and academic record.
3. The completed application will be sent to the Registrar by the principal. It is not acceptable if presented by the student.
4. The above three steps must be completed before the student can be considered for admission.
5. The student must be officially admitted before he can be counseled or enrolled, therefore all credentials must be in the office of the Registrar in advance of registration for any course.
6. Applications for admission may be sent to the college any time during or following the final semester in high school.



## Transfers

1. An application blank must be secured from the Registrar and completed according to instructions.
2. The applicant must request an official transcript be sent directly to the Registrar from *each of the colleges* he has attended. These transcripts are not considered official if presented by the student. The record must be complete.
3. The student must be officially admitted before he receives an official evaluation of credits, is counseled or enrolled.
4. A prospective student desiring admission as a "guest" student should write to the Registrar indicating the college he last attended. He should write to the college where he wishes to transfer the credit he expects to earn and have that college approve his program of study in advance of registration.

## DEGREES

The State Board of Education, on recommendation of the President and faculty of Western Michigan University, confers degrees as follows:

### BACHELOR OF ARTS

The student who regularly completes a curriculum conforming to the degree requirements and embracing at least 70 hours in the Divisions of Basic Studies, Language and Literature, Science, and Social Science, including at least eight 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 BUSINESS ADMINISTRATION

This degree will be conferred upon completion of the Business Administration curriculum as outlined in this catalog.

### BACHELOR OF SCIENCE

The student who regularly completes a curriculum conforming to the degree requirements and embracing 38 hours or more in the Divisions of Basic Studies, Language and Literature, Science, and Social Science is eligible for the degree of Bachelor of Science.

### BACHELOR OF MUSIC

This degree will be conferred upon the completion of the music curriculum as outlined in the Music Supplement Catalog. A total of 132 hours is required for graduation.

### SECOND BACHELOR'S DEGREE

A graduate of Western Michigan University with the degree of Bachelor of Music or 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 hours of resident credit and to satisfy any other specific requirements for the degree. The 30 hours need not be taken subsequent to the first degree.

### MASTER OF ARTS

Western Michigan University also confers the Master of Arts Degree with specialization in Education. For information ask for graduate bulletin.

## DEGREE REQUIREMENTS

Any curriculum leading to a bachelor's degree consists of at least 124 hours of credit.

The student must meet the following requirements or their equivalent:

### 1. BASIC STUDIES COURSES

- a. Communication Area ..... 6-8 hours  
     Communication 104A and B (8 hours) or  
     College Writing 106A and B (6 hours)
- b. Science Area ..... 8 hours  
     Biological Science 102 (4 hours)  
     Human Geography 105A (4 hours)  
     Physical Science 100A, B (4 or 8 hours)
- c. Social Science Area ..... 8 hours  
     Foundations of Western Civilization 100A and B  
     (8 hours) or  
     Man and Society 101A and B (8 hours)
- d. Humanities Area ..... 6 hours  
     Humanities 201A and B (6 hours) or  
     Humanities 202A and B (6 hours)  
     (See counselors for alternative courses  
     temporarily permitted.)
- e. Physical Education Area ..... 4 hours

Eight hours additional work (10 if a student took College Writing) must be elected from non-professional liberal arts courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any non-professional courses in the Divisions of Language and Literature, Social Sciences, and Science and Mathematics.

### 2. GENERAL REQUIREMENTS

- a. All students must take three semester hours of government in accordance with Act 106, Public Acts of 1954.
- b. At least two-thirds of the work beyond the second year must be in courses not open to first-year students, except where curricular requirements demand otherwise.

- c. Courses must be selected so that the requirements in at least one of the curricula are fulfilled before graduation.
- d. The student must complete a major with a minimum of 24 hours and two minors with a minimum of 15 hours each. In elementary education the student may complete four minors.
- e. Minimum residence requirements:  
It is expected that all candidates for the Bachelor's degree or full certification will have earned at least 15 hours of credit on the campus of Western Michigan.
- f. A minimum of 30 hours of credit must be taken through Western Michigan. Ten (10) of the last 30 hours must be taken through Western. Correspondence credit cannot satisfy any of the above requirements.

## BASIC STUDIES EQUIVALENTS

In determining the extent to which the Basic Studies (General Education) requirements of Western Michigan University have been met by credits earned at other colleges the following rules shall apply:

1. Communication
  - a. A student must present at least 5.5 semester or 9 term credits in a freshman writing or communication course for a full waiver.
  - b. If he presents a minimum of 2.5 semester or 4 term hours but less than 5.5 semester credits, he will be required to take either 106B (College Writing), 104A or 104B (Communication).
  - c. If the institution from which he wishes to transfer credit has granted a waiver for the freshman English requirement or any part of it, this waiver will be honored by Western Michigan University, providing he substitutes a total of 6 semester or 9 term credits in the Language Division in lieu of this requirement.
  - d. If he has less than 2.5 semester or 4 term credits, he will be required to meet the Basic Studies requirement in communication at Western.
2. Science
  - a. Students who present a minimum of 8 semester or 12 term credits in physical science or in any combination of two or more of the following: physics, chemistry, biological science or earth science, will not be held for the general education requirements in the science area. Courses acceptable under the sciences include: **Biological Science:** Biology, Botany, Nature Study, Physiology, and Zoology; **Chemistry:** General College Chemistry, Industrial Chemistry (if taught by the Chemistry Department); **Earth Science:** Conservation, Geography, Geology and Meteorology; **Physics:** Astronomy, General College Physics, Technical Physics (if taught by the Physics Department).

- b. If a student presents 8 semester or 12 term credits in either physics, chemistry, biological science or earth science, he can meet the Basic Studies requirements by taking a 4 semester credit course in any of the other areas mentioned above, or physical science.
  - c. Students who present a minimum of 2.5 semester credits or 4 term credits in any area mentioned above will be expected to take additional credits in another area to total 8 semester credits. If the 2.5 credits are in any combination mentioned above (or physical science), he can take the additional work in any of the areas.
  - d. A student with less than 2.5 semester credits or 4 term credits will be expected to meet the Basic Studies science requirements at Western.
3. Social Science
- a. Any student who presents a minimum of 8 semester or 12 term credits in Western Civilization or in General Social Science or in any combination of two or more of the following subjects will be considered to have met his general education requirements in social science:
    - American History
    - Cultural Anthropology
    - Economics (Principles)
    - History of Modern Europe
    - Political Science (Introductory course)
    - Sociology (Principles)
  - b. Students who present a minimum of 8 semester or 12 term credits in any one of the above subjects will be expected to take two semester credits in one of the above subjects in which he does not have credit.
  - c. Students who present a minimum of 6 semester or 9 term credits but less than 8 semester credits in Western Civilization, General Social Science or in any combination of two or more of the above areas will be expected to take additional hours in one of the above subject areas to bring the total to 8 semester credits.
  - d. Students who present a minimum of 4 semester or 6 term credits but less than 8 semester credits in Western Civilization, General Social Science or any of the above areas will be expected to take additional work in Western Civilization, General Social Science or in one of the above subject areas in which he does not have credit, to total 8 semester credits.
  - e. If a student has less than 4 semester or 6 term credits, he will be expected to meet the Basic Studies requirement at Western.
4. Humanities
- Students who present a minimum of six semester or nine term credits in combinations of courses representing at least two of the following

fields—art, music, literature, foreign language, and philosophy—will be considered to have met the general education requirements in the Humanities.

5. Comprehensive Examinations

- a. Exemption from the Basic Studies science requirements, by comprehensive examination given under the conditions stated in paragraphs B and C below, is possible for students in any of the following three categories:

- 1) Students who are majoring or minoring in one or more of the three science fields and who have received credit for courses at the 100 level other than the general education courses in one or more of those fields.
- 2) Students who have received credit for science courses at the 100 level, other than the general education courses, in following specific preprofessional requirements.
- 3) Students in the Elementary, Secondary, Special Education — Mentally Handicapped, and Special Education — Speech Correction Curricula where the general education science requirements are starred and carry this footnote: "If the student demonstrates proficiency by comprehensive examination in any of these subjects, he may elect other courses from the division upon the recommendation of his counselor."

- b. Students in any of the above categories may be exempt from four hours of the general education science requirement by satisfactorily completing the comprehensive examination in any one of the three science fields, but he may be exempt from the full eight hours of the requirement only by satisfactorily completing the comprehensive examinations in two of the three fields.

This shall not be interpreted as preventing the inclusion of all three of the general education science fields in the Elementary Curriculum either by taking the courses or by comprehensive examinations in them.

- c. The comprehensive examination in each field shall approximate in level of difficulty the final examination given in the course and "satisfactorily completing" it shall be interpreted as attaining a grade on it equivalent at least to a middle "C".

## MAJOR AND MINOR REQUIREMENTS

A major is a sequence of courses totaling a minimum of 24 hours; a minor is a sequence of courses totaling a minimum of 15 hours. Under certain conditions students may elect beyond this minimum up to a maximum of 40 hours offered by any department.

1. Your major and minors will be your subject specialization, such as: mathematics, accounting, biology and chemistry.
2. Your curriculum may be general or specific preparing you for a spe-

cialized career or profession such as business, medicine, law, auto mechanics and engineering.

3. Students should consult the departmental advisers for approval of their major and minor programs as soon as it is known what they are to be and by the last semester of the junior year.
4. The candidate for a degree must complete a major and two minors or the equivalent. A candidate for the elementary provisional certificate may elect, instead, four minors for a minimum of 15 hours each.
5. In certain cases "group" majors totaling a minimum of 30 hours and "group" minors totaling a minimum of 20 hours are permitted. They usually consist of courses selected from the related departments of a division (see the Division of Social Sciences and the Division of Science and Mathematics).
6. General Education courses are partially acceptable toward major and minor requirements.
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. It is usually not permissible to use education as a major or minor in any undergraduate curriculum.
9. The following courses are not to be counted as satisfying major and minor requirements:
  - a. Required courses in College Writing or Communication
  - b. Required courses in education
  - c. Required courses in physical education
  - d. Basic ROTC courses.
10. A combination of foreign languages, or of English or American Literature with a foreign language, is not permissible. A major or minor must be in one language only.
11. Mathematics may not be combined with science (physics, geography, chemistry, biology) for any major or minor sequence.

## MICHIGAN TEACHERS' CERTIFICATION

The following types of teaching certificates are granted:

1. State Elementary Provisional Certificate
  - a. This certificate qualifies the holder to teach for a period of five years in the elementary grade in any public school in Michigan.
  - b. The candidate must meet the requirements for a degree as defined above.
  - c. The holder of the Provisional Certificate may be issued the State Elementary Permanent Certificate when the candidate shall have met the following conditions:
    - 1) Application must be made to the university within one year following the expiration of the Provisional Certificate.
    - 2) 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.

- 3) The holder of an Elementary Provisional Certificate issued after July 1, 1945, must have earned in addition 10 hours of acceptable college credit.

d. For procedure for permanent certification see below.

## 2. State Secondary Provisional Certificate

- a. This certificate qualifies the holder to teach for a period of five years in the secondary grades in any public school in Michigan, in subject or subject fields indicated on the certificate.

- b. The candidate must meet the requirements for a degree as defined above.

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

- 1) Application must be made to the university within one year following the expiration of the Provisional Certificate.

- 2) 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.

- 3) The candidate must have earned in addition 10 hours of acceptable college credit.

d. For procedure for permanent certification see below.

## 3. State Limited Certificate

- a. This certificate qualifies the holder to teach in the state of Michigan for a period of one year in any school district except a school district which maintains an approved high school.

- b. The candidate shall present credits satisfying a prescribed curriculum aggregating 62 hours.

- c. The candidate shall have satisfactorily completed in residence on campus at this institution 15 hours.

- d. The candidate shall have been in residence at this institution the semester or summer session immediately preceding graduation.

## PROCEDURE FOR PERMANENT CERTIFICATION

The holder of a Provisional Certificate, who has fully met the requirements, may be issued a Permanent Certificate. Below is outlined the procedure to be followed:

### 1. The candidate will

- a. obtain from the Dean of the School 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.

- b. fill out the application as required and return it to the university.

- c. return with the application blank his Provisional Certificate with his Teacher's Oath attached.
2. The College will
  - a. investigate the qualifications of the candidate, ascertain if he satisfies requirements for permanent certification.
  - b. recommend the candidate to the State Board of Education for permanent certification if his qualifications are found satisfactory.

### MISCELLANEOUS PROVISIONS REGARDING CERTIFICATES

1. 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 hours;
  - b. toward the State Limited Certificate, 25 hours.
2. Each student enrolling for credit in *correspondence* courses after December 31, 1951, shall be limited to 15 hours on a degree program or 8 hours on a State Limited Certificate program. Students having completed more than 15 hours but not to exceed 30 hours on a degree program, or 8 hours and not to exceed 15 hours on a State Limited Certificate program are entitled to such credit if used prior to June 30, 1957.
3. No teacher's certificate will be granted to any person who is less than eighteen years of age.
4. 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.
5. A person who holds an expired provisional certificate may renew such certificate and restore it to good standing by completing 10 hours of acceptable college work. Application for reinstatement must be made through the institution upon whose recommendation the certificate was issued. For an application for reinstatement, please write to the Registrar.
6. The State Board of Education has approved a plan whereby credit may be earned in Directed Teaching by a course offered in the field, as a part of the requirement for the provisional and limited certificates. The student should consult with the Dean of the School of Education before enrolling in this course.

### DIRECTIONS TO HOLDERS OF LIMITED CERTIFICATES

State Limited Certificates received after July 1, 1956, will be valid for one year from date of issue. The State Limited Certificate qualifies the holder to teach in the elementary grades of any school district except a school district which maintains an approved high school.

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 cancelled.

1. The holder of a State Limited Certificate may be issued 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 6 s. h. 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 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.
2. Effective September 1, 1955, the holder of a County Limited Certificate may be issued a County Limited Renewal Certificate, each valid for one year 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 6 s. h. 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.

- c. Only five County Limited Renewals will be issued to any candidate. To be qualified for teaching at the expiration of the fifth County Limited Renewal Certificate, the candidate must qualify for a State Limited or higher ranking certificate.

*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

1. Before being admitted to the regular program of work of the third year, a candidate for a teaching certificate shall have satisfied his Basic Studies' requirements in Communication or College Writing, Science and Social Science. He shall have maintained at least a "C" average, (point hour ratio 2.0 for work already completed and shall give evidence of his fitness for teaching.

2. 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.

3. Minimum residence requirements: The minimum residence requirement is thirty (30) semester hours. Of these thirty hours, fifteen hours must be earned on this campus. Of the final thirty hours earned for the degree, ten hours must be earned from this university. Correspondence credit may not be applied to meet any of the above requirements.

# *Student Responsibilities*

## **CHANGING COURSES**

Necessary changes in enrollment must have been made by the end of the first complete week of a semester. Permission to drop courses will be given to upperclassmen for adequate reasons through the third complete week of a semester; to freshmen, through the fourth week. A mark of "WP" will be recorded for a subject dropped after the above time limits, if the student is then doing passing work; a mark of "WE" if the student is then failing, and a mark of "E" if the course is dropped without written permission.

## **CLASS ATTENDANCE**

Students are responsible directly to their instructors for class and laboratory attendance as well as for petitions for excuses for absences.

Students who anticipate being absent or who have had prolonged periods of absence should confer with the appropriate dean and give explanation concerning their cases. But such "explanations of absences" are not to be construed by instructors as constituting "excuses for absences." The "cut system" is not recognized.

## **CLASS LOAD**

A student may not enroll for more than seventeen hours of work, during any semester, except by special permission, unless curriculum requirements indicate otherwise. (This is considered to be a "normal load.") This regulation applies to total credit for work taken by extension or in some other institution, in addition to credit desired in residence at Western.

A student may make application for "extra hours" by securing an application blank from the Registrar, filling it out, and filing it with him. The maximum load for a given student is regulated on the basis of apparent ability and other pertinent factors.

A student in his first semester at Western rarely is permitted to carry "extra hours."

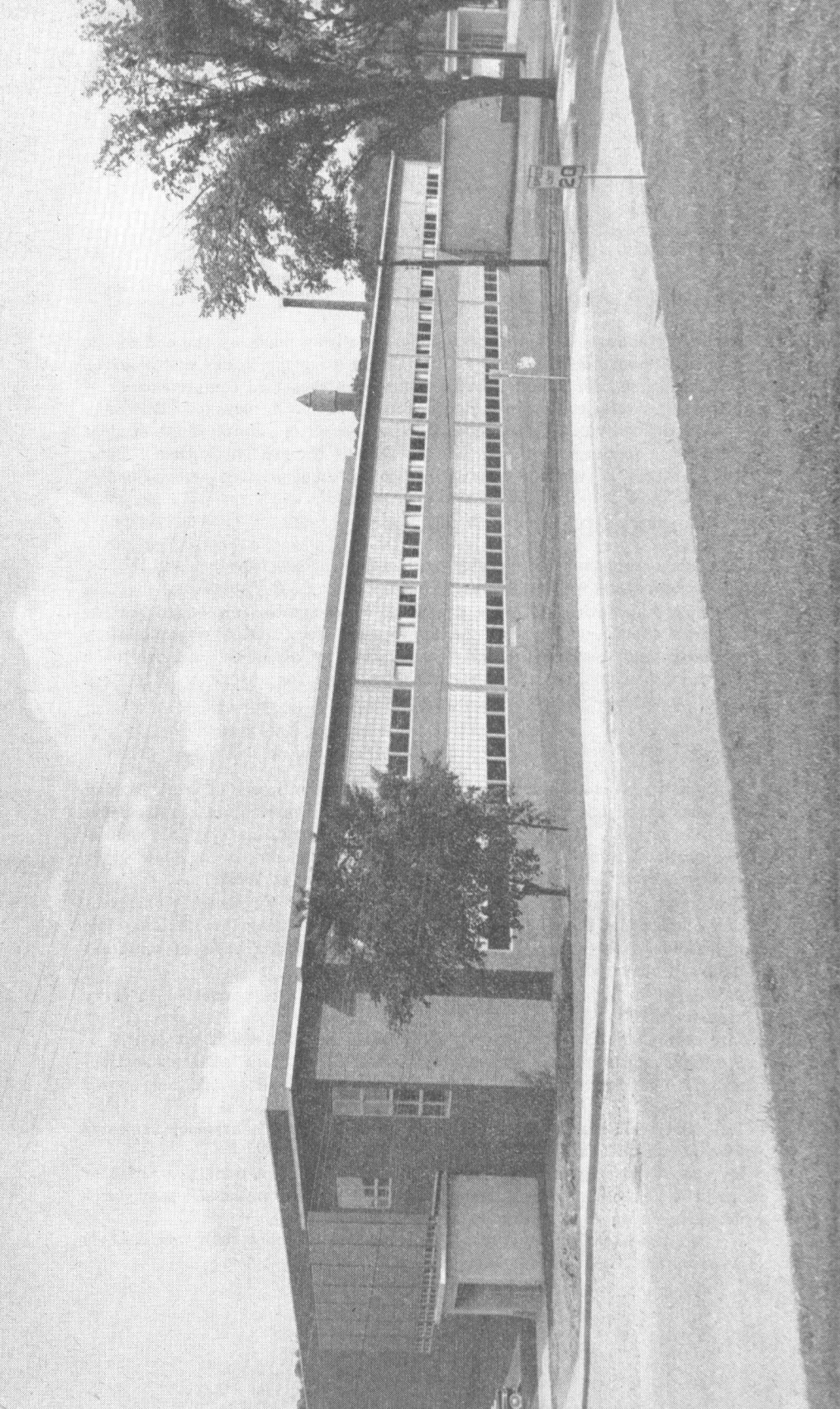
The normal maximum load for summer session students is six hours.

Students employed part-time should reduce their class loads proportionately. If a student works full time, his academic load should not exceed 10 to 12 hours.

Full time teachers will be limited to a maximum of 6 hours each semester either on campus, through Field Services or both.

By special permission, a student who received a point-hour ratio of 3 or more in the preceding semester and who had no "incompletes," may carry a program rising to a maximum of 19 semester hours.

No full time teacher may enroll at any time in more than two courses offered by the Field Service Division.



## CLASSIFICATION

Students at Western Michigan University are classified officially as follows:

Freshmen — Students credited with 0-25 hours inclusive.

Sophomores — Students credited with 26-55 hours inclusive.

Juniors — Students credited with 56-87 hours inclusive.

Seniors — Students credited with 88 hours or more.

## COLLEGE ABILITY TESTS

Tests of ability to do university work acceptably are required of each student upon entrance. This applies not only to freshmen but to upperclassmen as well. The results of these tests are of service in advising students regarding their scholastic work and therefore are to be taken before the student is counseled.

## COMMENCEMENT

All students who complete the requirements for graduation and are entitled to receive degrees and/or certificates are expected to be present at the commencement exercises.

## CONDUCT

Conduct in harmony with the ideals of the institution is expected of each student. Effort is made to stimulate the student to earnest, honest endeavor, and to develop new and worthy interests. In the furtherance of this policy, a Dean of Women and a Dean of Men devote their time to matters pertaining to the welfare of the student body. They may be consulted freely on any matter in which they can be of assistance.

The university has never assumed an attitude of paternalism toward its students. On the assumption, however, that the student has entered the institution for the definite purpose of educational advancement, regularity of class attendance, reasonable evening hours, and a sane social program are required.

The university is opposed to the use of liquor in any form. It will not allow the use of liquor at university functions, in university buildings, or on university property. Students entering their rooming places, either residence halls or private houses, under the influence of liquor, and students who introduce liquor into any rooming place or university building will be subject to dismissal from the university.

◀ New men's physical education building, opened in 1956. A field house, adjoining it, will be ready in 1957.

## CREDIT FOR MUSIC ACTIVITIES

1. A maximum of two hours of academic credit annually is given for one year's regular participation in each of the following activities: Band, Glee Club, Orchestra, Choir, Auxiliary Choir and Auxiliary Band.

2. Eight hours of academic credit is the maximum allowed for participation in any one of the six activities indicated.

3. A grand total of not to exceed twelve hours of academic credit is allowed for participation in the five activities noted.

4. Participation in Band may be substituted for physical education credit up to a maximum of three hours (two hours until the fall of 1957). A minimum of one hour of credit must be earned by actual participation in general physical education classes by each student who is participating in Band. Substitution of Band participation for physical education credit during second semester is possible only if the student has participated in the marching Band during the first semester.

5. Official enrollment cards must bear notations of the work in music the student wishes to carry. Semester-hour values must be indicated.

## EXAMINATIONS

1. A final examination is given in every course in accordance with the official 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 examinations in all courses in which they are enrolled.

3. Students may not request an examination at any other than the scheduled time. Any unavoidable conflict should be reported to the registrar as soon as known so that special arrangements can be made.

4. Failure to meet the schedule due to illness is to be reported to the appropriate Dean immediately.

## EXPENSES

### 1956-57 FEES FOR UNDERGRADUATES

(Due to rising costs, an increase of approximately 20 per cent is anticipated for 1957-58 over tuition and fees listed below.)

For Michigan Residents				For Non-Residents		
Tuition	*Local Fees	Total	Semester Hours	Tuition	*Local Fees	Total
9.50	20.00	29.50	1-3	19.00	20.00	39.00
19.00	26.00	45.00	4-6	38.00	26.00	64.00
28.50	26.00	54.50	7-9	57.00	26.00	83.00
47.50	42.50	90.00	10 or more	95.00	42.50	137.50

\*These local fees are collected each semester for the support of student activities, health service, student union, library purposes, departmental laboratories, identification photograph, cap and gown, diploma, etc. The above charges for both tuition and fees apply without exception to all students enrolling for credit.

There is a special departmental music fee for Applied Music of \$60 per semester for one hour per week of private instruction, or \$30 per semester for one-half hour per week of private instruction.

All tuition and fees must be paid in full on the established registration days; no partial payments will be accepted.

## AUDITORS' FEES

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

## LATE ENROLLMENT FEE

By action of the State Board of Education, all students who enroll after the established registration day of a semester will be charged an additional fee of \$5. There is a \$2 penalty for late pre-enrollment.

## REFUND POLICY

Tuition and Local Fees will be refunded (according to the following schedule) when a student withdraws from university or reduces his credit load.

- a. Seven calendar days or less after the last official registration day—90 per cent of total.
- b. More than 7 calendar days and less than 22 days after the last official registration day—60 per cent of total.
- c. More than 21 calendar days and less than 36 days after the last official registration day—40 per cent of total.
- d. More than 35 calendar days and less than 50 days after the last official registration day—20 per cent of total.

- Note: 1) No refund will be granted if the student withdraws after the 49th calendar day after the last official registration day.
- 2) No refund will be granted unless applied for by the 56th calendar day after the last official registration day of the semester in which the student withdraws.
  - 3) No refund will be made to a student eligible for benefits under Act 245 of the Public Acts of 1935, as amended, unless request is made not more than one week after registration.
  - 4) Refunds are not automatic but must be applied for at the Business Office within the prescribed time limits.

## RESIDENCE REQUIREMENTS

Residence in Michigan for the purpose of registration shall be determined according to the state constitution 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 the university, unless he has resided in this state six months next preceding the date of his pro-

posed enrollment, and no person shall be deemed to have gained or lost a residence in this state while a student in the university.

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

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.

In determining the residence status the designated official will apply the following rules:

1. The residence of any student under the age of 21 will be determined by the residence of his parents or guardian.
2. Any student who starts as a non-resident student and who attends the university continuously from the date of his first enrollment (semester after semester exclusive of summer session) will retain the same residence status with which he started out except as outlined in No. 3 below.
3. Any student over the age of 21 residing in Michigan and who starts out as a non-resident student can be given residence status as soon as he can prove he has been accepted by an election official as a resident elector in the State of Michigan and by filing a written statement with the university declaring his intention to continue his residence status in Michigan after leaving the university.

## LIVING EXPENSES

### Board and Room

Burnham Halls	} \$303.00 per semester
Davis Hall	
Draper-Siedschlag Halls	
Ellsworth Hall	
Spindler Hall	
Walwood Hall	
Zimmerman Hall	

### Room Only

Vandercook Hall	\$99.00 per semester
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Address requests for reservation in women's residence halls to the Dean of Women, for reservation in men's residence halls to the Dean of Men. All applications must be accompanied by a \$10 room deposit made by check, payable to Western Michigan University.

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



## GRADUATION

The candidate for degree is expected to make application for graduation by the last semester of his junior year so that his record may be checked before his senior year. The student can help to avoid the embarrassing situation of planning to participate in commencement activities when he has not met requirements.

Off-campus students are to apply before the last semester of the senior year.

## HONORS IN COURSE

Honors in Course are conferred upon graduating students who have displayed special attainments in scholarship during their university course. Such honors are announced at a special convocation.

Recipients of honors receive their degrees:

**Cum laude**—when their point-hour ratio is 3.50 to 3.69, inclusive

**Magna cum laude**—when their point-hour ratio is 3.70 to 3.89, inclusive

**Summa cum laude**—when their point-hour ratio is 3.90 to 4.00, inclusive

In computing point-hour ratios for honors in course, the following rules will apply:

1. Credits and honor points earned during a student's second to seventh semester, inclusive, only will be counted toward honors.
2. Credits and honor points earned in correspondence and extension classes as well as those transferred from other duly accredited institutions will be considered toward honors.
3. No student will be eligible for an honor in course who has not earned at least 160 honor points in this university during the interval mentioned in Rule 1.

## MARKING SYSTEM

The student receives one grade in each course that he takes. This grade combines the results of class work, tests, and final examinations. Grades are indicated by letters, to each of which is assigned a certain value in honor points per hour of credit, as shown in the table below.

Grade	Significance	Honor Points per hour credit
A	Excellent	4
B	Good	3
C	Fair	2
D	Passing	1
E	Failure	0
I	Incomplete	(see below)
W	Withdrawn	(see below)

### **"I" INCOMPLETE**

This is a temporary grade given for work which is passing in quality but lacking in quantity to meet course objectives. It is assigned when illness, necessary absence, or other reasons satisfactory to the instructor prevent completion of the course requirements by the end of the semester. This grade may not be given for unsatisfactory work.

A grade of "I" must be removed by the termination date of the next regular semester following the date it was assigned or a grade of "E" will be recorded for the course. When the "I" is removed, a permanent grade will be recorded in its place.

An instructor who assigns a grade of "I" will submit to the Department Chairman and to the Registrar a statement of remaining requirements for removal of the incomplete grade for each student concerned.

### **"W" WITHDRAWN**

A grade of "W" is given in a course when a student officially withdraws from that course or from the university preceding the established date for withdrawing from courses without penalty.

"WP" is given to indicate that a student has officially withdrawn from a course after the penalty date and was doing passing work in that course when he withdrew.

"WE" is given to indicate that a student has withdrawn from a course after the penalty date and was doing failing work when he withdrew.

## **SCHOLARSHIP INDEX**

The general quality of a student's work in the university is revealed by the grades he receives in courses, the number of honor points he earns, or by his point-hour ratio.

### **HONOR POINTS**

The number of honor points earned in a course is the number of semester hours credit given by the course multiplied by the number of honor points per hour of credit corresponding to the letter grade received, as shown in the preceding table. For example, a grade of B in a four hour course gives  $4 \times 3$ , or 12 honor points.

### **POINT-HONOR RATIO**

A point-hour ratio is obtained by dividing the total number of honor points earned by the total number of semester hours of work for which the student is officially enrolled during any period. For example, a total of 32 honor points earned in a semester by a student officially enrolled for 16 hours of work gives a point-hour ratio of  $32/16$  or 2.0 for that semester.

## HIGH SCHOLARSHIP

To gain a place on the High Scholarship List for a semester, a student must:

1. Have taken at least 14 hours of work during the semester.
2. Have taken not more than 8 hours of work in any one department.
3. Have a point-hour ratio of 3.64 or higher.
4. Have not more than 5 hours of B grade.
5. Have no grade below a B.

## LOW SCHOLARSHIP

1. Any student who receives grades of E in 75 per cent or more of the work for which he is officially enrolled at the end of any semester (or its equivalent) will be dismissed from the university.
2. FRESHMEN. Any freshman not on probation whose point-hour ratio for any semester falls below 1.50 will be placed on probation for his next semester in attendance.

Any freshman currently on probation whose point-hour ratio for the semester falls below 1.70 will be dismissed from the university. He may apply for readmission; if accepted, he will be placed on probation for another semester.

3. UPPERCLASSMEN. Any student classified above freshman and not on probation whose point-hour ratio for any semester falls below 1.80 will be placed on probation for his next semester in attendance, unless he is disqualified under Rule 4, below. Any student classified above freshman and currently on probation whose point-hour ratio falls below 2.00 will be dismissed from the university. He may apply for readmission, unless he is disqualified under Rule 4, below. If accepted, he will be placed on probation for another semester.
4. No student will be granted academic probation more than three times. If he fails to raise his scholastic record above the probation level within these periods he will be dismissed from the university.
5. Rules 2, 3, and 4 will be applied to students who transfer to Western from other colleges. The scholarship level of a transfer student will be determined from his record.
6. A student will not be placed on or removed from low scholarship status as a result of work taken during a Summer Session.

## STANDARD FOR GRADUATION

No student will be graduated in any curriculum if his point-hour ratio, based on the work required in that curriculum, is less than 2.00.

No student will be granted a degree or certificate at the end of a semester during which he has been on academic probation unless his honor-point ratio for that semester is 2.0 or higher.

## TRANSCRIPTS

A student desiring a transcript of his record in this university should write to the registrar, giving dates of attendance and, if a graduate, the date of graduation. He should give all names under which he may have been enrolled. Each student is entitled to one transcript of his record without charge, but all additional copies are charged for at the rate of one dollar a copy.

## UNIT OF CREDIT

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.

A minimum of 62 hours of credit is required for a State Limited Certificate in the two-year Rural Elementary Curriculum, and 124 hours of credit for the A.B. or the B.S. degree.

## HOUSING REQUIRED

All Freshmen men not living at home are required to live in university residence halls, in so far as facilities are available. Any deviation from the above will be carefully considered through the office of the Dean of Men. Other men are required to live in residences approved by the office of the Dean of Men. A list of approved rooms is available and will be furnished upon request.

All undergraduate women students under 25 years of age enrolled at Western Michigan University are required to live in university residence halls insofar as space is available, unless they are living in their own homes, or with close relatives, or unless other arrangements are approved for them in writing by the Housing Committee. This is in accordance with the ruling of the State Board of Education of July 15, 1949.

The Office of the Dean of Women will be interested in considering applications from older women students, or women students on the graduate level, for positions as assistant directors in the residence halls. This position pays board and room.

## IDENTIFICATION PHOTOGRAPH

When a student enrolls for the first time, he is required to have taken an identification photograph of which two copies are made. One copy is given to the student to serve to identify him, while a second copy is filed in the appropriate Dean's office.

## **PART II**—*School of Applied Arts and Sciences*

**George E. Kohrman, Dean**

The School of Applied Arts and Sciences includes the Departments of Agriculture, Distributive Education, Home Economics, Industrial Arts, Industrial Technology, Military Science and Tactics, Occupational Therapy and Paper Technology.

The School seeks to assist young men and women in becoming useful and successful citizens in a democratic and technological society. Three educational needs serve as guides in planning the various courses of study within the school. First, the critical shortage of skilled and scientific manpower in business and industry is recognized. High speed production, automation, the increasing use of electrical and atomic energy, the demand for more and better materials, the scientific developments in agriculture, and the revolutionary changes in home and family living are all indicative of the type of educational program needed by a large segment of our population.

Second, the School recognizes the personal values that should accrue to an individual from a well-planned educational program. It accepts the responsibility of contributing to the student's understanding and appreciation of himself and his surroundings, and to his emotional, physical and intellectual growth.

Third, the School attempts to assist the student in the development of desirable attitudes, habits, and character traits essential for successful living in his home, community, or occupational environment.



# I. DEGREE CURRICULA

## DIETETICS

### B.S. Degree

First Year	S.H.	Second Year	S.H.
Chemistry 101A, B or Chemistry 100A, B	8	Accounting 210A	3
Communication 104A, B or College Writing 106A, B	6 or 8	Biological Science 102	4
Effective Living 145	2	Elementary Design 105	2 or 3
Foods 111	3	General Psychology 200	3
Western Civil. 100A, B	8	Organic Chemistry 306A	4
Physical Education	1	Sociology 241	3
Electives	2	Textiles 103	3
		Physical Education	2
		Humanities 202A, B	6
	30-32		30-31
Third Year	S.H.	Fourth Year	S.H.
Meal Preparation 311	3	Diet and Disease 317	2
Food Chemistry 341	2	Institutional Mgt. 423	3
Amer. Gov't. 334	3	Physiology 211B	3
Advanced Nutrition 416	3	Home Ec. Ed. 300A	2
Bacteriology 312A	4	Experimental Foods	2
Bio-chemistry 350, 351	4	Principles of Economics 220A	3
Quantity Foods 312	3	Electives	16
Physical Education	1		—
Nutrition 211	3		31
Electives	6		
	32		

Recommended minors: Chemistry and Combined Social Science.

Recommended electives: Home Management 322, Consumer Buying 439, Home Management Practice 324, Housing 421, Advanced Textiles 303, Food Demonstration 318.

Each student is required to work twelve months in a hospital approved by the American Dietetics Association.

## HOME ECONOMICS IN BUSINESS

		B.S. Degree	
First Year	S.H.	Second Year	S.H.
Chemistry 105A, B	8	Biol. Science 102	4
Communication 104A, B or		Clothing 205	3
College Writing 106A, B	6 or 8	Costume Design 209	2
Effective Living 145	2	Home Furnishings 221	2
Elementary Design 105	2 or 3	Home Nursing 223	2
Foods 111	3	Journalism 201A	3
Western Civil. 100A, B or		Nutrition 211	3
Man and Society 100A, B	8	Sociology 241	3
Textiles 103	3	Typewriting 101A, B	4
Physical Education	1	Physical Education	1
		Humanities 201A, B or 202A, B	6
	33-35		33
Third Year	S.H.	Fourth Year	S.H.
Accounting 210A	3	Advanced Nutrition 416	3
Meal Planning 311	3	Consumer Buying 439	2
Amer. Gov't. 334 or		Experimental Foods 419	2
St. and Loc. Gov't. 230B	3	The Homemaking Center and	
Economics 220A	3	Equipment 421	2
Family Clothing 305	2	Mar. and Fam. Relations 325	2
Food Demonstration 318	2	Quantity Foods 312	2
General Psychology 200	3	Radio	3
Home Management 322	2	Tailoring 304	3
Home Management Prac. 324	3	Electives	12
Physical Education	2		—
Electives	5		31
	31		



## INDUSTRIAL ARTS

## B.S. Degree

This curriculum meets the needs of students who wish a broad industrial and technical background to enter business, industry, or teaching. The individual must have basic competence in and understanding of the various areas encompassed by the broad field of industrial arts. In addition, he must achieve a superior competence through a concentration in one of these areas. The student may major in industrial arts and minor in one of the following fields: drawing, woodwork, metalwork, electricity, graphic arts, or general shop. To accomplish this dual objective, a required minimum of 40 semester hours is necessary.

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	Indus. Design 266	2
Physical Science 100A, B	8	Adv. Elect. 350	3
or		Drawing 226	3
Human Geography 105A		Machine Shop 234A	3
or		Machine Woodwork 305A	3
Biological Science 100A		Man and Society 100A, B	8
Drawing 120	2	or	
Woods 100	2	Found. of West. Civil. 100A, B	
Intro. Elect. 150	2	Humanities 201A, B	6
Metals 130	3	or	
Graphic Arts 140	2	Humanities 202A, B	
Intro. to Indus. Arts 160	1	Phy. Ed.	2
Phy. Ed.	2	Electives	2-4
Electives	4-6		
Third Year	S.H.	Fourth Year	S.H.
American Gov't. 334	3	Shop Electives	5-7
Shop Electives*	7-9	General Electives	25-27
Gen. Electives**	21-25		

\*A concentration of 15 hours in one of the following shop areas must be elected in terms of the student's interest.

Drawing—120, 221, 222, 226, 227, 325A	Woodwork—100, 106, 305A, B, 307, 267
Metalwork—130, 234A, B, 235, 236	Graphic Arts, Electricity, and General Shop—See Dept. Head

\*\*To become an industrial arts teacher, the individual must take: 347 Plan and Org. of School Shop, 348 Teaching of Industrial Arts, and 472 Course Plan and Construction. These are in addition to the required courses in the School of Education.

## INDUSTRIAL DISTRIBUTION

## B.S. Degree

This curriculum is designed to prepare personnel for employment in industrial distributors' organizations as purchasing agents, salesmen, management consultants, warehousing executives, etc. Since some graduates may wish to enter the manufacturing rather than the distributing phase, the curriculum also provides sufficient technical and supervisory training to enable them to eventually qualify for industrial positions in such areas as production control, personnel work and purchasing.

First Year	S.H.	Second Year	S.H.
Communications 104A, B	8	Science Area	8
Industrial Processes 100, 101	8	Industrial Relations 279	3
Trigonometry and College Algebra 103A	5	Technical Electricity 274	2
College Algebra and Analytic Geometry 103B	5	Technical Drafting 270	2
Industrial Calculators 106	1	Social Science Area	8
Physical Education 103, 103B	2	Physical Education 203A, B	2
Business and Professional Speech 108	3	Business Statistics 235	3
	—		—
	32		28
Third Year	S.H.	Fourth Year	S.H.
Humanities 201A, B or 202A, B	6	Purchasing Principles & Practice 348	3
Accounting 210A, B	6	Production Control 356	3
General Psychology 200	3	Time and Motion Study 358	3
Business Correspondence 232	3	Materials Handling 361	3
American Government 334	3	Conference Leadership 362	3
Small Business Management 237	3	Industrial Distribution 390	2
Salesmanship 340	3	Choice of 2nd minor (electives)	15
Management Problems 449	3		—
	—		—
	30		32
Summer	S.H.		
Coordinated Industry 350*	3		
Major—Industrial Distribution			26
First Minor—Business			15
Second Minor—Economics or Psychology			15

\*Students enrolled in this curriculum must spend one summer either during their junior or senior year with some industrial distributor or a student may elect Modern Industrial Practices 478.

## INDUSTRIAL SUPERVISION

## B.S. Degree

This curriculum is intended for young men and women who are planning to qualify for industrial or commercial positions in such areas as supervision, production control, time and motion study, quality control, plant management, personnel work, purchasing and other managerial areas.

First Year	S.H.	Second Year	S.H.
Communications 104A, B	8	Social Science Area	8
Industrial Processes 100, 101	8	Science Area	8
Trigonometry and College Algebra 103A	5	Industrial Relations 279	3
College Algebra and Analytic Geometry 103B	5	Technical Electricity 274	2
Industrial Calculators 106	1	Technical Drafting 270	2
Business and Professional Speech 108	3	Physical Education 203A, B	2
Physical Education 103A, B	2	Humanities 201A, B or 202A, B	6
	—		—
	32		31
Third Year	S.H.	Fourth Year	S.H.
American Government 334	3	Management Problems 449	3
Fundamentals of Industrial Supervision 353	2	Production Control 356	3
Accounting 210A, B	6	Materials Handling 361	3
Plant Maintenance and Safety 355	2	Statistical Quality Control 271	3
Business Correspondence 232	3	Conference leadership 362	3
Labor - Management Relations 359	3	Choice of 2nd minor (elective)	15
Elementary Statistical Practice 209	3		—
Time & Motion Study 358	3		30
Business Law 320A	3		—
	—	Summer	S.H.
	28	Modern Industrial Practice 478	6
Major—Industrial Supervision .....			25
Minor—Business .....			15
Second Minor—Economics or Psychology .....			15
Third Minor—Mathematics .....			17

## MILITARY SCIENCE AND TACTICS

A four-year curriculum designed for students who wish to prepare themselves for a position of leadership in the Armed Forces.

First Year	S.H.	Second Year	S.H.
Military Science 101, 102	4	Military Science 201, 202	4
Third Year	S.H.	Fourth Year	S.H.
Military Science 301, 302	8	Military Science 401, 402	8

Attendance at six-week ROTC Summer Camp at end of third year is a part of the required course.

The program for the third and fourth years, known as the Advanced Course, meets the requirements for a Minor and may be counted as such if the student's curriculum does not prescribe specified minor sequences.

## OCCUPATIONAL THERAPY

### B.S. Degree

First Year	S.H.	Second Year	S.H.
Communications 104A, B or	8	Humanities 201A, B or	6
College Writing 106A, B and	6	Humanities 202A, B	6
General Speech 106	3	Introduction to Speech Correction	
Biological Science 102	4	250 or	3
Outdoor Science 231A or B	4	Principles of Speech Correction	
Man and Society 101A, B, or	8	251	3
Foundations of Western		Anatomy 211A	4
Civilization 100A, B	8	Physiology 211B	4
O.T. Art Structure 106	2	General Psychology 200	3
O.T. Printing 144	3	Elementary Design 215	3
Physical Education	1	O.T. General Shop 167	3
	—	Clothing 203	2
	30-32	Needlecraft 223	3
		Physical Education	1
			30-31

Third and Fourth Year	S.H.		
Kinesiology 216A	2	Theory of O.T. 410A	2
Applied Kinesiology 216B	2	Rehabilitation 310	2
Medical Lectures 410B	2	Ceramics 425A or Jewelry 425B	2
Neurology Lectures 410C	2	Minor Crafts 225	3
Abnormal Psychology 305	3	Weaving 328	3
Psychiatric Lectures 330	2	Recreational Therapy 222	2
American Government 334	3	O.T. Special Wood Shop 308	3
Hospital Case Studies 352	3	Therapeutic Activities 324	2
Theory of O.T. 210A, B	4	Clinical Training 311	5
		Physical Ed.	2

## PAPER TECHNOLOGY

## B.S. Degree

This curriculum is intended to prepare students for work in the paper industry in the technical, manufacturing, sales, and executive areas. It is foundational in nature, and provides for actual work experience during the summers in the paper mills. It is expected that the student will work in the mills at least two of the three summers indicated. The plan operates cooperatively through the use of an advisory committee composed of thirteen members from the industry and five members from Western Michigan University. Option I stresses preparation for production and technical areas, whereas Option II prepares students for sales and management areas in the paper industry.

## OPTION I

(Preparation for technical and manufacturing areas in the paper industry)

First Year			
First Semester	S.H.	Second Semester	S.H.
Communication 104A	4	Communication 104B	4
Trig. and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or		or	
College Algebra 104A	4	Analytic Geometry 104B	4
Gen. Chemistry 100A or 101A	4	Gen. Chemistry 100B or 101B	4
Mech. Drawing 121 or 221	2-3	Orientation to Paper Tech. 130B	1
Orientation to Paper Tech. 130A	1	Physical Education	1
Physical Education	1	Electives**	3
Electives**	1		
	<hr/> 17-19		<hr/> 17-18

## Summer

Mill Practice 131 ..... 2 hours

## Second Year

First Semester	S.H.	Second Semester	S.H.
Economics 220A	3	Economics 220B	3
Calculus 205A	4	Calculus 205B	4
Mechanics, Sound and Heat 103A	5	Electricity and Light 103B	5
Qualitative Analysis 201	4	Quantitative Analysis 202	4
Pulp and Paper Manufacture 230A	2	Pulp and Paper Manufacture 230B	2
Physical Education	1	Physical Education	1
	<hr/> 19		<hr/> 19

## Summer

Mill Practice 231 ..... 2 hours

Third Year			
First Semester	S.H.	Second Semester	S.H.
Man and Society 101A	4	Man and Society 101B	4
Language and Literature*	3-4	Language and Literature*	3-4
Organic Chemistry 306A	4	Organic Chemistry 306B	4
Evaluation of Pulp and Paper 332A	2	Evaluation of Pulp and Paper 332B	2
Fiber Microscopy 333	1	Elements of Industrial Chemistry	
Elements of Industrial Chemistry		334B	2
334A	2	Wood Chemistry 335	2
	—	Coloring and Filling of Paper 336	1
	16-17		—
			18-19

## Summer

Mill Practice 331	2 hours
Mill Inspection Trip 337	1 hour

Fourth Year			
First Semester	S.H.	Second Semester	S.H.
Language and Literature*	3-4	Language and Literature*	3-4
Physical Chemistry 303A	5	Physical Chemistry 403B	5
Bleaching, Pulp Purification, De-		Auxiliary Equipment for Pulp	
inking 432	1	and Paper Mills 433	1
Converting of Paper 435	1	Research Problems in Pulp and	
Chem. and Tech. of Plastic 434	2	Paper 436B	2
Research Problems in Pulp and		Principles and Practice of Coated	
Paper 436A	2	Paper Manufacture 437A	1
Electives**	4	Electives**	2
	—		—
	18-19		14-15

\*Recommended courses: Third year, German; Fourth year, Scientific German.

\*\*Recommended electives: Engineering Materials 210; Accounting 210; Metal Processing 211; Business Correspondence 232; Industrial Cost Accounting 316; Business Law 320; Fundamentals of Industrial Supervision 353; Quality Control 354; Introduction to Electronics 361; Production Control 356; Electrical Measurements 462; Management Report Writing 433; Statistical Methods for Industry 373.

## OPTION II

(Preparation for sales and management areas in the paper industry)

First Year			
First Semester	S.H.	Second Semester	S.H.
Communication 104A	4	Communication 104B	4
Trig. and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or		or	
College Algebra 104A	4	Analytic Geometry 104B	4
Gen. Chemistry 100A or 101A	4	Gen. Chemistry 100B or 101B	4
Mech. Drawing 121 or 221	2-3	Orientation to Paper Tech. 130B	1
Orientation to Paper Tech. 130A	1	Physical Education	1
Physical Education	1	Electives**	3
Electives**	1		
<hr/>		<hr/>	
17-19		17-18	

## Summer

Mill Practice 131 ..... 2 hours

Second Year			
First Semester	S.H.	Second Semester	S.H.
Man and Society 101A	4	Man and Society 101B	4
Business Studies*	3	Business Studies*	3
General Physics 102A	4	General Physics 102B	4
Qualitative Analysis 201	4	Quantitative Analysis 202	4
Pulp and Paper Manufacture 230A	2	Pulp and Paper Manufacture 230B	2
Physical Education	1	Physical Education	1
<hr/>		<hr/>	
18		18	

## Summer

Mill Practice 231 ..... 2 Hours

Third Year			
First Semester	S.H.	Second Semester	S.H.
Language and Literature	3-4	Language and Literature	3-4
Organic Chemistry 306A	4	Organic Chemistry 306B	4
Evaluation of Pulp and Paper, 332A	2	Evaluation of Pulp and Paper, 332B	2
Fiber Microscopy 333	1	Coloring and Filing of Paper	1
Elements of Indus. Chem. 334A	2	Elements of Indus. Chem. 335B	2
Business Studies*	3	Business Studies*	3
Electives**	2	Electives**	2
<hr/>		<hr/>	
17-18		17-18	

## Summer

Mill Practice 331 .....	2 Hours
Mill Inspection Trip 337 .....	1 hour

Fourth Year			
First Semester	S.H.	Second Semester	S.H.
Language and Literature	3-4	Language and Literature	3-4
Converting of Paper 435	1	Auxiliary Equipment for Pulp	
Chem. and Tech. of Plastics 434	2	and Paper Mills 433	1
Economics 220A	3	Principles and Practice of Coated	
Business Studies*	5	Paper Manufacture 437A	1
Electives**	3	Economics 220B	3
		Business Studies*	5
	17-18	Electives**	4
			17-18

\*Suggested Courses in Business Studies: Accounting 210; Inter. Accounting 310; Advanced Accounting 410; Industrial Cost Accounting 316; Cost Accounting 411; Bus. Correspondence 232; Management Report Writing 433; Bus. Statistics 235; Office Organization 239; Bus. Law 320; Insurance Principles 322; Personnel Admin. 436; Management Problems 339; Salesmanship 340; Sales Management 341; Advertising 342; Credit Management 345; Problems in Marketing 347; Purchasing Principles and Practices 348; Office Management 439; Advanced Salesmanship 440;

\*\*Recommended Electives: Statistical Practice 209; Engineering Materials 210; Metal Processing 211; Intro. to Indus. Psych. 300; Fundamentals of Industrial Supervision 353; Quality Control 354; Production Control 356; Intro. to Electronics 361; Electrical Measurements 462; Intro. to Statistical Analysis 473;

## TRANSPORTATION

## B.S. Degree

The Transportation curriculum is intended for those who wish to prepare themselves for administration and managerial positions in the field of Transportation and Related industries. Option I, The Air Transportation program is designed to train people for various positions in the Airlines and Aircraft industries. Option II, The Automotive Transportation program is designed to train people for the automotive transportation industry.

First Year	S.H.	Second Year	S.H.
Communications 104A, B	8	Science Area	8
Industrial Processes 100, 101	8	Technical Drafting 270	2
Trigonometry and College		Technical Electricity 274	2
Algebra 103A	5	Industrial Relations 279	3
College Algebra and Analytic		Social Science Area	8
Geometry 103B	5	Physical Education	2
Industrial Calculators 106	1		



Third Year	S.H.	Fourth Year	S.H.
Humanities 201A, B or 202A, B	6	Business Statistics 235	3
Accounting 210A, B	6	Management Problems 339	3
Principles of Economics 220A, B	6	American Government 334	3
General Psychology 200	3	Passenger and Freight Traffic 304	2
Business Correspondence 232	3	Transportation Problems 303	2
Physical Education	2	Management Report Writing 433	2
Electives	6	Psychology (Either 204, 210 or 300)	2 or 3
		Electives	4

Students in Option I, the Air Transportation program, are urged to qualify themselves to take the CAA written examination for the Airframe & Powerplant Mechanic's License. This may be done by taking the following courses during one summer session:

Aircraft Welding 174	2 hours
Aircraft Servicing 300	4 hours

OPTION I—Air Transportation

First Year	S.H.	Summer	S.H.
Introduction to Aviation 110	3	Pilot Training 214A	2
Airframes 103	4		
Second Year	S.H.	Third Year	
Powerplants 106	4	No option—	
Airframes 203	4		
Powerplants 206	4		
Fourth Year	S.H.		
Airline Operation 305	2		
Major—Air Transportation			25 S.H.
1st Minor—Business			15 S.H.
2nd Minor—Economics or Psychology			15 S.H.

OPTION II—Automotive Transportation

First Year	S.H.	Second Year	S.H.
Automotive Engines and accessories 155A	4	Automotive Analysis 255A	4
Automotive chassis and running gear 155B	4	Automotive Engine Overhaul 255B	4

Third Year	Fourth Year	S.H.
No option—	Fundamentals of Industrial Supervision 353	2
	Automotive Service Management 380	2
Major—Automotive Transportation		24 S.H.
1st Minor—Business		15 S.H.
2nd Minor—Economics or Psychology		15 S.H.

## II. TWO-YEAR CURRICULA

### AGRICULTURE

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

First Year	S.H.	Second Year	S.H.
Communication 104A, B	8	Chemistry 100A, B or 101A, B	8
General Biology 100A, B	8	Agronomy 200A, B	8
Animal Industry 107A, B	8	Phy. Sci. 100A, B	8
Man & Society 101A, B	8	U. S. Hist. 201A, B	6
Phy. Ed.	1	Phy. Ed.	1
	33		31

### HOMEMAKING

For students who do not plan to get a degree.

A diploma is issued at the completion of this course.

First Year	S.H.	Second Year	S.H.
Biol. Sci. 102 or		Am. Nat'l. Gov't. 230A or	
Healthful Living 112A	2 or 4	St. and Loc. Gov't. 230 B	3
Communications 104A, B	8	Clothing 205	3
Effective Living 145	2	Costume Design 209	2
Elementary Design 105	2 or 3	Everyday Nutrition 222	2
Family Foods 118	2	Home Furnishings 221	2
Textiles 103	3	Home Nursing 223	2
Physical Ed.	1	Human Growth and Dev. 251	3
Electives	9 or 10	Physical Ed.	1
To be selected from history, business education, speech, English, science, and home economics.		Electives	13
	31 or 32	To be selected from sociology, business education, speech, English, and home economics.	
			31

## AIRCRAFT MAINTENANCE TECHNOLOGY

### CAA Approved Mechanics School No. 3304

The Aircraft Maintenance Technology curriculum is intended for students who wish to qualify for the Civil Aeronautics Administration Airframe and Powerplant Mechanics License. Every individual performing maintenance on aircraft must hold a CAA certificate authorizing such work. The importance of this certificate cannot be over-emphasized. The two year curriculum may be applied toward meeting the requirements of the four year Air transportation degree with no loss of credit.

Twenty-five to thirty hours per week in shop work and related subjects are offered in a modern, well equipped, government approved school shop located in the Industrial Technology Building.

Pilot training and Aircraft Servicing is conducted on the Plainwell-Otsego Airport. Facilities here include well equipped shops, complete airplane service, and university owned and licensed aircraft.

#### FIRST YEAR

First Semester	S.H.	Second Semester	S.H.
Introduction to Aviation 110	3	Airframes 103	4
Communications 104A	4	Communications 104B	4
Industrial Processes 100	4	Industrial Processes 101	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or Intermediate Algebra 100A—3			—
Industrial Calculators 106	1		17
	—		
	17		

#### SECOND YEAR

First Semester	S.H.	Second Semester	S.H.
Power Plants 106	4	Airframes 203	4
Aircraft Welding 174	2	Power Plants 206	4
Technical Drafting 270	2	Technical Electricity 274	2
Industrial Relations 279	3	Physical Science 100B	4
Physical Science 100A	4	Physical Education 103B	1
Physical Education 103A	1		—
	—		15
	16		

#### Summer Program S.H.

NOTE: One summer session is required.

Aircraft Servicing 300	4
Pilot Training 214A	2
Pilot Training 214B	4

6 or 8

**AUTOMOTIVE TECHNOLOGY**

The two year Automotive Technology curriculum consists of practical work experience in inspecting, testing, servicing and repairing automobiles, and a study of related technical subjects that will qualify a student to work as a Technician in Automotive and Related industries.

**FIRST YEAR**

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Auto. Engines 155A	4	Auto. chassis and running gear 155B	4
Industrial Processes 100	4	Industrial Processes 101	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or Intermediate Algebra 100A—3	3		
Industrial Calculators 106	1		—
	18		17

**SECOND YEAR**

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Auto. Analysis 255A	4	Auto. Engine Overhaul 255B	4
Industrial Relations 279	3	Technical Electricity 274	2
Technical Drafting 270	2	Physical Education 103B	1
Physical Education 103A	1	Technical Electives	3
Technical Electives	2		—
	16		14

## DRAFTING & DESIGN TECHNOLOGY

This curriculum is designed specifically to prepare men and women for positions in the Industrial Drafting & Design fields of the machine and allied industries. All practical work experience in layout, detailing and design is in accordance with standard practices recommended by the American Society of Mechanical Engineers, the Society of Automotive Engineers and other recognized standardizing agencies. Related technical studies in industrial processes, production control, etc., are included in the program.

### FIRST YEAR

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Trigonometry & College Algebra 103A	5	College Algebra & Analytical Geometry 103B	5
or Intermediate Algebra 100A—3		Industrial Processes 101	4
Industrial Processes 100	4	Machine Drawings & Design 124B	4
Industrial Drafting 124A	4		—
Industrial Calculators 106	1		17
	—		
	18		

### SECOND YEAR

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Physical Education 103A	1	Physical Education 103B	1
Industrial Relations 279	3	Production Control 356	3
Technical Electricity 274	2	Drafting for Production 224B	4
Office Machines 230A	2	Technical Electives	3
Geometry of Drafting 224A	4		—
	—		15
	16		

## INDUSTRIAL ELECTRONICS TECHNOLOGY

This curriculum is offered to students who wish to prepare themselves for gainful employment in industry as electronic technicians. The program includes a study of the generation, transmission, and utilization of electrical energy, with special emphasis on electronic circuits and devices in the operation, control, and instrumentation of industrial equipment, as well as the application of electronics in the field of automation.

### FIRST YEAR

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytical Geometry 103B	5
or Intermediate Algebra 100A—3		Industrial Processes 101	4
Industrial Processes 100	4	Industrial Electronics 146	4
Industrial Calculators 106	1		—
Industrial Electricity 145	4		17
	—		
	18		

### SECOND YEAR

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Physical Education 103A	1	Physical Education 103B	1
Industrial Relations 279	3	Plant Maintenance and Safety 355	2
Technical Drafting 270	2	Electronic Circuits 246	4
Electronic Instrumentation 245	4	Technical Electives	3
Technical Electives	2		—
	—		14
	16		

**MACHINE TOOL TECHNOLOGY**

This curriculum is offered to students who desire a major in the field of industrial machine tool technology. Laboratory experiences and study of technical subjects to achieve competency in machine tool work, manufacturing processes, fabrication, production tooling, and press working of metals are emphasized. The intent of this course is to prepare students for employment of a technical nature in industry.

**FIRST YEAR**

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or Intermediate Algebra 100A—3		Industrial Processes 101	4
Industrial Processes 100	4	Manufacturing Processes 140	4
Industrial Machine Shop 130	4		—
Industrial Calculators 106	1		17
	—		
	18		

**SECOND YEAR**

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Production Tooling 230	4	Pressworking of Metals 260	4
Physical Education 103A	1	Physical Education 103B	1
Industrial Relations 279	3	Technical Electricity 274	2
Technical Drafting 270	2	Tool and Die Design 271	2
Technical Electives	2	Technical Electives	2
	—		—
	16		15

## RADIO AND TELEVISION TECHNOLOGY

This curriculum is designed to provide the student with the wide technical background training that is necessary to enter such fields as radio and television broadcasting, closed circuit television work, industrial radio and television, and home radio and television servicing. Emphasis is placed on the joining of theory and practice in all phases of radio and television to furnish the student with sufficient practical work experience as well as a solid foundation in technical practices and theory.

### FIRST YEAR

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or Intermediate Algebra 100A—3	3	Industrial Processes 101	4
Industrial Processes 100	4	Introductory Television 135B	4
Industrial Calculators 106	1		—
Introductory Radio 135A	4		17
	—		
	18		

### SECOND YEAR

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Physical Education 103A	1	Technical Electricity 274	2
Technical Drafting 270	2	Color Television 235B	4
Industrial Relations 279	3	Technical Electives	3
Advanced Television 235A	4	Physical Education 103B	1
Technical Electives	2		—
	—		14
	16		



## REFRIGERATION &amp; AIR CONDITIONING

This curriculum is offered to students who wish to enter the field of refrigeration and air conditioning in such capacities as sales engineers, field service engineers, laboratory technicians (research, design, testing or development), or manufacturer's technical representatives. The refrigeration phase covers both domestic and commercial systems with emphasis placed on selection of equipment and heat load calculations.

The air conditioning and heating phase covers the cooling, heating, humidifying, de-humidifying, purifying and distribution of air for healthful living. Emphasis is placed on selection of equipment, heat gain and heat loss calculations, cost of operation and comparative tests.

## FIRST YEAR

First Semester	S.H.	Second Semester	S.H.
Communications 104A	4	Communications 104B	4
Domestic Refrigeration 115A	4	Commercial Refrigeration 115B	4
Industrial Processes 100	4	Industrial Processes 101	4
Trigonometry and College Algebra 103A	5	College Algebra and Analytic Geometry 103B	5
or Intermediate Algebra—3			—
Industrial Calculators 106	1		17
	—		
	18		

## SECOND YEAR

First Semester	S.H.	Second Semester	S.H.
Physical Science 100A	4	Physical Science 100B	4
Air Conditioning (cooling) 215A	4	Air Conditioning (heating) 215B	4
Industrial Relations 279	3	Technical Electricity 274	2
Technical Drafting 270	2	Physical Education 103A	1
Physical Education 103A	1	Technical Electives	3
Technical Electives	2		—
	—		14
	16		

## PETROLEUM DISTRIBUTION

This two-year curriculum is designed to prepare students in distribution methods and techniques used by the petroleum industry. Graduates will be prepared to sell, transport and otherwise manage the marketing and distribution of petroleum products to and through bulk plants and terminals to dealers and jobbers and other distributors as well as to industrial and agricultural consumers.

The curriculum includes field trips to petroleum processing plants and transportation facilities. Industry representatives will assist the instructor in areas of technical knowledge with lectures, visual aids and working models. The primary areas of emphasis will be marketing, sales and business management as well as courses in petroleum distribution. Courses in communication, economics and psychology are offered for their general educational value.

The petroleum curriculum is a two-year cooperative work-study program which combines school and work, on an alternating basis. The student attends classes part-time and works on an assigned job part-time. The students are assigned in pairs to cover one job or work area. When one student is attending classes, the other is at work on the job.

First Year	S.H.	Second Year	S.H.
Communication 104A & B	8	Marketing 222	3
Introd. to Petrol. Ind. 105	2	Accounting 210A, B	6
Introd. to Coord. Work Exp. 100	1	Economics 220A, B	6
Plant Survey 110	2	Coord. Marketing Pract. 201, 202	4
Petrol. Chemistry	3	Petrol. Physics	3
Coord. Ind. Pract. 101, 102, & 103	6	Petrol. Dist. & Handling Techniques	2
Petrol. Prod. Appl. 120	2	Electives	6
Electives	6		—
	30		30

### Recommended Electives

	S.H.		S.H.
Salesmanship 150	3	Psych. Aspects of Business 210	3
Small Bus. Mgt. 237	3	Bus. & Prof. Speech 108	3
Bus. Math. 120	3	Advertising 342	3

## PART III — *Description of Courses*

### INTER-DEPARTMENTAL COURSES

#### 426 Textile Fiber Clinic

2 hrs. Summer

A workshop type program. Specialist and visual aids will present the newest information on Textiles. To be followed by a study of methods implementing the new learnings.

#### 470 Principles of Practical Arts and Vocational Education

2 hrs. Summer, Fall

The place and function of the practical arts and vocational education in the modern school; fundamental principles upon which this work is based. For teachers of agriculture, business, home economics, industrial subjects, and administrators.

### AGRICULTURE

Howard D. Corbus

Lee O. Baker

The Department of Agriculture recognizes the following responsibilities:

1. To provide opportunities for any student to learn more about the important part agriculture holds in the economy of the Nation.
2. To provide basic training for workers in services sponsored by government or farmer group organizations.
3. To prepare teachers of agriculture for our public secondary schools and to provide basic courses in agriculture for all teachers.  
*Rural School Agriculture*, 105, is especially recommended for elementary teachers in rural communities.
4. To provide basic training for students planning to enter employment in the operation of farm services.
5. To provide technical information in the production of farm products needed by those living on farms and depending on sales of farm products for financial support.

Students majoring in Agriculture may complete the B.S. degree at Western or arrange to transfer to Michigan State University's College of Agriculture at the end of the sophomore year without loss of credit. Students planning to transfer should follow the program outlined on page 70 of this publication.

A Minor in Agriculture shall consist of the following:

Animal Industry — 107A, B — 8 S.H.

Agronomy — 200A, B — 8 S.H.

Agriculture Shop — 264A — 2 or 3 S.H.

A major shall consist of 30 semester hours in the field of Agriculture including the courses outlined above for the Minor. These courses will be

selected with the approval of the advisor. Students who complete either a Major or Minor and who qualify for the secondary certificate may teach basic agriculture in Michigan Schools.

**105 Rural School Agriculture 3 hrs. Fall**

A course designed to present to prospective rural school teachers as much information and materials as time permits concerning the environment surrounding representative rural schools. Consideration is given to the amounts and sources of cash used to support family and school costs in farming areas.

**106 Introduction to Agriculture 2 hrs. Fall**

An introduction to the national institution of farming, where it operates, the rewards and compensations, the main problems, and opportunities present which may support acceptable living standards for families living on farms and also for those investing capital in the business of farming.

**107A Animal Industry 4 hrs. Fall**

A study of Animal Husbandry, Dairying and Poultry Husbandry. The genetic developments of breeds, positions in farm organization, disease and management problems.

**107B Animal Industry 4 hrs. Spring**

A continuation of 107A.

**200A Agronomy 4 hrs. Fall**

This course includes subject materials common for all farm-grown products, their relations to soil conditions, climate and other problems in connection with successful and profitable production.

**200B Agronomy 4 hrs. Spring**

A continuation of 200A.

**202 Horticulture 3 hrs. Spring**

Organized to present more fully the opportunities for financing a farm family, using horticultural products as the sources of income. Handicaps, specific problems, marketing and approved practices are studied.

**264A Agricultural Shop 2 or 3 hrs. Fall**

This course is planned to familiarize students who expect to teach agriculture with basic tool operations while actually performing common jobs on farm and home grounds. See Industrial Arts 264A, B.

**264B Agricultural Shop 2 or 3 hrs. Spring**

A continuation of 264A. A study of electrical and gas power uses on a farm; also, work in plumbing and machine operation and repair.

**300 Farm Management 3 hrs. Spring**

This part of farm organization has been divided from the Farm Crops course in order to examine more fully the records of the University Farm enterprises that are now part of a farm income.

**301 Land Use and Soil Conservation****3 hrs. Fall**

This course is aimed at establishing an understanding of the movement promoting better use of the various types of land, and the recommended practices for conserving the productivities of these lands.

**302 Soils and Fertilizers****3 hrs. Spring**

It is planned to provide basic information in the field of soil origin, composition, classification, fertility requirements and production management, including testing for soil deficiencies and recommended correction practices.

**303 Farm Markets and Financing****3 hrs. Fall**

This course will deal with more specific organized marketing facilities for farm products, using the existing facilities in Southwest Michigan, covering grains, fruits, livestock and vegetable markets. How farming enterprises are financed and their relations to local sources of credit is included.

**304 Landscape Gardening****3 hrs. Spring**

The great increase in home building in both rural and urban areas has made it advisable to offer more specific information in home grounds planting objectives and systems of home site beautification. Opportunity to become acquainted with nursery offerings in trees, shrubs and perennials is included.

**305 Feeding and Animal Nutrition****3 hrs. Fall**

Recent advances in feeding discoveries, new systems and economy practices will be studied. This material will be more extensive and detailed study than was possible in the previous courses in animal feeding.

**306 Farm Operations****1 hr. Fall, Spring**

This course provides actual farm operation experiences for students to learn the every-day operations of a farm, which are required of typical farm operators. The University Farm provides these facilities. Special schedules will be arranged to meet each student's particular situation.

**310 Organization in Agriculture****1 hr. Spring**

This is a specialized course in which the wide variety of farm organizations are studied so that the purpose, personnel, and influence of the organizations can be better observed.

**410 Agriculture in Michigan****2 hrs. Spring**

This course includes a survey of Michigan agriculture production, the areas, volume and types of production and the marketing systems in operation. The place of Michigan agriculture in national and international production is included. There will also be a survey of the different types of education in Agriculture at the various grade levels in Michigan.

## DISTRIBUTIVE EDUCATION

Adrian Trimpe, Head      Wendall B. Fidler      Raymond A. Dannenberg

The department provides a variety of educational programs and services for individuals who are interested in the field of distribution in schools and businesses.

### Two-Year Technical

At present, the department has a two-year technical program in Petroleum Distribution. This program is jointly sponsored with the oil companies and related industries. It combines school and work experience for the students.

### Degree Program

Western Michigan University is approved by the State Board of Control for Vocational Education for the preparation of Coordinators and Related Subjects Teachers for Cooperative Occupational Education programs in the secondary schools. The department provides a four-year program of study which leads to a bachelor's degree. Under this program, young men or women may prepare themselves as teacher-coordinators in any of the following fields: distributive, office, trade and industrial or diversified occupations.

### Services

The department provides secondary schools having cooperative occupational programs with consultative services and has available related instructional materials for classroom use.

The department also assists schools and businesses in planning and conducting Adult Education Programs, Workshops, Conferences and Institutes.

### 100 Introduction to Coordinated Work Experience      1 hr. Summer

For all first year students in distribution curriculum. Orientation lectures, principles and practices of industrial hygiene and safety. How to apply for a job. Motion pictures and lectures are included in the course.

### 101 Coordinated Industry Practices      2 hrs. Summer, Fall, Spring

The student will be employed as a trainee in a service station for ten weeks under the supervision of the university and the oil company. Written assignments will be required of each student.

### 102 Coordinated Industry Practices      2 hrs. Summer, Fall, Spring

Consists of ten weeks of employment in the petroleum industry as a paid employee. A comprehensive report of employment experiences must be made following the completion of the work period.

### 103 Coordinated Industry Practices      2 hrs. Fall, Spring

A continuation of 102, but the student will be assigned to a different type of work experience.

**105 Introduction to the Petroleum Industry 2 hrs. Summer**

The importance of the oil industry to all American industry is considered. The economic problems concerned with the distribution of petroleum products are studied. The course also considers the historical and geological aspects of petroleum.

**110 Plant Survey 2 hrs. Summer, Post Session**

Inspection trips are made to representative businesses and industrial establishments to observe petroleum installation, such functions as production, transportation, storage, research and marketing. Company representatives will lecture to the class on the phases listed. Written reports are to be made on each visit.

**120 Petroleum Products Application 2 hrs. Fall**

Course deals with the various uses of the many categories of petroleum products as they are applied to the manufacturing, agriculture, transportation, and other industries, as well as for the individual home owner.

**201 Coordinated Marketing Practices 2 hrs. Fall, Spring**

Consists of ten weeks of employment in the marketing or sales departments of business and industrial establishment. Comprehensive report must be made upon completion of the work period.

**202 Coordinated Marketing Practices 2 hrs. Fall, Spring**

A continuation of 201. The student is assigned to a different job experience. Report of work will be required.

**210 Petroleum Distribution and Handling Techniques 2 hrs.**

Deals with marketing and distribution problems peculiar to the petroleum industry. Channels of distribution and the functions of each handling the marketing of various petroleum products. Prerequisite: Marketing 222. Not offered in 1957-58.

**410 Organization and Operation of Distributive Education 2 hrs. Fall**

Deals with the organization and operation of distributive education in relation to the total educational program. It is concerned with preparatory, cooperative and adult programs. Consideration is given to advisory committees and local, state and federal relationships.

**420 Teaching Techniques in Distributive Education**

This course deals with the methods and techniques used in teaching the related subjects to students on cooperative work-study programs. Special emphasis will be given to graduate and individual methods of instruction.

**430 Coordination Techniques in Distributive Education 2 hrs. Spring**

This is a study of the duties and responsibilities of the coordinator. The organization and establishment of training programs, supervision of trainees on the job, development of individual training programs, establishing working relationships between the school, business, and home; and participation in extra-curricula activities in the community. Especially adapted to prospective coordinators.

**510 Job Supervisory Training****2 hrs. Spring**

This course provides for mastery of the techniques and skills used in supervision of employees. It deals with conference leading, how to train, how to develop the skills of leadership and the corrective interview. This training is useful for vocational teachers and those preparing for supervisory positions.

**HOME ECONOMICS**

Eunice E. Herald, Head  
Rachel Acree

Gladys Rowe  
Opal Stamm

Betty Taylor  
Reva Volle

Western Michigan University prepares students to qualify as teachers of vocational Home Economics in Michigan under the provisions of State and Federal legislation in vocational education. Courses are planned in the Department for a major or a minor in home economics. Provision is also made for meeting the requirements for a vocational certificate in Michigan. Only persons holding this certificate can teach in the vocational home economics departments in Michigan public schools.

Home Economics at the undergraduate level has for its primary objectives helping the individual student to achieve a rich and satisfying home, family and community life. It is concerned with the person and group values that are desirable outcomes of successful living. It deals with the social, economic, esthetic, managerial, health, and ethical aspects of family relations, child development, foods, clothing, and housing. Home Economics is an education for personal development, for family and community living, and for several areas of professional specialization.

The Home Economics Department offers four-year programs leading to a B.S. degree for teachers, dietitians, and Home Economics for business personnel as well as a two-year program in Home Economics for those not desiring a degree. The three latter programs are outlined in this publication on pages 59 and 60, respectively. 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.

Home Economics Majors are required to complete Chemistry 105A, B and Biology 102 as part of the Basic Studies Program. American Government 334, or State and Local Government 230B, Sociology 241 and Economics 220A are required in the Social Science area in addition to the Basic Studies courses in this area.

Students who plan to teach Home Economics in Michigan schools must complete Home Economics Education 300A, B, and Education Courses 351, 370A, B, C, in order to be eligible for a provisional certificate.



Home Economics Major		Home Economics Major with Minor in Clothing	
Elementary Design 105	2		
Effective Living 145	2	Family Clothing 305	2
Foods 111	3	Home Management 322	2
Textiles 103	3	Home Management Pract. 324	3
Meal Planning 311	3	Advanced Textiles 303	2
Quantity Foods 312	2	Clothing 306	2
Clothing 205	3	Tailoring 304	3
Costume Design 209	2	Marriage & Family Relations 325	2
Home Furnishings 221	2		—
Home Nursing 223	2		16
Human Growth 251	3		
Nutrition 211	3		
	—		
	30		

Home Economics Major with Minor in Food

Family Clothing 305	2
Food Demonstration 318	2
Home Management 322	2
Home Management Pract. 324	3
Institutional Mgt. 423	3
Marriage & Family Relations 325	2
Experimental Foods 419 or	
Adv. Nutrition 416	2 or 3
	—
	16 or 17

The following courses are open to students from other curricula who wish a minor of 15 hours in Home Economics or use course work for elective credit: 103, 118, 120, 142, 203, 209, 221, 222, 223, 322, 400, 421, 422 and 439. Students may enter other courses if pre-requisites are met.

## CLOTHING AND TEXTILES

**103 Textiles** 3 hrs. Fall, Spring

A basic course. Textiles is taught from the consumer point of view. Some testing of fabrics is required.

**105 Elementary Design** 2 or 3 hrs. Fall, Spring

A fundamental course in art, developing design and color theory through problems of various media.

**203 Clothing** 2 hrs. Fall, Spring

Gives experience in using commercial patterns and learning elementary construction techniques. Elective non-majors.

**205 Clothing 3 hrs. Fall, Spring**

Consists of making garments to develop a knowledge of construction techniques. Includes problems in pattern alteration. Prerequisite: 103.

**209 Costume Design 2 hrs. Fall**

This course is intended to develop more discriminating judgment in the selection of appropriate clothes for individuals. Prerequisite: 105.

**303 Advanced Textiles 2 hrs.**

The study of the composition, construction, finishing, and care of textiles. Prerequisite: One clothing course, 103.

**304 Tailoring 3 hrs. Spring**

This course is planned to give experience in tailoring techniques, with emphasis on the making of coats and suits. Prerequisite: 205 or consent of instructor.

**305 Family Clothing 2 hrs. Fall**

Course is flexible in content to meet the needs of advanced students and those planning to teach. Includes study of clothing budgeting, alteration of garments and construction of a child's garment. Prerequisites: 205, 209.

**306 Clothing 2 hrs. Fall, Spring**

Master pattern is draped in muslin on a dress form padded to the size of the individual. Experience is given in drafting a sleeve and flat pattern making. Study is made of principles and techniques of fitting. Prerequisites: 205, 209, 305 or consent of instructor.

## **FOODS AND NUTRITION**

**111 Foods 3 hrs. Fall, Spring**

Gives a knowledge of basic principles underlying preparation of food. Laboratory experience in the preparation of all classes of food. Prerequisite or concurrent: Chemistry 105A, B.

**118 Family Foods 2 hrs. Fall, Spring**

Emphasis on foods purchasing, menu planning, preparation and service of meals for the family. An elementary course for non-majors.

**211 Nutrition 3 hrs. Fall**

A study of the essential nutrients and their function in the human body. Prerequisite: Chemistry 105A, B, and 111.

**219 Nutrition 2 hrs. Fall**

Principles of good nutrition for the individual, family groups, and community. Laboratory experience is given in the basic principles of cooking. For first semester nurses.

**222 Everyday Nutrition** 2 hrs. Fall, Spring

This course includes problems related to signs of good and poor nutrition, for growing children and adults. A course for non-majors.

**311 Meal Planning and Food Preservation** 2 hrs. Fall, Spring

Marketing, meal preparation and table service. Emphasis on food preservation.

**312 Quantity Foods** 2 or 3 hrs. Spring

Quantity food preparation in a college residence hall kitchen and the school lunchroom at the high school on the campus. Prerequisites: 111, 311.

**317 Diet and Disease** 2 hrs. Spring

Study of dietetic treatment of impaired digestive and metabolic condition. Planning of diets and reports of current research. Prerequisites: Organic Chemistry 306A, Physiology 211B.

**318 Food Demonstration** 2 hrs. Spring

Principles and techniques are acquired through observation and participation of students in food preparation. Especially helpful for students who plan to teach or enter the commercial field. Prerequisite: 311.

**416 Advanced Nutrition** 3 hrs.

Study of recent developments in nutrition through readings and experiments. Prerequisite: 211. (Not offered in 1957-58)

**419 Experimental Foods** 2 hrs. Spring

Application of principles affecting food preparation. Development of experimental techniques. Prerequisite: Chemistry 105A, B; 111, 311.

**423 Institutional Management** 3 hrs.

Study of institutional administration, job analysis, labor policies, personal problems, and cost control in different types of food-service institutions. Prerequisites: 311, 312.

**425 Food Technology** 2 hrs. Spring

Food preparation with special emphasis on individual problems related to school food teaching units. Study of commercial food preparation. Prerequisites: 311.

**439 Consumer Buying** 2 hrs.

Study of marketing problems and consumer credit. Students work on individual problems which concern the techniques of buying a specific type of consumer goods. Prerequisite: Consent of Instructor. (Not offered 1957-58)

## **HOME MANAGEMENT, CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS**

### **120 Personal and Social Problems 2 hrs. Fall, Spring**

Social usage and personality development are considered. Elective non-majors by Freshmen and Sophomores.

### **142 Consumer Problems 3 hrs. Spring**

Analysis is made of consumer problems pertaining to buying specific types of commodities such as food, clothing, shelter, equipment and furnishings for the home, health, and recreation. Some consideration of agencies and laws affecting consumers considered. Non-major elective.

### **145 Effective Living 2 hrs. Fall, Spring**

An orientation course required of all freshmen in home economics. Personal problems in adjustment studied. Planning for marriage and the home of the future included. Freshmen in other departments welcome.

### **221 Home Furnishings 2 hrs. Fall, Spring**

Room arrangement, furniture, and furnishings are studied. Models of room arrangement are made. Prerequisite: An art course. Elective.

### **223 Home Nursing 2 hrs. Fall, Spring**

The health of the family and simple procedures for the care of patients in the home are stressed. Consideration is given to community resources for the protection and care of health problems relating to home and school. Elective.

### **224 Personality Development 3 hrs. Spring**

This course is designed for students in the Airline Hostess Curriculum. Problems will be adapted to the needs and interests of these students.

### **251 Human Growth and Development 3 hrs. Spring**

This course involves study of the physical, social, emotional, and intellectual growth and development of children and adolescents.

### **322 Home Management 2 hrs. Fall**

The study of the use of time, energy, money, and resources to achieve family goals. Prerequisite: A course in economics.

### **324 Home Management Practice 3 hrs. Fall, Spring**

Students live in family size groups. They learn to manage on two economic levels. Prerequisite: 322.

### **325 Marriage and Family Relationship 2 hrs. Fall, Spring**

A study of the contributions and problems of the family in modern society. Preparation for marriage, including consideration of marital and personality adjustments in family living. Prerequisite: Psychology 200 or Sociology 241. Elective.

**421 The Homemaking Center and Equipment****2 hrs. Spring**

Consideration of fundamentals in planning living space in terms of the family's need with especial emphasis on built-ins and furnishings, fabric and color will be studied. Selected problems to be chosen by the individual. Prerequisite: 221 or consent of instructor.

**422 Housing****2 hrs. Summer**

A study of economic and social aspects of housing. Single, duplex, and multiple housing problems are considered. Prerequisite: 221 or consent of instructor.

**HOME ECONOMICS EDUCATION****300A Special Methods****2 hrs. Fall**

Course designed to acquaint students with the teaching field in home economics. Includes basic philosophy of home economics education, observations, unit planning, effective teaching materials as a basis for special methods and student teaching.

**300B Special Methods****3 hrs. Spring**

Planning local programs of homemaking education in high school equipment and the organization of homemaking department, developing the home experience programs, and methods of teaching for junior and senior high schools and adult homemaking classes. Prerequisite: 300A.

**400 Family Living in the Schools****2 hrs. Spring**

Problems of organizing materials in Family Living for the purpose of teaching classes and working with groups in the school program. Prerequisite: Soc. 241.

**INDUSTRIAL ARTS**

John L. Feirer, Head

Lindsay G. Farnan

Charles S. Nichols

John Bendix

Fred S. Huff

Don O. Pullin

Lawrence J. Brink

Gilbert Hutchings

Theo. C. Zimmerman

Waldemar E. Klammer

**INDUSTRIAL ARTS COURSES**

The Department offers shop and professional courses for teachers and supervisors of industrial arts.

A student who plans to qualify as an industrial arts teacher in both the general and unit shops must take a minimum of 40 hours of technical work. All students will be required to take the following courses: Woods 100 and 305A, Metals 130, and Machine Shop 234A, Printing 140, Drawing 120 and 226, Electricity 150 and 350, Introduction to Industrial Arts 160, Industrial Design 266, and three professional courses in Industrial Arts during the junior and senior years.

A group minor consists of the following courses: 100, 305A, 120, 226, 130, 234A, 150, 350, plus the professional course Teaching of Industrial Arts. A student may also take a 15 hour minor in any course sequence such as wools, metals, drawing, or printing plus the professional course Teaching of Industrial Arts.

## **WOODWORK**

### **100 Woods 2 hrs. Fall, Spring**

A survey in the field of woodwork. It provides experience in the care, purchasing, and use of hand woodworking tools. Related information about production and consumption of wood products will be covered. In addition caning, wood classification and elementary wood finishing will be covered.

### **104 Rural Practical Arts 2 hrs. Fall, Spring**

A special course in general shop with emphasis on woodworking activities designed for prospective rural school teachers. This course is limited to students enrolled in the rural life and education department.

### **106 Advanced Hand Woodworking 3 hrs. Fall**

This course gives students the practice in advanced hand bench processes and in wood turning. The course will include the care and use of tools, grinding and sharpening, finishing, and turning techniques. Prerequisite: 100.

### **305A Machine Woodwork 3 hrs. Fall, Spring**

An introductory course on the use of machine woodworking equipment. The student will receive experience in setting-up, operating, and caring for the more commonly used machines such as circular saw, jointer, shaper, planer, etc. Parts for selected projects will be machined. Prerequisite: 100.

### **305B General Woodwork 3 hrs. Spring**

This course provides experience in several areas of woodwork: namely, wood turning, caning, upholstery, inlaying, wood carving, and pattern making. Prerequisite: 100 and 205A.

### **307 Finishing 3 hrs. Spring**

A course in the plans and methods in modern wood finishing. All types of finishing will be studied. Related information on color theory, mixing, and the application of finishes to various surfaces will be included.

### **308 O.T. Special Education Shop 3 hrs. Fall, Spring**

A basic course in shop fundamentals, including the use of hand tools, construction design, fastening devices, and finishing. This course is limited to students enrolled in occupational therapy.

### **407 Furniture Construction 3 hrs. Spring**

A course covering the design and construction of fine furniture. Each student will be required to design and carry to completion a finished piece of furniture.

**DRAWING****120 Drawing** 2 hrs. Fall, Spring

A survey course in the field of general drafting. The student will have an opportunity to explore all types of drawing, including machine, free hand, architectural, and others.

**121 Drawing** 2 hrs. Fall, Spring

A beginning course in the fundamentals of drafting for students in pre-professional and general degree courses.

**221 Mechanical Drawing** 3 hrs. Fall, Spring

Special attention is given to orthographic projection, detailing assemblies, and other fundamentals of drafting. This course is the equivalent of Drawing I of the School of Engineering, University of Michigan, and satisfies the requirements of engineering students.

**222 Descriptive Geometry** 3 hrs. Fall, Spring

Instruction and exercises are given in combinations of the point, line, and plane, intersections, developments, tangent planes, and warped surfaces. This course is the equivalent of Drawing II of the School of Engineering, University of Michigan. Not offered in summer.

**226 Mechanical Drawing** 3 hrs. Spring

A continuation of principles emphasized in Drawing 120. Basic elements of machine design are studied together with project drawing and illustration. Emphasis is placed on modern drafting room practice including reproduction of tracings and intermediates. Prerequisite: 120 or equivalent.

**227 Mechanical Drawing** 2 hrs. Fall, Spring

More advanced problems in mechanical drawing, detailing, design, theory application, ranging from simple geometrical problems through surface development, cams, gears, and some architectural drawing. Special emphasis on review of the fundamentals of drawing and discussion problems.

**325A Architecture** 2 hrs. Fall, Spring

Architectural details, plans, elevations, rendering, tracing, and blue-printing, and estimating of simple one- and two-story buildings. Outside reading for architectural appreciation.

**325B Architecture** 2 hrs. Fall, Spring

Plans, elevations, details, mechanical perspective, rendering, tracing, and prints of a modern house. Emphasis placed on styles of architecture and architectural appreciation.

**METAL WORK****130 General Metals** 3 hrs. Fall, Spring

An introductory course to the hand tool processes and the related information in the areas of wrought iron, cast metals, sheet metal, and art metals.

**234A Machine Shop 3 hrs. Fall, Spring**

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 hrs. Spring**

An advanced course dealing with foundry practices and with machine tool operation in the casting, the finish machining, and the fabrication of machine parts. Prerequisite: General Metals 130 and Machine Shop 234A.

**235 Sheetmetal 2 hrs. Spring**

An introduction to the application of hand and machine processes. Cutting, forming, seaming, burring, crimping, notching, and wiring as applied to the making of sheetmetal projects.

**236 Metal Fabrication 2 hrs. Fall**

A course in gas and arc welding for beginners. Safety precaution, care and operation of welding equipment, selection of welding rod, methods of welding will be stressed.

**338 Advanced Metals 3 hrs. Spring**

Hand tool and machine processes in fabricating projects that provide a variety of metal working experiences suited to junior and senior high school industrial arts classes. Includes foundry practice, metal spinning, electroplating, and welding processes.

**PRINTING AND GRAPHIC ARTS****140A Survey of Graphic Arts 2 hrs. Fall, Spring**

An introductory course in the field of graphic arts in which the student will have an opportunity to become familiar with the large area of graphic arts. Work is undertaken in hand composition, presswork, bindery, block cutting, mimeographing, silk screen, etc.

**140B Graphic Arts 2 hrs. Spring**

A continuation of 140A. Additional and more advanced work is offered in the graphic arts.

**141 Presswork 2 hrs. Fall, Spring**

This is a beginning course in presswork, which includes simple lockup, make-ready, and feeding.

**144 OT Printing 3 hrs. Fall, Spring**

This course is intended to acquaint students with the various tools and equipment of the print shop, and to acquaint them with fundamentals of planning type composition. Limited to students enrolled in the Occupational Therapy department.

**240A Typography I 3 hrs. Fall**

Work in the arrangement and use of various type faces in typical printed jobs and in advertisements.



**240B Typography II****3 hrs. Spring**

A continuation of 240A with the emphasis on the more complicated kinds of composition.

**241 Imposition and Lockup****2 hrs. Fall**

The imposition and lockup of type forms for various kinds of presses and from the simple to large multiple page forms is studied in this course.

**242 Estimating and Production Control****2 hrs.**

A study of the methods used in estimating the price of printed matter and in the final pricing of that matter after production. Production control as applied to the printing business is the second phase of the course.

**243 Layout and Design****3 hrs.**

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 design. Principles of balance, art, color, copy-fitting, etc., as applied to such jobs will be studied.

**245A Linotype Composition****3 hrs. Fall**

This course deals primarily with the operation of the linotype keyboard. Straight composition is emphasized. Consult instructor before enrolling.

**245B Linotype Composition****3 hrs. Spring**

This course considers the problems of job, advertisement, and newspaper composition. Consult instructor before enrolling.

**246A Printing Machinery Maintenance****2 hrs.**

This course is designed to acquaint the student with the problems of care and maintenance of printing machinery including the linotype. Simple adjustments are made on the various machines.

**246B Printing Machinery Maintenance****2 hrs.**

This course gives the student practical experience in caring for machinery in actual operation.

**341 Advanced Presswork****2 hrs. Fall**

This course is a continuation of 241. Practical presswork and make-ready of various kinds of type forms for both cylinder and jobbers is undertaken.

**345 Bindery Operations****2 hrs. Spring**

Bindery and finishing operations are studied. Work in book-binding, folding machines, stitching, plastic binding, punching, perforating, etc. is taken up.

**ELECTRICAL****150 Introductory Electricity** 2 hrs. Fall, Spring

A survey course in the field of electricity. Special attention will be given to elementary wiring, construction of school shop electrical projects, and a general introduction into the field of electronics and electrical appliances.

**350 Advanced Electricity** 3 hrs. Fall, Spring

A study of the principles of electricity and their practical application. Work experiences in electric motors, transformers, heating devices and batteries are supplemented by a usable technical background. Techniques and practice of electric wiring are included. Prerequisite: Shop Mathematics.

**410 Problems in Electricity** 2-4 hrs.

Special problems in the technical and social phases of electricity which arise in the planning of courses, shops, and equipment for instruction in this field.

**GENERAL SHOP****160 Introduction to Industrial Arts** 1 hr. Fall, Spring

The purpose of this course is to provide initial experiences in the industrial arts area. This course will include individual experiences in laboratory and classroom.

**164 Industrial Arts for Elementary Teachers** 3 hrs. Fall, Spring

This course is planned for prospective elementary school teachers and will include a study of Industrial Arts for grades one through six. Construction techniques in the fields of woods, metals, leather, and plastics will be included. An understanding of our industrial life in our modern society will be emphasized. Special Education students may take this course for four semester hours of credit.

**167 O.T. General Shop** 3 hrs. Fall, Spring

A course designed exclusively for individuals training for occupational therapy. This course will cover the fundamentals of drawing, sketching, plastics, cold metals, copper work, and elementary electricity.

**190 Power Mechanics** 2 hrs.

A study of basic power machines with principal emphasis on the two and four cycle small engines used in power mowers, outboard motors, etc.

**261A Art Metal** 2 hrs. Spring

An introductory course in the study of art metal. Methods of layout, cutting, forming, and assembly will be stressed. Practical application in the form of finished projects of an artistic nature will be emphasized.

**262B Jewelry** 2 hrs. Spring

A beginning course dealing with the design and construction of items of jewelry and enameling.

**263A Related Arts and Crafts 3 hrs. Fall, Spring**

A general course in arts and crafts including work in thin metals, plastics, leather, elementary wood, and other related craft activities. Extension only.

**263B Related Arts and Crafts 3 hrs. (Extension only)**

Advanced work in arts and crafts including advanced art metal, plastics, and other crafts not previously included.

**264A Building Construction 2 hrs. Fall**

Experience in cement work, metal work, electrical work, glazing and other areas related to their application in home building. This work is to help meet the requirements for certification as a farm shop teacher.

**264B Building Construction 2 hrs. Spring**

A continuation of 264A, with the addition of special problems related to home building and construction.

**265A Transportation 3 hrs. Fall**

A survey course dealing with the design, use, and function of all types of power-driven equipment. The emphasis in this course will be placed on power mowers, outboard motors, and automobiles.

**265B Transportation 3 hrs. Spring**

Advanced work in automobile maintenance and servicing. Special emphasis will be given to the study of testing equipment used in auto mechanics.

**266 Industrial Arts Design 2 hrs. Fall, Spring**

A study of modern industrial design and its application to industrial arts projects. Development of suitable and well designed articles for school shop practice.

**267 Leather, Plastics, and Archery 2 hrs. Spring**

A course for prospective Industrial Arts teachers in the major crafts of leather, plastics, and archery. Students will have an opportunity to construct projects and do activities suitable to leisure time work.

**370 General Shop 3 hrs.**

A comprehensive course covering a variety of media used in the industrial arts field with introductory laboratory experience. This course is planned for students who will teach in a general shop organization. General shop planning, methods, and organization of the shop are included.

**415 Arts and Crafts Techniques 2-4 hrs.**

Advanced laboratory experiences in the fields of internal plastic carving, leather work, model work, archery, photography, and related crafts in conjunction with a study of current technical literature in these areas. Written reports will be required. Course content will be adapted to individual needs. Not offered in 1956-1957.

**463 Arts and Crafts for Teachers****3 hrs. Spring**

This course will cover craft techniques in the areas of art metal, jewelry, leather, plastics, wood crafts, and other related experiences. Teaching procedures, methods, and materials will be emphasized.

**PROFESSIONAL COURSES IN INDUSTRIAL ARTS****347 Plan and Organization of a School Shop****3 hrs. Fall, Spring**

This is a course to help teachers plan and organize the school shop. Topics concerned include physical needs of the subject, selection of activities, shop layout, purchasing equipment, establishing a supply routine, planning personnel organization, and shop management.

**348 Teaching of Industrial Arts****3 hrs. Fall, Spring**

This course deals with the problems in teaching industrial arts subjects, the techniques employed in the analysis of instructional units, construction of tests and rating scales, and problems dealing with administration and work. The principal methods of instruction used in industrial-arts subjects will be emphasized.

**450 The General Shop Program****2 hrs. Spring**

A review of the current philosophies concerning the place of the general shop in general education. The historical development of the general shop program will also be surveyed. Problems of organization, administration, methods, articulation, equipment and supplies will be investigated.

**464 Industrial Arts for the Elementary School****2 hrs. Fall**

Deals with the problems of organizing and teaching Industrial Arts for the elementary grades. Course materials, techniques, and materials in the industrial and craft areas will be stressed.

**INDUSTRIAL TECHNOLOGY**

Andrew C. Luff,  
Acting Head  
Henry J. Beukema  
Donald Black  
Elmer Brune

Herbert E. Ellinger  
Don W. Nantz  
Robert Ring  
William Schreiber  
Frank Scott

Clarence VanDeventer  
William Weeks  
William Wichers  
Glade Wilcox

The various programs offered by the Department of Industrial Technology serve a two-fold purpose, namely:

1. To train teachers who will be qualified to teach trade and industrial subjects.
2. To provide opportunities for students interested in preparing for a specific industrial occupation.

Some of the programs are four years in length and lead to a Bachelor of Science degree. Others are of two years' duration and lead to a certificate of occupational competency. The two-year technical programs are particularly significant since they offer unusual opportunities to youth who are

not interested in acquiring a college degree. The various technical programs permit concentration in some definite industrial area to the extent that individuals will be readily employable upon completion of the course. In general, these programs provide training for such jobs as servicemen, trouble diagnosticians, industrial and plant supervisors, inspectors, laboratory technicians, estimators, testers of equipment, engineering products salesmen and quality control technicians.

A major may be secured only upon the approval of the departmental advisor. A minor will consist of 16 to 20 hours depending upon the area of specialization. In general, a technical minor will be as outlined in the technical core program. Industrial Processes, 100 and 101, are considered prerequisites to any sequence of courses.

#### Technical Core:—16 hours

Industrial Relations—279	8
Technical Electricity—274	2
Technical Drawing—270	2
Industrial Processes—100 and 101	8
Industrial Calculators—106	1

Western Michigan University has been approved by the State Board for Control of Vocational Education to prepare vocational industrial teachers for the secondary schools. It is necessary for vocational shop teachers to secure four years of trade experience in order to qualify for the vocational certificate. This requirement may be partially met by securing employment in local industries while completing the college work. In addition, a Major in Industrial Technology and a Minor in Industrial Arts will be required. The Major will consist of the 16 semester hour technical core outlined above and Industrial Technology courses 150, 152, 200, 250, 252 and 452. In order to secure the secondary provisional certificate, students will be required to complete the courses required by the School of Education for this certificate.

## AVIATION

### 103 Airframes 4hrs. Fall, Spring

A course designed to provide essential information and teach specialized skills pertinent to the maintenance of fabric and metal covered aircraft, plastic components, wood components, and electrical systems.

### 106 Power Plants 4 hrs. Fall, Spring

This course is designed to teach manual skills and present the basic theory involved in aircraft engines. It provides for practical experience in working with all components of reciprocating engines such as electrical systems, ignition systems, carburetion, lubrication, propellers, etc. Theory and operation of jet engines is included in this course.

### 110 Introduction to Aviation 3 hrs. Fall, Spring

An introductory course covering basic principles and terminology of airframes, power plants, jet engines, theory of flight, and Civil aeronautics publications.

**203 Airframes****4 hrs. Fall, Spring**

This course deals with the repair and servicing of hydraulic units, brakes, instruments, radio, and all aircraft alteration and maintenance work as prescribed by C.A.A. requirements, including periodic inspections.

**206 Powerplants****4 hrs. Fall, Spring**

This is a course designed to provide practical experience and theory in overhauling, servicing, inspection, installation, and testing aircraft powerplants. This course includes all components of an aircraft engine including propellers and some experience in jet engines.

**207 The Airline Hostess****2 hrs. Spring**

A general orientation course to familiarize students with the duties and working conditions of the airline hostess.

**214A Pilot Training & Flight Training****2 hrs. Fall, Spring, Summer**

This unit provides a minimum of 40 hours flight instruction and ground school theory to qualify a student for a private pilot's license.

**214B Commercial Pilot Program****4 hrs. Fall, Spring, Summer**

This unit is planned for students who have a private pilot's license and a minimum of 150 hours of flying time. The ground school aspect of this unit is intensive and will prepare the student for his CAA written examination.

**300 Aircraft Servicing****4 hrs. 8 weeks summer**

The primary objective of this course is to provide the student with an opportunity to conduct periodic inspections, routine and preventive maintenance, minor repairs, and flying aircraft and a complete review of all regulations and CAA publications. The student will also have the opportunity to learn servicing of aircraft and the management of a small airport.

**304 Passenger and Freight Traffic****3 hrs. Fall**

Students will be given an opportunity to study the problems connected with the generation and handling of both passenger and freight traffic as primary concerns of the motor bus and motor truck lines and the scheduled airline services.

**305 Airline Operation****2 hrs. Spring**

The operational phase of air transportation in which the student can study dispatching, equipment specification determination, cost finding, and similar operational problems.

**306 Transportation Problems****2 hrs. Spring**

This course is intended to give the student information concerning the regulatory agencies of the airline, motor bus, and motor truck industries; and also a study of current regulations, scheduling and loading problems in these industries.

**310 Air Force Flight Operations, (Air Force Personnel Only) 3 hrs.**

This course is intended to familiarize the student with the general radio communication procedure, equipment trends and the different air navigational aids available to pilots; and to review the different agencies associated with Air Traffic Control and become familiar with their general duties.

**311 Air Force Management Classification, (Air Force Personnel Only) 3 hrs.**

This course seeks to identify the role of the non-commissioned officer, the qualities of leadership and the means of developing leadership, the mission of the United States Air Force and the role of the non-commissioned officer in carrying out that mission, and the ability and means for mission fulfillment.

**449 Aviation for Classroom Teachers 2 hrs. Spring**

A course dealing with the educational, social, economical, and political implications of aviation in the modern world. A study will be made of basic aviation materials and activities that are appropriate for different grade levels. Consideration will be given to aviation literature and visual aids suitable for youngsters. Opportunities will be provided for participation in a variety of aviation experiences. This course is open to elementary and secondary education students.

**REFRIGERATION, AIR CONDITIONING, HEATING****115A Domestic Refrigeration 4 hrs. Fall, Spring**

This course covers refrigeration theory and function, types of refrigerants, and the basic laws applying. Installation techniques.

**115B Commercial Refrigeration 4 hrs. Fall, Spring**

This course cover refrigeration units of standard design and construction, installation, service operations, testings and factory-recommended repair procedures.

**215A Air Conditioning and Heating 4 hrs. Fall, Spring**

This course offers basic training in all the elements governing conditioning of air for healthful living, air purification, humidity control, temperature control, solar radation, filtration, and maintenance of various types of heating systems.

**215B Air Conditioning and Heating 4 hrs. Fall, Spring**

A continuation of course 215A, including calculations, design, layout and installation of air conditioning and heating units.

**DRAFTING****124A Industrial Drafting****4 hrs. Fall, Spring**

This course emphasizes the basic techniques of Industrial Drafting. Practical work experience is provided in layout and detail drafting in accordance with established and recommended drafting practices as set up by the various related standardizing agencies as well as representative engineering departments throughout the country.

**124B Machine Drafting and Design****4 hrs. Fall, Spring**

This course is an intensive treatment of the elements of Machine design. Specific problems are undertaken in the design of gears, cams, linkages, springs, etc., as well as the fabrication of other machine components. Emphasis on the use of standard and purchased parts through usage of an extensive library of manufacturers' and suppliers' catalogs will also be provided. Standard engineering department practices are followed throughout. The use and maintenance of modern print-making equipment is also included.

Prerequisite: Industrial Drafting 124A or equivalent.

**224A Geometry of Drafting****4 hrs. Fall, Spring**

This course is a study in the relationships of points, lines, plane and warped surfaces, intersections and developments, applied to industrial drafting and layout work.

**224B Drafting for Production****4 hrs. Fall, Spring**

The study of drafting for industrial production and the design and development of the necessary tooling for mass-produced products. Illustrative techniques involving drawings for catalogs, sales and service manuals, etc., will also be included.

Prerequisite: Industrial Drafting 124A or equivalent.

**MACHINE TOOLS****130 Industrial Machine Shop****4 hrs. Fall, Spring**

This course in machine shop practice is designed to analyze and give laboratory experiences in layout procedures, common measuring techniques, standard inspection methods, and machine tool processes. Machining operations will involve the use of the following pieces of equipment: lathe, horizontal milling machine, vertical milling machine, surface grinder, cylindrical grinder, pedestal grinder, tool grinder, shaper, sensitive drill press, radial drill press, cut off saw, and contour saw.

**140 Manufacturing Processes****4 hrs. Fall, Spring**

Practical problems are assigned using production equipment in the machining and finishing of various metals. Cutting force, tool life, power, chip formation, cutting fluids, tool shapes, speeds, and feeds are analyzed. Precision layout procedures, precision measuring techniques, and precision inspection methods are correlated with production operations on the turret lathe, automatic screw machine, chucking grinder, boring mill, and lapping machine.

Prerequisite: 130 or equivalent.



**230 Production Tooling****4 hrs. Fall, Spring**

This course is intended to acquaint the student with the fabrication and use of jigs, fixtures, and tools utilized in tooling standard tool room and production machines, and to develop in the student proficiency in practices which meet prevailing industrial standards. Process and tooling data sheets will be presented.

Prerequisite: 140 or equivalent.

**260 Pressworking of Metals****4 hrs. Fall, Spring**

Standard pressworking methods are analyzed in the construction and use of dies for blanking, shaving, bending, forming, and stamping metals in standard power presses and brakes.

Prerequisite: 230 or equivalent.

**RADIO - T. V.****135A Introductory Radio****4 hrs. Fall, Spring**

The study of radio electronics, vacuum tubes, power supplies, audio and amplifiers, resonant circuits, superheterodyne receivers, and transmitter principles.

**135B Introductory Television****4 hrs. Fall, Spring**

Television fundamentals with emphasis on television testing and servicing equipment.

**235A Advanced Television****4 hrs. Fall, Spring**

A continuation of course 135B with greater emphasis on television circuitry and theory. Principles of closed circuit television operation is also included.

**235B Color Television****4 hrs. Fall, Spring**

A basic course covering color television fundamentals and practices with practical work in setting up and servicing color television receivers.

**AUTOMOTIVE MAINTENANCE****155A Automotive Engines and Accessories****4 hrs. Fall, Spring**

A study of the construction features and operation of all component parts of modern automobiles.

**155D Automotive Chassis and Running Gear****4 hrs. Fall, Spring**

Practical work in servicing and repairing of springs, steering gears, brakes, and drive lines with special emphasis on automatic transmissions, power steering, power brakes, and wheel alignment.

**255A Automotive Analysis****4 hrs. Fall, Spring**

The study of complete engine analysis and adjustment using motor analyzers, distributor testers, generator-regulator testers, and chassis dynamometer.

**255B Automotive Engine Overhaul****4 hrs. Fall, Spring**

Practical work in disassembly, cleaning, inspection, repair, and assembly of the complete engine with special emphasis upon overhaul equipment and processes.

**380 Auto Service Management****2 hrs. Spring**

A study of the principles involved in managing auto repair shops and procedures in maintaining proper customer service relations.

**422 Automotive Transportation Workshop****2 hrs.**

Practical experience is provided to secure an understanding of the basic elements of automotive and aircraft transportation. Instructional material will be developed for use in teaching units of transportation in junior or senior high schools.

**ELECTRONICS****145 Industrial Electricity****4 hrs. Fall**

Industrial Electricity covers not only the essentials of electricity but also devotes considerable attention to methods of connecting, to operating characteristics, and to the industrial applications of electrical machines and controls.

**146 Industrial Electronics****4 hrs. Spring**

This is an elementary course dealing with electronics as applied to industrial control.

**245 Electronic Instrumentation****4 hrs. Fall**

(Prerequisite 145)

This course covers electrical and electronic instrumentation, recording and indicating devices, and test instruments basic to Electronic Control and analysis of malfunctions.

**246 Electronic Circuits****4 hrs. Spring**

(Prerequisite 245)

This course prepares students for the design and maintenance of electronic circuits applicable to industrial electronics and automation.

**RELATED TECHNICAL SUBJECTS****100 Industrial Processes****4 hrs. Fall, Spring**

A course of study designed to give the student laboratory experiences and a knowledge of the tools, machines, and processes used to join, machine, shape, finish, fabricate, and form materials. The course includes the processes of joining materials by oxy-acetylene welding, spot welding, arc-welding, helium-arc welding, soldering, seaming, crimping, bonding, sweating, and fasteners. Machining processes include turning, shaping, milling, grinding, lapping, drilling, reaming, boring, and threading with standard and production manufacturing tools. The processes included in the forming of materials are heating, blanking, bending, and stamping.

**101 Industrial Processes****4 hrs. Fall, Spring**

This course consists of laboratory experiences and the study of materials. Their structural properties, how their characteristics can be changed, equilibriums diagramed, methods of manufacture, heat treatment, and micro-structure are analyzed. Predominant characteristics of materials tested are determined by strength, hardness, impact resistance, torsion resistance, and viscosity tests. A knowledge of the distribution of stress and fatigue on construction materials due to compression, tension, shear, torsion, and bending forces is acquired.

**174 Aircraft Welding****2 hrs. Fall, Spring**

A course involving the safe use of oxy-acetylene, arc-welding and helium-arc equipment and acquisition of essential welding skills and technical knowledge.

**178 Testing of Materials****3 hrs. Fall, Spring**

An analysis is made of the properties of ferrous and non-ferrous materials, their methods of manufacture and their use in the fabrication of products.

**211 Metal Processing****2 hrs. Fall, Spring**

An introductory study of the principles and practices relating to the properties, processing and application of ferrous and non-ferrous metals, woods, cements, and plastics. The micro-structure and physical properties of materials are analyzed. The effects of heat-treating, welding and working of materials are tested and their suitability for fabricating purposes studied. Prerequisite: Engineering Materials 210.

**270 Technical Drawing****2 hrs. Fall, Spring**

This course emphasizes the basic principles and techniques of engineering drafting and its relationship to the industrial manufacturing processes. Typical coverage consists of use of drafting equipment, lettering, sketching, layout and detail drawing; dimensioning and tolerances, pictorial representation, symbols, standard parts and engineering department practices. Diadramatic and schematic drawing are included together with plant layout drawing.

**271 Tool Drawing****2 hrs. Spring**

This course includes practical work assignments in the layout and design of jigs, fixtures, dies and other production tools related to the machine tool field. Prerequisite: Drawing 270 or equivalent.

**274 Technical Electricity****2 hrs. Fall, Spring**

A basic course in electricity intended to familiarize students with electrical terminology, circuits, motors, and various testing equipment. It also deals with the fundamental theories and technical applications of circuits used in various standard electronic equipment.

**275 Hydraulics****2 hrs. Fall**

A basic course covering the practical application of fluid in motion. This course illustrates the relationship between fundamental principles and modern industrial hydraulic equipment of all types.

**279 Industrial Relations****3 hrs. Fall, Spring**

This course deals with the principles of employee-employer relations. It includes a study of the basic provisions of the Workmen's Compensation, Social Security, and Labor-Management Relations Acts. Particular attention is given to the human relations aspects of industry.

**371 Thermodynamics****2 hrs. Spring**

A basic course covering the practical applications of heat transfer and conversions from heat to mechanical work and vice versa. This course illustrates the relationship between fundamental principles and modern industrial heat transfer equipment of all types.

**INDUSTRIAL SUPERVISION****353 Fundamentals of Industrial Supervision****2 hrs. Fall, Spring**

A basic course in the study of the foreman's duties, responsibilities, and employer-employee relationship in modern industrial practice.

**354 Quality Control****3 hrs. Fall, Spring**

A program dealing with the fundamental systems for controlling the quality of material in desired limits. The principles and techniques of administration are discussed as well as a basic introduction to the statistics involved. Standard practices in quality control measures including frequency distributions, control charts, sampling procedures and continuing analysis are all reviewed.

**355 Plant Maintenance and Safety****2 hrs. Fall, Spring**

A study of modern industrial maintenance and safety methods. Experts in the various fields of Industrial Maintenance and Safety are used as resource personnel. Techniques of industrial conference leading are explored and put to practical application. This provides a dual objective for the program; correspondingly the many varied aspects of industrial maintenance and safety are brought to class attention through a number of teaching mediums.

**356 Production Control****3 hrs. Fall, Spring**

The methods of controlling and coordinating the factors of production, including materials, time and labor. Emphasis is placed on industrial organization, installation, and types of systems used in industrial production control. Special attention is paid to such control measures as tool control, engineering specifications, inventory control, cost factors, dispatching procedure and forecasting techniques.

**358 Motion and Time Study****3 hrs. Fall, Spring**

This course deals with the analysis of motions involved in performing a job, timing the execution of operations, and determining efficient time standards.

**360 Modern Industrial Practices****6 hrs. Summer**

Students will observe and analyze actual supervisory and managerial functions in industrial and commercial establishments. Conference procedures will be used with consultants participating in exploring all facets of supervisory and managerial practices and procedures.

**361 Materials Handling****3 hrs. Fall, Spring**

This course deals with the principles involved in the preparation, placement and positioning of materials, supplies and products (in any state) to facilitate their movement or storage. It embraces an analysis of different methods and equipment by which they may be moved or stored and the cost considerations attendant upon them.

**362 Conference Leadership****3 hrs. Fall, Spring**

Designed to prepare the student entering industry with the basic methods of planning and presenting an industrial conference. Audio-visual aids (charts, graphs & films) will be reviewed as to importance and ways of presentation. Techniques of leadership with opportunity for practical application of these techniques will be provided.

**459 Practical Labor-Management Relations****3 hrs. Fall, Spring**

A course dealing with existing relationships between government agencies, labor organizations and management. Particular emphasis will be placed on collective bargaining procedures.

**COORDINATED INDUSTRY****150 Coordinated Industry****3 hrs. Fall, Spring**

This course is limited to students who are enrolled in the Vocational-Industrial curriculum. It consists of supervised work experience in industry to enable students to meet certification requirements for a Vocational Teaching Certificate.

**152 Coordinated Industry****3 hrs. Fall, Spring**

Continuation of 150.

**250 Coordinated Industry****3 hrs. Fall, Spring**

Continuation of 152.

**252 Coordinated Industry****3 hrs. Fall, Spring**

Continuation of 250.

**PROFESSIONAL COURSES IN  
VOCATIONAL-INDUSTRIAL EDUCATION****200 Introduction to Vocational Education****2 hrs. Fall**

A course designed to familiarize industrial education teachers with the basic philosophy of vocational education and its functions in an education program. The many aspects of vocational education are covered including historical background, social implications, Federal and State legislation, teacher qualifications, certificate requirements and special methods and applications.

**452 Teaching of Vocational-Industrial Education** 3 hours. Spring

This course deals with specific techniques used in teaching trade and industrial subjects. Attention will be given to various teaching problems associated with this type of education.

**472 Course Planning and Construction** 2 hrs. Spring

Principles and techniques of selecting and analyzing suitable teaching activities and arranging such material into a functional instructional order. Instructional units prepared will be based on an analysis of a trade, occupation or activity. Opportunity will be provided to prepare a detailed course of study.

**474 Testing and Grading in Industrial Education** 2 hrs. Fall

A study of the technique for preparing and using correctly written and practical tests. Attention will be given to interpretation of test results and grading student achievement.

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

Lt. Col. Virlyn Y. Jones, Head  
Maj. Murrell B. McNeil  
Capt. Samuel K. Boot  
Capt. George N. Edwards  
Capt. Robert J. Conners  
Capt. Michael K. O'Rourke

M/Sgt. John Alger  
M/Sgt. Joseph J. Colcord  
M/Sgt. Clarence A. Rodden  
SFC William L. Boynton  
SFC John E. Lowery

A General Military Science Reserve Officers Training Corps Unit provides training in the Senior Division ROTC, United States Army. Through the ROTC program, graduates may be commissioned Second Lieutenants in a branch of the Regular Army or United States Army Reserve. Enrollment in the ROTC program at Western Michigan University is on a voluntary basis.

The head of the Department is an officer of the United States Army. He is assisted in his duties by other officers and enlisted men of the Army on active duty. The personnel assigned provide the instruction to the student cadets and the administration of the ROTC program at the college.

The ROTC offers basic and advanced courses. Upon completion of both the basic and advanced courses, the prescribed summer camp training, and a college degree, students may apply for commissions as Second Lieutenants in the United States Army Reserve. Distinguished Military Students are eligible, upon completion of the prescribed courses, summer camp, and college degree, to apply for appointment as Second Lieutenants in the Regular Army. Students who are enrolled in the ROTC program and maintain satisfactory academic standards may apply for deferment from military service for the purpose of completing college. Uniforms are provided by the Government to all students who take ROTC work. Additional emoluments for advanced course students are described under the heading of Advanced Course.

## BASIC COURSE

The first two years of military science comprise the basic course which is designed to furnish a background of basic military subjects necessary to pursue the advanced course. The requirements for enrollment in the basic course are as follows: the student must be a citizen of the United States, over 14 and under 23 years of age, physically qualified for military service, regularly enrolled at Western Michigan University, and of good moral character. Students who have had three years of Junior ROTC work (High School ROTC) or six months or more of active military service, may substitute such Junior ROTC training or active military service for the first year of the basic college ROTC course, upon the approval of the Professor of Military Science and Tactics. Students who are thus excused from taking the first year of the basic ROTC course will normally be allowed to enter into the second year of the basic ROTC program at the beginning of their sophomore year. The records of students transferring from other institutions with less than two years basic ROTC credit will be reviewed by the Professor of Military Science and Tactics with a view to allowing such students to register with ROTC standing in line with their academic standing. Basic course classes meet for two hours of classroom work and one hour of drill weekly. Although enrollment in ROTC is voluntary, students who enroll in the Basic ROTC course are required to complete the course. Approval to drop the course may be granted for good reasons.

However, students who do not satisfactorily complete the basic course will be required to meet all the requirements in general physical education.

### **MS 101 Military Science** **2 hrs.**

Includes instruction in Organization of the Army and ROTC; Individual Weapons and Marksmanship; and School of the Soldier and Exercise of Command.

### **MS 102 Military Science** **2 hrs.**

Includes American Military History; School of the Soldier and Exercise of Command.

### **MS 201 Military Science** **2 hrs.**

Includes instruction in Map and Aerial Photograph reading; School of the Soldier and Exercise of Command.

### **MS 202 Military Science** **2 hrs.**

Crew Served Weapons and Gunnery; and School of the Soldier and Exercise of Command.

## ADVANCED COURSE

The selection of students for enrollment in the advanced course is on a quality basis. Special attention is given to maintenance of high standards of conduct and academic achievement both before and after enrollment in the advanced course. The entire advanced course is concentrated

on the development of individual leadership and a sense of responsibility for duty as an officer of the Army of the United States. For admittance to the advanced course, a student must have completed the basic course, be selected by the Professor of Military Science and Tactics and the President of the university, not be over 27 years of age at time of enrollment, and must execute a contract with the Government to finish the course, attend a six-week summer camp, and accept a reserve commission if tendered. When this contract is signed completion of the advanced course becomes a requirement for graduation. Students who have had one or more years active service with one of the Armed Forces, and students who are transferring from another institution with credit for the basic course, may be authorized to register for the advanced course in phase with their college academic standing. Advanced course classes meet for four hours of classroom work and one hour of drill weekly. Students accepted for the advanced course receive payment of approximately \$27 each month in lieu of subsistence issue. Students attending summer camp are messed and quartered at the expense of the Government, paid at the rate of approximately \$78 monthly while in camp, and are given a travel allowance of five cents per mile from the university to the summer camp and return.

**MS 301 Military Science****4 hrs.**

Instruction in Leadership; Organization, Function, and Mission of the Arms and Services; Military Teaching Methods; First Aid and Military Sanitation; Rifle Marksmanship; School of the Soldier and Exercise of Command.

**MS 302 Military Science****4 hrs.**

Instruction in Small Unit Tactics and Communication; and School of the Soldier and Exercise of Command.

**MS 303 ROTC Summer Camp**

Between MS 302 and MS 401 a summer training camp must be attended for a period of six weeks. Transportation to and from camp will be provided and students will be fed, clothed, housed and paid while at camp. Instruction at camp consists of demonstration of and participation in various phases of military activities to include field training.

**MS 401 Military Science****4 hrs.**

Instruction in Operations, Command and Staff, Estimate of the Situation, and Combat Orders; Military Intelligence, the Military Team, Training Management; Logistics and Troop Movements; School of the Soldier and Exercise of Command.

**MS 402 Military Science****4 hrs.**

Instruction in Logistics Supply and Evacuation, and Motor Transportation; Military Administration and Personnel Management; Military Justice; Service Orientation to include the Role of the United States in World Affairs; Leadership; Officer Indoctrination; and School of the Soldier and Exercise of Command.



## OCCUPATIONAL THERAPY

Marion R. Spear, Head  
Lois Hamlin

Alice Lewis  
Dean Tyndall

Rosalia Kiss

The Department offers courses in the following curricula: B.S. degree, with or without a Teacher's Certificate, and a certificate course for college graduates. These curricula are approved by the American Medical Association, and graduates are qualified to take the American Occupational Therapy Association examination for registration. For the undergraduate student, thirty hours of university credit must be earned before the student is admitted to the Department. This admittance is based on the approval of the applicant by the coordinating committee on the basis of age, personality, general aptitude for the work, and scholastic ability. In order to earn a B.S. degree in occupational therapy, a student must complete a major in occupational therapy and minors in biology and art. A mixed science minor is sometimes substituted for a minor in biology in the case of a transfer student. Students with special interests in music, speech therapy, or speech correction may make requests for minors in those areas.

### 106 Art Structure

3 hrs. Fall, Spring

A course giving experience in drawing, lettering, color, and design.

### 210A Theory of Occupational Therapy

2 hrs. Fall, Spring

Study of the history, purpose, and aims of occupational therapy from ancient times. Special emphasis is placed on occupational therapy in the psychiatric field and on professional and hospital ethics.

### 210B Theory of Occupational Therapy

2 hrs. Fall, Spring

Specific instruction in applying occupational therapy in the various fields of service. Survey of public and private agencies offering facilities for the placement of the handicapped.

### 215 Design

3 hrs. Fall, Spring

A course to develop creativeness in color and design through a variety of media and techniques. Prerequisite: 106.

### 216A Kinesiology

2 hrs. Fall, Spring

A basic study of the muscles of the body, classified as to joint motion. Each muscle studied according to origin, insertion and action. This study accompanied by a review of the skeletal and nervous systems, basic terminology and kinesiology. Prerequisite: Anatomy 211A and Physiology 211B.

### 216B Applied Kinesiology

2 hrs. Fall, Spring

Review of normal muscle function and study of motor disabilities related to neurologic and orthopedic conditions. Methods of physical evaluation, measurement of joint motion, muscle testing and re-education. Prerequisite: 216A.

**222 Recreational Therapy** 2 hrs. Fall, Spring

Course covers planning of recreational activities for patients in hospitals, including musical therapy, dramatic programs, and games.

**223 Needlecraft** 3 hrs. Fall, Spring

Includes samples of simple and decorative stitches, such as Italian hem-stitching, Swedish darning, and others; also knitting, crocheting, tatting, and the assembling of projects.

**225 Minor Crafts** 3 hrs. Fall, Spring

A course giving the techniques and equipment used in basketry, book-binding, leatherwork, and rug making. Special emphasis will be placed on the use of these crafts in occupational therapy treatment.

**311 Clinical Practice** 5 hrs. Fall, Spring, Summer

Each student is required by the American Medical Association to complete a minimum of nine months of clinical practice. The centers in which the student practices are psychiatric, tuberculosis, general, pediatric, and physical disabilities. Prerequisite: 210A and B.

**324 Therapeutic Activities** 2 hrs. Fall, Spring

Occupational therapy relating to physical medicine and rehabilitation. Activities of daily living, splinting and adaptation of equipment, construction and use of self-help devices and pre-vocational exploration. Prerequisite: 216A.

**330 Psychiatric Lectures** 2 hrs. Fall, Spring

Consists of the history and clinical demonstration of mental diseases; their causes and methods of patient readjustment. Study of the application of work to individual needs given during practical experience.

**352 Hospital Case Studies** 3 or 4 hrs. Fall, Spring

Comprehensive case studies of typical patients observed in occupational therapy departments. Students must submit 12 or more case studies.

**410A Theory of Occupational Therapy** 2 hrs. Fall, Spring

Correlation of all theory courses in occupational therapy. Specific instruction in the organization and administration of an occupational therapy department. Supplemented by field trips to hospitals, social agencies, and allied industries.

**410B Theory of Occupational Therapy (Medical Lectures)** 3 hrs. Fall

A series of lectures on medical conditions. These will be correlated with occupational therapy treatment.

**410C Neurology and Orthopedic Lectures** 2 hrs. Spring

A study of the anatomy and physiology of the central, sympathetic, and peripheral nervous systems. Treatment of diseases of the brain and spinal cord. Prerequisite: 216A.

**411 Rehabilitation****2 hrs. Fall, Spring**

A study and review of the rehabilitation programs in specific disability areas including effective laws and industrial practices; lectures and field trips: Prerequisite: 210A, B.

**425A Ceramics****2 hrs. Fall**

A course in the design of functional plastic form in clay. Emphasis is placed on ceramic processes, glazing and kiln management. Prerequisite: 106 and 215.

**425B Jewelry****2 hrs. Spring**

A studio course in the design and technical essentials in jewelry, ceramics, copper, and sterling silver. Stone setting and enameling are included.

**428 Weaving****3 hrs. Fall, Spring**

Designed to give a working knowledge of hand looms. Includes discussion of looms, functional adaptations for special treatments, reading and drafting patterns, warping and threading looms, and types of weaving.

**PAPER TECHNOLOGY**

Alfred H. Nadelman, Head  
Robert A. Diehm

R. L. Janes  
Carola Trittin

The Department offers two curricula. Option I stresses preparation for production and technical areas whereas Option II prepares students for sales and management areas in the Paper Industry.

A major may be earned only by meeting all requirements of either Option I or Option II. A minor consists of sixteen semester hours and must include courses 130A and 130B, 230A and 230B, 131, 332A and 332B, and 333, plus three hours in other courses offered by this department.

**130A Orientation to Paper Technology****1 hr. Fall, Spring**

The course stresses the basic processes used in the manufacture of pulp and prepares the student for summer mill practice.

**130B Orientation to Paper Technology****1 hr. Spring**

A continuation of course 130A. The fundamentals of paper making are studied. Prerequisite: 130A, or 130A being taken concurrently.

**131 Summer Mill Practice****2 hrs.**

In order to gain practical experience, students of pulp and paper technology are required to work in a mill for ten weeks following the second semester. Employment must be secured and/or approved by the Advisory Committee of the Paper Industry. Prerequisite: 130A, B.

**230A Pulp and Paper Manufacture****2 hrs. Fall**

A detailed description of production equipment and chemistry of the processes used in the manufacture of pulp. Visits to various mills are coordinated with the lecture course. Prerequisite: 130A, B; General Chemistry 101A, B, or 100A, B.

**230B Pulp and Paper Manufacture****2 hrs. Spring**

A study of the technological aspects of paper making with discussion of various types of stock-preparation equipment and paper machines. Several mill visits give a deeper understanding of the processes discussed. Prerequisite: 130A, B; General Chemistry 101A, B or 100A, B; Pulp and Paper Manufacture 230A.

**231 Summer Mill Practice****2 hrs.**

A continuation of paper-mill work to give the student diversified practical experience. The majoring student is required to work in pulp and paper mills at least two out of three summers. Prerequisite: 230A, B. (Open only to majors in Paper Technology.)

**331 Summer Mill Practice****2 hrs.**

Course 331 is optional for students who receive credit for courses 131 and 231.

**332A Evaluation of Pulp and Paper****2 hrs. Fall**

A lecture and laboratory course treating the evaluation of chemical and physical characteristics of pulp. Prerequisite: 230A, B; Quantitative Analysis 202.

**332B Evaluation of Pulp and Paper****2 hrs. Spring**

This course consists of laboratory work and a limited number of lectures pertaining to the evaluation of chemical and physical characteristics of paper. Prerequisite: 230A, B; Quantitative Analysis 202; 332A.

**333 Fiber Microscopy****1 hr. Fall**

A general study of the microscopic structure of fibers used in making paper. Qualitative and quantitative fiber analyses are part of the scheduled work. Prerequisite: 230A, B, Electricity and Light 203B.

**334A Elements of Industrial Chemistry****2 hrs. Fall**

A study of the most important industrial chemical processes from the point of view, not only of the chemical reactions, but of the conditions and equipment necessary to carry on these reactions. Prerequisite: General Chemistry 101A, B, or 100A, B.

**334B Elements of Industrial Chemistry****2 hrs. Spring**

A continuation of course 334A. Prerequisite: Elements of Industrial Chemistry 334A; Organic Chemistry 306A.

**335 Wood Chemistry****2 hrs. Spring**

A lecture course which includes the chemistry of cellulose, hemicellulose, lignin and extractives. Prerequisite: 230A, B; Organic Chemistry 306A.

**336 Coloring and Filling of Paper****1 hr. Spring**

This course includes the evaluation of fillers, pigments, and dyestuffs. Filled and colored sheets are produced in the laboratory in order to familiarize the student with color matching and development of color formulae. Prerequisite: 230A, B; Quantitative Analysis 202.

**337 Mill Inspection Trip****1 hr.**

One week's inspection trip to representative pulp and paper mills.

**432 Bleaching, Pulp Purification, and Deinking****1 hr. Fall**

A lecture and laboratory course treating the theory and technique of producing bleached pulp, dissolving pulp and deinked secondary stock. Prerequisite: 335; Quantitative Analysis 202.

**433 Auxiliary Equipment for Pulp and Paper Mills****1 hr. Spring**

A discussion of pumps, boiler-house operation, generation of electricity, electric motors, heating, and ventilation. The subjects are presented with the assistance of experienced engineers serving the pulp and paper industry. Prerequisite: 230A, B; Mechanics, Sound, and Heat 230A; Electricity and Light 203B.

**434 Chemistry and Technology of Plastics****2 hrs. Fall**

A general survey of the chemistry and technology of plastics with emphasis upon the synthetic resinous materials used by paper makers and converters. Prerequisite: Organic Chemistry 306A, B.

**435 Converting of Paper****1 hr. Fall**

A thorough study of a variety of converting operations. Prerequisite: 230A, B.

**436A Research Problems in Pulp and Paper****2 hrs.**

Laboratory development work on a problem pertaining to pulp and paper technology preceded by a survey of available literature.

**436B Research Problems in Pulp and Paper****2 hrs.**

A continuation of course 436A.

**437A Principles and Practice of Coated Paper Manufacture****1 hr.**

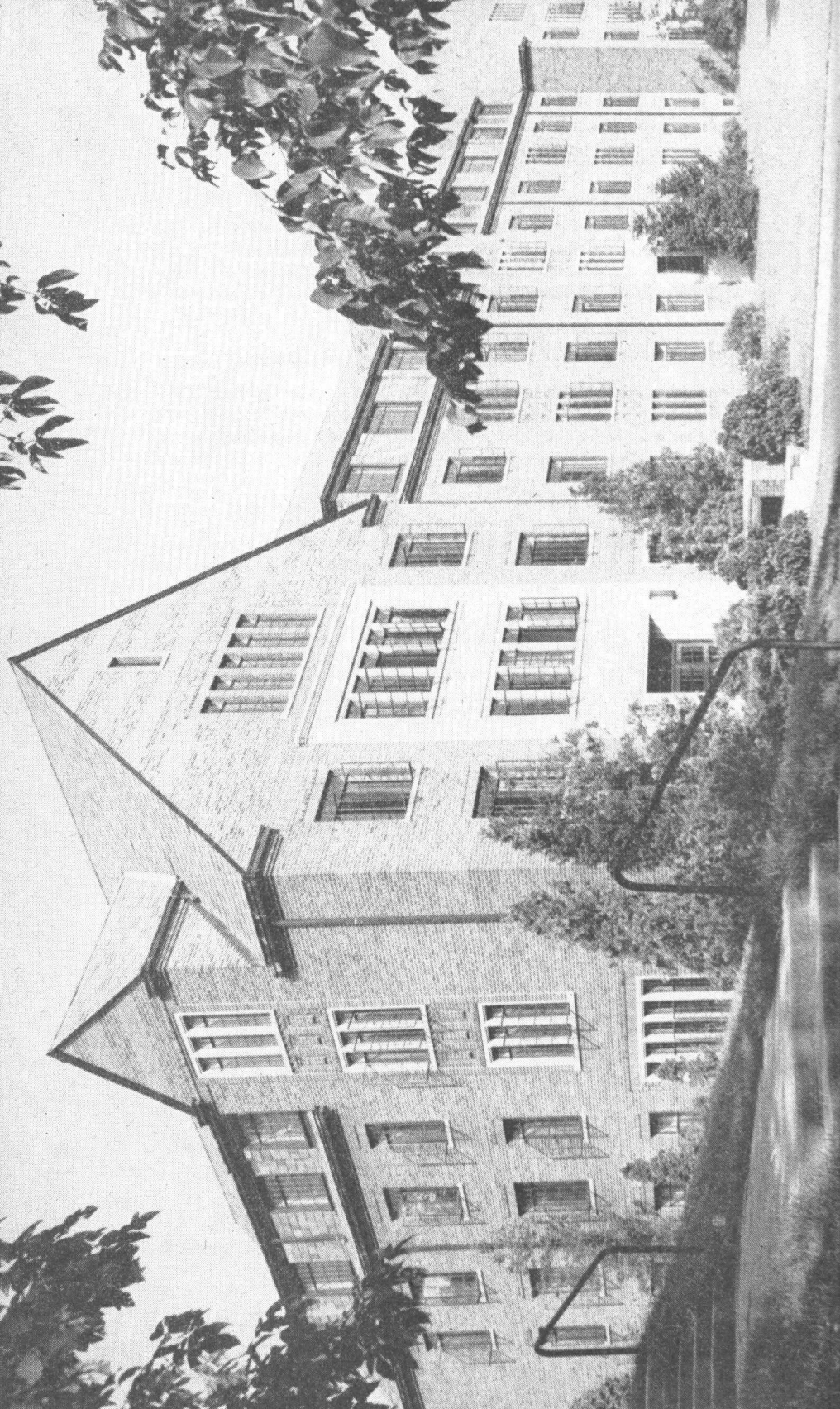
A lecture and laboratory course on formulating, preparing, and applying pigmented coatings to paper. Principles of rheology, control methods, finishing methods, and testing will be stressed. Visitations to mills engaged in coating paper and paperboard are used to demonstrate practical applications of the principles.

**437B Principles and Practice of Coated Paper Manufacture****1 hr.**

A continuation of course 437A.

**438 Microbiology of Pulp and Paper****2 hrs.**

A lecture course on morphological and biochemical activities of microorganisms in the pulp and paper mill. Methods of controlling microorganisms in the paper industry are evaluated.



## PART III—*School of Business*

Arnold E. Schneider, Dean

The function of the School of Business is to prepare young men and women for responsible positions in business and industry. As future leaders in the business and industrial world, these young men and women will need to have a broad understanding of their relationships to social, economic, political and cultural trends. These primary educational needs are met through Western's General Education Program.

The student needs training in the fundamentals employed in every phase of the modern business world. These requirements are met through the core subjects in the Business Administration program. They include such areas as accounting, business law, statistics, business communication, finance, marketing, management, and insurance.

Students who desire to specialize in a particular aspect of business have ample opportunity. The School of Business offers professional work in the major areas listed under the Business Administration program. Among the most frequently elected professional business programs are Accounting, Marketing, Personnel Administration, Small Business Management, Management and General Business.

Opportunity is given students to visit business firms, to listen to outstanding speakers from the business world, and to participate in organizations related to business and industry. Western's Placement Office is visited by almost all of the major firms that are engaged in recruiting activities.

The School of Business offers three main programs:

1. Business Administration—Bachelor of Business Administration Degree.
2. Business Teacher Education—B.S. or B.A. Degree with a State Secondary Provisional Certificate.
3. Two-Year Curricula leading to a certificate:
  - a. Cooperative program in Secretarial Training
  - b. Cooperative program in Retailing or Sales
  - c. Technical Business Program.

◀ Vandercook hall is one of two residences for men on the east campus. Four large residence halls are open to men on the west campus.

## FACULTY OF THE SCHOOL OF BUSINESS

Agnes E. Anderson  
 Edwin F. Beal  
 Robert P. Behling  
 William L. Burdick  
 George K. Cooper  
 Richard E. Embertson  
 John B. Healey  
 Edna Kirby  
 George Kirby  
 Lester Lindquist  
 Ralph Matthews

John McBeth  
 Leo Niemi  
 Thomas Null  
 Russell Powell  
 Arnold E. Schneider  
 Roseann Schneider  
 Harold Shoup  
 Emil Sokolowski  
 James L. Stewart, Jr.  
 Robert B. Trader  
 Robert B. Wetnight

## I. DEGREE CURRICULA

### BUSINESS ADMINISTRATION

#### Bachelor of Business Administration Degree

This integrated curriculum requires students to obtain a major in the School of Business and a minor in the Department of Economics, or a major in the Department of Economics while fulfilling the requirements of the Business Administration curriculum. A student under the Business Administration curriculum must have a minimum of thirty hours in the field of Business Administration, a minimum of 15 hours in Economics and at least forty-eight hours in the fields of Business and Economics. Students on the Business Administration curriculum must also meet the general degree requirements. The maximum number of hours in the School of Business a student may present for graduation is 45.

#### REQUIRED CORE CURRICULUM

First Year	S.H.	Second Year	S.H.
Communication 104A, B or	8	Humanities 201A, B or 202A, B	6
College Writing 106A, B	6	Speech 108	3
Man and Society 101A, B or	8	Economics 220A, B	6
West Civil. 100A, B	8	Accounting Prin. 210A, B	6
Physical Science 100A, B or		Business Corresp. 232	3
Biol. Sci. 102 and Human Geog.		Business Statistics 235 or	
105a	8	Mathematics 209	3
Mathematics 120A, B or		Physical Education	1
105A, B*	4-6	Major and Minor Requirements	6
Physical Education	1	and electives	

\*If a student has had 2 years of high school Mathematics, he may elect Mathematics 105A, B.



Third Year	S.H.	Fourth Year	S.H.
General Psych. 200	3	Management Problems 449	3
Insurance Princ. 322		Physical Education	1
Amer. Nat'l. Gov't. 230A or		Major and Minor Requirements	
Government 334	3	and Electives	27
Business Law 320A, B	6	General Electives Recommended:	
Physical Education	1	Economic Geography 218	3
Major and Minor Requirements		Economic History of U.S. 312	3
and Electives	15	Psych. Aspects of Bus. 210	3
		Applied Psych. 204	2
		Prin. of Soc. 241	3

## MAJORS IN BUSINESS ADMINISTRATION

- Accounting: Accounting 210A, B; Intermediate Acctg. 310A, B; Cost 411, Tax 412, Audit. 313, Accounting Theory and Problems 314. Students planning on majoring in Accounting should take 210A, B in their freshman year. Adviser: Wetnight.
- Air Transportation: (Students under the Air Transportation curriculum may major in Business Administration.)
- Economics: Elect 24 hours in the Economics Department. Adviser: Moore.
- General Business: Upon the approval of the adviser elect a logical sequence of courses from the School of Business which meets the student's vocational interests and needs. Adviser: Sokolowski.
- Insurance:
  - Agency (Sales) — Insurance Principles 322; Property Insurance 324; Casualty Insurance and Suretyship 326; Life Insurance 423; Disability, Group, and Social Insurance 325; Salesmanship 340; and either Sales Management 341 or Advertising 342. Adviser: Burdick.
  - Management - Insurance Principles 322; Property Insurance 324; Casualty Insurance and Suretyship 326; Life Insurance 423; Disability, Group, and Social Insurance 325; Office Management 439; and either Business Report Writing 433 or Personnel Administration 436. Adviser: Burdick.
- Secretarial Administration: Secretarial Science 130A, B; Office Machines 230A, B; Office Organization 239; Records Management 103; Personnel Administration 436; Business Report Writing 433. (Required courses on the Business Administration Curriculum may be waived in order to meet the needs of the Secretarial Administration program). Adviser: Cooper.
- Marketing:
  - Salesmanship: (\*required subjects)  
Marketing 222\*, Salesmanship 340\*, Sales Management 341\*, Marketing Problems 347\*, Marketing and Market Research 447\*,

- and six hours from any of the following: Purchasing 348, Credit Management 345, Advertising 342, Retailing 140. Adviser: Trader.
- b. Advertising: (required\*)  
Marketing 222\*, Advertising 342\*, Salesmanship 340\*, Sales Management 341\*, and any 6-9 hours from any of the following: Marketing and Market Research 447, Personnel Administration 436, Office Management 439, Small Business Management 237. Adviser: Trader.
  - c. Retailing: All students majoring in Retailing under the Marketing program must be graduates of the two-year Retailing cooperative program or its equivalent. Marketing 222\*, Principles of Retailing 140\*, Retail Advertising 240\*, Retail Buying Techniques 242\*, and 10 hours from any of the following: Merchandise Information (Non-Textiles) 151A, Retail Credits and Collections 241, Interior and Window Display 224, Color and Design in Retailing 142, or related courses recommended by the adviser. Adviser: Trader.
  - d. Small Business Management: (\*required)  
Marketing 222\*, Small Business Management 237\*, Advertising 342\*, Salesmanship 340\*, Personnel Administration 436\*, and six hours from any of the following: Sales Management 341, Purchasing 348, Marketing and Market Research 447, Credit Management 345. Adviser: Trader.
8. Management
- a. Office Management: Accounting 310A, B or 411 and 412; Survey of Office Machines 230; Office Management 439; Personnel Administration 436; Records Management 103, Proficiency in Typewriting or 101A, B; Business Report Writing 433. (Minor in Psychology recommended.) Adviser: Niemi.
  - b. Personnel Administration: Office Management 439; Bus. Report Writing 433; Personnel Admin. 436. (Minor in Psychology required.) Adviser: Beal.
  - c. Industrial Management: Purchasing 348; Cost Accounting 411; Personnel Admin. 436; Bus. Report Writing 433; Indus. Organization and Management 343; Indus. Management Problems 344; Intro. to Indus. Psych. 300. (Students required to take a minor in Vocational Indus. to be approved by the Major and Minor advisers.) Adviser: Wetnight.
  - d. Integrated Data Processing: Office Management 439, Business Report Writing 433, Cost Accounting 411, Survey of Office Machines 230AB, Integrated Data Processing 359. Minor in Mathematics required. Adviser: Niemi.

## MAJORS IN BUSINESS TEACHER EDUCATION

A State Secondary Provisional Certificate for teaching of business subjects in grades 7 to 12 is granted to students who complete the secondary degree curriculum requirements with a major (24 hours) in business, two minors (15 hours each), one of which may be in business.

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A major and/or a minor in the School of Business may be selected from the following fields:

1. Secretarial and related business subjects.
2. Accounting and related business subjects.
3. Salesmanship, retailing and related business subjects.
4. General business and related subjects.

Students who intend to take a major or a minor in Business Teacher Education should confer with their advisor as early as possible in their sophomore year. It is also possible for students on the B.B.A. curriculum to qualify for A State Secondary Provisional Certificate through meeting the requirements. Counselors: Lindquist, McBeth.

## II. TWO-YEAR CURRICULA

### BUSINESS (TECHNICAL)

The Technical Business Curricula have been specifically designed for those students who are planning on attending the university for a two-year period. The program, which is designed to provide the student with an effective training for the many beginning occupations in business and industry, is divided into two major areas: the cooperative work-and-study programs now found in the Retailing and Secretarial programs, and the regular university classroom programs. Although the enrollment in the cooperative curricula is limited, the student is urged to qualify for these fields whenever possible.

Any high school graduate is eligible for admission to the Technical Business Curricula provided he has been recommended by his high school principal. Students who wish to qualify for the cooperative program must meet certain standards as established. Courses taken either in the cooperative or non-cooperative programs may be applied toward degree requirements provided regular college entrance requirements are met.

All graduates of the two-year Technical Business Curriculum receive a certificate indicating the field of specialization they have completed.

#### 1. Cooperative Program in Secretarial Training Counselor: Null

The work-study program in Secretarial Training embraces a two-year curriculum which combines classroom instruction in the morning and employment experience in local offices afternoons of the student's sophomore year.

Students enrolled in this course will have the opportunity to elect such other courses as will fit their needs and as their schedules, abilities, and work programs will permit. The advantages of social and cultural contacts with regular university students are open to all students in this program.

#### Secretarial Curriculum

First Year	S.H.	Second Year	S.H.
College Writing 106A, B or		Secretarial Accounting 211A, B	6
Communication 104A, B	6-8	Office Machines 230A, B	4
Ind. and Bus. World 135A, B	4	Records Management 103	2
Bus. Mathematics 120A	2	Coord. Bus. Exp. 200A, B	4
*Secretarial Science 130A, B	10	Electives**	14
Personal and Social Prob. 120	1		
Physical Education	1		
Electives**	8		

\*Students who have not had shorthand or typewriting in high school should register for Shorthand 100A and Typewriting 101A.

\*\*Students should consult their faculty counselor before making their selections.

**2. Retailing or Sales Occupations****Counselor: Embertson**

The work-study program in retailing embraces a two-year curriculum which combines classroom instruction in the morning, and, with the cooperation of the merchants of Kalamazoo, employment in the local stores during the afternoon and Saturday.

Students enrolled in this curriculum 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 as their schedules, abilities and work programs will permit.

**Cooperative Retailing or Sales Curriculum**

First Year	S.H.	Second Year	S.H.
Coord. Ret. Exp. 100A, B	4	Coord. Ret. Exp. 200A, B	4
Prin. of Retailing 140	3	Ret. Advertising 240	3
Retail Salesmanship 150	3	Ret. Cr. and Collection 241	3
Mdse. Info. 151A, B	4	Ret. Buying Tech. 243	3
Communications 104A, B		Electives	
or Col. Writing 106A, B	3-4		
Business Math 120A	2		
Physical Education	1		
Electives			
Retail Electives		Non-Retail Electives	
Selling Fash. Mdse. 141	2	Man and Soc. 101A, B	
Selling Home Furn. 242	2	or Foundations of	8
Color and Design in		West. Civ. 100A, B	
Retailing 142	2	Phys. Science 100A, B	8
Interior and Window		Bus. and Prof. Speech 108	3
Display 224	2	Business Math 120B	2
		Genl. Psych. 200	3
		Prin. of Acctg. 210A, B	6
		Prin. of Econ. 220A, B	6
		Bus. Correspondence 232	3

For students who find it possible to take only one year of training at this time, the first portion of this program offers a well-rounded consideration of the basic principles for immediate store work. The second year is more advanced and gives the background necessary for better positions in the future.

Students who successfully complete the two-year program (four semesters) with a total of *not less than 62 semester-hours* will be granted a diploma in Retailing.

**3. Regular (non-cooperative) Technical Business Curriculum****Counselor: Healey**

First Year	S.H.	Second Year	S.H.
Communication 104A, B or	8	Man and Society 101A, B or	8
College Writing 106A, B	6	Prin. of Economics 220A, B	6
Ind. and Bus. World 135A, B	4	Bus. Statistics 235	3
Bus. Math. 120A, B	4	Insurance Prin. 322	3
Prin. of Acctg. 210A, B	6	Small Bus. Mgmt. 237 or	3
Bus. Corres. 232	3	Mgmt. Elective	3
Physical Education	1	Business Law 320A	3
Electives	5-7	Physical Education	1
		Electives	10-12

**Fields of Specialization in Technical Business Curriculum**

1. Clerical Accounting: Select from Accounting 310A, B; Pay Roll and Social Security Accounting 215; Office Machines 230A, B; Business Law 320A, B; Office Organization 239; or other Business courses on consent of class instructor; Proficiency in Typewriting or Typewriting 101A, B.

2. General Business: Select courses in keeping with students' vocational interests with consent of counselor.

3. Secretarial Training: Secretarial Science 130A, B; Office Machines 230A, B; Records Management 103; Office Organization 239; General Psychology 200.

4. Salesmanship: Salesmanship 340; Advertising 342; Small Bus. Management 237; Sales Management 341; Credit Management 345.

5. General Clerical: Office Machines 230A, B; Typewriting 101A, B; Records Management 103; Office Organization 239; Industrial Cost Accounting 316A, B; Pay Roll and Social Security Accounting 215.

6. Small Business Management: Accounting 210A, B; Small Bus. Management 237; Advertising 342; Salesmanship 340; Credit Management 345; Real Estate Fundamentals 350.

### III. DESCRIPTION OF COURSES

#### ACCOUNTING

##### 210A Accounting

3 hrs. Fall, Spring

The elementary principles of accounting and considering the more common technical devices for recording business transactions according to those principles. Prerequisite: Sophomore standing or consent of instructor. Accounting majors should start 210A as freshman if possible.

##### 210B Accounting

3 hrs. Fall, Spring

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 studied. Prerequisite: 210A.

##### 211A Secretarial Accounting

3 hrs. Fall

The basic principles of accounting are presented from the viewpoint of the secretary. The accounts of private individuals, professional men, institutions, and small business firms of various types are studied.

##### 211B Secretarial Accounting

3 hrs. Spring

A continuation of course 211A in which practical applications will be applied in a large number of work situations. Prerequisite: 211A.

##### 215 Pay Roll and Social Security Accounting

2 hrs. Spring

A study of the accounting records and procedures used in meeting the requirements of the social security laws, procedure of pay roll accounting for federal withholding tax laws, and state unemployment insurance.

##### 310A Intermediate Accounting

3 hrs. Fall

A study of evaluation of current assets; investments; depreciation, appraisal, and depletion of fixed assets; current, contingent, and fixed liabilities; capital stock; surplus and reserves. Prerequisite: 210A, B.

##### 310B Intermediate Accounting

3 hrs. Spring

A continuation of Accounting 310A, including the following topics: partnerships, consignments, installment sales, mergers, holding companies, receiverships, estates, and trusts. Prerequisite: 310A.

##### 313 Auditing

3 hrs. Fall

The theory and practice of making audits of business enterprises. Prerequisite: Senior standing, accounting major.

##### 314 Accounting Theory and Problems

3 hrs. Spring

Theoretical consideration of accounting problems. Nature and analysis of the type of problems that are to be found in C.P.A. examinations. Prerequisite: Senior standing, accounting major.

**316A Industrial Cost Accounting 2 hrs. Spring**

Expressly designed for the training of industrial supervisors in Accounting Principles, Cost Accounting, and the managerial use of accounting data. Not for students who have completed 210A.

**316B Industrial Cost Accounting 2 hrs. Spring**

A continuation of 316A. Prerequisite: 316A.

**410A Advanced Accounting 3 hrs. Fall**

Designed specifically for the study of the balance sheet accounts. Prerequisite: 210A, B.

**410B Advanced Accounting 3 hrs. Spring**

A study of accounts for special sales, consolidations, and miscellaneous accounting matters.

**411 Cost Accounting 3 hrs. Spring**

The relation of cost accounting to management for control; general principles involved in constructing a cost system; distribution of cost-materials, labor, and burden; cost records; operating reports; joint and by-product costs and budgetary control. Prerequisite: 310A or consent of instructor.

**412 Income Tax Accounting 3 hrs. Fall**

A study of the federal income tax laws, as they apply to individuals, partnerships, and corporations. Prerequisite: 310A, or consent of instructor.

**GENERAL BUSINESS****135A Industrial and Business World 2 hrs. Fall, Spring**

This is an introductory course which, through a very broad approach, attempts to acquaint the student with existing principles and problems of business and industry. Such topics as types of American businesses, current business problems, current business trends, long-term financing, short-term financing, insurance, physical location and lay-out, production problems are included.

**135B Industrial and Business World 2 hrs. Fall, Spring**

This is a continuation of course 135A, covering such areas as personnel selection and training, wages, labor problems, marketing functions and problems, management problems and procedures, government and business. Prerequisite: 135A.

**230 Survey of Office Machines 2 hrs. Fall, Spring**

A survey of operating principles and fundamentals and applied usages of the business machines commonly found in industry and business.

**232 Business Correspondence 3 hrs. Fall, Spring**

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 all letters of business correspondence.



**235 Business Statistics****3 hrs. Fall, Spring**

An introduction to basic applied business statistics. A study of various statistical and financial ratios as guides to efficient business management and the interpretation of financial data.

**320A Business Law****3 hrs. Fall, Spring**

A study of basic principles applicable to business including legal rights and remedies, contracts, agency, and employer and employee relations.

**320B Business Law****3 hrs. Fall, Spring**

Continuation of Business Law 320A with emphasis on negotiable instruments, sales, and property.

**350 Real Estate Fundamentals****3 hrs. Spring**

A survey of the principles of real estate as they affect personal and business operations. Real estate as an occupational field, value, land use, and related topics.

**360 Current Business Trends****3 hrs. Fall**

A study of sources and information which aid in the description, analysis, and prediction of current business trends.

**INSURANCE****322 Insurance Principles****3 hrs. Fall, Spring**

A basic course covering all phases of insurance. The consumer approach is used, designed to acquaint the non-specialist with the economic and social services of the institution of insurance. It also provides the necessary background for the person planning to take advanced work in the field of insurance.

**324 Property Insurance****3 hrs. Fall**

Deals with Fire Insurance and Allied Lines, Automobile, Ocean Marine, and Inland Marine Insurance. The important phases of the fields which are covered are contract provisions, loss adjustment, rate making, regulation, underwriting, and legal concepts. Prerequisite: 322

**325 Disability, Group and Social Insurance****3 hrs. Spring**

Considers the economic, social and technical aspects of accident and sickness insurance; Group insurance; Industrial Life Insurance; Old Age and Survivors Insurance; and Unemployment Compensation. Prerequisite: 322.

**326 Casualty Insurance and Suretyship****3 hrs. Spring**

Deals with the legal concepts, rate making, regulation, loss adjustment, underwriting, and contract provisions in the Workmen's Compensation, Liability, Theft, and Surety and Fidelity Bonding fields. Prerequisite: 322.

**423 Life Insurance****3 hrs. Fall**

Covers the economic, social, and more important technical aspects of life insurance, including important phases of Business Insurance. Prerequisite: 322.

**MANAGEMENT****237 Small Business Management****3 hrs. Fall, Spring**

A study of the fundamental principles involved in the operation of a small business enterprise. The structure, functions, and basic operating principles will be discussed and developed.

**239 Office Organization****3 hrs. Spring**

Personnel policies and how they affect office workers; handling and procurement of office equipment and supplies; charting of paperwork flow and methods of paperwork simplification. Professionalization of office work and role of supervisory worker. Designed for those entering professional secretarial work.

**339 Management Problems****3 hrs. Fall, Spring**

An opportunity to approach business from the case-study method by working solutions to actual management problems.

**343 Industrial Organization and Management****3 hrs. Fall**

Basic organization of industrial line and staff functions and their relation to each other in the production process.

**344 Industrial Management Problems****3 hrs. Spring**

Case studies of advanced industrial management problems. Industrial Management majors will take this in lieu of Management Problems 339 as offered.

**348 Purchasing Principles and Practices****3 hrs. Spring**

Organization and operation of the purchasing department, basic materials, substitutes, imitations, sources of supply, catalogs, terms, discounts, and relations with salesmen.

**359 Integrated Data Processing****3 hrs. Spring**

A survey of mechanical and electronic data processing methods with particular emphasis on the application of the electronic system and with special reference to administrative problems experienced in introducing computer systems.

**433 Management Report Writing****2 hrs. Fall, Spring**

A study of the techniques in and applications of management reports and management-report writing. Actual management reports in the various fields will be studied. The development and practice of technical report writing will be stressed.

**436 Personnel Administration****3 hrs. Fall, Spring**

The personnel office in modern business and industry. The duties and work of the personnel staff, personnel office, records and reports, interviewing, counseling, adjustment of complaints, job analysis, job classification, in-service training, and upgrading of employees. Prerequisite or concurrent: Psychology of Personality 207.

**439 Office Management****3 hrs. Spring**

Areas of office services from the managerial viewpoint. A brief overview of the problems of organizing, constructing, installing, and maintaining office systems.

**MARKETING****222 Marketing****3 hrs. Spring**

An analysis of the eight Marketing functions as they apply to our distribution of physical goods and the transfer of title to those goods. Some attention is given to the principles, methods, and the increasing problems of successful marketing. There will be recognition of the general criticisms of the existing marketing structure and proposals for improvement. Credit for this course may be given either in the Economics Department or the School of Business. Prerequisites: 220A, B, which may be taken either before or in conjunction with this course.

**340 Salesmanship****3 hrs. Fall**

An introduction to the principles of selling. Includes study of selling in our present economy, analysis of the steps in a sales demonstration, and a classroom sales demonstration.

**341 Sales Management****3 hrs. Spring**

A study from the viewpoint of management dealing with the organization and operation of the sales division within business enterprises. Includes work in the areas of sales structures, selection, training, compensation, territories, conventions, and sales promotion. Prerequisite: Salesmanship 340 or approval of instructor.

**342 Advertising****3 hrs. Spring**

An analysis of the principles and practices used in various types of advertising such as newspaper, radio, and direct mail advertising. Attention is devoted to preparing copy and analyzing current advertising practices.

**345 Credit Management****3 hrs. Fall**

An introduction to the principles of credit, credit control, and credit management from the viewpoint of manufacturing, wholesale and retail firms. Effective use of credit as a financial and sales device and certain definite aspects of credit such as policies and procedures, collection and legal aspects are studied.

**347 Problems in Marketing****3 hrs. Spring**

A study of current marketing problems utilizing the case method of study. The analysis of current periodicals dealing with marketing problems will also be covered in detail. Will provide the student with a practical approach to our dynamic marketing structure and the problems faced in this area. Prerequisite: 222.

**440 Advanced Salesmanship****3 hrs. Fall**

Background of basic principles and analysis of selling techniques applied principally to specialty fields.

**442 Advanced Advertising****3 hrs. Spring**

Special concentration on media, copy and layout. Study and projects on radio, television, newspapers and magazines.

**447 Marketing and Market Research****3 hrs. Spring**

Designed to give business students experience in using maps, map analysis, and other geographic techniques in presenting market data, evaluating market potential, delineating trading and selling territories, and selecting locations for wholesale, retail, and service establishments. Prerequisites: 222, Junior or Senior status, or approval of instructor.

**RETAILING****100A Coordinated Retail Experience****2 hrs. Fall**

A course through which classroom instruction and on-the-job training are coordinated. The requirement for credit will be (1) one semester of approved work experience of at least 200 clock hours, (2) a report from the employer, and (3) a term report by the student. Prerequisite: Retailing curriculum.

**100B Coordinated Retail Experience****2 hrs. Spring**

A continuation of 100A. Prerequisite: Retailing curriculum.

**140 Principles of Retailing****3 hrs. Fall**

Designed to give the student an over-all view of the field of retailing. Covers such topics as: a history of retailing; types of retail institutions; store location, layout, fixtures, and equipment; store organization; store record-keeping; customer services; personnel management; systems; and store protection.

**141 Selling Fashion Merchandise****2 hrs. Fall**

A specialized course in the application of salesmanship to fashion merchandise. A study of color and design in fashions, fashion history, fashion functions, influences of changes, and the world's key designers and fashion centers.

**142 Color and Design in Retailing****2 hrs. Spring**

Analysis and evaluation of color and design in merchandise. Research, psychology, theory, harmony, and selection of color are emphasized.

**150 Retail Salesmanship****3 hrs. Spring**

Analyzes successful retail selling. Case problems in salesmanship are frequently discussed and each student is required to give a sales demonstration. Considers various steps in a sale and accompanying customer reactions.

**151A Merchandise Information—Non-Textiles****2 hrs. Fall**

An organized study of non-textile merchandise especially aimed at correlating retail experience with classroom work. Merchandise manuals are studied and developed.

**151B Merchandise Information—Textiles****2 hrs. Spring**

A study of fabrics and textile merchandise. The course includes identification and analysis of fibers, sources of fibers, processes of creating and finishing cloth, and fabric suitability and salability as related to specific merchandise.

**200A Coordinated Retail Experience****2 hrs. Fall**

A continuation of 100A, B. Prerequisite: Retailing curriculum.

**200B Coordinated Retail Experience****2 hrs. Spring**

A continuation of 200A. Prerequisite: Retailing curriculum.

**224 Interior and Window Display****2 hrs. Fall**

A study of window and store display with emphasis on color, design, and lettering. Attention is given to sources of display materials, services, and ideas.

**240 Retail Advertising****3 hrs. Fall**

Stresses newspaper, radio, television, and direct-mail advertising as it applies to the small and medium sized store. Consideration is also given to the promotion calendar and techniques for tying in store displays with various advertising media.

**241 Retail Credit and Collections****3 hrs. Spring**

A practical and detailed study of the meaning and importance of credit. Among the areas covered are: the extent of retail credit; sources of credit information; legal aspects, policies, and procedures; and collection problems.

**242 Selling Home Furnishings****2 hrs. Spring**

A study of period styles, materials, construction, and arrangement of furniture as a selling factor. The proper use of accessories, such as lamps, wall decorations, plastics, etc. is emphasized.

**243 Retail Buying Techniques****3 hrs. Spring**

Deals with the work of the store buyer; where, when, and how to buy. Terms, prices, invoices, legal aspects, and other arrangements with vendors are all studied.

**SECRETARIAL****100A Shorthand****3 hrs. Fall, Spring**

A study of the theory and principles of Gregg shorthand. Typewriting 101A or its equivalent is a requirement for course credit.

**100B Shorthand****3 hrs. Fall, Spring**

A continuation of 100A. Dictation is given at various rates of speed. Typewriting 101B or its equivalent is a requirement for course credit. Prerequisite: 100A and 101A.

**101A Elementary Typewriting****2 hrs. Fall, Spring**

The mastery of the keyboard and the proper techniques of typewriting are developed in this course. Open to students with less than one year of high school typewriting credit.

**101B Intermediate Typewriting****2 hrs. Fall, Spring**

Special stress is placed upon perfecting the techniques necessary for accuracy and speed in typewriting. A writing rate of 40 words net per minute is required for passing. Prerequisite: 101A or its high school equivalent.

**103 Records Management****2 hrs. Fall, Spring**

A study of the indexing and filing rules and all types of filing methods and card systems.

**130A Secretarial Science****5 hrs. Fall, Spring**

Designed for the development of occupational efficiency of a secretary. Special emphasis is given to the building of accuracy and speed for office transcription. Prerequisite: 100B and 101B or its high school equivalent.

**130B Secretarial Science****5 hrs. Fall, Spring**

A continuation of the development of speed and accuracy in shorthand, typewriting, and transcription. Prerequisite: 130A.

**200A Coordinated Business Experience****2 hrs. Fall**

This is a work-experience course limited to those students who are currently enrolled in the cooperative office-training program and are currently enrolled in 130A.

**200B Coordinated Business Experience****2 hrs. Spring**

A continuation of course 200A open to students currently enrolled in 130B.

**230A Office Machines****2 hrs. Fall, Spring**

This course provides the student with the operating knowledge of office machines that are commonly used in the modern business office.

**230B Office Machines****2 hrs. Fall, Spring**

A continuation of 230A. This course is intended primarily for the student preparing for the various office occupations.

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**365 Teaching of Bookkeeping and Basic Business Courses. 2 hrs. Fall, Spring**

A course in methods for the prospective teacher of bookkeeping, business law, economics, business English, and clerical business skills. It is recommended that this course either precede or accompany directed teaching in this area.

**366. Teaching of Shorthand and Typewriting. 2 hrs. Spring**

A course in the methods of teaching business subjects with emphasis on shorthand, typewriting, and other stenographic skills. It is recommended that this course either precede or accompany directed teaching in this area.





## PART IV—*School of Education*

James H. Griggs, Dean

The School of Education consists of the following departments: Education, Librarianship, Physical Education for Men, Physical Education for Women, Rural Education, Campus School, Paw Paw Schools, and the Educational Service Library.

In general, the School of Education performs four functions:

- (1) Supervises the selection, admission and retention of students in advanced teacher education curricula;
- (2) Offers professional education courses designed to develop competent, efficient performance in the classroom and within a school system;
- (3) Offers advanced specialized courses in selected major and minor fields in departments within the school;
- (4) Offers service courses to students in other schools within the university.

### I. CURRICULA FOR TEACHERS

The program for prospective teachers consists of three parts: (1) general education, designed to develop those understandings and competencies which make for effective living and good citizenship, offered largely in the School of Liberal Arts and Sciences; (2) advanced specialized study, with major and minor interests in the fields of the student's choice, offered in all schools; and (3) professional education, courses offered in the School of Education.

In general, prospective teachers choose to work for the State Elementary Provisional Certificate, valid for grades kindergarten through eight, or the State Secondary Provisional Certificate, valid for grades seven through twelve.

Students majoring in art, music, librarianship, 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 to teach his special subject in both the elementary and secondary grades when the candidate qualifies in both fields.

Students wishing to teach in selected school districts in Michigan which do not maintain an approved high school may pursue the Rural Education curriculum which leads to the State Limited Certificate.

**ELEMENTARY CURRICULUM**

A.B. or B.S. Degree

State Elementary Provisional Certificate

(For the preparation of Teachers of Kindergarten and Grades 1-8)

S.H.

**A. Course Requirements**

- |   |      |
|---|------|
| 1. Language and Literature .....  | 9-11 |
| Communication 104A, B <i>or</i> .....   | 8    |
| College Writing 106A, B .....   | 6    |
| Literature for Children 203 .....   | 3    |
| 2. Science and Mathematics .....  | 12   |
| Biological Science 102* .....   | 4    |
| Human Geography 105A* .....   | 4    |
| Physical Science 100A* .....  | 4    |
| (Arithmetic for Teachers 101 is strongly recommended)   |      |
| *If the student demonstrates proficiency in any of these subjects by comprehensive examination, he may elect other courses from the division upon the recommendation of his counselor.  |      |
| 3. Social Science .....   | 11   |
| Western Civilization 100A, B <i>or</i> .....  | 8    |
| Man and Society 101A, B .....   | 8    |
| American Government 230A, 230B, <i>or</i> 334 .....   | 3    |
| 4. Humanities .....   | 6    |
| Humanities 201A, B* <i>or</i> .....   | 6    |
| Humanities 202A, B* .....   | 6    |
| *Temporary equivalents for these courses may be permitted with the consent of the counselor.  |      |
| 5. Education .....  | 24   |
| Human Growth & Development 251 .....  | 3    |
| Psychology of Reading 212 .....   | 3    |
| Introduction to Directed Teaching 351 .....   | 3    |
| Directed Teaching, Laboratory in Education, and General Education Problems 370A, B, C .....   | 15   |
| 6. Fine and Practical Arts .....  | 12   |
| (Include one course in Art, one teaching course in Music, and one course in Practical Arts.)  |      |
| 7. Physical Education .....   | 4    |
| Must include Elementary School Phys. Ed. 330  |      |
| 8. Additional General Education Courses .....   | 8-10 |
| Eight hours additional work (ten if the student takes College Writing 106A, B) must be elected from non-professional Liberal Arts courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any non-professional courses in the Divisions of Language and Literature, Social Science, and Science and Mathematics. |      |

9. Electives ..... 36
- B. Four minors of not less than 15 hours each, or one major of not less than 24 hours and two minors of not less than 15 hours each are required. The equivalent of at least two minors must be in subjects or subject fields taught in the elementary grades. Certain courses in some departments may not be counted toward majors or minors (See course descriptions).
- C. The candidate must satisfy the requirements of the A.B. or B.S. degree.

## SECONDARY CURRICULUM

A.B. or B.S. Degree

State Secondary Provisional Certificate

(For the preparation of Teachers of Grades 7-12)

	S.H.
A. Course Requirements	
1. Language and Literature .....	6-8
Communication 104A, B <i>or</i> .....	8
College Writing 106A, B .....	6
2. Science .....	8
Biological Science 102* .....	4
Human Geography 105A* .....	4
Physical Science 100A, B* .....	4 or 8
*If the student demonstrates proficiency in any of these subjects by comprehensive examination, he may elect other courses from the division upon the recommendation of his counselor.	
3. Social Science .....	11
Western Civilization 100A, B <i>or</i> .....	8
Man and Society 101A, B .....	8
American Government 230A, 230B, <i>or</i> 334 .....	3
4. Humanities .....	6
Humanities 201, B* <i>or</i> .....	6
Humanities 202A, B* .....	6
*Temporary equivalents for these courses may be permitted with the consent of the counselor.	
5. Education .....	21
Human Growth and Development 251 .....	3
Introduction to Directed Teaching 351 .....	3
Directed Teaching, Laboratory in Education, and General Education Problems 370A, B, C .....	15
6. Physical Education .....	4
7. Additional General Education Courses .....	8-10
Eight hours additional work (ten if the student takes College Writing 106A, B) must be elected from non-professional Liberal Arts courses marked by an asterisk in	

the Division of Basic Studies and the Departments of Art and Music, or from any non-professional courses in the Divisions of Language and Literature, Social Science, and Science and Mathematics.

8. Electives ..... 62
- B. One major of not less than 24 hours and two minors of not less than 15 hours each in subjects or subject fields that are taught in secondary schools in Michigan are required. Certain courses in some departments may not be counted toward majors or minors (See course descriptions).
- C. The candidate must satisfy the requirements of the A.B. or B.S. degree.
- D. The candidate for the State Secondary Provisional Certificate must present a methods course in a major or minor field.

For an outline of major and minor requirements, see the respective departments controlling the majors and minors.

## LIBRARIANSHIP CURRICULUM

A.B. or B.S. Degree

State Elementary or Secondary Provisional Certificate

(For Teacher-Librarians)

First Year	S.H.	Second Year	S.H.
Basic Studies		Humanities	6
College Writing 106	6	General Psychology 200	3
Fund. West. Civilization 100A, B	8	Human Growth and Development 251	3
Science	8	Literature for Children 203	3
Modern Language	8	Electives	14
Introduction to Librarianship		Physical Education	1
100A, B	2		—
Physical Education	2		30
	34	Fourth Year	S.H.
Third Year	S.H.	Introd. to Directed Teaching	3
American Government 334	3	Introd. to Classif. and Catalog 470	4
Selection of Bks. and Related		Field Assignment 480	2
Materials 403	2	Storytelling 406*	2
Reference Service 411	2	Library Materials for	
Organ. of Library Materials 360	2	Children* 407 or	2
Electives	20	Reading Interests of Young	
Physical Education	1	Adults 402	2
	—	Directed Teaching 370†	15
	30	Audio-Visual Education 438	2
			—
			30

\*Required for students in elementary curriculum instead of 402.

†Directed Teaching in the school library as well as in the classroom.

**MUSIC CURRICULUM**

B.M. Degree with a major in Public School Music, State Elementary or  
Secondary Provisional Certificate

First Year	S.H.	Second Year	S.H.
Applied Music*	4	Applied Music*	4
Communications 104AB		Humanities 201A or B	
or		or	
College Writing 106AB	8 or 6	Humanities 202A or B	
Physical Science 100A and/or B		or	
or		Approved Alternate	4(3)
Biological Science 102		String Class 118A, B	2
or		Sophomore Theory 206 A, B	8
Found. of West. Civil. 100A		Advanced Piano Class 217A, B	2
and/or B		Woodwind Class 219A, B	2
or		Elementary Acoustics 110	2
Man & Society 101A and/or B	8	Elementary Music Methods 208	3
Freshman Theory 106AB	8	Percussion Class 321	1
Voice Class 116 AB	2	Large Ensemble	2
Piano Class 117 AB	2	Physical Education	2
Large Ensemble	2	Elective (non-music)	4
Physical Education	2		
	36 or 34	Fourth Year	S.H.
Third Year	S.H.	Applied Music*	8
Applied Music*	4	Directed Teaching 370A	4
Brass Class 320 A, B	2	Lab. in Education 370B	3
Choral & Inst. Conducting		Genl. Ed. Prob. 370C	3
311A, B	2	Elective (Non-Music)	2
Junior H.S. Methods 301	3	Large Ensemble	24
Senior H. S. Methods 302	3		
Hist. & Lit. of Music 307A, B	8		
Human Growth & Devel. 251	3		
Introd. to Dir. Teach. 351	3		
Music Arranging 304	2		
Political Science 334	3		
Large Ensemble	2		
	35		

Plus the following courses which carry no credit:

Music Education Band (1 year)	English Dict. and Song Lit. 122
Music Education Orchestra (1 year)	(1 Sem.)
Major Performance Literature	French Dict. and Song Lit. 322
(1 year)	(1 Sem.)
Italian Dict. and Song Lit. 222	German Dict. and Song Lit. 324
(1 Sem.)	(1 Sem.)

\*General Supervisors divide their study between voice and an instrument.  
Instrumental Supervisors concentrate their study on an instrument.  
Vocal Supervisors concentrate their study on voice.

## RURAL LIFE AND EDUCATION

### DEGREE AND PROVISIONAL CERTIFICATE

Curricula, leading to the State Provisional Certificates, are offered with major attention given to preparation for work in rural schools and communities. Majors (24 hours) and minors (15 hours) in Rural Life and Education are provided that students may choose under guidance those courses that will in their judgment most adequately prepare them both personally and professionally. The majors and minors are not limited to students in the department.

Students preparing to teach in elementary schools choose four minors preferably, or a group major and two minors, and additional courses from among both group and general electives. They become familiar with the grades and subject areas of the entire elementary school. The Rural Elementary Curriculum (two years) is the first two years of the Rural Elementary Degree Curriculum.

Students preparing to teach in secondary schools choose majors, minors and additional subject matter courses with thought to the rural backgrounds of the students; also with thought to the variety of teaching and extra-curricular demands to be met in smaller high schools. The Rural Elementary Curriculum (two years) includes the foundation courses for the Rural Secondary Degree Curriculum.

Counsel and courses are offered for further professional specialization for principals, superintendents, supervisors and county superintendents. Those preparing to serve rural people in other professional or service occupations, such as ministers, librarians, social workers, and recreational leaders, will find considerable basic work in the offerings of the Department of Rural Life and Education.

### STATE LIMITED CERTIFICATE CURRICULA

The following two-year, 62 hour curricula meet the requirements for the State Limited Certificate which is valid for one year and "qualifies the holder to teach in any primary school district or in any graded school district not maintaining grades above the eighth. All courses must be appropriate to the education of elementary teachers",\* at least 30 hours being in Groups I, II and III. Students are encouraged to complete four-year curricula at the earliest possible moment.

\*Teachers' Certificate Code, Bulletin No. 601, 1942 and later revisions.

### RURAL ELEMENTARY CURRICULUM (TWO YEARS)

This curriculum is planned to give as broad, and at the same time as specific and practical professional preparation for working with children in farm and rural non-farm communities, as is possible in two years.

	S.H.
1. English <sup>1</sup> .....	6
College Writing 106A (in addition) .....	3
2. Science <sup>2</sup> .....	8

3. Social Sciences <sup>3</sup>	
Rural Sociology 220 .....	3
Rural Economics 230 .....	3
Political Science .....	3
Elective .....	3
4. Education <sup>4</sup>	
Curriculum 140 .....	3
Intro. to Directed Teaching 240 .....	3
Directed Teaching 241 .....	4
Rural School Administration 340 .....	3
Elective .....	3
5. Fine Arts <sup>5</sup> .....	5
6. Practical Arts <sup>6</sup> .....	1
7. Physical Education <sup>7</sup> .....	2
Men: General Physical Education 102A, B or 103A, B	
Women: Physical Education 100, Rural School Physical Education	
233 .....	9
8. Electives <sup>8</sup> .....	9

Provision is made for a flexibility of choice among the courses in the different groups, under guidance of the departmental counselor; preferences usually falling among the following:

### JUNIOR OR COMMUNITY COLLEGE—COLLEGE OF EDUCATION COOPERATIVE TEACHER EDUCATION CURRICULUM

Michigan junior colleges and the colleges of education have a cooperative program in teacher education. In three semesters in a junior college and the fourth semester in a state college of education, minimum requirements may be met for a State Limited Certificate as prescribed in the 1942 Revision of the Teachers' Certification Code.

Recommendation for certification is made by the college of education. The program is coordinated by a representative from the college of education who also serves as program counselor for the second year students. In the field service area of Western Michigan University are Grand Rapids Junior and Benton Harbor and Muskegon Community Colleges.

1. Speech for Teachers 105; American Literature 221 A or B; or Literature for Children 203.

2. Rural School Agriculture 105; Outdoor Science 231A or B; Human Geography 105A; Health Education 285.

3. State and Local Government 230B; United States History 201B.

4. Psychology of Reading 212; Human Growth and Development 251. Those selected students permitted to do Directed Teaching 241 in the field while in residence there for six weeks receive 5 instead of 4 hours credit.

5. Art Structure 106, Learning Through Art 112; Rural School Music 109.

6. Rural Practical Arts 104; Family Food 118, Consumer Problems 142, Clothing 203, Home Furnishings 221, Everyday Nutrition 222, Marriage and Family Relations 325, Housing 422.

7. Men and Women: Square Dancing 101, Social Dancing 122, Rural School Physical Education 233. Women: Volley and Basketball 105, Individual Gym 109, Swimming 110, Tennis 113, Golf 114, Folk Dancing 115, Advanced Swimming 116, Archery 118, Badminton 120, Modern Dance 121.

8. These electives may well be chosen from the preferred courses listed in the above notes (1-5), supplemented if necessary from such courses as follow: Arithmetic 101; College Writing 106B, Reading Interests of Children 202, Literary Interpretation 210, The English Bible 218A, B, Principles of Speech Correction 251; World Regions 105B, Physical Science 100A,B; United States History 201A; Illustrative Handwork 107, Industrial Art 110; College Orchestra 132, College Band 133, Auxiliary Choir 134.

## SPECIAL EDUCATION CURRICULUM — DEAF AND HARD OF HEARING

B.S. Degree

State Elementary Provisional Certificate

(For the preparation of teachers of deaf and hard of hearing children)

A. Course Requirements	S.H.
1. Language and Literature ..... 12-14	
Communication 104A, B <i>or</i> ..... 8	
College Writing 106A, B ..... 6	
Literature for Children 203 ..... 3	
Problems of the Deaf and Hard of Hearing 232 ..... 3	
2. Science ..... 18	
Biological Science 102* ..... 4	
Human Geography 105A* <i>or</i> Physical Science 100A* ..... 4	
Healthful Living 112 <i>or</i> Health Education 285 ..... 2	
General Psychology 200 ..... 3	
Abnormal Psychology 305 ..... 3	
Mental Testing 307 ..... 2	
*If the student demonstrates proficiency in any of these subjects by comprehensive examination, he may elect other courses from the division upon the recommendation of his counselor.	
3. Social Science ..... 11	
Western Civilization 100A, B <i>or</i> ..... 8	
Man and Society 101A, B ..... 8	
American Government 230A, 230B, <i>or</i> 334 ..... 3	
4. Humanities ..... 6	
Humanities 201A, B* <i>or</i> ..... 6	
Humanities 202A, B* ..... 6	
*Temporary equivalents for these courses may be permitted with the consent of the counselor.	
5. Education ..... 40	
Human Growth and Development 251 ..... 3	
Psychology of Reading 212 ..... 3	
Introduction to Directed Teaching 351 ..... 3	
Introduction to Special Education 231 <i>or</i> ..... 2	
Education of Exceptional Children 431 ..... 2	
Mental Hygiene of Childhood and Adolescence 436 ..... 2	
Speech for the Deaf 433B ..... 2	
Language for the Deaf 433C ..... 2	
Introduction to Lip Reading 433A ..... 2	
Basic Audiometry 334 ..... 3	
Anatomy and Pathology of the Aural Mechanism 435 ..... 3	
Directed Teaching, Laboratory in Education, and	
General Education Problems 370A, B, C, ..... 15	
6. Fine and Practical Arts ..... 12	
Industrial Arts for Elementary Teachers 164 ..... 4	
Electives (must include at least one course in Music and one course in Art) ..... 8	



- |  |      |
|--|------|
| 7. Physical Education .....  | 4    |
| 8. Additional General Education Courses .....  | 8-10 |
| Eight hours additional work (ten if the student takes College Writing 106A, B) must be elected from non-professional courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any such courses in the Divisions of Language and Literature, Social Science, and Science and Mathematics, except those in the Department of Paper Technology. |      |
| 9. Electives .....   | 11   |
- B. The academic training shall include a major in Special Education (deaf and hard of hearing) and two minors. The two minors must be in subjects or subject fields taught in the elementary grades or in special classes for deaf or hard of hearing. Courses included in the major in Special Education must be elected under guidance and must include those subjects, groups, and hours required for certification by the Department of Public Instruction, American Association of Instructors of the Deaf, and the American Speech and Hearing Association.
- C. The candidate must satisfy the requirements of the B.S. degree.

## SPECIAL EDUCATION CURRICULUM — MENTALLY HANDICAPPED

### B.S. Degree

#### State Elementary Provisional Certificate

(For the preparation of teachers of mentally handicapped children)

- |  |      |
|--|------|
| A. Course Requirements .....   | S.H. |
| 1. Language and Literature .....   | 9-11 |
| Communication 104A, B <i>or</i> .....  | 8    |
| College Writing 106A, B .....  | 6    |
| Literature for Children 203 .....  | 3    |
| 2. Science .....   | 22   |
| Biological Science 102* .....  | 4    |
| Human Geography 105A* .....  | 4    |
| Physical Science 100A* .....   | 4    |
| Healthful Living 112 (or Health Education 285) .....   | 2    |
| General Psychology 200 .....   | 3    |
| Abnormal Psychology 305 .....  | 3    |
| Mental Testing 307 .....   | 2    |
| *If the student demonstrates proficiency in any of these subjects by comprehensive examination, he may elect other courses from the division upon the recommendation of his counselor. |      |
| 3. Social Science .....  | 11   |
| Western Civilization 100A, B <i>or</i> .....   | 8    |
| Marriage and the Family (or Modern Marriage) .....   | 3    |
| Man and Society 101A, B .....  | 8    |
| American Government 203A, 203B, or 334 .....   | 3    |

- |  |       |
|--|-------|
| 4. Humanities .....  | 6     |
| Humanities 201A, B* <i>or</i> .....  | 6     |
| Humanities 202A, B* .....  | 6     |
| *Temporary equivalents for these courses may be permitted with the consent of the counselor.   |       |
| 5. Education .....   | 36-37 |
| Human Growth and Development 251 .....   | 3     |
| Introduction to Special Education 231 <i>or</i> .....  | 2     |
| Education of Exceptional Children 431 .....  | 2     |
| Psychology of Reading 212 .....  | 3     |
| Mental Deficiency 434 .....  | 3     |
| Introduction to Mental Hygiene 235 <i>or</i> .....   | 3     |
| Mental Hygiene of Childhood and Adolescence 436 .....  | 2     |
| Education and Control of Mentally Handicapped 432 .....  | 3     |
| Methods of Teaching Mentally Handicapped Children 437 .....  | 2     |
| Introduction to Directed Teaching 351 .....  | 3     |
| Directed Teaching, Laboratory in Education, and<br>General Education Problems 370A, B, C .....   | 15    |
| 6. Fine and Practical Arts .....   | 12    |
| Industrial Arts for Elementary Teachers 164 .....  | 4     |
| Electives (must include at least one course in Music and<br>one course in Art) .....   | 8     |
| 7. Physical Education .....  | 4     |
| 8. Additional General Education Courses .....  | 8-10  |
| Eight hours additional work (ten if the student takes College Writing 106A, B) must be elected from non-professional courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any such courses in the Divisions of Language and Literature, Social Science, and Science and Mathematics, except those in the Department of Paper Technology. |       |
| 9. Electives .....   | 13-14 |
- B. The academic training shall include a major in Special Education (mentally handicapped) and two 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. Courses included in the major in Special Education must be elected under guidance, and must include those subjects, groups and hours required by the Department of Public Instruction for certification.
- C. The candidate must satisfy the requirements of the B.S. degree.

## SPECIAL EDUCATION CURRICULUM — SPEECH CORRECTION

B.S. Degree

State Elementary Provisional Certificate

(For the preparation of teachers of speech correction)

S.H.

### A. Course Requirements

1. Language and Literature .....	30-32
Communication 104A, B <i>or</i> .....	8
College Writing 106A, B .....	6
Speech for Teachers 105 .....	3
Problems of Deaf and Hard of Hearing 232 .....	3
Introduction to Speech Correction 250 .....	3
Principles of Speech Correction 251 .....	3
Phonetics 318 .....	3
Basic Voice and Speech Science 451 .....	3
Stuttering and Allied Disorders 452 .....	3
Applied Speech Correction 453 .....	3
2. Science .....	18-19
Biological Science 102* .....	4
Physical Science 100A* .....	4
Healthful Living 112 .....	2
General Psychology 200 .....	3
Abnormal Psychology 305 .....	3
Mental Testing 307 <i>or</i> .....	2
Laboratory in Psychological Testing 302 .....	3
<p>†If the student demonstrates proficiency in any of these subjects by comprehensive examination, he may elect other courses from the division upon the recommendation of his counselor.</p>	
3. Social Science .....	14
Western Civilization 100A, B <i>or</i> .....	8
Man and Society 101A, B .....	8
Marriage and the Family or Modern Marriage 245 .....	8
American Government 230A, 230B, <i>or</i> 334 .....	3
4. Humanities .....	6
Humanities 201A, B* <i>or</i> .....	6
Humanities 202A, B* .....	6
<p>*Temporary equivalents for these courses may be permitted with the consent of the counselor.</p>	
5. Education .....	25-26
Human Growth and Development 251 .....	3
Introduction to Special Education 231 <i>or</i> .....	2
Education of Exceptional Children 431 .....	2
Introduction to Mental Hygiene 235 <i>or</i> .....	3
Mental Hygiene of Childhood and Adolescence 436 .....	2
Introduction to Directed Teaching 351 .....	3
Directed Teaching, Laboratory in Education, and General Education Problems 370A, B, C .....	15

6. Physical Education ..... 4
7. Additional General Education Courses ..... 8-10  
 Eight hours additional work (ten if the student takes College Writing 106A, B) must be elected from non-professional courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any such courses in the Divisions of Language and Literature, Social Science and Science and Mathematics, except those in the Department of Paper Technology.
8. Electives ..... 15-17  
 Suggested electives: Anatomy 211A, Public Speaking 126, Social Psychology 243, Principles of Social Case Work 355, Psychology of Reading 212, Basic Audiometry 334 or Introduction to Lip Reading 433A, Cultural Anthropology 248, Learning and Memory 410.

B. The candidate must satisfy the requirements of the B.S. degree.

## II. LIBRARIANSHIP CURRICULUM

A.B. or B.S. Degree

### PRE-PROFESSIONAL

First Year	S.H.	Second Year	S.H.
Basic Studies		Humanities	6
College Writing 106	6	General Psychology 200	3
Fund. West. Civil. 100A, B	8	Human Growth and Development	
Science	8	251	3
Modern Language	8	Literature for Children 203	3
Introd. to Librarianship 100A, B	2	Electives	14
Physical Education	2	Physical Education	1
	—		—
	34		30
Third Year	S.H.	Fourth Year	S.H.
American Government 334	3	Introd. to Classif. and	
Sel. of Books and Related		Cataloging 470	4
Materials 403	2	Field Assignment 480	2
Reference Service 411	2	Audio-visual Education 438	2
Organ. of Library Materials 360	2	Electives	22
Electives	20		—
Physical Education	1		30
	—		
	30		

### III. DESCRIPTION OF COURSES

#### EDUCATION

James H. Griggs, Head	John L. Feirer	George Mowrer
David Adams	Orie I. Frederick	Loy Norrix
Roy C. Bryan	Mitchell J. Gary	Harvey Overton
John A. Buelke	Louis A. Govatos	Hazel Paden
Homer L. J. Carter	Wendell Hunt	Lois Robinson
Clara R. Chiara	Eunice E. Kraft	Esther D. Schroeder
George K. Cooper	Dominic Leonardelli	Carl B. Snow
Isabel Crane	L. Morris McClure	Bess L. Stinson
Manley M. Ellis	Dorothy J. McGinnis	Sara R. Swickard
William E. Engbretson	George G. Mallinson	Alfred R. Thea
	Arthur J. Manske	

Courses are designed to meet the professional needs of the student preparing to teach. All students pursuing a curriculum for a secondary provisional certificate and a degree are required to take as a minimum 21 hours of professional work in education; 24 hours for the elementary provisional certificate. The following courses, or their equivalent, are required: Human Growth and Development 251, three hours; Psychology of Reading 212, three hours for elementary teachers; Introduction to Directed Teaching 240 or 351, three hours; and Directed Teaching, Laboratory in Education, and General Educational Problems 370A, B, C, fifteen hours.

Applicants for the secondary provisional certificate are not permitted to major in Education.

Elective courses are available in the following fields: early-elementary education, later-elementary education, secondary education, special education, methods of teaching, theory and principles of education, educational measurements, rural education, and health education. Certain special-methods courses are available in other departments of the university.

Students take Directed Teaching and Laboratory in Education 370A and B, twelve hours, during one semester, and General Educational Problems 370C, three hours, during either semester of the senior year. Students with advanced credit in education or with irregularities in their professional work should confer with the departmental adviser at the earliest possible date.

#### 100 Introduction to Education

2 hrs. Fall, Spring

Experimental Freshman Course open to selected students.

This course is designed to provide an early introduction to the profession of teaching and to the educational services present in communities of the state and nation. Field trips, observations, audio-visual materials, resource persons, tests and personal inventories are used to acquaint students with the purposes and functions of education in American society, and to help students make intelligent choices of areas of specialization within the profession. Course meets three hours a week for two hours credit.

**REQUIRED WORK IN EDUCATION**

(For Provisional Certificate)

**SOPHOMORE OR JUNIOR YEAR****251 Human Growth and Development 3 hrs. Fall, Spring**

Class meets four periods a week for three hours credit. Course deals with physical, social, emotional, and intellectual growth and development of children and adolescents.

**JUNIOR YEAR****351 Introduction to Directed Teaching 3 hrs. Fall, Spring**

This course is designed to prepare students for successful student-teaching. Prerequisite: 251 or equivalent and as many honor points as hours of credit.

**SENIOR YEAR****370A, B, C Integrated Professional Education 15 hrs. Fall, Spring**

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. Prerequisite: 251 and 351, or equivalent; and as many honor points as hours of credit.

**370A Directed Teaching 8 hrs. Fall, Spring**

Students devote a half day for one semester to Directed Teaching, at which time they have experiences in both the curricular and extra-curricular program of the training school in which they teach. All students expecting to do Directed Teaching should enroll in the Teacher Education Office well in advance of the semester in which the Directed Teaching is to be done.

**370B Laboratory in Education 4 hrs. Fall, Spring**

Students work individually and in groups on the kinds of problems faced in directed teaching situations in classroom, school, and community. Other problems to be faced later as full-time teachers are considered. Suggestions and guidance are afforded by staff members and by resource persons. The laboratory is divided into elementary and secondary sections.

**370C General Educational Problems 3 hrs. Fall, Spring**

Course content includes such matters as social, political, and economic influences on education; historical and philosophical backgrounds of present-day education; changes and trends in education; and current problems in education.

**OPTIONAL COURSES IN DIRECTED TEACHING****371 Directed Teaching 4 hrs. Fall, Spring**

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 Teacher Education Office for Directed Teaching 371, 372, or 373 well in advance of the semester in which the Directed Teaching is to be done. Prerequisite: as many honor points as hours of credit acquired.

**372 Directed Teaching 4 hrs. Fall, Spring**

Only for seniors who have previously fulfilled a part of their requirement in directed teaching. Similar to description for 370A. This course is also offered in extension.

**373 Directed Teaching 4 hrs. Fall, Spring**

This elective course is planned primarily for those students who wish to extend their teaching over a wide range of grades or subjects, and for students who, in the opinion of the head of the department and the Director of Teacher Education, need more experience in teaching. Prerequisite: 372 or 370A.

**ELEMENTARY EDUCATION****208 Stories for Childhood 2 hrs. Fall**

A study of stories and poems suitable to childhood. Classroom practice in story telling.

**212 The Teaching of Reading 3 hrs. Fall, Spring**

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. Prerequisite: as many honor points as hours of credit.

**302 Problems in Elementary Education 3 hrs.**

This course is designed to deal with problems of immediate concern to beginning teachers—discipline, group activity, teacher-pupil planning, and other problems dealing with teaching in the elementary school. Not offered in 1957-1958.

**305 Early Elementary Education 3 hrs.**

A study of curriculum practices in the early elementary grades. Students will have an opportunity to work with large centers of interest, be introduced to newer courses of study, and afforded the opportunity of actual participation. Not offered in 1957-1958.

**309 Nursery-Kindergarten Education 2 hrs. Spring**

This course will acquaint the students with the history and present-day status of the Nursery School and Kindergarten education. Consideration will be given to the organization, equipment, curriculum, and approved teaching procedures.

**312 Later Elementary Education****3 hrs.**

A study of the characteristics and needs of pupils in the later-elementary grades and of the materials and methods of instruction. Not offered in 1957-1958.

**402 Curriculum Workshop****2-4 hrs. Fall, Spring**

Opportunity is provided for teachers, supervisors and administrators in selected school systems to develop programs of curriculum improvement. A wide variety of resources is used for instructional purposes, including several specialists, library and laboratory facilities, field trips, audio-visual materials, and the like.

**410 Parent Education****2 hrs. Spring**

Places major emphasis on home problems which have educational implications for the child. Parent-teacher relationships, council programs, and cooperative efforts for improvement of education in home and in school are studied.

**411A The Elementary Curriculum****2 hrs. Fall**

A consideration of content and procedures to adapt experiences of pupils in elementary schools to modern conditions and to child needs and interests. Individual or committee reports concerning the improvement of various aspects of the elementary school curriculum will be prepared.

**411B The Elementary Curriculum****2 hrs.**

A continuation of 411A. Emphasis will be placed on developing and organizing research materials for actual use in school systems represented by those taking the course. Not offered in 1957-1958.

**465 Adult Education****2 hrs.**

This course will include such topics as organizing and financing formal public school adult education programs, promoting informal adult education activities, leadership training, program planning, and adult education group techniques. Students will be permitted to select special areas of interests for research and study. Not offered in 1957-1958.

**SECONDARY EDUCATION****321 Secondary School Curriculum****2 hrs.**

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. Not offered in 1957-1958.

**402 Curriculum Workshop****2-4 hrs. Fall, Spring**

Opportunity is provided for teachers, supervisors and administrators in selected school systems to develop programs of curriculum improvement. A wide variety of resources is used for instructional purposes, including several specialists, library and laboratory facilities, field trips, audio-visual materials, and the like.



**420 The Junior High School****2 hrs. Spring**

A detailed consideration of the basic concepts underlying an effective junior high school program. Study of the development and purposes of the junior high school; curricular organization and problems; co-curricular activities; instructional materials.

**SPECIAL EDUCATION****231 Introduction to Special Education****2 hrs.**

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. Prerequisite: 251. Not offered in 1957-1958.

**235 Introduction to Mental Hygiene****3 hrs. Spring**

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; adolescence and its problems; sex development; juvenile delinquency; the mental hygiene of courting, mating, and marital relations; the mental hygiene of religion.

**331 Clinical Problems in Reading****2 hrs. Fall, Spring**

This course provides practical experience in Reading Laboratories sponsored by the Psycho-Educational Clinic. Diagnosis and treatment of reading problems at either the elementary level or secondary level are emphasized. The course deals with physical, mental, and emotional factors affecting reading performance. Open to advanced students with permission of instructor.

**334 Basic Audiometry****2 hrs.**

Theory and practice of hearing testing with emphasis on the development of audiometric techniques. Interpretation of audiograms with respect to clinical and educational recommendations. Not offered in 1957-1958.

**336 Character Education****2 hrs.**

The objectives of character education are studied and catalogued. The influences of the curriculum, the cardinal principles of education and social agencies, in relation to heredity and environment, are observed. A bibliography of methods and materials is collected. Not offered in 1957-1958.

**338 Introduction to Audio-Visual Education****3 hrs.**

Survey of various types of Audio-Visual Aids; functions in the learning process; practice in selecting and evaluating materials; equipment instruction in laboratory periods with proficiency in operation required; and techniques of good utilization of Audio-Visual materials. Not offered in 1957-1958.

**430 Educational Therapy in Reading 2 hrs. Spring**

A study is made of the psychological, sociological and physiological factors affecting children's reading ability, together with laboratory application of such knowledge in the prevention, diagnosis and treatment of reading problems. Open only to experienced teachers by permission of the instructor.

**431 Education of Exceptional Children 2 hrs. Fall**

Deals with the problems and methods involved in the adjustment and training of exceptional children in the schools—the mentally retarded, the gifted, the crippled, the deaf, the blind, the emotionally unstable, and the delinquent.

**432 Education and Control of the Mentally Handicapped 3 hrs. Spring**

The course deals with the roles of the courts, institutions, schools and other agencies in control, education and custody of the mentally handicapped. Organizations and administration of special classes for mentally handicapped of all levels. Prerequisite: 251, or equivalent.

**433A Introduction to Lip Reading 2 hrs.**

A course designed to acquaint the student with the various methods of lip reading and the problems encountered in the teaching of this skill. The student is given opportunity to acquire elementary lip reading skill as well as practice in the techniques of teaching. Not offered in 1957-1958.

**433B Speech for the Deaf 2 hrs. Fall**

Teaching methods used for the development of speech in congenitally deaf children. The formation of speech elements and their combination into words. Use of residual hearing for speech and voice improvement.

**433C Language for the Deaf 2 hrs.**

The development and application of the principles of the English language and presentation to the deaf children. Attention will be given to the Language Principle Method, the Barry Five Slate System, Straight Language for the Deaf, and Wings Symbols. Not offered in 1957-1958.

**434 Mental Deficiency 3 hrs. Spring**

A course in the psychology and pathology of mental deficiency including causation, diagnosis, classification, prognosis and therapy at all levels. Prerequisite: 251.

**435 Anatomy and Pathology of the Aural Mechanism 2 hrs.**

A survey of anatomical and physiological subject matter bearing on the speech field of hearing; functional tests of hearing; and discussion of the pathological conditions of the ear and labyrinth. Not offered in 1957-1958.

**436 Mental Hygiene of Childhood and Adolescence 2 hrs. Fall**

Deals with the problems of emotional adjustment and maladjustment in childhood and adolescence.

**437 Methods and Materials for Mentally Handicapped Children****3 hrs. Fall, Spring**

Principles of learning and instructional practices applicable to mentally handicapped children. Special attention is given to problems of the mentally retarded child with elementary curricular materials.

**438 Audio-Visual Education****2 hrs. Fall, Spring**

Acquaints teachers and administrators with the principles and practical uses of multi-sensory aids to education, including field trips, machines, and creative materials.

**439 Driver Training and Safety Education****2 hrs. Fall, Spring**

Deals with several aspects of safety education in the home, school and community, with special emphasis on preparing secondary school teachers of driver training and safety education. Materials and methods, psycho-physical testing, sound driving practices, pedestrian protection, "Behind-the-Wheel" training in dual-control cars, and accident prevention procedures are an integral part of the course.

**440 Advanced Audiometry****2 hrs.**

This course deals with the physics of sound, with the ear as a sound receiver, and with clinical methods of measuring hearing. The interpretation of test results for the purposes of re-education and the necessary follow-up measures in an educational hearing program are studied. Students will be given actual practice in group and individual audiometric testing. Not offered in 1957-1958.

**METHODS OF TEACHING****340 Art Observation****1 hr. Fall**

Observation of art activities in the training school and discussion and illustration of these problems.

**341 Art Supervision****2 hrs. Spring**

A study of the school curriculum and its need in art activities. A course of study will be outlined and administration problems discussed. Prerequisite: Art Structure 106, Elementary Design 105, Art Composition 208, History of Art 213A, Commercial Art 214.

**342 Teaching of Latin****2 hrs. Spring**

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.

**343 Organization and Administration of Physical Education****3 hrs. Fall, Spring**

The planning of physical-education programs for city, village, and rural schools; the organization of health lessons, games, tests, meets, tournaments, and seasonal play; principles of supervision; construction and equipment of buildings, grounds, swimming pools, athletic fields, stadia.

**346 Teaching of Business Subjects****2 hrs. Spring**

This course is designed for the prospective teacher of high school subjects. Consideration is given to business education programs, equipment, approved teaching procedures and teaching aids.

**347 Plan and Organization of a School Shop****2 hrs. Fall, Spring**

This is a course to help teachers plan and organize the school shop. Topics concerned include physical needs of the subject, selection of activities, shop layout, purchasing equipment, establishing a supply routine, planning personnel organization, and shop management.

**348 Teaching of Industrial Arts and Ind. Voc. Ed.****3 hrs. Fall, Spring**

This course deals with the problems in teaching industrial arts subjects, the techniques employed in the analysis of instructional units, construction of tests and rating scales, and problems dealing with administration and work. The principal methods of instruction used in industrial arts subjects will be emphasized.

**444 Methods in Physical Education****2 hrs. Fall**

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.

**445 Administration and Organization of Physical Education****2 hrs. Spring**

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.

**THEORIES AND PRINCIPLES OF EDUCATION****404 Workshop in Human Relations****2-4 hrs.**

Opportunity is provided for teachers, administrators, and other school personnel to work together in the study and solution of problems in human relations, particularly in the fields of intercultural relations, group processes, communication, and home-school-community relations. Resource persons in Psychology, Sociology, Speech, Business, and Education will participate in the workshop. Not offered in 1957-1958.

**451 Philosophy of Education****2 hrs.**

For graduate students and teachers of experience. Analyzes and interprets the changes in education taking place in this and other countries. Not offered in 1957-1958.

## GUIDANCE

### 480 Introduction to Guidance Services 2 hrs. Fall, Spring

A basic introductory course for all secondary and elementary teachers, including a survey of the history, principles, problems, methods, organization and methods of guidance. Special attention is centered on the individual, his needs and adjustments, and on counseling procedures.

### 481 Techniques of Guidance 2 hrs. Fall, Spring

This course is designed to give competencies in the use of school records, instruments of measurement, case studies, interview, group guidance, placement, follow-up and community resource.

### 482 Occupational Information for Counselors and Teachers 2 hrs. Fall

Stresses knowledge of sources, use, evaluation and techniques of imparting occupational information. Recent trends in the major occupations are also discussed.

### 485 Guidance Workshop 2 hrs.

The workshop is designed for teachers, counselors, supervisors, and administrators in selected school systems to study particular guidance problems and procedures in relation to their local guidance program. A wide variety of workshop methods and resources is used. Not offered in 1957-1958.

## LIBRARIANSHIP

Alice Louise Le Fevre, Head	Mate Graye Hunt	Elizabeth M. Patterson
Frederic J. O'Hara	Gertrude Van Zee	Rosalie Fraser

The Department is accredited by the American Library Association. The curriculum is designed for (1) candidates for the Bachelor's degree with teaching certificate who wish to qualify as teacher-librarians; (2) candidates for the Bachelor's degree who want a pre-professional curriculum in preparation for advanced work in librarianship; (3) prospective teachers and other students who desire a wider acquaintance with books and other library materials and methods; (4) candidates for the Master's degree preparing to meet the requirements for full professional status in librarianship. The school libraries on the campus and at Paw Paw serve as centers for field work for those preparing for school library service and selected cooperating libraries throughout the state serve for field assignments in other areas of librarianship. A departmental library containing books and other materials in library science and related fields is provided in the laboratory—study.

The sequence for teacher-librarians consists of courses 100 A, B (if student enters as freshman or sophomore) 360, 403, 411, 470 and 480. Candidates in the elementary curriculum will also take 406 and 407; those in secondary curriculum will take 402 instead of 406 and 407. The candidate will divide the Directed Teaching (Educ. 370A) period between classroom and school library. The assignment is made cooperatively between

Coordinator of Laboratory Experiences and Head of the Department of Librarianship. The pre-professional curriculum is designed for students who wish to begin their professional education on the undergraduate level. This curriculum consists of courses 100 A, B (freshmen and sophomores) 360, 403, 411, 470 and 480. In addition to the above Educ. 438, *Audio-visual Education* is required in both sequences.

**\*100A Introduction to Librarianship** 1 hr. Fall

An introductory survey to acquaint students with the various types of services offered in the modern library as a social, cultural and educational institution. Students will have opportunity to observe, and in some cases, to participate in the work performed in school, public, county or regional, college and special libraries. Open to freshmen and sophomores who may wish to explore the profession of librarianship as a career.

**\*100B Introduction to Librarianship** 1 hr. Spring

A continuation of 100A.

**\*202 Reading Interests of Children** 3 hrs. Spring

In association with children, the class will read and evaluate a wide range of books on varying reading levels as a basis for consideration of present-day children's interests in the light of the development of children's reading. There will be opportunity to examine, evaluate, and use printed aids for the selection of books for children. Not offered in 1957-1958.

**\*360 Organization of Library Materials** 2 hrs. Fall, Spring, Summer

Methods of organizing various types of materials such as books, periodicals, pamphlets, and audio-visual aids for effective use in relation to the demands of schools and of the community. Emphasis is placed upon practical methods of keeping essential business records, book buying, processing and distributing books with a minimum of routine in schools and in small public libraries.

**\*402 Reading Interests of Young Adults** 2 hrs. Spring, Summer

Study of the fields of literature suited to the interests of young people. Students are given opportunity through wide reading to develop principles and standards for the selection of the book collection. Includes an introduction to methods of stimulating broader reading interests and of conducting group book discussions with young people. Open to students in the Education Department and to others who expect to work with youth.

**403 Selection of Books and Related Materials** 2 hrs. Fall, Summer

Principles of selection and evaluation of books and non-book materials. Appraisal of printed aids, book reviewing media, and other sources of information used in building the library collection. Opportunity given for developing competence in writing annotations and book reviews.

\*Starred courses open to students in other departments

**404 Adult Reading Interests****2 hrs. Spring**

Evaluation of the findings of reading interest studies and their implications in library service. Survey of the field of popular reading in various subject areas. Development of an understanding of the reading habits, abilities and needs of adults with emphasis on techniques of reading guidance for adults.

**406 Storytelling****2 hrs. Fall**

Underlying principles of the art of story telling: techniques; content and sources of materials. Practice in telling stories before groups of children is provided. Planning the story-hour program for various ages as a means of developing appreciation of literature and stimulating an interest in reading.

**\*407 Library Materials for Children****2 hrs. Spring, Summer**

Problems in the selection and evaluation of books, periodicals, films, recordings and other materials for children with special emphasis on the content areas in the elementary school curriculum. Methods of stimulating interest in reading with attention to the retarded as well as the gifted child. For teachers, parents and librarians and others who work with children.

**411 Reference Service****2 hrs. Fall, Spring, Summer**

Study and evaluation of basic reference and bibliographic sources in the various subject fields. Critical examination of the publications of governmental agencies, societies and institutions especially as reference sources in relation to the curriculum. Attention given to organization and methods of reference services.

**460 Library Administration and Organization****2 hrs. Fall**

Organizational factors requisite for effective service to school, public, county and regional libraries. Consideration given to governmental and community relations, to personnel, finance, buildings and equipment. Individual projects, lectures and class discussion supplemented by observation trips.

**461 School Library Service****2 hrs. Spring, Summer**

The function of the library as a department in elementary and secondary schools. Includes study of special problems in budget planning, in provision of staff and in planning for space and equipment. Open to students in school administration programs as well as to librarianship students.

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\*Starred courses open to students in other departments

**470 Introduction to Classification and Cataloging 4 hrs. Fall, Summer**

Introduction to the principles of cataloging and classifying the book collection. Includes study and practice in making the dictionary catalog and in classifying according to the Dewey Decimal Classification scheme. Students are taught to use the unit card system and are given practice in assigning subject headings, in adapting Library of Congress and Wilson printed catalog cards, and in cataloging non-book materials.

**480 Field Assignment and Laboratory 2 hrs. Fall, Spring, Summer**

An assignment in selected cooperating libraries for the purpose of giving the student experience in the organizational and administrative activities in specific types of libraries as basis for understanding their function and the principles underlying policy. The assignment may precede the opening of college or may be carried on during the term. Laboratory period for discussion of problems is held throughout the term.

**PHYSICAL EDUCATION FOR MEN**

Mitchell J. Gary, Head  
Donald E. Boven  
Roger Chiaverini  
George Dales  
Edward A. Gabel  
John W. Gill

Joseph T. Hoy  
Jack D. Jones  
Charles H. Maher  
Ernest J. Petoskey  
Richard Raklovits  
William Rowekamp

Merle J. Schlosser  
Thomas C. Slaughter  
Raymond F. Sorensen  
Fred L. Stevens  
Paul G. White  
Roy J. Wietz

All men must participate in general physical education beginning with the first semester of residence, until a minimum of four hours is completed, except that only three hours of general physical education credit will be required of those men who are enrolled before or during the academic years of 1954-55 and 1955-56. The four-hour requirement was resumed effective at the beginning of the academic year 1956-'57 except for the exemption mentioned above. A medical examination is required of all students upon initial entrance.

Members of athletic squads upon recommendation of the coach concerned, may receive credit for general physical education provided they officially enroll for physical education class and attend the class until the instructor arranges for their transfer to the athletic squad. If they are dropped from or withdraw from the athletic squad or when the season in the sport concerned ends, they must report back immediately to the physical education instructor and attend class thereafter or credit will not be given.

Veterans of military service are subject to the same requirements in general physical education as non-veterans.

Majors or minors specializing in physical education are not required to complete the general physical education requirement.

All transfer students *must enroll for and participate in* general physical education *during the first semester of residence* at Western Michigan University and *thereafter each semester* until the requirement is completed. This requirement is in effect regardless of whether or not general physical education was required at the previous institution.



If time limitations will not permit the transfer student or other student to complete the minimum requirement in general physical education before graduation, he should enroll in a course meeting 3 hours weekly in order to earn the maximum credit possible during each semester before graduation.

Participation in Band may be substituted for physical education credit except that a minimum of one semester hour of credit must be earned by actual participation in general physical education course 153 by each student who is participating in band. Substitution of band participation for physical education credit during the second semester is possible only if the student has participated in the *marching* band during the first semester.

Each male student shall enroll either in general physical education or ROTC beginning with the first semester of residence. During the first four semesters in which he is enrolled in basic ROTC he is excused from general physical education. If he completes the basic ROTC program, the requirement in general physical education for graduation is waived.

Students who withdraw or are dropped from the ROTC program before satisfactory completion of the first two years must meet all of the requirements in general physical education. Any participation less than satisfactory completion of the two-year program in ROTC may not be substituted for a part of the general physical education requirement.

Students in Occupational Therapy and in Medical Technology will complete 2 hours credit in Physical Education classes during their stay on campus and 2 hours credit will be given them for activities in the affiliated program off-campus.

Students enrolled in the terminal and in the two-year pre-professional curricula must participate in general physical education *beginning with the first semester of residence*; except that those enrolled in secretarial or retailing courses must complete one semester hour of Physical Education plus additional selected courses in health or physical education at the rate of one hour per semester until the requirement is completed.

The general physical education requirement will be waived for physical disability only if the waiver is approved by the Health Service and written notice is given by the Health Service to the Registrar.

*Students with irregular programs* should consult the person in charge of general physical education to determine what recommendation may be made for satisfactory completion of the general physical education requirement.

Required courses for the twenty-four hour major in physical education are 105A, 105B, 205A, 205B, 106, 208, 209, 210, 211, 305, 306, 310, 320; Biology 100A, Healthful Living 112, and Anatomy-Physiology 205. Strongly recommended electives are 207, 312.

Minimum requirements for men who elect physical education as their minor are 105A, 105B, 205A, 205B, 208, 209, 210, 211, 320.

Education 343 is required of those who plan to do directed teaching in physical education, whether they be majors or minors.

## HEALTH EDUCATION

A minor is offered in health education which includes six semester hours of required courses with additional hours from the elective courses listed below to complete a minimum of fifteen semester hours.

Required Courses	S.H.	Elective Courses	S.H.
General Biology 100A (Applicable only to Men Phys. Ed. Majors)	4	Healthful Living 112	2
or		Anatomy & Physiology 205	4
Biological Science 102		Psychology of Personality 207	3
Health Education 285	2	Anatomy & Physiology 211A, B	8
	—	Community Hygiene 212	3
	6	Psychology of Adolescence 213	3
		Everyday Nutrition 222	2
		Introduction to Mental Hygiene 235	3
		Modern Marriage 245	2
		Materials for School Health Education 414	2

## THE GENERAL PHYSICAL EDUCATION REQUIREMENT

Activities in the General Physical Education courses are especially designed to meet the physical needs of the men who are not specializing in Physical Education. Emphasis is on fundamentals of the sports of the seasons, calisthenics, gymnastics, tumbling, marching and swimming. Courses are arranged in progression.

Swimming instruction will be offered to each student enrolled in courses 152 and 153 during one-half of each semester. Freshmen must enroll in either 152 or 153 during either, but not both, of their first two semesters. These courses will be offered each semester during the forenoon between 8:00 a.m. and 12:00 noon.

Either an A course or a B course in the 100 group and either 152 or 153 should be completed before the student enrolls in the 200 group.

An A course and a B course in the 200 group must be completed before the student enrolls in the 300 group. The 300 courses are organized to give additional participation in activities of major interest. A course may not be repeated for additional credit.

A student may not receive credit for both 102A and 103A. This also applies to 102B and 103B, to 152 and 153, and to corresponding courses at the 200 and 300 levels.

101 General Physical Education (Tennis) (Summer only) 1 hr.

102A General Physical Education  $\frac{2}{3}$  hr.

102B General Physical Education  $\frac{2}{3}$  hr.

103A General Physical Education 1 hr.

103B General Physical Education 1 hr.

- 104 General Physical Education 1 hr. (Summer only)  
107 Beginning Swimming 1 hr. (Summer only)  
152 General Physical Education (Swimming)  $\frac{2}{3}$  hr.  
153 General Physical Education (Swimming) 1 hr.  
202A General Physical Education  $\frac{2}{3}$  hr.  
202B General Physical Education  $\frac{2}{3}$  hr.  
203A General Physical Education 1 hr.  
203B General Physical Education 1 hr.  
204 General Physical Education 1 hr. (Summer only)  
302A General Physical Education  $\frac{2}{3}$  hr.  
302B General Physical Education  $\frac{2}{3}$  hr.  
303A General Physical Education 1 hr.  
303B General Physical Education 1 hr.

## COURSES FOR SPECIALIZING STUDENTS

- 105A General Athletics and Elementary Gymnastics 1 hr. Fall

Covers material used in physical education classes for elementary and high school level. In the fall, the fundamentals and playing of soccer are stressed. The winter activity consists of fundamentals on the buck, side horse, high bar, parallel bars, ladder, etc., with some attention to the fundamentals of boxing.

- 105B Elementary Gymnastics and Outdoor Games 1 hr. Spring

A continuation of 105A with the addition of wrestling, softball, and touch football.

- 106 History and Principles of Physical Education 3 hrs. Fall, Spring

In this course the experiences of past peoples in the physical development of youth are considered, principles are deduced therefrom and adapted to modern economic and political conditions.

- 205A Advanced Athletics and Gymnastics 1 hr. Fall

This course advances the skills covered in 105A and stresses leadership. The work is outdoors during seasonable weather and takes up gymnastics indoors during the winter months.

- 206B Advanced Gymnastics and Outdoor Games 1 hr. Spring

This continues 205A, but in the spring playground games and activities are covered and a track pentathlon suitable for playground uses.

**207 Camping and Scouting****3 hrs. Spring**

History, principles, and aims of the Boy Scout movement. Tests are passed and techniques mastered. General camping material is presented and tested in evening and overnight hikes. Good background for potential scoutmasters.

**208 Fundamentals and Technique of Football****2 hrs. Fall, Spring**

Fundamentals of football coaching, with special emphasis on blocking, tackling, passing, kicking, and line and backfield maneuvers. Building an offense, principles of defense formations, scouting and rules.

**209 Fundamentals and Technique of Basketball****2 hrs. Fall, Spring**

This covers the theory and practice of basketball coaching. Foundation skills are stressed, with a study of offensive and defensive systems. A personal textbook involving all material is created.

**210 Fundamentals and Technique of Baseball****2 hrs. Fall, Spring**

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 hrs. Fall, Spring**

The accepted forms of starting, hurdling, distance running, pole vaulting, discus and javelin throwing, and sprinting. Factors affecting speed, endurance, and fatigue. The selection and preparation of contestants for track and field events. Managing of meets.

**305 Principles and Technique of Gymnastic Teaching****2 hrs. Fall**

The materials and skills covered in the 105 and 205 courses are now presented from the angle of the prospective teacher. Notebook. Leadership emphasized.

**306 First Aid and Athletic Training****3 hrs. Fall, Spring**

Knowledge and skill in meeting emergencies. The use of massage, strappings, and training room techniques from the coach's point of view. prerequisites: Anatomy 211A, Physiology 211B.

**309 Tests and Measurements in Physical Education****3 hrs. Spring**

A study of the historical development of measurement in physical education with consideration of the tests currently used. Prerequisites: Anatomy 211A, Physiology 211B.

**310 Swimming****1 hr. Fall, Spring**

This course for physical education majors and minors is basic. Instruction is given to beginners with emphasis on the various strokes. Competent swimmers may participate in qualification tests for Senior Life Saving.

**312 Psychology of Coaching****2 hrs. Fall, Spring**

Considers principles of psychology and their application to athletics and athletic coaching. Phases considered are: preparation for coaching; practice sessions; presenting material effectively; planning the season's campaign; personality and will power.

**320 Playground and Community Recreation****3 hrs. Fall, Spring**

Nature and function of play; age periods and adaptations of activities; social environment; needs and objectives; playground development; construction, management and supervision. Study of outstanding programs in operation. A survey of recreational material.

**PHYSICAL EDUCATION FOR WOMEN**

Crystal Worner, Head

Eleanor N. Douglass

Doris A. Hussey

Helen Brown

Joette Hainks

Margaret Large

Isabel Crane

Candace Roell

Four semester hours of physical education are required for the degree of Bachelor of Arts or Bachelor of Science. The maximum amount of physical education credit to be earned in one semester is  $1\frac{1}{2}$  semester hours. Transfer students who may need to increase the hours should consult with the department chairman. Physical fitness of the student for participating in the physical education program is determined by medical examination. No student is excused from fulfilling the requirement because of physical handicap, but program adjustments are arranged to take care of individual needs. Individual Gymnastics 109 is a requirement for those students with postural defects for whom it is recommended. When this is the case, 109 becomes a prerequisite for all other courses in physical education. Uniforms, which are required for activity classes, should be purchased at the Campus Store.

Requirements for the Physical Education major are: Physical Education 151, 251, 270, 271, 273, 274, 275, 276, 285, 351, 361, 444, 445 and 473; Biology 102, Hygiene 112, Anatomy 211A and Physiology 211B. A twenty-four hour major planned for students who do not intend to teach in this field only, may be arranged with the head of the Department.

Requirements for a Physical Education minor are six hours of Physical Education Theory and Practice, Elementary School Physical Education 270A, B, or Secondary School Physical Education 274A, B, and additional courses to make a total of fifteen hours selected from the following: 171, 275, 276, 285, 444, 445.

Requirements for a Health Education minor are 102 Biological Science, 4 hours, and Health Education, 2 hours. Additional courses to make a total of 15 hours should be selected from the following: 112 Healthful Living, 205 Anatomy and Physiology, 207 Psychology of Personality, 211A & B Anatomy and Physiology, 212 Community Hygiene, 213 Psychology of Adolescence, 222 Everyday Nutrition, 235 Introduction to Mental Hygiene, 245 Modern Marriage, and 414 Materials for School Health Education.

**THE GENERAL PHYSICAL EDUCATION REQUIREMENT****99 Posture Counseling**

The student is given a posture examination and counselled regarding her body mechanics before she may enroll in any physical education class. Rechecks are given at intervals determined by student needs. No hours of credit are given, but this course must be satisfactorily completed in order to fulfill the physical education requirement.

**100 Physical Education 2/3 hr. Fall, Spring**

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. Discussion and activity periods.

**101 Square Dance 2/3 hr. Fall, Spring****105 Physical Education 2/3 hr. Fall, Spring**

Seasonal individual, dual and team sports. Prerequisite 100.

**108 Restricted Exercise 2/3 hr.**

Sports and recreational activities for students with physical limitations. Not offered in 1957-58.

**109 Individual Gymnastics 2/3 hr. Fall, Spring**

A course of remedial exercise for students who do not pass the posture examination. Credit will be given in this course for one repetition only.

**110 Swimming 2/3 hr. Fall, Spring**

Swimming, diving, and life-saving. Prerequisite: 100.

**113 Tennis 2/3 hr. Spring**

Prerequisite: 100.

**114 Golf 2/3 hr. Fall, Spring**

Practice of form for the various shots, with some work on the course. Prerequisite: 100.

**115 Folk Dance 2/3 hr. Fall, Spring**

Prerequisite: 100.

**116 Advanced Swimming 2/3 hr. Fall**

A course in swimming, diving and life-saving; open to students who have passed the beginners' swimming test. Prerequisite: 100.

**118 Archery 2/3 hr. Fall, Spring**

Prerequisite: 100.

**119 Tap Dancing 2/3 hr. Spring**

Prerequisite: 100.

**120 Badminton 1/3 or 2/3 hr. Fall, Spring**

Prerequisite: 100.

**121 Modern Dance 2/3 hr. Fall, Spring**

Individual and group study of expression through rhythmical movement. Prerequisite: 100.

**122 Social Dancing 1/3 hr. Fall, Spring**

**202 Physical Education and Recreation for Teachers****2 hrs.**

This course is open only to teachers. Topics included in the course are: program planning, making of games equipment, accident prevention and simple first aid and body mechanics. Practice in games, stunts, rhythms and recreational activities will be included. Offered by extension only.

**233 Rural School Physical Education** **$\frac{2}{3}$  hr. Spring**

Indoor and outdoor programs for mixed-age groups. Ideas for track meets, picnics, play days, holiday programs, and student leadership systems. Prerequisite: 100.

**330 Elementary School Physical Education** **$\frac{2}{3}$  hr. Fall, Spring**

A study of the physical, mental, and social nature of children in the early elementary group and of activities suited to their needs. Prerequisite: 100.

**332 Secondary School Physical Education** **$\frac{2}{3}$  hr. Fall, Spring**

A course giving in theory and practice physical education activities suitable for high-school students. Prerequisite: 100. Notoffered in 1957-1958.

**COURSES FOR SPECIALIZING STUDENTS\*****151A Physical Education Theory and Practice****2 hrs. Fall**

Body mechanics, swimming, folk dance, modern dance, field hockey, volleyball and basketball.

**151B Physical Education Theory and Practice****2 hrs. Spring**

Tennis, swimming, folk dance, modern dance, basketball and softball.

**171 First Aid****2 hrs. Fall, Spring**

The standard course in first-aid techniques leading to the Red Cross certificate.

**240 Camping Education****4 hrs. Spring, Summer**

This course consists of two parts, the first part to be taught on the campus twice a week for one semester, the second part to be four weeks of field work at a camp. Some of the topics to be considered are: the history and scope of camping, camping in education, camp standards, problems and personnel. Practice will be provided in skills and techniques for camp counselling. The field work will be done in a camp selected by the department where the student will be a counselor with continued guidance by a camp director. Not offered in 1957-1958.

**251A Physical Education Theory and Practice****2 hrs. Fall**

Square dance, modern dance, basketball, volleyball, soccer and swimming.

**251B Physical Education Theory and Practice****2 hrs. Spring**

Social dance, modern dance, basketball, tennis, softball and swimming.

\*Students who are neither majoring nor minoring in Physical Education may elect courses from this group with consent of the departmental adviser.

**270A Elementary School Physical Education 2 hrs.**

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 hrs.**

Practice in physical education activities suitable for the elementary grades with opportunities for members of the group to teach the activities.

**273 Applied Anatomy 2 hrs. Fall**

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. Prerequisite: Anatomy 211A, Physiology 211B.

**274A Secondary School Physical Education 2 hrs. Fall**

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 hr. Spring**

A study of the rules and methods of coaching individual sports of secondary level, such as tennis, archery, and badminton.

**275 History and Principles of Physical Education 3 hrs. Fall**

A brief historical survey of physical education. In addition, a study is made of the principles of physical education and of the types of programs that develop through their application.

**276 Community Recreation, Scouting, and Camp Fire 2 hrs. Fall**

The study of the organization and administration of community play.

**285 Health Education 2 hrs. Fall, Spring**

In this course the fundamental scientific principles of healthful living are developed through a study of school health problems. An effort is made to make prospective teachers aware of modern methods and materials useful in helping school children solve their health problems.

**351A Physical Education Theory and Practice 2 hrs. Fall**

Individual and team sports, dancing and advanced swimming.

**351B Physical Education Theory and Practice 2 hrs. Spring**

Continuation of the activities of 351A with opportunities to teach dance and to officiate in sports.

**361 Physical Education Theory and Practice 2 hrs. Fall**

Archery and golf. Advanced work in sports and dance with opportunities for teaching and officiating.



**473 Individual Gymnastics****3 hrs. Spring**

The study of preventive as well as prescribed exercises for remedial defects in case of curvature and physical abnormalities. Laboratory practice will be included. Prerequisite: Anatomy 211A, Physiology 211B, Applied Anatomy 273.

**RURAL LIFE AND EDUCATION****Wm. McKinley Robinson****James O. Ansel**

Either elementary or secondary education degrees may be earned. The Rural Elementary Curriculum (two-year) leading to the State Limited Certificate is the first two years of Rural Elementary Degree Curriculum, and may be applied without loss of credit on the Rural Secondary or other Education Degree Curricula.

Students who major (24 hours) or minor (15 hours) in Rural Life and Education are required to have Curriculum 140 and Rural School Administration 340. Under the guidance of the departmental adviser the remaining courses are selected to meet the needs of the individual student from among the following or their equivalents:

Rural Sociology 220, Rural Economics 230, Rural Life (Seminar) 320 or 321, Rural School Supervision (Seminar) 345 or 346, Special Problems of Community Schools (Seminar) 348; Introduction to Special Education 231, Introduction to Mental Hygiene 235, Speech Correction 251, Education Therapy in Reading 430, Audio-Visual Education 338, Introduction to Guidance Services 480; and one or more courses in Vocational Education such as Rural Practical Arts 104, Family Food 118, Clothing 203, Home Furnishings 211, Everyday Nutrition 222, Marriage and Family Relations 325, Housing 422, Consumer Buying 439.

**RURAL EDUCATION****140 Curriculum****3 hrs. Fall, Spring**

A study of the objectives of education as related to rural children and rural needs, and teaching practices leading toward these objectives. Students have a wide range of experience in observation and in the examination and development of materials suitable for rural schools.

**240 Introduction to Directed Teaching****3 hrs. Fall, Spring**

A study of the general principles underlying good teaching and management in the various types of rural schools. Group and individual observation and participation opportunities on and off campus are provided.

**241 Directed Teaching****4 or 5 hrs. Fall, Spring**

Directed teaching is done in the Hurd three-teacher school and other designated rural schools of various types in the counties of the service area of the university. Selected students may meet requirements in six-week periods of directed off-campus community participation and teaching.

**340 Rural School Administration****3 hrs. Spring**

The community school; school district reorganization; support and control of education; the functions of the board of education, county superintendent, and state department of public instruction; school buildings, equipment and supplies; professional ethics; professional organizations; the PTA, public relations and interpretation; school law; and similar topics are studied in the course.

**345 Rural School Supervision (Seminar)****2 hrs. Fall**

Planned for supervisors, principals and superintendents. Discussion and individual reports on curriculum, teaching, in-service education, orienting the new teacher, and other problems of supervision for any type of rural school are included. Prerequisite: consent of instructor.

**346 Rural School Supervision (Seminar)****2 hrs. Spring**

Continuation of 345. Study of individual and group problems pertaining to supervisory and related administrative demands in rural schools. Field work is encouraged. Prerequisite: consent of instructor.

**348 Special Problems of Community Schools (Seminar)****2 hrs. Spring**

Planned for teachers, principals and superintendents, supplementing Rural School Administration 340. Topics considered are the aims and functions of the school as related to the rural community, surveys, location and planning of buildings, finance, transportation, selection of teachers, salary and tenure, extra-curricular activities, the PTA, adult education, etc. Field work is encouraged. Prerequisite: consent of instructor.

**RURAL SOCIAL SCIENCE****220 Rural Sociology****3 hrs. Fall, Spring**

Study of life in the rural environment—local, regional and worldwide, including cultural factors; population trends; impact of industrialization; family, village, community; social institutions, agencies and organizations; educational, recreational, cultural, religious, health and governmental facilities. Current magazines and pamphlets supplement the textbooks.

**230 Rural Economics****3 hrs. Fall**

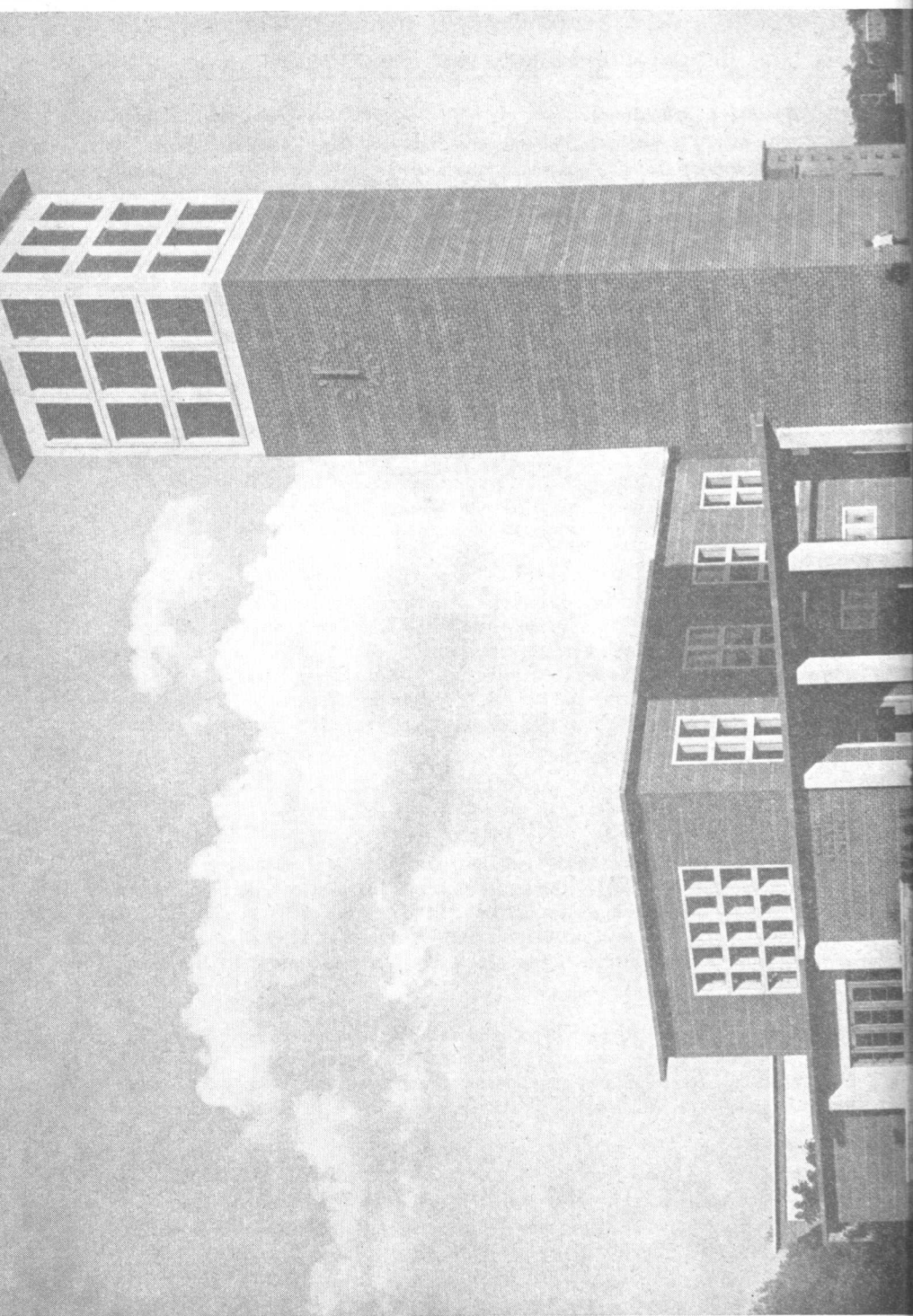
Fundamental economic principles are considered in terms of rural conditions—local, national and international. Economic interpretation is given topics found in the elementary and secondary school curricula—conservation, insurance, consumer education, cooperatives, agricultural extension services, etc.

**320 Rural Life (Seminar)****2 hrs. Fall**

Critical study of recent books in rural social life, with emphasis upon training for leadership. Supplementary references include research studies. Special problems are selected for study by each student. Prerequisite: consent of instructor.

**321 Rural Life (Seminar)****2 hrs. Spring**

Consideration is given individual problems related to social aspects of school and community life, members of the class devising forms and schedules for a study, and analyzing research studies and techniques involving planning for various services and agencies. Field work is encouraged. Prerequisite: consent of instructor.



## PART V— *School of Liberal Arts and Sciences*

Gerald Osborn, Dean

The School of Liberal Arts and Sciences is composed of five divisions:

Basic Studies: Offerings in the areas of English, Natural Sciences, Humanities, and Social Sciences are included in this division.

Fine Arts: The Departments of Music and Art are in this division.

Language and Literature: This division includes the English, Languages and Speech Departments.

Science and Mathematics: This division is composed of the following departments:

Biology, Chemistry, Geography, Mathematics, Physics and Psychology.

Social Science: The social science division is composed of the following departments: Economics, History, Political Science and Sociology.

General Objective: The School of Liberal Arts and Sciences offers a variety of subjects that combine to develop a student who will be at home in the world of ideas, and whose experience of living will be deepened by understanding his cultural heritage. It aims to offer him training in thinking objectively, critically, and creatively. Its offerings serve not only the special student of the sciences and humanities but also provide a background of basic training for students of the other schools of the university and for those in the pre-professional courses.

### I. DEGREE CURRICULA

#### THE GENERAL CURRICULUM

##### B.A. or B.S. Degree

In this curriculum a student may satisfy the requirements for pre-professional work. If 124 hours are completed in this program the student will be eligible for a degree of Bachelor of Arts or Bachelor of Science.

##### A. General Education Requirements

Communication Area	6-8 hours
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Communication 104A, B (8 hours) or
College Writing 106A, B (6 hours)

Science Area	8 hours
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Biological Science 102 (4 hours)
Human Geography 105A (4 hours)
Physical Science 100A, B (4 or 8 hours)

◀ Kanley Memorial chapel, a gracious and modern home for student religious organizations.

- |   |         |
|---|---------|
| Social Science Area   | 8 hours |
| Foundations of Western Civilization 100A, B<br>(8 hours) or<br>Man and Society 101A, B (8 hours)  |         |
| Humanities Area   | 6 hours |
| Humanities 201A, B (6 hours) or<br>Humanities 202A, B (6 hours)<br>(See counselors for alternative courses temporarily per-<br>mitted.) |         |
| Physical Education Area   | 4 hours |
- B. Eight hours additional work (10, if a student took College Writing) must be elected from non-professional courses marked by an asterisk in the Division of Basic Studies and the Departments of Art and Music, or from any non-professional courses in the Divisions of Language and Literature, Social Sciences, and Science and Mathematics. 8-10 hours
- C. Course in Government in accordance with Act 106, Public Acts of 1954 3 hours
- D. Courses to complete major, minors and electives to make a total of 124 hours

## LIBERAL ARTS AND SCIENCES CURRICULUM

### B.A. Degree

- A. One hundred hours' work in the School of Liberal Arts and Sciences.
- B. The regular Basic Studies requirements.
- C. Six (6) hours in each of the three divisions of Science and Mathematics, Language and Literature, and Social Science, and six hours selected from those courses marked by an asterisk in the Division of Fine Arts.
- D. Thirty hours of work in 300 and 400 courses.
- E. Four hours of intermediate work in a foreign language, or successful completion of a qualifying examination.
- F. Six hours of mathematics (or a high school preparation of two years of algebra, geometry, and/or trigonometry):
- G. Course in government in accordance with Act 106, Public Acts of 1954.
- H. Courses to complete major, minors and electives to make a total of 124 hours.

## 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 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 for a general degree.

Minors should be established in biology and chemistry and final counseling should be obtained upon completion of forty-five hours. The major is "Medical Technology," 335, thirty hours taken during the fourth year at a recognized hospital for training Med-Tech students or at the Michigan Department of Health. State tuition must be paid during the senior year while on affiliation.

First Year	S.H.	Second Year	S.H.
Biology 100A, B	8	Qual. & Quan. 201-202	8
College Writing 106A, B	6	Bacteriology 312A	4
Chemistry 100A, B or 101A, B	8	Physiology 211B	4
Man and Society	8	Man & Society 101A, B or Gov't.	8
Phy. Ed.	1- $\frac{1}{2}$	Humanities 201A, B	6
		Phy. Ed.	$\frac{2}{3}$
Third Year	S.H.	Fourth Year	S.H.
Physics 102A, B	4	Medical Tech. 335	30
Zoology 242B	4		
Organic Chem. 306A	4		
Biochem. 350-351	4		
Electives in languages, literature, speech, science, and social science	15		
To total at least 92 Semester Hours.			

## MUSIC

The B.M. Degree without the teaching certificate is offered with the following majors: composition, instrumental music, voice. For complete curricular details, ask for Music Supplement Catalog.

## SOCIAL WORK

A.B. or B.S. Degree, with Certificate in Social Work

This curriculum is designed to prepare students for the lower levels of social work positions, and for the civil service examinations required for employment in many public agencies. It also provides basic pre-professional education for graduate training in social work. Graduates who continue in social work as a profession should plan to take, as early in their career as possible, one or two years of professional social work training at the graduate level.

Satisfactory completion of the courses in this curriculum is required for the Certificate in Social Work. In addition the student must take whatever courses are needed to satisfy the group and general education requirements for the A.B. or B.S. degree.

First Year	S.H.	Second Year	S.H.
Communication 104A, B	8	General Psych. 200	3
Biological Sci. 102	4	Psych. of Personality 207 or	3
Human Geography 105A	4	Intro. to Mental Hygiene 235 or	3
West. Civil. 100A, B	8	Human Growth 251	3
Physical Ed.	2	Economics of Consumption 223 or	
Electives	6	Prin. of Economics 220A	3
		Principles of Sociology 241	3
		Modern Social Problems 242	3
		Social Psych. 243	3
		Fields of Social Work 255	2
		Physical Ed.	2
		Humanities 202A, B	6
		Electives	2

#### Third and Fourth Year

	S.H.		S.H.
Community Hygiene 212 or		Family & Child Adjust. 351	3
Genetics 305	3-2	Intro. to Public Welfare 353 or	3
American Nat'l Gov't. 230A	3	Community Welfare Organ. 357	2
State & Local Gov't. 230B	3	Prin. of Social Wk. 355	3
A minimum of 8 hours of adv.		Orientation to Field Work 358A	2
sociology in addition to the		Supervised Field Wk. 358B	3
courses listed below, selected		Electives	28-32
with the advice and approval			
of the departmental advisor	8		
Intro. to Social Research 348A	3		
Social Research Projects 348B	2		

The required courses in this curriculum provide for a social science major of 34 or 37 hours and a minor in social work of 17 or 18 hours. Some 50 hours of elective courses are allowed. These electives should be used primarily to fulfill the requirements for the general degree and to strengthen the general education of the student. To meet the need of certain students for special skill, however, some elections from such tool subjects as the following may well be considered: Elementary Typewriting 101A, Home Management 322, Community Recreation, Scouting and Campfire 276, Laboratory Psychological Testing 302, Clinical Psychology 309 and Labor Problems 421A, B.



## II. PRE-PROFESSIONAL CURRICULA

Every professional school has prescribed the nature and amount of the academic work to be completed as a prerequisite to the professional training for a particular vocation. Four years of higher education are generally required by most professional schools for entrance. Western Michigan University is able to offer its students courses of study that meet the requirements for this pre-professional training. It should be noted, however, that the courses outlined are only suggested plans to illustrate in general the kinds of programs that pre-professional students should follow. **IN EVERY CASE THE STUDENT SHOULD PLAN HIS COURSE ACCORDING TO THE REQUIREMENTS OF THE SCHOOL TO WHICH HE PLANS TO TRANSFER FOR HIS PROFESSIONAL TRAINING.** It cannot be emphasized too strongly that the student should exercise care to see to it that the specific requirements of a particular school will have been met.

### CHRISTIAN MINISTRY

The American Association of Theological Schools has issued a statement on pre-seminary studies which outlines an undergraduate program approved by most major American seminaries. The following program includes every basic recommendation contained in this statement. In addition, however, a student who wishes to do his pre-theological studies at Western should obtain a catalog of the seminary of his choice to help him plan his course of study, especially during his Junior and Senior years. There may be specific requirements which he must meet in order to be admitted to that particular seminary.

First Year	S.H.	Second Year	
College Writing 106A, B	6	Humanities 202A, B	6
General Lit. 124A, B	6	German, French, or Latin	8
Physical Science 100 A	4	Religion 200	3
Biological Science 102	4	Philosophy (Logic)	3
Western Civ. 100A, B	8	Philosophy (Ethics)	3
Phy. Ed.	2	Introductory courses in major field (the Association considers a major in English or History most desirable)	
Third Year	S.H.	Fourth Year	
German, French, or Latin	6 or 8	Complete requirements of the major, and include electives in at least two of the following fields: Economics, Sociology, Psychology, Political Science, Education.	
History 322	3		
Philosophy 391 A, B	6		
English or Speech	6		
Pol. Sc. 334	3		

**DENTISTRY**

Although the Dental Aptitude Test is required of all applicants to any dental school, the amount and kind of academic work needed for admission varies. Therefore, a student planning to do his pre-dental work at Western Michigan University should have a catalog from the dental school of his choice and plan his work at Western to meet the requirements of that particular school.

The following program will in most instances satisfy dental school requirements:

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	Physics 102A, B	8
Biology 100A, B	8	Organic Chem. 306A, B	8
Chem. 100A, B or 101A, B	8	Phys. Ed. 203A, B or R.O.T.C.	2-4
Man & Society 101A, B or	8	Language or Humanities	6-8
Western Civil. 100A, B	8	Electives	6-8
Phys. Ed. 103A, B or R.O.T.C.	2-4		
Trig. (If none in high school)	3		
Third Year	S.H.		
Zoology	8		
Psychology	6		
Electives (complete minors)	6		

**ENGINEERING**

First Year	S.H.	Chemical and Metallurgical	S.H.
College Writing 106A, B	6-8	Second Year	
or Communication 104A, B		Calculus 205A, B	10
Trig. and College Alg. 103A		General College Physics 103A,	
College Alg. and Anal. Geom.		103B	10
103B or College Alg. and		Eng. Materials 210	3
Anal. Geom. 104A, B	8-10	Qual. Anal. 201; Quant. Anal. 202	8
Gen. Chem. 100A, B or 101A, B	8	Metal rocessing 211	2
Mech. and Mach. Drwg. 221	3	Physical Ed.	1
Descriptive Geometry 222	3		
Physical Ed.	1		
Electives	0-3		
Chemical and Metallurgical			
Third Year			
S.H.			
Modern Economics 325 and		American Government 334	3
Accounting 210A	6	Labor Problems 421A or B	
Organic Chemistry 306A, B	8	or Industrial Sociology 346	2
General Speech 106	3	Humanities 201A, B or 202A, B	
		or alternatives	6
		Electives	3-4

Aeronautical, Civil, Electrical, Marine and Mechanical		Aeronautical, Civil, Electrical, Marine and Mechanical	
Second Year	S.H.	Third Year	S.H.
Calculus 205A, B	10	Prin. of Economics 220A, B	6
General College Physics 103A, B	10	Differential Equations 321	3
Eng. Material 210	3	or Geology 230	
Metal Processing 311	2	Statics 320	6
General Speech 106	3	and Theoretical Mech. 325	
Physical Ed.	1	Labor Problems, 421A	2
		American Govt. 334	3
		Humanities 201A, B or 202A, B	6
		Electives	5-6

- Notes: 1. Differential Equations 321 is required in Aeronautical, Electrical, Marine and Mechanical Engineering.  
 2. Geology 230 should be taken in the third year of Civil Engineering Curriculum.  
 3. Civil Engineering requires surveying (Math. 210)

## FORESTRY

The following is a two-year program approved by Michigan State University:

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	Chemistry 101A, B	8
Physical Sci. 100A	4	Soils 200	3
Western Civil. 100A, B	8	Botany 220, 322	8
Math.	6, 8, or 10	Man & Society 101A, B	8
Biological Sci. 102	4	Comparative Arts 215 or	
Phy. Ed. or R.O.T.C.	2 or 4	Humanities	3-4
Speech 106 should be taken if a		Phy. Ed. or R.O.T.C.	2 or 4
3-hour math course is taken.			

Students planning to transfer to the University of Michigan for work in forestry at the end of the second year must plan on attending the University's summer camp before beginning work on the Ann Arbor campus.

First Year	S.H.	Second Year	S.H.
College Writing 106A, B or	6	Geology 230A	4
Communication 104A, B	8	Physics 103A	5
General Chem. 100A, B	8	Soils 200	3
West. Civil. 100A, B or	8	Economics 220A, B	6
Man & Society 101A, B	8	Surveying 210	3
Gen. Biology 100A, B	8	Botany 221B	4
Trig. 100 C	3	Botany 223	2

## JOURNALISM

Most schools of journalism have very definite requirements for admission. A student wishing to do his pre-journalism work at Western Michigan University should plan his course of study according to the requirements for the particular school of his choice. The following is only a suggested program. Many schools require work in a foreign language in addition.

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	Journalism 201A, B	6
Speech 106	3	U. S. Hist. 201A, B	6
Phy. Sci. 100A	4	Man & Society 101A, B	8
Western Civil. 100A, B	8	Comparative Arts 215	
Biol. Sci. 102	4	or Humanities	3-4
Phy. Ed.	1½ or 2	Phy. Ed.	1½ or 2
Electives	3 or 4	Electives	3 or 4

## LAW

An increasing number of law schools are requiring a college degree before admission. Many of these schools also require applicants to take the Law School Admission Test. A student planning to go to a law school should plan his course at Western Michigan College with his counselor according to the requirements of the school of his choice.

Below is a suggested program covering three years of work:

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	English Lit.	6
Math. or	8-10	History 201A, B	6
Lab. Sci.	8	Prin. of Econ. 220A, B	6
Western Civil. 100A, B	8	Acctg. 210A, B	6
Foreign Lang.	8	Gen. Psych. 200	3
Phy. Ed.	1	Phy. Ed.	1
Third Year	S.H.		
Amer. Nat'l & St. Govt. 230A, B	6	Elective (to be selected from	1-5
Prin. of Soc. 241	3	Speech 105A, B; Money &	
Modern Social Prob. 242	3	Credit 321A, B; Language	
Public Finance 420	3	or Lit. or Lab. Sci.)	

## MEDICINE

Many medical schools accept students with three years of college work. Others require that the student finish four years before entering. The Medical College Admission Test is required of all applicants to medical schools.

A student planning to do his pre-medical work at Western Michigan University should obtain catalogs from three medical schools of his choice and should plan his college work to meet their requirements. A special counselor for those enrolled in pre-medical work will assist the student in planning his course of study.

First Year	S.H.	Second Year	S.H.
College Writing 106A, B	6	Qual. & Quant. 201-202	8
Biology 100A, B	8	Physics 102A, B	8
Chem. 100A, B or 101A, B	8	Lang. or Humanities	6-8
Lang.	8	Man & Society 101A, B	8
Phy. Ed. or R.O.T.C.		Phy. Ed. or R.O.T.C.	
Third Year	S.H.	Summer	
Zoology 242A, B	8	Emb. 342 or Histology 341	
Organic Chemistry 306A, B	8		
Electives in Soc. Sci.	6		
Electives			
		<b>Fourth Year</b>	
		(If four-year pre-med is taken then omit summer session above.)	
		Complete major and minor requirements and other degree requirements. Take electives in Art, Music, Literature, Speech and Social Sciences.	

## MORTUARY SCIENCE

The first two years of a three-year program in Mortuary Science are called the pre-professional part of the program. To complete the requirements for this, a student must earn 60 hours of credit. It is strongly recommended that his course work include the following: English (6 hours), General Chemistry (8 hours), Organic Chemistry (3 hours), Social Sciences, including geography, history, government, economics, sociology and philosophy, (8 hours), Zoology or Biology (4 hours), Psychology (2 or 3 hours), Mathematics or Accounting (4 hours).

The Michigan Board of Examiners of Mortuary Science requires completion of certain group requirements which the student should check thoroughly.

Suggested First Year		S.H.
College Writing 106A, B	6	Biology 100A 4
Chem. 100A, B or 101A, B	8	Small Bus. Mgmt. 237 3
Man & Society 101A, B or	8	Phy. Ed. 2
West. Civ. 100A, B	8	

## NURSING

Pre-professional preparation for transfer to a college of nursing may be taken at Western Michigan University for one or two academic years.

Universities offering a four-year correlated-program leading to a B.S. degree and R.N. accept transfer students from an accredited institution upon the satisfactory completion of one year meeting specified requirements.

Bronson Methodist Hospital School of Nursing students receive pre-clinical instruction at Western Michigan. Credit toward a baccalaureate degree may be offered at the discretion of the university after evaluation of the Nursing School record of the individual graduate nurse.

A typical one-year pre-professional required program:		A typical two-year pre-professional required program:	
	S.H.		S.H.
College Writing 106A, B or Communication 104A, B	6-8	College Writing 106A, B or Communication 104A, B	6-8
Chemistry 101A, B or 100A, B	8	Chem. 101A, B or 100A, B	8
Biology 100A, B	4-8	Biology 100A, B	8
Psych. 200	3	Zoology 242A, B	4-8
Social Sci.	8	Psych. 200	3
Sociology	3	Social Studies	14-18
Ph. Ed.	Each Sem.	Phy. Ed.	Each Sem.
Electives (to bring total to at least 30)		Humanities	6
		Electives (to bring total to at least 60).	

Certain other colleges of nursing admit candidates at the end of two years from an accredited institution meeting specified requirements.

In co-operation with the nursing counselor, students should plan with care to meet the admission requirements of the school they wish to attend.

## PHARMACY

A student transferring to a college of pharmacy is required to be in residence at that school for a minimum of six semesters regardless of how much previous college training he may have had. Therefore, the pre-pharmacy course of study at Western Michigan consists of one year's work.

First Year		S.H.	
Chemistry 100A, B or 101A, B	8	Electives (Speech 106 recom- mended)	3
College Writing 106A, B	6	Phy. Ed. or R.O.T.C.	2 or 4
Biology 100A, B	8		
Math. (if Trig. was not taken in high school)	3 or 4		

### III. DESCRIPTION OF COURSES

#### DIVISION OF BASIC STUDIES

**Robert M. Limpus, Director**

The Division of Basic Studies is responsible for coordinating and administering the basic courses in the General Education program.

Every student should take Communication or its equivalent, College Writing, in the freshman year.

In Science the student must have a total of 8 hours. The usual combination is Biological Science 102 and Human Geography 105A, or Physical Science 100A and B. The choice should depend upon the individual's background and intended field of specialization. If a student plans to major and has considerable background in one area, he should choose the one in which his background is less adequate.

In the Social Science area a student must take either Foundations of Western Civilization or Man and Society. These are recommended for the freshmen year.

The two Humanities sequences, Humanities 201A & B, 202A & B, are recommended for the sophomore or junior year.

#### COMMUNICATION:

##### 104A Communication

4 hrs. Fall, Spring

This course attempts to help the student to understand the nature of language, evaluate communication as inter-action between the individual and other members of society and acquire skill in using the communication tools. Lectures, readings, tape-recordings, films and other devices are used to motivate group discussion, informal talks, and written exercises. Skills of primary and secondary research are emphasized; one research paper is required.

##### 104B Communication

4 hrs. Spring, Fall

A continuation of 104A.

##### 106A College Writing

3 hrs. Fall, Spring

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.

##### 106B College Writing

3 hrs. Fall, Spring

A continuation of 106A. Research techniques are given special emphasis.

**SCIENCE:****\*102 Biological Science** 4 hrs. Fall, Spring

A course designed to present basic biological principles and to give the student an understanding of the operation of the world of life. It fulfills the general education requirement for biological science and it may also be used as a basis for a biology minor. It may be used as a partial basis for a major only with special individual counseling.

**\*105A Human Geography** 4 hrs. Fall, Spring

Designed to build an understanding of major human activities in relation to environmental factors throughout the world. Consideration is given to effects of climate, soil, minerals, topography, and the biotic environment on occupational pursuits of people, transportation and communication, density of population and growth of cities.

**\*100A Physical Science** 4 hrs. Fall, Spring

This course is part of the Basic Studies program in general education. The course is designed for students who are not planning to specialize in any of the physical sciences. Topics are chosen to stress basic facts, major concepts and important generalizations of the physical sciences.

**\*100B Physical Science** 4 hrs. Spring

A continuation of 100A.

**SOCIAL SCIENCE:****\*100A Foundations of Western Civilization** 4 hrs. Fall, Spring

This course is designed to give the student an understanding and an appreciation of contemporary institutions and culture through a study of their origins and development. It is essentially a history of culture which shows how the present is a product of the past and how peoples widely separated in space and time have contributed to the present.

**\*100B Foundations of Western Civilization** 4 hrs. Spring, Fall

Continuation, from the seventeenth century on, of course 100A. It surveys significant developments in the Orient as well as those in the Western world. Special emphasis is placed upon the twentieth century. Prerequisite: 100A.

**\*101A Man and Society** 4 hrs. Fall, Spring

The emphasis is on understanding basic ideas in the social sciences and on acquiring a mature ability to analyze and appreciate the individual in society. The student is introduced to such matters as: the nature of man and the purpose and meaning of human existence; the ways in which personality and society are mutually interdependent; the ways men work, the reasons why they work and the effect of such economic factors on the



composition and political complexion of society; the reasons for and types of communities into which men form themselves.

**\*101B Man and Society**

**4 hrs. Spring, Fall**

A continuation of 101A.

## **HUMANITIES:**

**Humanities 201A**

**3 hrs. Fall**

A study of the creative life of man through an examination of the climactic periods during the Greco-Roman and medieval times. The course is organized in terms of the expressions of the purpose of life and values of men through the art, literature, philosophy and theology of those periods. (This course is primarily for students who have taken the course "Man and Society".)

**Humanities 201B**

**3 hrs. Spring**

This course is a continuation of 201A and is concerned with the Renaissance, the age of enlightenment and the contemporary period.

**Humanities 202A**

**3 hrs. Fall**

The fine arts, music and literature are studied as expressions of various ideas and attitudes that have been held at various times in Western Europe and America. The materials of the course are organized about selected religious, ethical and aesthetic ideas. (This course is primarily for students who have taken "Foundations of Western Civilization.")

**Humanities 202B**

**3 hrs. Spring**

Continuation of Humanities 202A.

## **DIVISION OF FINE ARTS**

**Elwyn F. Carter, Chairman**

The Division includes the Departments of Art and Music. The heads of the departments and the departmental counselors will advise students relative to requirements for majors or minors in these departments and concerning any special requirements set up by the departments. In certain cases, where a group major or minor is possible and advisable, the chairman of the Division should be consulted.

## ART

Harry S. Hefner, Head  
John G. Kemper  
Hazel I. Paden  
Stanley K. S. Phillips

Lydia Siedschlag  
Elizabeth Smutz  
Elaine L. Stevenson

Many courses in the department 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 are: 105, 106, 107, 108, 110, 211, and 113A, B.

A minor in art consists of: 106, 105, 113A, B or 213A, B, and art electives to complete 15 hours of credit.

Two points of 212 may be substituted for 113A and B.

A major in art consists of: 105, 106, 110, 205, 208, 214, 213A, 213B, and 306, 309, 308, 310, and electives to make 40 hours. 340 and 441 are offered as required education courses for art majors.

### 105 Elementary Design 2 or 3 hrs. Fall, Spring

A fundamental course in art developing design and color theory through problems of various media.

### 106 Art Structure 3 hrs. Fall, Spring

A course giving drawing experience, lettering, figure, color, and design.

### 107 Illustrative Handwork 3 hrs. Fall, Spring

An elementary craft course with manual problems related to interests in the primary grades.

### 108 Lettering and Poster Making 2 hrs. Spring

Emphasis is on lettering and poster making for school and commercial use.

### 110 Industrial Art 3 hrs. Fall, Spring

A studio course in crafts, designed to meet the needs of groups with varied interests. Weaving, bookbinding, blockprinting, etc.

### 112 Learning Through Art 3 hrs. Fall, Spring

A course designed for the grade teacher. Art problems are related to the curricula. Posters, programs, bulletins, decoration for special days are handled seasonally. No prerequisites.

### \*113A Art Appreciation 1 hr. Fall and Spring

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 hr. Spring and Fall

A brief survey of the history of sculpture, architecture, and minor arts is given. Prerequisite: 113A.

**205 Figure Drawing****3 hrs. Fall**

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, planning and contour drawing to finished drawings. Prerequisite: 106 or consent of instructor.

**208 Art Composition****3 hrs. Spring and Fall**

Composing within a given space: emphasizing unity, spacing, distribution of dark and light; study of color harmony. Mediums used are show-card paints, charcoal, pen and ink. Prerequisite: 106, 105.

**211 Modeling****3 hrs. Fall**

Basic course in sculpture. Mediums are plaster, wood, metal, clay and stone.

**212 Handicraft****3 hrs.**

Includes problems in metal, wood, and other materials. Emphasis on technique. Prerequisite: Art Structure 106, Industrial Art 110, or consent of instructor. A fee of two dollars will be charged for materials.

**\*213A History of Art****3 hrs. Fall**

Study of primitive, Egyptian, Chaldean, Greek, and Roman architecture, sculpture, and painting.

**\*213B History of Art****3 hrs. Spring**

Study of the art of the Renaissance in Europe and of modern art in Europe and America. Prerequisite: 213A or consent of the instructor.

**214 Commercial Art****3 hrs. Fall**

This course is designed to offer special work in the study of advertising art. Posters for school, for business activities, lettering, typography, packaging design, and other related subjects are done. Various techniques and media, as well as technical methods used in the reproduction of art work are discussed. Prerequisite: 105 and 106.

**\*215 Comparative Arts****4 hrs. Fall, Spring**

The course takes literature, music, and art and endeavors to point out to students the common core which permeates all the arts. Common expressions such as organization of form, rhythm, repetition, unity, harmony, and tonality are made meaningful through discussion and demonstration. Two hours of credit may be applied on a major or minor in any two of the three arts—Literature, Music or Art.

**216A Ceramics****3 Credits**

Basic course in the designing and building of pottery—emphases on casting, throwing, glazing, and firing techniques.

**216B Ceramics****2 Credits**

Continuation of Ceramics 216A, developing greater knowledge of advanced ceramic techniques. Prerequisite: 216A.

- 220 Stage Design** 2 hrs. Fall  
A course for art and speech majors. Class makes practical use of knowledge of scene painting, lighting, and mechanics of staging, in connection with the midwinter play.
- 221 Home Furnishing** 2 hrs. Fall, Spring  
A study of interior design and color, furniture past and present, experience in practical problems.
- 306 Demonstration Drawing** 2 hrs. Spring  
Methods and teaching devices are stressed and opportunity given to experiment with new materials. Tentative course of study is made. Prerequisite: 106.
- 307 Jewelry** 3 Credits  
Basic course in the designing and making of jewelry; study of basic techniques and processes—to include enameling.
- 308 Advanced Art Composition** 2 hrs. Spring  
Continuation of Art Composition 208. Mediums are oil, tempera, and casein. Prerequisite: 106, 105, 208.
- 309 Advanced Design** 3 hrs. Fall  
Continuation of Elementary Design 105. Applied Art Problems. Prerequisite: 106, 105, 208.
- 310 Graphics** 3 Credits  
Study of prints and print making, etching, wood-block, lithograph, and silk screen. Prerequisite: 105, 106, 208.
- 410 Painting** 2 hrs. Fall  
Painting of still life and landscape, in the studio and outdoors. Water colors are used. This course involves the study of composition, color value, and technique. Prerequisite: 106, 105, 208, or consent of instructor.
- 414 Advanced Commercial Art** 3 hrs. Spring  
Continuation of Commercial Art 214 with emphasis on typographic layout, booklet design, letterheads, mailing pieces, packaging and display design and construction. This course will acquaint students with technical methods essential to commercial art such as photo prints and their uses, pasteups, photostats, and methods of color separation for working drawings.
- 441 Art Supervision** 3 hrs. Spring  
A study of the curriculum and its needs in art activities. A course of study will be outlined and administration problems discussed. Prerequisite: 106, 105, 208, 213A, B, 214.

## MUSIC

Elwyn F. Carter, Head	Marcella Faustman	Leonard V. Meretta
Sam B. Adams	Jack Frey	Peggy Ramstad
Elmer R. Beloof	Tom Fulton	Robert Schieber
Margaret F. Beloof	Ethel M. Green	Alexander Schuster
Owen L. Berger	Daniel A. Kyser	John Schuster
Arthur Birkby	Holon Matthews	Dorothea S. Snyder
Russell W. Brown		Julius Stulberg

The Department offers courses leading to the Bachelor of Music and Bachelor of Arts degrees. The Bachelor of Arts degree is defined on page 37 as to both purposes and requirements. The Bachelor of Music degree is different in that it is highly professional in its requirement aims and permits the student to do much more of his work in the field of music. Detailed information relative to the Bachelor of Music degree may be procured by writing for the Music Supplement Catalog.

Those students who want a music major with teaching certification should work for the Bachelor of Music degree.

Those students who want a music major without teaching certification may work for the Bachelor of Arts degree. Such music majors must complete 16 hours of Applied Music (through level 6 in their major performance field); Theory 106A, B; Theory 206A, B; Music History and Literature 307A, B; Style and Structure 310A; and one semester of an advanced theory or music literature course.

Minors in music must complete Theory 106A, B eight hours; a Methods and Materials course of three hours; Piano class 117A, B two hours, Conducting, either 311A or 311B one hour, plus an elective of one hour.

Credit from another institution in any branch of theory will be accepted only upon satisfactory completion of an examination covering the field for which the student desires transferred credit. All transferred credit is tentative and is conditioned upon the successful completion of a semester's work at Western Michigan. No credit hours exceeding the number granted for parallel work at Western Michigan will be accepted for transfer from another institution.

The University is a member of the National Association of Schools of Music. The requirements for entrance and for graduation as set forth in this catalog are in accordance with the published regulations of the National Association.

## MUSIC COURSES

### 100A Music for Classroom Teachers

3 hrs. Fall

This course is designed for the classroom teacher with or without previous music training. It deals with basic musical experiences, some work in sight-singing, music in general education, relationship of music to other subject areas, classroom problems in music education, e.g., listening, singing activities, place of performance, use of radio, and music in the movies. The song materials studied can later be used in directed teaching.

**100B Music for Classroom Teachers****3 hrs. Spring**

A continuation of 100A.

**106A Freshman Theory****4 hrs. Fall**

This course is a closely integrated study of the construction and function of the language of music . . . through music reading; ear training and dictation; keyboard and written harmony; and composition, arrangement and analysis of musical material. The materials are drawn from vocal and instrumental music literature suitable for study. Topics of study include diatonic chords, modulation, non-harmonic tones, musical form and harmonization.

**106B Freshman Theory****4 hrs. Spring**

A continuation of 106A.

**\*107A Music Appreciation****2 hrs. Fall**

This course, primarily a listening one, is designed for students wishing a general cultural course to increase their knowledge and discrimination of music. Various types of music from the folk song and dance to the symphony, oratorio, and opera are presented and discussed. Concerts and outstanding radio programs are related to the course.

**\*107B Music Appreciation****2 hrs. Spring**

A continuation of 107A.

**109 Rural School Music Methods and Materials****3 hrs. Fall, Spring**

This course consists of sight reading of unison songs, introduction to part singing, 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 the school music program, community singing, and recreation are considered.

**110 Elementary Acoustics****2 hrs. Fall, Spring**

Designed for music majors to acquaint them with the science of sound. No science prerequisite.

**116A Voice Class****1 hr. Fall**

This course deals with the fundamental processes of breath control and tone production, provides some individual instruction and an opportunity to study standard song literature. Recommended to voice majors to gain a knowledge of voice class procedures and to candidates for certification as general supervisors to prepare for basic achievement examinations.

**116B Voice Class****1 hr. Spring**

A continuation of 116A.

**117A Piano Class****1 hr. Fall**

A course designed for students with little or no background in piano. Opportunity is provided for some individual instruction. Recommended to piano majors to gain a knowledge of piano class procedure and to elementary education majors.

**117B Piano Class** **1 hr. Spring**

A continuation of 117A.

**118A String Class** **1 hr. Fall**

The study of a stringed instrument to the extent that the student can demonstrate a knowledge of the basic fundamentals on that instrument. The study of a limited repertoire for that instrument.

**118B String Class** **1 hr. Spring**

A continuation of 118A.

**122 English Diction and Song Literature** **No credit. Fall**

Required of all students whose field of concentration is voice. English diction and song literature are studied as a class; opportunity is provided for solo performance.

**206A Sophomore Theory** **4 hrs. Fall**

A continuation on an advanced level with chromatic chords, modulations, non-harmonic tones, styles of composition as used in choral and instrumental music literature being studied. Material is drawn from the standard vocal and instrumental repertoire.

**206B Sophomore Theory** **4 hrs. Spring**

A continuation of 206A.

**208 Elementary School Methods and Materials** **3 hrs. Fall, Spring**

A study of the methods of teaching and an evaluation of the materials to be used in the singing, rhythmic, instrumental, creative, and listening activities of the basic music program in the elementary school.

**216A Advanced Voice Class** **1 hr. Fall**

A continuation of 116A, B. Further application of the principles of singing through more difficult song literature. Recommended to candidates for certification as general supervisors to prepare for basic achievement examinations. Prerequisite: 116A, B.

**216B Advanced Voice Class** **1 hr. Spring**

A continuation of 216A.

**217A Advanced Piano Class** **1 hr. Fall**

A continuation of 117A, B. Recommended to elementary education majors. Prerequisite: Piano Class 117A, B.

**217B Advanced Piano Class**

A continuation of 217A.

**219A Woodwind Class** **1 hr. Fall**

The study of four woodwind instruments—flute, oboe, clarinet, and bassoon—to the extent that the student can play all scales on all four instruments. The study of a limited repertoire for these instruments.

- 219B Woodwind Class** 1 hr. Spring  
A continuation of 219A.
- 222 Italian Diction and Song Literature** No credit. Fall  
Required of all students whose concentration is voice. Italian diction and song literature are studied as a class, and opportunity is provided for solo performance.
- 301 Junior High School Methods and Materials** 3 hrs. Fall  
A study of the place of music in the education of adolescent youth, correlating the vocal and instrumental aspects of music within the total school curriculum. Instrumentally, there will be evaluation of teaching methods of strings, brass, woodwind, and percussion and the organization of instrumental groups. Vocally, there will be study of the changing voice, voice testing and classification, vocal ensembles, and evaluation of suitable ensemble materials.
- 302 Senior High School Methods and Materials** 3 hrs. Spring  
A continuation of the Junior High School Methods course at the Senior High School level, with emphasis on the correlation of instrumental and vocal music and its place in the Senior High School curriculum.
- 304 Music Arranging** 2 hrs. Fall, Spring  
A course designed to meet the needs of School Music Teachers. Emphasis is placed on the use of available resources for small instrumental and vocal groups and the problems of arranging music for them to use as performing units.
- 306A Composition** 2 hrs. Fall  
Original work in composition, starting with the smaller forms in both the vocal and instrumental fields. Prerequisite: 206A, B.
- 306B Composition** 2 hrs. Spring  
A continuation of 306A.
- \*307A Music History and Literature** 4 hrs. Fall  
A survey of the growth of music from the earliest times including melody, rhythm, and harmony through the Medieval, Renaissance, and Baroque periods; choral, operatic, symphonic and chamber music development to 1750; the classics, romantic, and contemporary scenes, as well as the earlier periods, are supplemented with recordings of composer's work.
- \*307B Music History and Literature** 4 hrs. Spring  
A continuation of 307A.
- 309S Instrumental Organization and Administration in Public Schools** 2 hrs.  
Techniques of marching band, small and large instrumental ensembles. The organization of equipment, classes, schedules, and library management and materials. The development of the elementary and secondary school instrumental programs.



**310A Style and Structure****2 hrs. Fall**

A study of the finest musical compositions with particular reference to design. Tracing the development of musical form from the phrase through the sonata form. Particular emphasis on the eighteenth and nineteenth century composers. Prerequisite: 206A, B.

**310B Contemporary Music Literature****2 hrs. Spring**

Survey of contemporary music literature through listening. Some study of the chronological evolution of modern structure and harmony. Special emphasis on idiom, neo-classicism, polytonality, and atonality.

**311A Choral Conducting****1 hr. Fall, Spring**

A beginning course working in the field of choral music. Opportunity is provided to prepare choral works with respect to tone quality, range of nuance, phrasing, tempo, and balance of parts.

**311B Instrumental Conducting****1 hr. Fall, Spring**

A continuation of 311A. Application is made by use of easy literature for instrumental ensembles.

**312 Accompanying****1 hr. Fall, Spring**

Supervised experience in accompanying vocal and instrumental music, both solo and ensemble. (This course may be repeated for credit not to exceed a total of four semester hours.)

**320A Brass Class****1 hr. Fall**

The study of four brass instruments: cornet (or trumpet), trombone, French horn and tuba—to the extent that the student can play all scales on all four instruments. The study of a limited repertoire for these instruments.

**320B Brass Class****1 hr. Spring**

A continuation of 320A.

**321 Percussion Class****1 hr. Fall, Spring**

A survey of the requirements for a percussion player. The student is required to play in an acceptable manner at least one percussion instrument and to demonstrate a working knowledge of three others.

**322 French Diction and Song Literature****No credit. Spring**

Required of all students whose field of concentration is voice. French diction and song literature are studied as a class, and opportunity is provided for solo performance.

**323 Major Performance Literature****1 hr. Fall, Spring**

Required of applied music (except voice) majors for last two years. Literature for the major performance instrument is studied as a class, and opportunity is provided for solo performance. (This course may be repeated for credit not to exceed a total of four semester hours.)

**324 German Diction and Song Literature** **No credit. Spring**

Required of all students whose field of concentration is voice. German diction and song literature are studied as a class, and opportunity is provided for solo performance.

**400 Elementary School Music** **2 hrs. Summer**

Emphasizes the place of music in the curriculum and the use of music in the day to day activities of the classroom. The fundamental musical skills are developed in order to assist the teacher to achieve these objectives.

**401 Philosophy and History of Music Education** **2 hrs. Spring**

A course designed to acquaint the student with the history of the development of music education in the United States and how this development is the reflection of a growing philosophy of music education.

**403 Psychology of Music Education** **2 hrs. Fall**

The purpose of this course is to develop understanding of such problems as: differences in musical ability, various music tests, attitudes toward music and behavior in musical organizations. Materials for the course are largely drawn from Educational Psychology.

**405A Counterpoint** **2 hrs. Fall**

Modal and harmonic counterpoint as exemplified by the composers of the fifteenth, sixteenth, seventeenth, and early eighteenth centuries. Modern counterpoint. Practical application through the writing of strict counterpoint in the five species — double counterpoint, obligatos, descants, canons and fugues. Prerequisite: 206A, B.

**405B Counterpoint** **2 hrs. Spring**

A continuation of 405A.

**407 Music of Wagner and Beethoven** **2 hrs. Spring**

A course designed to acquaint one with the music of these composers, its style, its place in the field of Music Literature and its relationship to the period in which they lived. Open to any interested senior or graduate student.

**451 Advanced Instrumental Conducting** **1 hr. Fall**

Supervised experience in conducting instrumental groups. The student may be called upon to prepare an ensemble for public performance. Prerequisite: 311B, 311A.

**452 Advanced Choral Conducting** **1 hr. Spring**

Supervised experience in conducting vocal groups. The student may be called upon to prepare an ensemble for public performance. Prerequisite: 311A, 311B.

**455A Orchestration****2 hrs. Fall**

A study of the characteristics of the various instruments, application in arranging for various instrumental combinations including accompaniments for solos, vocal and instrumental. The course is about evenly divided between arranging for band and for orchestra. Some attention is given to the problems in score reading. Prerequisite: Sophomore 206A, B.

**455B Orchestration****2 hrs. Spring**

A continuation of 455A.

**456A Advanced Composition****2 hrs. Fall**

Further original work in composition dealing with the larger forms in both vocal and instrumental fields. Prerequisite: 306A, B.

**456B Advanced Composition****2 hrs. Spring**

A continuation of 456A.

**460 Undergraduate Workshop in Special Problems****1-3 hrs. Summer**

Designed for students interested in some special field of music not formally listed for instruction. All special problems must be approved by the head of the Department of Music, but may be under the direct guidance of any of the members of the music faculty. This course may be elected as many as three times.

**APPLIED MUSIC**

Individual lessons in applied music can be elected for academic credit by any student in the university. Students in other departments of the university who wish individual instruction in some field of applied music should contact the head of the Department of Music for assignment of instructor. Such requests will be granted to the extent that the instructor's time and practice facilities are available beyond the needs of the music-major degree candidates. All music majors are required to have 60 minutes a week of individual instruction in their major performance field of concentration through the entire four year course.

Eight levels of study in the various areas of applied music are indicated in the Music Supplement Catalog. Levels one through five grant two semester hours of credit per semester. Levels five through eight may grant three semester hours of credit per semester.

**11A through 18B Harp**

**21A through 28B Piano**

**31A through 38B Organ**

**41A through 48B Voice**

**51A through 58B Stringed Instruments**

Violin, Viola, Cello, Bass Viol

**61A through 68B Brass Instruments**

Cornet or Trumpet, Trombone, French Horn, Tuba, Baritone

**71A through 78B Woodwind Instruments**

Flute, Oboe, Bassoon, Clarinet, Saxophone

**81A through 88B Percussion**

## MUSIC ENSEMBLES

All music majors are required to participate in some large music ensemble, e.g., orchestra, choir, band, or glee club throughout their four years of study. It is expected that each student will take part for his first two years in a large ensemble employing his major performance area. The student will remain in that large ensemble for the entire academic year. Sometime during the student's residence he is expected to take one year of small ensemble (136). All music ensembles grant one hour of credit for each semester of participation. Not more than eight hours credit will be granted for participation in any one ensemble. Not more than twelve hours of ensemble credit will be accepted toward any degree. Students who want to participate in an ensemble should contact the director.

### 130 Women's Glee Club

Mrs. Snyder

The Women's Glee Club of fifty is selected by try-outs. 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

Mr. Frey

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 musical life of the campus.

### 132 Orchestra

Mr. Stulberg

The orchestra is open to all students who have had a reasonable amount of orchestra experience. Many fine compositions will be studied and played during the year. The orchestra will assist in the "Messiah" and other festivals. Many unusual instruments are available for the use of the students.

### 133 Band

Mr. Meretta

This organization affords to the student who plays some instrument an opportunity for development in both marching and playing. The band furnishes music at nearly all athletic events, concerts are given during the year on the campus and at various high schools. Uniforms and many of the instruments are furnished. (May be substituted for Physical Education credit.)

### 134 Auxiliary Choir

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 at Christmastime and in the Southwestern Michigan College and High School Festival in May.

### 135 College Choir

Dr. Carter

The College Choir has a limited membership. The organization aims 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.

**136 Special Music Ensemble**

The Staff

Special instrumental or vocal ensembles may be formed with the permission of the head of the Department of Music. Where a sufficient number of hours of rehearsal per week warrant it, one hour of credit will be granted.

**137 Auxiliary Band**

Mr. Meretta

Membership in this band is open to students who have had some previous experience on a wind instrument. This organization is designed for students whose schedules or qualifications do not permit their immediate enrollment in the concert band. The band plays for athletic events and other university functions.

## DIVISION OF LANGUAGES AND LITERATURE

**Zack York, Chairman**

The Division includes the Departments of English, Languages, and Speech. The heads of the departments and the departmental counselors will advise students relative to requirements for majors and minors in these departments and concerning any special requirements set up by the departments.

### ENGLISH

Frederick J. Rogers, Head	M. Dezena Loutzenhiser	Robert A. Palmatier
Thelma E. Anton	John J. McNally	David G. Pugh
Georgiann Burge	Jean Malmstrom	Katharine D. Rogers
Bernadine P. Carlson	Helen E. Master	William R. Rosegrant
Philip S. Denenfeld	Ralph N. Miller	David F. Sadler
John R. Freund	Arnold Nelson	Helen G. Sellers
Lorena M. Gary	Lucille A. Nobbs	Charles A. Smith
Clayton A. Holaday	Anne Oas	Ruth G. Van Horn
Frank C. Householder	John B. Orr	Louise J. Walker
Robert M. Limpus	Dorothy Osborn	John W. Woods

The Department offers the student an opportunity to prepare himself for teaching, for graduate study, for the professions, and for the increasing number of positions which utilize the special skills and information of the liberal arts graduate. The Department wishes the student majoring in English to have an acquaintance with literary history, the relation of culture and literature, principles of the evaluation of literature, the history and structure of the language, and techniques of composition.

The major in English consists of a minimum of 24 hours, the minor of a minimum of 15 hours. By college regulation, no more than 40 hours may be elected. The prescribed sequences for the various curricula are listed below. Elections of additional courses must be made to complete the major and minor requirements. It is important that the elections be carefully made; in order to insure the balance and coherence necessary to an approved sequence, a student intending to have a major or minor in English should confer with an adviser in the Department by the end of his third semester.

Majors in the Liberal Arts or General Degree Curriculum		Minors in the Liberal Arts or General Degree Curriculum	
	S.H.		S.H.
General Literature, or Literary Interpretation	3	General Literature, or Literary Interpretation	3
Courses in fiction or drama	4-6	Electives chosen with aid of de- partmental adviser to complete 15-hour minimum.	
American Literature or Great American Writers	3		
Shakespeare	3		
Chaucer	3		
Period courses	3		
Development of Modern English	2		
Advanced Writing or Creative Writing	2-3		
Majors in the Secondary Curriculum		Minors in the Secondary Curriculum	
	S.H.		S.H.
General Literature, or Literary Interpretation	3	General Literature, or Literary Interpretation	3
Teaching of English in the Secondary School	2	Shakespeare	3
A course in fiction or drama	2-3	Development of Modern English	2
American Literature or Great American Writers	3	Electives chosen with aid of de- partmental adviser to complete 15-hour minimum.	
Shakespeare	3		
Period courses	4-6		
Chaucer	3		
Development of Modern English	2		
Advanced Writing or Creative Writing	2-3		
Majors in the Elementary Curriculum		Minors in the Elementary Curriculum	
	S.H.		S.H.
General Literature, or Literary Interpretation	3	General Literature, or Literary Interpretation	3
Children's Literature	3	Children's Literature	3
American Literature or Great American Writers	3	Modern English Usage	2
Period Courses	2-3	Electives chosen with aid of de- partmental adviser to complete 15-hour minimum.	
A course in fiction or drama	2-3		
Modern English Usage	2		
Advanced Writing or Creative Writing	2-3		
Electives chosen with aid of de- partmental adviser to complete 24-hour minimum.			

## Period Courses:

216A	Contemporary Literature
216B	Contemporary Literature
227A	Renaissance Literature
227B	Renaissance Literature
305A	Victorian Literature
305B	Victorian Literature
409A	Romantic Literature
409B	Romantic Literature
416	Eighteenth-Century Literature
417	Eighteenth-Century Literature

## Courses in Fiction and Drama:

219	Short Story
308	English Drama
313	The English Novel
314	Contemporary Novel
338	Modern Drama

Students who major in English in the Secondary curriculum should have a reading knowledge of some modern language, preferably French or German.

## LANGUAGE AND COMPOSITION

## 104A and B Communication (See Division of Basic Studies)

4 hrs. Fall, Spring

## 106A and B College Writing (See Division of Basic Studies)

3 hrs. Fall, Spring

## 201A Journalism

3 hrs. Fall

Theory and practice in writing news stories, interviews, features, and publicity; copy-editing and headlines.

## 201B Journalism

3 hrs. Spring

A continuation of 201A. Editorials, opinion columns, critical writing, cartoons, advertising copy and lay-out, typography, and page lay-outs are studied. Prerequisite: 201A.

## 325 Development of Modern English

2 hrs. Fall, Spring

A course in the development of the language, treating the historic and linguistic forces which have brought about changes in the form, grammar, and vocabulary of English.

## 326 Advanced Writing

2 hrs. Fall, Spring

Individualized instruction intended to prepare students to write for professional and avocational purposes.

## 328 Creative Writing

3 hrs. Fall

Original writing in the field of the student's choice. Open to sophomores on recommendation of their freshman writing teachers.

## 329 Modern English Usage

2 hrs. Fall, Spring

An examination of current tendencies in the usage of contemporary speakers and writers. Semantics and phonetics are also studied.

**410 Literary Criticism** 2 hrs. Fall

Readings in ancient and modern writers on the nature of literature and how it may be examined and judged. Discussions and papers give opportunities for practice in evaluation.

**426 Structure of Modern English** 2 hrs. Fall, Spring

A study of the evolution of modern syntax.

**TEACHING****300 Teaching of English** 2 hrs. Fall

Teaching methods and sources of materials for the English teacher.

**401 Teaching of English in the Secondary School** 2 hrs. Spring

A course in the selection and methods of presentation of literature in the high school.

**403 Source Material for Literature in Elementary Grades** 2 hrs.

Books and materials about children's literature—indexes, lists, studies both critical and historical. Prerequisite: 203.

**LITERATURE****124A General Literature** 3 hrs. Fall

Readings in European literature from the Greeks to the Middle Ages.

**124B General Literature** 3 hrs. Spring

Readings in European literature from the Renaissance to the contemporary period.

**202 Mythology (See Department of Languages)** 3 hrs. Spring**203 Children's Literature** 3 hrs. Fall, Spring

A general survey of the field of literature suited to the needs and interests of children.

**207A Great English Writers** 3 hrs.

A study of writers from Chaucer to Milton.

**207B Great English Writers** 3 hrs.

A study of writers from Wordsworth to Huxley.

**210 Literary Interpretation** 3 hrs. Fall, Spring

An introduction to literary study to develop skills in critical interpretation.

**214A Shakespeare** 3 hrs. Fall

A study of Shakespeare's art through the application of several critical methods upon the following plays: *Coriolanus*, *Romeo and Juliet*, *Richard II*, *Measure for Measure*, *King Lear*, and *Anthony & Cleopatra*.



- 214B Shakespeare 3 hrs. Spring  
A study of Shakespeare's art through the application of several critical methods upon the following plays: *Cymbeline*, *Henry the Fourth (Parts I and II)*, *Othello*, *As You Like It*, and *Hamlet*.
- 216A Contemporary Literature 2 hrs. Fall, Spring  
Readings in British poetry, fiction, and drama since 1900.
- 216B Contemporary Literature 2 hrs. Fall, Spring  
Readings in American poetry, fiction, and drama since 1900.
- 218A The English Bible: The Old Testament 2 hrs. Fall
- 218B The English Bible: The New Testament 2 hrs. Spring
- 219 Short Story 2 hrs. Fall, Spring  
A study of the short story as an art form.
- 221A American Literature 3 hrs. Fall  
A survey of American literature from the beginning to the Civil War.
- 221B American Literature 3 hrs. Spring  
A survey of American Literature from the Civil War to the present.
- 227A Renaissance Literature 3 hrs. Fall  
A study of the English non-dramatic poetry and prose of the sixteenth century—Sidney, Spenser, Bacon, and others.
- 227B Renaissance Literature 3 hrs. Spring  
A study of the non-dramatic poetry and prose of the first half of the seventeenth century—Donne, Jonson, Herrick, Bunyan, Browne, and others.
- 228 Milton 3 hrs. Fall  
An intensive study of Milton's poetry and prose.
- 305A Victorian Literature 3 hrs. Fall  
English poetry and prose from 1832 to 1859.
- 305B Victorian Literature 3 hrs. Spring  
English poetry and prose from 1859 to 1900.
- 308 English Drama 3 hrs. Spring  
A study of representative plays and playwrights from 1580 to 1890.
- 313 English Novel 3 hrs. Fall, Spring  
The development of the English novel from Defoe to Hardy.
- 314 Contemporary Novel 2 hrs. Fall, Spring  
A study of the tendencies in fiction since 1900.

**322 Great American Writers 3 hrs. Fall, Spring**

A survey of American literature from 1800 to the present. (This course cannot be counted for credit together with courses 221A, B.)

**338 Modern Drama 2 hrs. Spring**

European and American plays from Ibsen to the present.

**391 Chaucer 3 hrs. Fall, Spring**

A study of Chaucer's major poems as the culmination of the development of Middle English poetry.

**409A Romantic Literature 2 hrs.**

A study of the main currents of English literature near the beginning of the nineteenth century, beginning with Blake and Burns and emphasizing Wordsworth, Coleridge, Scott, and the major criticism of the period.

**409B Romantic Literature 2 hrs.**

Readings in Byron, Shelley, Keats, Hazlitt, Lamb, and DeQuincey.

**416 Eighteenth-Century Literature 2 hrs. Fall**

The writings of Dryden, Swift, Pope, Addison and Steele, and others are read as expression of the spirit of the period.

**417 Eighteenth-Century Literature 2 hrs. Spring**

The decline of old and the development of new literary interests are studied in the work of Thomson, Gray, Johnson, Cowper, Blake, and others.

**422 Midwestern Literature 2 hrs. Spring**

The origins, characteristics, and historical development of the imaginative literature of the American Midwest.

## LANGUAGES

Mathilde Steckelberg, Head	Eunice E. Kraft	Hermann E. Rothfuss
Elizabeth Giedeman	Frances E. Noble	Marion Tamin
Herb B. Jones		Frederick Trezevant

The usual major consists of twenty-four hours. The usual minor consists of fifteen hours. Some work is to be taken in courses numbered beyond the one-hundreds.

The selection of specific courses for a major or a minor is planned in cooperation with the departmental adviser. The student should secure a departmental adviser's slip early in his university course.

Major in French		Minor in French	
Phonetics 305	3 hrs.	Phonetics 305	3 hrs.
France and the French		France and the French	
207A, B	2 hrs.	207A, B	2 hrs.
19 hrs. in sequence in addition		10 hrs. in sequence in addition	

**Major in German****Minor in German**

German Conversation and Com- 15 hrs. in sequence  
position 201A, B 4 hrs.  
21 hrs. in sequence in addition

**Major in Latin****Minor in Latin**

Latin Writing 305 3 hrs. 15 hrs. in sequence  
21 hrs. in sequence in addition

**Major in Spanish****Minor in Spanish**

24 hrs. in sequence 15 hrs. in sequence

**In the Secondary Curriculum, the elementary courses (100A and B) cannot be used for a major or minor.**

Students who wish to do practice teaching in Latin, should take Teaching of Latin 342.

A course in modern European history is desirable for students majoring or minoring in a modern foreign language.

Students are urged to take the advanced courses as full year units.

No credit will be given for a 100A course unless the 100B course is completed.

**FRENCH****100A Elementary French****4 hrs. Fall**

This course is designed to give the basic foundation needed to read a simple text in French. It aims also, to give training in understanding spoken French and an elementary knowledge of pronunciation with the help of records and recorder.

**100B Elementary French****4 hrs. Spring**

This course is a continuation of the basic grammar, pronunciation drill, and work in oral comprehension begun in French 100A. About 150 pages of reading will be used as a basis for conversation practice. French records and the recorder will be used frequently.

**102A Intermediate French****4 hrs. Fall**

This course consists of a review of French grammar with frequent written and oral exercises aiming at making grammar functional. About 200 pages of text chosen from novels, short stories and plays are read. The composition consists of reproduction of texts read in class; other texts are read outside for comprehension and enjoyment.

**102B Intermediate French****4 hrs. Spring**

This is a continuation of 102A. In this semester 300 pages of reading are completed.

**201A Conversation and Free Composition** 2 hrs. Fall

This course is intended to develop ease and accuracy in the use of everyday French. Prerequisite: two years of high school French or equivalent.

**201B Conversation and Free Composition** 2 hrs. Spring

This is a continuation of 201A.

**203A Nineteenth Century French Literature** 3 hrs. Fall

This course is a study of romanticism and the development of realism, with reading from Chateaubriand, Victor Hugo, Alfred de Vigny, Musset. Prerequisite: 100A, B, 102A, B or equivalent.

**203B Nineteenth Century French Literature** 3 hrs. Spring

This continuation of 203A is a study of naturalism, with readings from Balzac, Flaubert, Zola, Rostand; and the Parnassian and symbolistic schools of poetry.

**207A France and the French** 1 hr. Fall

This course is required of those specializing in French, but is conducted in English and is open to those not in the Department of French. A study is made of geography, art, historical monuments and contemporary problems of French life.

**207B France and the French** 1 hr. Spring

This is a continuation of 207A.

**305 Phonetics** 3 hrs. Fall

This course is intended to give a corrective description of the difficulties encountered by students of French with Anglo-American habits of pronunciation. Required of all students majoring or minoring in French. Prerequisite: two years of college French or equivalent.

**306 Advanced Composition and Grammar Review** 3 hrs. Spring

This course is intended to verify and to strengthen the knowledge of fundamental principles of grammar in those students who are planning to teach French. Prerequisite: two years of college French or equivalent.

**307A Contemporary French Literature** 2 hrs.

A study of a few outstanding novels by leading writers of the period between the two wars, with a definite effort to find out the different trends of thought of contemporary writers. Prerequisite: three years of college French or equivalent.

**307B Contemporary French Literature** 2 hrs.

This continuation of 307A consists of a study of the evolution of the drama in France from the beginning of the twentieth century, with careful reading of a few outstanding plays. Prerequisite: three years of college French or equivalent.

**310A Seventeenth Century French Literature 3 hrs.**

This is a study of the development of classicism against the social background of the seventeenth century. An anthology of the prose and poetry of the period is used as the center of interest. Prerequisite: three years of college French or equivalent. Offered in 1957-1958.

**310B Seventeenth Century French Literature 3 hrs.**

This is a study of the great dramatists: Corneille, Racine, Molière, with a thorough study of some of their best-known plays. Prerequisite: three years of college French or equivalent. Offered in 1957-1958.

**313A Survey of French Literature 2 hrs. Fall**

This course is intended to acquaint students with the masterpieces of French Literature, with special emphasis on the medieval period and the Renaissance. Prerequisite: three years of college French or equivalent. Offered in 1958-1959.

**313B Survey of French Literature 2 hrs. Spring**

This is a continuation of 313A with emphasis on the eighteenth century philosophers and their influence on the political reformers in America. Offered in 1958-1959.

**408A Contemporary French Literature 2 hrs. Fall**

This study of selected masterpieces of contemporary French fiction will be offered upon sufficient demand.

**408B Contemporary French Literature 2 hrs. Spring**

Continues with a study of a brilliant period in the history of the French theater, with careful reading of a few plays.

**437 Studies in Contemporary France 2 hrs. Summer**

This course investigates more deeply some phases of French life which were only mentioned in 207A, B. An effort is made to understand those factors in French thinking which strongly affect international thought today. There is no prerequisite in foreign language. Summer session 1957.

**GERMAN****100A Elementary German 4 hrs. Fall**

This course aims to give the student an understanding of the fundamentals of German grammar, and some facility in speaking and writing the language. Ability to read German is developed by the study of 100 pages of prose. One year of high school German may be applied on the elementary course.

**100B Elementary German 4 hrs. Spring**

This is a continuation of 100A. Approximately 100 pages of prose are read, and grammar, oral work, and composition are correlated. No credit is given for 100A unless 100B is completed.

**102A Intermediate German****4 hrs. Fall**

This course begins with a review of basic German for the purpose of making it function in speech, composition and reading. A study of cultural material and contemporary prose with related oral and written composition completes the semester's work. Prerequisite: one year of college German or two years of high school German.

**102B Intermediate German****4 hrs. Spring**

This is a continuation of the reading and related work of 102A. Texts used are "German Heritage" and Albert Schweitzer's "Leben und Denken". To improve diction, records are used and recordings of student pronunciation are made.

**103A Scientific German****4 hrs. Fall**

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. Prerequisite: one year of college German or two years of high school German.

**103B Scientific German****4 hrs. Spring**

This is a continuation of the extensive reading of scientific material. Unedited material from encyclopedias of science and from current science magazines is introduced.

**201A German Conversation and Composition****2 hrs.**

The aim of this course is practice in speaking and writing German. It is required of students majoring in German. Prerequisite: the equivalent of two years of college German. Offered in 1957-1958.

**201B German Conversation and Composition****2 hrs.**

This is a continuation of 201A. Offered in 1957-1958.

**305A German Literature to 1825****4 hrs. Fall**

This is 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. Prerequisite: the equivalent of two years of college German. Offered in 1957-1958.

**305B German Literature to 1825****4 hrs. Spring**

This is a study of the classical period, and a continuation of 305A. The life and works of Goethe, Schiller, and other poets of the period are studied. Offered in 1957-1958.

**306A German Literature from 1795 to 1825****4 hrs. Fall**

The romantic movement in Germany and German drama through the time of Hebbel are studied. The works of the romanticists and the dramas of Kleist and Hebbel are read. Prerequisite: the equivalent of two years of college German. Offered in 1958-1959.

**306B German Literature from 1825 to the Present****4 hrs. Spring**

This course is a continuation of 306A. The work covers German literature from Grillparzer to the present. A study is made of the dramatic, epic, and lyric poetry of the period, with readings from Grillparzer, Hauptmann, Hugo von Hofmannsthal, and other poets. Offered in 1958-1959.

**407 The Central European Area****2 hrs. Fall**

This course proposes to investigate cultural aspects necessary for an understanding of the Central European situation. Countries included will be Germany, Austria, Switzerland, and Czechoslovakia. Historical, geographical, social and religious problems will be investigated to give the student an insight into this topic. There is no foreign language prerequisite for the course. Offered in 1957-1958.

**442 Modern Language Instruction****2 hrs.**

This is a course for teachers of French, German or Spanish in the high school and grades. Problems common to all three will be considered. The basis for the course will be psychological principles underlying language learning, an evaluation based on them of current methodology, and a critical survey of cultural materials in the three civilizations, suitable for present day school use.

**427 Germany Through the Centuries****2 hrs. Fall**

This course is intended, by means of a study of German cultural history, to give the student an understanding of the vital German problem as it developed through the centuries down to our own day. Geographical, literary, philosophical, educational, and art aspects will be investigated by means of readings and discussions. No foreign language prerequisite. Summer session 1958.

**417 Evolution of German Thought****2 hrs. Summer**

This course is a study of the development of Germany and the German national character. It will include a study of selected authors on history, philosophy and pedagogy, as well as German literature in translation. There is no foreign language prerequisite. Offered in Summer session 1957.

**LATIN****100A Elementary and Second-Year Latin****4 hrs. Fall**

This course is designed for those students who need two units of Latin for admission to the AB curriculum or to a medical, law, or other professional course. With 100B it covers the work of two units of high school language requirement.

**100B Elementary and Second-Year Latin****4 hrs. Spring**

A continuation of 100A. A student may present one unit of high school Latin and enter the course in the second semester.

**102A Cicero and Ovid**

4 hrs.

Orations and letters of Cicero are read. One day each week is devoted to Latin composition. Prerequisite: two units of high school Latin or Latin 100A, B. Offered in 1958-1959.

**102B Cicero and Ovid**

4 hrs.

This is a continuation of 102A. Selections from Cicero and from Ovid's "Metamorphoses" are read. Offered in 1958-1959.

**103A Virgil**

4 hrs. Fall

The first books of the *Aeneid* are read and a survey of the whole is begun. A study of Greek and Roman mythology accompanies the reading. Prerequisite: at least two units of high school Latin. Offered in 1957-1958.

**103B Virgil**

4 hrs. Spring

This is a continuation of 103A. Intensive study of the first six books is continued, and the survey of the whole is completed. Offered in 1957-1958.

**104A Latin Literature**

4 hrs. Fall

A survey of Roman literature with reading of representative Latin authors is the aim of this course. Selections from Pliny's Letters and Cicero's philosophical works are read. Offered in 1957-1958.

**104B Latin Literature**

2 hrs. Spring

In this continuation of 104A, selections from the Histories of Livy and the Latin poets are read. Offered in 1957-1958.

**202 Mythology**

3 hrs. Spring

This is a survey of the principal myths and legends of Greece and Rome. It is accompanied by a study of their representations in painting and sculpture, and by appropriate readings in English literature. Credit from this course may be applied on Group I or on an English major and minor.

**204A Horace**

4 hrs.

The *Odes*, *Epodes*, and *Satires* are read. A study of the philosophy of Horace accompanies the reading.

**204B Horace and Latin Comedy**

4 hrs.

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.

**305 Latin Writing**

3 hrs. Fall

Practice is given in the fundamental principles of correct expression in Latin. Required of all students majoring in Latin.

**402 Mythology**

This course investigates the origins, elements and interpretation of the principal myths and legends of Greece and Rome; also their preservation not only in literature but also in painting, music, and sculpture.



**SPANISH****100A Elementary Spanish****4 hrs. Fall**

This course is planned to give the student a thorough preparation in the fundamentals of Spanish. Careful attention is devoted to both the written and spoken language, with emphasis always on its practical application. The language laboratory is made available for individual development.

**100B Elementary Spanish****4 hrs. Spring**

This is a continuation of 100A.

**102A Intermediate Spanish****4 hrs. Fall**

A complete review course designed to strengthen the knowledge and abilities acquired in Spanish 100A and, at the same time, enlarge the vocabulary. A contemporary novel is read and composition work is based upon the text. Prerequisite: two years of high school Spanish, 100A, B.

**102B Intermediate Spanish****4 hrs. Spring**

This is a continuation of 102A.

**201A Spanish Conversation and Composition****2 hrs. Fall**

This course is intended to develop ease and accuracy in the use of everyday Spanish. Prerequisite: two years of high school Spanish or 100A, B. It will be offered if there is sufficient demand. Offered in 1957-1958.

**201B Spanish Conversation and Composition****2 hrs.**

This is a continuation of 201A.

**203A Advanced Spanish****4 hrs. Fall**

Emphasis is placed on developing a greater facility in speaking the language on an advanced level. Original composition is practiced and ease in reading of Spanish literature is developed. It is also the purpose of this course to give a knowledge and understanding of the Spanish-speaking nations. Prerequisite: 102A, B.

**203B Advanced Spanish****4 hrs. Spring**

This is a continuation of 203A.

**207A Latin-American Life and Culture****2 hrs. Fall**

This course is a survey of the customs, arts, and literature in Latin-American countries, with particular attention to Mexico. It is conducted in English. There is no prerequisite.

**208A Spanish Life and Culture****2 hrs. Fall**

This survey course is designed to provide an introduction to the literature, arts, history, and life in Spain. There is no prerequisite and the course is given in English. Offered in 1958-1959.

**305A Spanish-American Literature 2 hrs.**

This is a survey of Spanish-American literature from the pre-Columbian period to the latter part of the nineteenth century, including the literature of the Conquest, the Colonial and Independence period, and that of the Gauchos. Prerequisite: 203A, B or its equivalent. Offered in 1957-1958.

**305B Spanish-American Literature 2 hrs.**

This is a continuation of 305A, bringing the survey to the contemporary writers of Latin-America. Offered in 1957-1958.

**307A The Spanish Novel 2 hrs. Fall**

The development of the Spanish novel during the past hundred years is studied through readings from the works of Fernán Caballero, Juan Valera, José María Pereda, and Palacio Valdés. Prerequisite: 203A or the permission of the instructor. Offered in 1958-1959.

**307B The Spanish Novel 2 hrs. Spring**

The study of the novel is continued through reading works of Pérez Galdós, Blasco Ibáñez and others. Offered in 1958-1959.

**308A Golden Age of Spanish Literature 2 hrs. Fall**

This is a survey of the prose, poetry, and theater of the classical period which covers most of the 16th and 17th centuries. Prerequisite: 203A, B, or permission of instructor.

**308B Golden Age of Spanish Literature 2 hrs. Spring**

This is a continuation of 306A.

**405 Contemporary Spanish Theater 2 hrs. Spring**

The Spanish theater and the dramatists of the 20th century are studied. Lectures and reading assignments in English include representative works of the important writers for the theater. No prerequisite in Spanish. Offered in 1957-1958.

**SPEECH**

Zack L. York, Head  
Albert B. Becker  
Charles T. Brown  
Faber B. De Chaine

William R. Dopheide  
George O. Eglund  
Wallace L. Garneau  
Charles R. Helgesen  
Deldee M. Herman

John J. Pruis  
Ann Shaw  
Hobart H. Sorensen  
Charles Van Riper

Courses in the department are offered with three major responsibilities in mind: to meet the cultural and professional needs of the general student body; to meet the needs of students preparing to teach in the various departments of the public schools; to prepare students to teach speech.

A beginning student, whatever his special interest in the field, shall take one of the following first level courses: Communication 104A, B; Speech Courses 105, 106, 108. These courses may not be counted toward minimum requirements for a major or minor in speech. General speech 106 is re-

quired of all teaching majors and minors.\* All teaching of speech majors and minors shall take the appropriate speech methods course as recommended by the chairman.

A teaching and a non-teaching major are offered. (For speech correction major see Special Education Curriculum—Speech Correction.) 1. Requirements for a teaching major in speech: one first level course, 110, 126, 215, 225, 250, 320, 399, and electives to make a total of 27 semester hours. 2. Requirements for a non-teaching major are courses in the field totaling 27 semester hours planned in consultation with the chairman of the department before the end of the student's sophomore year.

Five minor sequences are offered requiring 15 semester hours each.

1. Teaching minor in dramatics and interpretation: Courses 110, 215, 320, 399, and 126 or another course in an area other than dramatics and interpretation.
2. Teaching minor in forensics: 126, 225, 408, 399 and 110 or another course in an area other than forensics.
3. Teaching minor in general speech: 110, 126, 399, and electives to make a total of 15 semester hours.
4. Teaching minor in elementary education: 110, 250, 401, 404, 441 and 3 hours of electives.
5. Non-teaching minor in radio: 140, 240, 241, 342 and 110, or another course in an area other than radio.
6. Non-teaching minor in general speech: Sequences are planned to meet the personal interests and needs of the student in consultation with the chairman of the department by the end of the sophomore year.

Each speech major and minor shall be assigned a faculty sponsor from the department and must complete a prescribed program of extra-curricular activities. All students are urged to include in their programs Parliamentary Usage 201 and as many additional courses in speech as possible. Attendance is required of all majors and minors at meetings when called by the department chairman.

## 99 Special Speech Problems

No credit. Fall, Spring

Designed to meet the needs of the students with special speech difficulties. Emphasis is placed upon the solution of the individual speech problems through individual and group therapy.

## 104A, B Communication

For description of course see Division of Basic Studies. Credit for these courses may be given in first level requirements for non-teaching speech majors and minors upon recommendation of the instructor and approval of the head of the speech department.

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\*Exceptions may be made upon the recommendation of an instructor and the approval of the chairman of the department.

**105 Speech for Teachers 3 hrs. Fall, Spring**

Designed for students planning to teach. A beginning course in speech dealing with the study and application of basic principles underlying effective oral communication. Particular attention will be given to developing skill in meeting the special situations encountered by the teacher.

**106 General Speech 3 hrs. Fall, Spring**

A beginning course in speech dealing with the study and application of basic principles underlying effective oral communication. Required of all students planning to secure a teaching major or minor in speech.

**108 Business and Professional Speech 3 hrs. Fall, Spring**

Designed for students in business or pre-professional curricula. A beginning course in speech dealing with the study and application of basic principles underlying effective oral communication. Particular attention will be given to developing skill in meeting the speech situations encountered in the business and professional world.

**110 Interpretive Reading 3 hrs. Fall, Spring**

Analysis and interpretation of the more simple types of prose and poetry. Emphasis is placed upon developing the students' standards of appreciation of literature and his skill in reading orally from the printed page.

**126 Public Speaking 3 hrs. Fall, Spring**

Introductory study of principles of public speech and audience psychology. The primary aim is to develop skill in speech composition, clear thinking, and effectiveness in speaking. Frequent opportunity for platform work is given.

**140 Radio Speaking 3 hrs. Fall, Spring**

Study and practice of radio techniques as they apply to announcing, talks, interviews, and discussion.

**201 Parliamentary Usage 1 hr. Fall, Spring**

Designed for students who desire knowledge and practice in participating in and conducting business meetings.

**202 Discussion 3 hrs. Fall, Spring**

Study and practice in discussion and conference. Skill in participation, leadership, group thinking, and evaluation are emphasized. Recommended for any student whose vocation involves work with groups, such as students in business, pre-professional, or teaching curricula.

**215 Acting 3 hrs. Fall, Spring**

Study and practice of the basic principles and techniques of acting designed to help the student to develop a basis for appreciation and criticism.

**217 History of the Theatre 2 hrs. Fall**

From the beginnings to the English Renaissance.

- 218 History of the Theatre** 2 hrs. Spring  
From the English Renaissance to the present day.
- 219 Stagecraft** 2 hrs. Fall  
A beginning course in the planning and construction of stage scenery. Includes laboratory work on campus dramatic productions. No prerequisites.
- 220 Stage Design** 2 hrs. Spring  
A beginning course for students who want experience in planning and executing stage settings. Includes laboratory practice in staging campus dramatic productions. No prerequisites. Note: This course may be counted for credit in either art or speech.
- 221 Stage Make-up** 1 hr. Fall, Spring  
Study and practice of the principles and techniques of stage make-up.
- 225 Argumentation and Debate** 3 hrs. Fall  
A study of the principles of argumentation and frequent practice in debating current public questions. Attention given to problems involved in judging debates.
- 226 Intercollegiate Debating** 1 hr. Fall, Spring  
This activity gives students an opportunity to participate in intercollegiate debates, discussions and student congresses. The national college debate and discussion topics are used. Debaters meet regularly as a group. Students interested in qualifying for this activity should contact either the men's or women's debate coach. Maximum of six semester hours may be accumulated.
- 232 Problems of the Deaf and Hard of Hearing.** 3 hrs. Fall  
An introduction to fundamental aspects of normal and defective hearing considered from a practical standpoint, as applied to teachers, parents and therapists working with speech and hearing problems.
- 240 Radio Acting** 3 hrs. Spring  
A study of the basic principles of acting and their application to radio. Experience in improvisation and characterization will be provided. Radio plays will be produced and recorded for class analysis. Prerequisite: 140 or consent of instructor.
- 241 Radio Production** 3 hrs. Spring  
Study and application of radio production techniques. Students will be given experience in directing, using music, sound effects, and other production aids.
- 250 Introduction to Speech Correction** 3 hrs. Fall, Spring  
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 and the nature of the speech disorders and their treatment.

**251 Principles of Speech Correction** 3 hrs. Fall, Spring

Designed for students in speech correction, special education and elementary education. The course is designed to acquaint the student with the methods used in speech correction for the various speech disorders. Prerequisite: 250.

**307 Voice and Diction.** 3 hrs. Fall, Spring

Emphasis is placed exclusively upon voice production and diction. It gives the student a basis for individual analysis and emphasizes an intensive program for self-improvement. No prerequisites.

**310 Interpretive Reading II** 2 hrs. Offered as needed

Advanced work in the oral interpretation of literature, with special emphasis on the dramatic form. Prerequisites: 110, 215 or consent of instructor.

**318 Phonetics** 3 hrs. Spring

Designed to acquaint the student with the phonetic alphabet, sound formation and phonetic transcription, and with the application of these to foreign language, dialect, interpretive reading, dramatics and speech correction.

**320 Play Production** 3 hrs. Fall, Spring

Theory and application of basic principles of directing and staging plays with particular emphasis upon production problems of school and community.

**342 Radio Scriptwriting** 2 hrs. Fall

Analysis of radio scripts—commercial, sustaining, and educational. The class will consider the mechanical and production aspects of radio that present special problems to the writer. Emphasis will be placed on preparing scripts in subject matter areas in which class members major or minor.

**351 Practicum in Speech Therapy** 1 hr. Fall, Spring

This course consists of supervised practice in clinical speech correction. Case presentations, therapy planning, the review of pertinent literature, and actual therapy comprise the course content.

**352 Practicum in Speech Therapy** 1 hr. Fall, Spring

A continuation of 351.

**353 Practicum in Speech Therapy** 1 hr. Fall, Spring

A continuation of 351.

**399 Teaching of Speech**

Designed to give the prospective teacher and the teacher in the field an understanding of the problems of teaching speech to high school students. It considers the aims, principles, curricula and techniques of modern speech; and seeks to bridge the gap between the student's academic training and its application to the teaching situation.

**401 Teaching Speech in the Elementary School** 2 hrs. Spring

A methods course for the elementary teacher, designed to help her improve the oral language skills of her pupils.

**404 Creative Dramatics** 2 hrs. Fall, Spring

The study of the principles, materials and techniques of informal dramatics as a classroom activity. Includes observation of demonstration groups.

**405 Speech for the Classroom Teacher** 2 hrs. Fall, Spring

A course for seniors and teachers in service who find that they need more work in speech. This course is designed to help the teacher analyze and improve her own speech. Emphasis is given to the various speech needs of the classroom teacher.

**406 Public Speaking** 2 hrs. Spring

The study of speech composition, audience psychology, and delivery with particular emphasis upon the language of effective speech. The course includes practice in speaking and analysis of model speeches. Prerequisite: Public Speaking, 126, or consent of instructor.

**408 Direction of Forensic Activities** 2 hrs. Spring

Includes principles of coaching discussion, debate, extempore speaking, oratory, and reading. Opportunities given for participating in the management and judging of speech contests and festivals. Prerequisite: A major or minor in speech, or consent of instructor.

**409 Persuasion** 3 hrs. Fall

Speech skills are developed by the presentation of studies in persuasion, by participating in discussion and by criticism of both. Content of course is the psychological theories and experimentation in motives and theories in persuasion ethics. Recommended for teacher, pre-ministerial, pre-law and business students.

**415 Acting** 2 hrs. Offered as needed

Intensive work in the techniques of creative acting. Each student creates at least one role in a play. Prerequisite: Interpretive Reading 110, Acting 215, or consent of instructor.

**416 Oral Interpretation of Drama** 2 hrs. Offered as needed

Reading and analysis of the dramatic form in literature. Aim is to develop and establish a basis for intelligent criticism and appreciation of the drama. Prerequisite 110, 215, or consent of instructor.

**421 Teachers' Workshop in Dramatics** 4 hrs. Summer, 1957

Workshop in the basic skills of theatre production designed for students with little or no formal training in theatre. Opportunity is given for individual projects.

**440 Fundamentals of Broadcasting** 2 hrs. Spring

Instruction concerning every department of the broadcasting studio. Prerequisites: 126 or 110 or consent of instructor.

**441 Radio in Education****2 hrs. Spring**

Radio series for in-school listening will be auditioned and evaluated. The class will investigate sources of educational programs and experiment in utilization techniques. Experience in making tape recordings for educational use will be provided.

**442 Workshop in Radio****4 hrs. Summer**

Designed especially for the non-specialist interested in educational radio. Emphasis will be placed on planning, writing, and producing radio programs whose aim is to interpret the schools to the public. Individual projects will be planned to fit the particular subject matter interests of each class member.

**451 Basic Voice and Speech Science****3 hrs. Fall**

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.

**452 Stuttering and Allied Disorders****3 hrs. Spring**

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. Prerequisite: 251.

**453 Applied Speech Correction****3 hrs. Fall, Spring**

For students interested in the actual practice of speech correction. The course will involve training in the remedial treatment of both adult and child speech defectives in the university clinic and schools associated with the university and the study of the principles of clinical practice. Prerequisite: consent of instructor.

**454 The Organic Speech Disorders****3 hrs. Spring, Summer, 1957**

This course is concerned with the diagnosis and treatment of the speech disorders of organic origin: cleft palate, cerebral palsy, aphasia, aphonia, and dysarthria.

**456 Speech Therapy****2 hrs. Spring**

Includes a historical survey of the speech therapy field, the philosophy of speech correction, professional problems, the administration of private, hospital, public school and speech clinic therapy centers and the basic principles of psycho-therapy.

**499 Teaching Speech in the Secondary School****3 hrs. Fall**

A methods course designed to give an understanding of the problems of teaching speech to high school students. It seeks to bridge the gap between academic training in speech and the teaching situation.



## DIVISION OF SCIENCE AND MATHEMATICS

**Charles H. Butler, Chairman**

The Division includes the departments of Biology, Chemistry, Geography and Geology, Mathematics, Paper Technology, Physics, and Psychology. Major and minor requirements are listed under the individual departments. The heads of the respective departments will advise students with respect to departmental majors and minors in science and mathematics.

In certain cases where a Divisional or group major or minor in science seems advisable, the Chairman of the Division should be consulted. A group major in science must include at least thirty semester hours of work taken in not more than two departments in the Division, and at least fifteen hours of this work must be in courses above the freshman level. A group minor in science must include at least twenty semester hours of work taken in not more than two departments in the Division, and at least eight hours of this work must be in courses above the freshman level. No courses in mathematics may be included in a group major or minor, but if the two departments in which the work is taken do not include either chemistry or physics, the course in Physical Science (100A) may be included among the freshman courses offered.

Divisional or group majors and minors are intended for students in the Elementary Education curriculum. They will not ordinarily be approved for students in other curricula, except that a group major may be approved for students in the Secondary Education curriculum who satisfy all the requirements listed in schedules C or D in the table shown below. On the basis of recent studies the Division has approved certain patterns of courses for the preparation of science teachers for secondary schools. These patterns, shown in the following table, correspond to the most common teaching combinations. Only those students who fully satisfy some one of these approved patterns may be given official Divisional recommendations.

## College Science Courses Recommended for Training Prospective Science Teachers for Secondary Schools

Teaching Pattern	Biology	Chemistry	Physics	Mathematics	General Education Basic Science	Other Science Courses	Science Methods
A. Biology and General Science. In combination with Physical Education	A Basic Course in Introductory Biology (usually 2 semesters) A Field Course (one semester) Additional Courses to total at least a 15-hour teaching minor in Biology				Physical Science (2 semesters)	Meteorology (one semester)	Biology Methods (one semester)
B. Biology and General Science	A Basic Course in Introductory Biology (usually 2 semesters) A Field Course (one semester) Additional Courses to total at least 24 hours (major) in Biology, to include Botanical and Zoological (both vertebrate and invertebrate) areas	General Chemistry (one semester)			Physical Science (2 semesters)	Astronomy (one semester) Geology, including Field Work (2 semesters) Meteorology (one semester)	Biology Methods (one semester)
C. Chemistry, Mathematics, Physics and General Science		General Chemistry (2 semesters)  Additional Courses to make a major (24 hours) in Chemistry or in Physics or a group major (30 hours) in a Chemistry-Physics combination	General Physics (2 semesters)	Trigonometry (one semester) College Algebra (one semester) Analytic Geometry (one semester) Additional Courses to make a minor (15 hours)	Biological Science (one semester) Human Geography (one semester)	Astronomy (one semester)	Physical Science Methods (one semester)
D. Biology, Chemistry, Physics and General Science	A Basic Course in Introductory Biology (usually 2 semesters) A Field Course (one semester) Additional Courses in Biology and Geology to total at least 20 hours (group minor)	General Chemistry (2 semesters)  Additional Courses to make a major (24 hours) in Chemistry or in Physics or a group major (30 hours) in a Chemistry-Physics combination	General Physics (2 semesters)			Geology, included in group minor with Biology (2 semesters) Meteorology (one semester)	Biology or Physical Science Methods (one semester)

**BIOLOGY**

W. C. Van Deventer, Head	A. Verne Fuller	Myrtle M. Powers
Lee Baker	Frank J. Hinds	Edward E. Reynolds
Bette E. Barnes	Elaine Hurst	Edwin B. Steen
Harriette V. Bartoo	Daniel F. Jackson	Leo Vander Beek
Bettina B. Carter	George G. Mallinson	Merrill R. Wiseman

Courses 100A, B serve as the foundation for a biology major, for pre-professional training in medicine, dentistry, nursing, medical technology, forestry, horticulture, and landscape architecture, and as a general prerequisite for advanced courses. Those students who are not planning to specialize in biology or in a related profession take course 102.

A recommended major for pre-medical and pre-dental students includes 100A, B; 242A, B; 341 and 342. If possible, 312A and B should be elected. A recommended major for students preparing to enter forestry, horticulture, or landscape architecture consists of 100A, B; 220, 222 and 242A, B. If possible, 223, 243, and 420 should be elected. Occupational therapy students take 102, 231A or B and 211A, B.

A major or minor for secondary teachers should embrace as wide a range of courses as possible, including both zoological and botanical aspects of biology. Not more than eight hours of 100 level work are generally counted toward a major and not more than four hours toward a minor. Any major or minor should include some work taken at the junior or senior level. Students are expected to take 304 before enrolling for directed teaching in biology. A biology minor for elementary teachers may include 102, 231A, 231B, and three or more elective hours. All biology minors and majors in secondary education curricula must include 304 and a course in field biology. Those majoring in biology are advised to take their general education science work in the physical science area.

**100A General Biology****4 hrs. Fall**

This and the following course, 100B, survey the field of biology and serve as a foundation for advanced courses. This course includes a study of the cell and protoplasm, unicellular organisms, and the animal groups in the order of advancing complexity.

**100B General Biology****4 hrs. Spring**

A continuation of 100A, covering the higher animal groups, the plant groups, genetics, evolution, ecology, and conservation.

**102 Biological Science****4 hrs. Fall, Spring, Summer**

A course designed to present basic biological principles and to give the student an understanding of the operation of the world of life. This course fulfills the general education requirement for biological science, and may be used as the basis for a biology minor. It may be used as a partial basis for a major with special individual counseling.

**201 General Ecology****2 hrs. Spring**

This is a study which deals with plant-animal communities, relationships among living organisms, and interrelationships of living organisms with their environment. Ecological concepts are presented and illustrated. Field work is emphasized. Prerequisite: Eight hours of college biology, or consent of instructor.

**231A Outdoor Science****4 hrs. Fall**

The development of ability to interpret natural phenomena with scientific accuracy, and to gain an understanding and appreciation of the relationships of life forms to each other and to their environment. The course includes flowering and non-flowering plants, insects, spiders, winter birds, mammals and astronomy. Especially desirable for elementary teachers. Field trips are a part of the scheduled work.

**231B Outdoor Science****4 hrs. Spring**

Rocks, minerals, weather, spring plants, pond life, migratory and resident birds are included in the discussions, laboratory and field work. Especially desirable for elementary teachers. Students may enter without having had 231A.

**231S Nature Study for Teachers****4 hrs.**

An abridgement of 231A and 231B, designed for teachers in service. Offered only in summers and by extension.

**301 The Teacher and the Living Environment****2 hrs.**

A study of interrelationships among plants and animals, including man. Emphasis is placed on classroom and field experience which will be helpful to teachers in service. Offered only in summers and by extension.

**304 Methods and Materials in Biology****2 hrs. Fall, Spring**

This consists of class discussion, laboratory practice, and field work, illustrating the collection, preparation, and use of materials for biological teaching with particular reference to high school conditions. This course is required of all students who are following a secondary education curriculum and who list biology as a major or minor. Prerequisite: Twelve hours of biology, including both zoological and botanical aspects.

**305 Genetics****2 hrs. Fall**

A comprehensive study of the laws of heredity including their application to plant and animal breeding and to man. Prerequisites: 100A, B, or equivalent.

**306 Evolution****2 hrs. Fall**

A consideration of the evidence for and principles involved in the evolution of plants and animals, including man. Prerequisites: 100A, B, or equivalent.

**405 Advanced Studies in Heredity****2 hrs. Spring**

Special problems in genetics with emphasis on laboratory work. Prerequisite: Biology 305 or its equivalent.

**408 The Nature of Science****2 hrs. Spring**

A consideration of the nature and application of scientific attitude and scientific methods as exemplified by specific cases from the history of scientific research. Prerequisite: Eight hours of college biology.

**453 Field Studies in Ecology****2 hrs. Fall**

Designed for students who have had basic work in biology, and who wish to gain field and laboratory experience in plant-animal interrelationships. Prerequisite: Eight hours of college biology.

**ANATOMY, PHYSIOLOGY AND HYGIENE****112 Healthful Living****2 hrs. Fall, Spring, Summer**

A study of the principles underlying sound health practices. Factors in the causation, prevention and control of disease are considered, and some attention is given to mental and social hygiene.

**113 Advanced Healthful Living****2 hrs. Spring**

A continuation of 112, for students wishing to continue the study of health for an additional semester at the freshman level. Prerequisite: Permission of instructor.

**205 Anatomy and Physiology****4 hrs. Spring**

The gross and microscopic structures, and the functions of organs and tissues of the vertebrate body, with special reference to man. Designed particularly for students in physical education. Three lectures, one quiz period and one three-hour laboratory per week. Prerequisite: 100A or equivalent.

**210 The Human Body****3 hrs.**

A study of the structure and functioning of the human body. A non-laboratory course designed especially for teachers in service. Offered only in summers and by extension.

**211A Anatomy****4 hrs. Fall**

A study of the gross and microscopic structures of the vertebrates with special reference to man. In the laboratory the cat is dissected. Prerequisite: 100A, B, or equivalent.

**211B Physiology****4 hrs. Spring**

A study of the functions of the organs and tissues of the human body. In the laboratory, experimental techniques are utilized. Prerequisite: 100A, B, and 211A, or equivalent.

**212 Community Hygiene****3 hrs. Fall, Summer**

An introduction to the field of public health. The nature and prevalence of communicable and non-communicable diseases and community measures for their control. Attention is given to the health problems of certain age-groups, to industrial and school hygiene, and to the functioning of voluntary and official health agencies.

**213 Anatomy and Physiology for Nurses 4 hrs. Fall**

An abridged combination of 211A and 211B, especially adapted to meet the needs of the students in the Bronson Methodist Hospital School of Nursing.

**214 Bacteriology for Nurses 3 hrs. Spring**

An abbreviated course in microorganisms, adapted to the needs of students in the Bronson Methodist Hospital School of Nursing.

**312A Bacteriology 4 hrs. Fall**

A study of microorganisms and their place in nature. Attention is given to beneficial and injurious forms. Techniques used in their study are demonstrated and employed in the laboratory. Prerequisite: 100A, B, or equivalent, and a course in chemistry.

**312B Bacteriology 4 hrs. Spring**

Continuation of 312A with special attention given to pathogenic microorganisms. Prerequisite: 100A, B, or equivalent, a course in chemistry and 312A.

**413 Health Problems 2 hrs. Fall**

The students study intensively several problems of their own choice. The class meetings are devoted to discussion and group criticism of each student's reports. Prerequisite: Consent of the instructor.

**414 Materials for School Health Education 2 hrs. Fall, Summer**

A course of lectures and demonstrations in which emphasis is placed on the effective health supervision of school children, the principles and practices of health teaching in the various grades, and the interrelation of this teaching with that of other subjects in the curriculum.

**415 Problems of Alcohol Education 2 hrs. Spring, Summer**

Designed for teachers in service and other qualified adults. A series of lectures and discussions along with supplementary readings, arranged to explore objectively the problems associated with the drinking of alcoholic beverages.

**456 Biology of Blood 2 hrs. Spring**

This consists of laboratory experience with pertinent commentary on practice and principles in hematology and immunology. Normal blood will be studied, as well as some of the common abnormal conditions. There will be extensive work in serology derived from an understanding of antigen-antibody relationships and hypersensitivity. Prerequisite: Twelve hours of college biology or consent of instructor.

## BOTANY

### 220 Botany of Seed Plants

4 hrs. Fall

A course designed to acquaint the student with the seed plants, their gross and microscopic structure, physiology, classification and development. The college greenhouse is used in experiments involving living plants and their propagation. Prerequisite: Eight hours of biological science or consent of the instructor.

### 222 The Plant Kingdom

4 hrs. Spring

A systematic study of the various plant groups in relation to their identification, structure, reproduction and ecology. During the second half of the semester field studies occupy the major portion of the class time. The second half of this course may be taken separately, without the first half, under the title of 224. Prerequisite: Eight hours of biological science, or consent of the instructor.

### 223 Trees and Shrubs

2 hrs. Fall

A field course in the identification of trees and shrubs occurring in Southwestern Michigan. Attention is given to their geographic and physiographic distribution, their uses in ornamental and economic planting, and for industrial purposes. Prerequisite: Eight hours of biological science, or consent of the instructor.

### 224 Local Flora

2 hrs. Spring

An elementary field course in the identification of higher vascular plants, chiefly non-woody. It is especially designed for those who find a need for acquaintance with the common wild flora occurring in this region. This course corresponds to the last half of 222. Students taking 222, therefore, cover the material of this course, and cannot then obtain additional credit for 224. Those wishing additional work in this area should take 420. Prerequisite: Eight hours of biological science, or consent of the instructor.

### 320 Plant Pathology

3 hrs. Fall

A course dealing with the common diseases of higher plants, caused by fungi, viruses and physiological factors, as well as those connected with nematodes and insect larvae. The emphasis is on causes, carriers and "curses" for plant diseases. For students with interest in biology, agriculture and allied fields. Prerequisite: Eight hours of biology including a course in botany.

### 323 Reproduction and Growth in Plants

3 hrs. Spring

A comprehensive course for advanced students in biology covering a comparative approach to the study of reproduction in plants in their characteristic similarity or differences from animal tissues. Experiments in growth and regeneration of cells and tissue cultures are carried on to illustrate these. Prerequisite: Eight hours of biology including a course in botany.

**410 Economic Botany****3 hrs. Fall**

A course dealing with plants useful to man for food, flavoring, drugs, clothing, and building purposes. Field trips are planned to important places where plant products are grown, manufactured, exhibited, or sold. Emphasis is placed on a knowledge of plant life of economic value in connection with teaching at both elementary and secondary levels. Also desirable for students in business, economics, and industrial education.

**420 Flowering Plants****2 hrs. Summer**

An advanced course in field study and identification of flowering plants. Students will be expected to use keys for identification and to assemble a herbarium collection for their own use. Prerequisite: 222 or 224 or equivalent.

**423 Fossil Plants****2 hrs. Spring**

Intended to give the student a knowledge and appreciation of plant life of the past. Plant fossils most commonly found in and around Michigan would be the subjects of discussion from the standpoint of identification and classification as well as from that of their structure. At least two extended field trips would be arranged during the semester. Prerequisite: Twelve hours of biology, including Biology 222, The Plant Kingdom.

**426 Laboratory Studies in Plant Biology****2 hrs. Fall**

A course in plant physiology in which the broader aspects of physiological processes shared commonly with animals are emphasized. Functions of various plant organs are discussed and related to structure. Students are encouraged to carry out individual investigations. Prerequisite: Biology 220 or its equivalent. A course in high school or college chemistry is desirable.

## **ZOOLOGY**

**242A Invertebrate Zoology****4 hrs. Fall**

A study of the structural characteristics, physiology, life histories, habits, distribution, and classification of the invertebrates. Identification of local forms, and those having economic importance is emphasized. Prerequisite: 100A, B, or equivalent.

**242B Vertebrate Zoology (Comparative Anatomy)****4 hrs. Spring**

A study of the Phylum Chordata; essential features of lower types; general features of chordate development; the endoskeleton and comparative anatomy of the systems of vertebrates. Field work includes a trip to the Chicago Museum of Natural History. Prerequisite: 100A, B, or equivalent.

**243 Bird Study****3 hrs. Spring, Summer**

A study of the plumage, song, flight, migration, and nesting habits of birds, their relation to their environment, and their importance to man. The student learns to identify a minimum of 100 species in the laboratory and 50 in the field.



**341 Histology****4 hrs. Spring**

The microscopic study of the cells, tissues, and organs of the body with some attention to their preparation for study. Prerequisite: 100A, B, and eight additional hours of biology. Alternate years.

**342 Vertebrate Embryology****4 hrs. Spring**

The study of the development of the individual from the origin of the germ cells to adulthood. The frog, chick, and pig are used in the laboratory. Prerequisite: 100A, B, and eight additional hours of biology. Alternate years.

**421 Parasitology****2 hrs. Fall**

A study of animal parasites, internal and external, their classification, life histories and ecological relationships. Emphasis is given to parasites of man. Prerequisite: 100A, B, or equivalent.

**422 Insect Study****2 hrs. Summer**

A study of insects, their identification, and life histories. Emphasis is placed on those species having economic importance and relationships to human health. Prerequisite: 100A, B, or equivalent.

**440 Mammalogy****2 hrs. Spring**

A study of mammals, their identification, habits, life histories, ecological relationships, economic importance and conservation, with emphasis on North American forms. Field and laboratory work are included in the course. Prerequisite: 100A, B, or equivalent.

**441 Advanced Ornithology****2 hrs. Spring, Summer**

Special attention is given to details of song, habitat, habits, and identification of shore and marsh birds in their native haunts. Early morning field trips will be a part of the scheduled class work. Prerequisite: Eight hours of college laboratory courses in biology and permission of the instructor.

**SPECIAL FIELD COURSES**

At the Higgins Lake Training School of the Conservation Department, a week's work is offered in June following commencement. The student may obtain one semester hour credit in any of the following:

Conservation 312f, Botany of Flowering Plants 223f, Game Bird Ornithology 236f, Zoology (Mammalogy) 243f.

For particulars consult the Division of Field Services.

## CHEMISTRY

Gerald Osborn, Head  
Lillian H. Meyer,  
Acting Head  
James W. Boynton

Paul Holkeboer  
Don C. Iffland  
Lawrence G. Knowlton

Robert C. Nagler  
Lauri E. Osterberg  
Esther Woodruff  
Elaine Zimmerman

A major in chemistry consists of one year of general chemistry (8 hours) and 16 hours from the following: 201, 202, 306A, B, 341, 350, 351, 408, 403A, B. Students majoring in chemistry in the general degree curriculum and desiring an industrial laboratory position upon graduation are required to take an additional ten hours of chemistry. Students majoring in chemistry should have a minor in physics.

All chemistry majors are required to take chemistry seminar during junior and senior years.

A minor sequence in chemistry consists of 8 hours of general chemistry and 8 hours from the following: 201, 202, 306A, B, 341, 350, 351, 408.

## BASIC CHEMISTRY COURSES

### 100A General Chemistry

4 hrs. Fall

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. Prerequisite: one year of algebra. Designed for students who have had no high school chemistry.

### 100B General Chemistry

4 hrs. Spring

A continuation of General Chemistry 100A. Prerequisite: 100A.

### 101A General Chemistry

4 hrs. Fall, Spring

This is a more advanced course than 100A. The theory and fundamental principles of chemistry are emphasized. It is a foundation course. Prerequisite: One unit of high school chemistry and one unit of algebra.

### 101B General Chemistry

4 hrs. Fall, Spring

A continuation of course 101A. Prerequisite: 101A.

### 105A General Chemistry

4 hrs. Fall

The fundamental principles and theories of chemistry are studied, along with some of the common elements and their compounds. Open only to students in Home Economics.

### 105B General Chemistry

4 hrs. Spring

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 Home Economics. Prerequisite: 105A.

**106 Chemistry (for Nurses)****4 hrs. Fall**

The fundamentals of chemistry are studied with a view to applying them to the field of nursing. Credit does not apply towards a major or minor in chemistry.

**110 Applied Chemistry****2 hrs. Fall, Spring**

A one semester course especially designed to meet the needs of students enrolled in the Industrial Technology curricula. Among the topics included will be: basic concepts, chemical language, gas laws, acids bases and salts, water softening, applied organic chemistry and metallurgy. Two lectures per week and a two hour laboratory period.

**201 Qualitative Analysis****4 hrs. Fall, Spring**

A lecture and laboratory course treating the theory and practice of separation and identification of both cations and anions. Prerequisite: 100A, B, or 101A, B. A knowledge of common logarithms is essential.

**202 Quantitative Analysis****4 hrs. Spring**

This course includes the theory and practice of volumetric and gravimetric analysis. Prerequisite: Qualitative Analysis 201. A knowledge of quadratic equations and common logarithms is essential.

**205 Everyday Chemistry****2 hrs. Summer**

Through the media of lecture demonstrations, sound films, and field trips the student will be given an introduction to the role of chemistry in everyday living. This course is designed for those students who have never studied chemistry. It should be especially helpful to elementary teachers and to all other teachers who are non-specialists in science. Not offered in 1957.

**210 Engineering Materials****3 hrs. Fall**

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 or followed by (211) metal-processing course. Prerequisite: 100A, B or 101A, B.

**305 Advanced Qualitative Analysis****1-2 hrs.**

This course consists of laboratory work, readings and quizzes. Emphasis is placed on the analysis of alloys and mixed solids. Given on request.

**306A Organic Chemistry****4 hrs. Fall**

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. Prerequisite: 100A, B or 101A, B. Open to qualified sophomores.

**306B Organic Chemistry****4 hrs. Spring**

A continuation of course 306A. Prerequisite: 306A.

**307 Advanced Quantitative Analysis****1-2 hrs.**

Special determinations will be selected by the student upon approval of the instructor. Analysis of limestone and brass will generally be included depending upon the previous background of the student. Prerequisite: 202. Given on request.

**341 Food Chemistry****2 hrs. Fall**

This is mainly a laboratory course and includes the analysis of foods for important components such as carbohydrates, proteins, fats, minerals, vitamins, and food pigments. Prerequisite: 306A or 105B.

**350 Elementary Biochemistry****2 hrs. Spring**

Elementary study of the chemistry of the body, digestion, metabolism, excretion, the endocrins, and vitamins. Prerequisite: 306A. Open only to Junior and Seniors.

**351 Biochemistry Laboratory****1-2 hrs. Spring**

Analysis of blood, urine, and gastric juice, and other experiments according to the needs of the student and the number of hours credit elected. To accompany Elementary Biochemistry 350. Prerequisite: 202, or 341, and 306A.

**398 Inorganic Preparations****1-2 hrs.**

Consult instructor before enrolling. Laboratory work only. Given on request.

**399 Organic Analysis.****2 hrs.**

Determination of carbon, hydrogen, and nitrogen by combustion methods. Laboratory work only. Consult instructor before enrolling. Given on request.

**403A Physical Chemistry****3 or 5 hrs. Fall**

The course includes studies in kinetic theories of gases, liquids, solids, solutions, thermodynamics, physical basis for molecular structure, thermochemistry, homogeneous equilibria, heterogeneous equilibria, etc. Prerequisite: 202, Physics 203B and Calculus 205B. (Five hours includes laboratory.)

**403B Physical Chemistry****3 or 5 hrs. Spring**

A continuation of course 403A. This course includes radioactivity, quantum theory, atomic structure, conductance of solutions, pole potentials, oxidation potentials, polarization, chemical thermodynamics, colloids, etc. Prerequisite: 403A. (Five hours includes laboratory.)

**406 Qualitative Organic Analysis****2-3 hrs. Fall**

A course in the methods of identification of organic compounds in the pure state and in mixtures, which has as secondary goals the familiarization with many organic reactions and the development of deductive reasoning in the field of organic chemistry. Prerequisite: 306B.

**408 History of Chemical Theory****2 hrs. Spring**

This course is taught from the point of view of the history of chemical theory in which the evidence for the theories is critically presented. Prerequisite: Two years of college chemistry.

**496A Organic Preparations****2 hrs. Fall**

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, one hour a week, laboratory, ten hours a week. Consult instructor before enrolling.

**496B Organic Preparations****2 hrs. Spring**

Methods of preparing the aromatic organic compounds. Classroom, one hour a week, laboratory, ten hours a week. Consult instructor before enrolling.

**497A Special Problems in Chemistry****2 hrs.**

Advanced students who have completed certain basic work in chemistry may select a special problem in the fields of analytical, organic, biochemistry or physical chemistry. Prerequisite: 202, 306B, 350 and 403A. Given on request.

**497B Special Problems in Chemistry****2 hrs.**

A continuation of special problem work started under 497A. Given on request.

## GEOGRAPHY AND GEOLOGY

William J. Berry, Head  
Wm. R. Brueckheimer  
Oscar H. Horst

Marguerite Logan  
Cyril L. Stout

Geography, either 105A or 305, must precede all other undergraduate geography courses except 312, 218, and 225. There is no required sequence in the courses in regional geography.

Successful completion of 303 or 340 is prerequisite to receiving departmental recommendation for directed teaching or for a teaching position in geography.

Major (24 Hours)		Minor (15-17 Hours)	
<b>Required Courses</b>		<b>Required Courses</b>	
Human Geography 105A	4 hrs.	Human Geography 105A	4 hrs.
Regional Geography of the World 105B	4 hrs.	and	
Dynamic Geology 230A	4 hrs.	Regional Geography of the World 105B	4 hrs.
Field Geography 340	3 hrs.	or	
or		Introductory World Geography 305	3 hrs.
Geographic Techniques 303	3 hrs.	Field Geography 340	3 hrs.
Meteorology 225	2 hrs.	or	
<b>Elective Courses</b>		Geography Techniques 303	3 hrs.
Nine hours, chosen largely from the following:		<b>Elective Courses</b>	
Regional Courses (catalog)		Six hours chosen mostly from the following:	
Cartography and Graphics 350	2 hrs.	Regional Courses (catalog)	
Conservation of Natural Resources 312	3 hrs.	Conservation of Natural Resources 312	3 hrs.
		Dynamic Geology 230A	4 hrs.
		Meteorology 225	2 hrs.

Any other course offered by the department is acceptable on either a major or a minor in Geography. A combination of Geography and Geology may constitute a major (24 hours) or a minor (15 hours) in Earth Science.

A combination major (30 hours) may be earned by combining Geography or Geology with the work given in not more than one other department in the Physical Science Division. Similarly a combined minor of 20 hours may be earned provided not more than one other department is involved.

## FOUNDATIONAL COURSES

### 105A Human Geography

(See Division of Basic Studies)

### 105B Regional Geography of the World

4 hrs. Fall, Spring

A continuation of 105A. The continents are studied by geographic regions. Attention is given to patterns of agricultural land use, mining, manufacturing, fishing, recreation, and other major uses of land and other resources.

**105S Human Geography****3 hrs. Extension**

Designed to build understanding of major human activities and developments throughout the world in relation to factors of the environment.

**305 Introductory World Geography****3 hrs.**

Course should be elected instead of 105A, B by students who do not begin the study of geography before the junior year. Not open to students who have received credit for 105A or 105B. Not offered in 1957-1958.

**SURVEY REGIONAL COURSES****206 United States and Canada****3 hrs. Spring**

Study of areal differentiation in Anglo-American and of present-day problems, with emphasis upon occupational crises in selected regions. Prerequisite: 105A or 305.

**207 Europe****3 hrs. Fall**

Course discloses the ways man has adjusted his economic, political, and social life to the natural environmental conditions within the regions of the continent. Prerequisite: 105A or 305.

**208 South America****3 hrs. Spring**

Regional study of the several countries of South America with attention to the interrelationships of the physical and cultural environments. Historical background necessary for the interpretation of the present political, social and economic conditions is included. Prerequisite: 105A or 305.

**209 Mexico and the Caribbean Lands****2 hrs. Fall**

Includes the regional study of Mexico, Central America and the West Indian Islands; present economic, social, and political development of these regions; their potentialities and trends. Prerequisite: 105A or 305.

**307 Asia****3 hrs. Spring**

Interpretation of the major geographic regions of Asia. Special emphasis is given to the organization of materials into geographic units. Prerequisite: 105A or 305.

**308 Africa****3 hrs. Spring**

The evolution of the present political pattern of the continent; governmental policies of the colonial powers; the geography of the major areas of economic exploitation; impending changes related to opposition to colonial status. Prerequisite: 105A or 305.

**309 Islands of the Pacific****3 hrs.**

Study of populations and natural resources of Pacific Islands with emphasis upon economic and political problems which have arisen. Prerequisite: 105A or 305. Not offered in 1957-1958.

**INTENSIVE REGIONAL COURSES****304 The British Isles** 2 hrs.

Geographical analysis of their present and potential development. Prerequisite: 105A or 305, and Europe 207. Not offered in 1957-1958.

**311 The South** 2 hrs.

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. Prerequisite: 105A or 305. Not offered in 1957-1958.

**320 Japan** 2 hrs. Spring

Detailed study of the geography of Japan, with attention focused on present developments and future potentialities. Prerequisite: 105A or 305.

**323 Union of Soviet Socialist Republics** 3 hrs.

Analysis of the geography of the whole of the Soviet realm. Prerequisite: 105A or 305. Not given in 1957-1958.

**FUNCTIONAL COURSES****218 Economic Geography** 3 hrs. Fall

Course deals with important economic 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 Meteorology** 2 hrs.

Study of the elements of weather: temperature, precipitation, and pressure; the reading of weather maps; and the characteristics of fronts and air masses. Thermodynamics and the mechanics of atmosphere are used to explain weather phenomena. The course is non-technical. Not offered in 1957-1958.

**303 Geographic Techniques** 3 hrs. Spring

Guidance is given in the selection, interpretation, and use of all major types of geographical materials such as texts, library materials, pictures, and maps. Special emphasis is placed upon the organization of findings into geographic teaching units. Prerequisite: 105A or 305.

**312 Conservation of Natural Resources** 3 hrs. Spring

Critical evaluation of certain of the natural resources of the United States, such as minerals, soils, forests, water, and wild life; and study of the utilization of these resources so as to yield the greatest ultimate good. Methods in teaching conservation.

**325 Climatology** 2 hrs. Fall

Study of the distribution and character of the major climatic types of the earth. Fundamentals of air physics as applied to this distribution are discussed. Prerequisite: 105A, or 305 or 225, or consent of instructor.



**350 Cartography and Graphics****2 hrs. Spring**

Study of maps, the construction of them for reproduction, and the projections and symbolism most commonly used; also the graphic presentation of statistical material. Prerequisite: 105A or 305.

**FIELD GEOGRAPHY****340 Field Geography****3 hrs. Spring**

Intensive study of type areas near Kalamazoo 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. Prerequisite: 105A or 305.

**341,342 Advanced Field Geography****1, 2, 3 hrs. Fall, Spring**

Planned for students who desire to do independent field work in geography. The amount of credit 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. Extension only. Residence credit is given. Prerequisite: 340 or consent of the instructor. A planning conference is required.

**406 Geography of Michigan****2 hrs. Fall**

Detailed but non-technical study of Michigan in which are taken up the major economics, social, and recreational activities with a view to explaining their existence in the state where each activity is prominent.

**410 Studies in Geographic Education****2 hrs. Spring**

Course gives prospective geography teachers guidance in the selection, organization and presentation of the best materials available in this field. Not open to students who have had 303.

**411 Historical Geography of North America****2 hrs. Spring**

Migrations and routes of travel of the several European colonizers. Pattern and progress of settlement as related to the geographical conditions encountered in the development of each of the parts of the continent for human use. Emphasis chiefly on United States.

**416 Political Geography****2 hrs.**

Study of the resources, people, and geographic-political problems of the various nations and empires of the world from the point of view of the reciprocal relations involved. Not given in 1957-1958.

**419 Survey of Latin American Geography****2 hrs.**

Comprehensive survey of Latin America. Includes the physical landscape, natural resources, and the cultural adjustments in each of the countries. Not given in 1957-1958.

**447 Marketing and Market Research****3 hrs. Spring**

Designed to give geography and business students experience in using maps, map analysis and other geographic techniques in presenting marketing data, evaluating market potential, delineating trading and selling territories, and selecting locations for wholesale, retail, and service establishments. Prerequisite: 6 hrs. in geography.

## GEOLOGY

### 230A Dynamic Geology

4 hrs. Fall

Study of the origin and development of surface features of the earth and processes involved in their development. It comprises principally studies of the work of streams, glaciers, and wind, and of volcanic and diastrophic activity.

### 230B Historical Geology

4 hrs. Spring

Course includes a study of the origin of the earth, development of plant and animal life as shown by fossils, and major changes that have occurred in elevation, size, and form of continents. There will be at least three Saturday field trips. Prerequisite: 230A.

### 332 Physiography of United States

2 hrs.

Characteristics of the land forms in the United States and the geologic processes which have produced them. Laboratory work will consist largely of examination and interpretation of selected topographic maps. Prerequisite: 230A. Not offered in 1957-1958.

### 335 Mineralogy

2 hrs.

Study of the physical and chemical properties, occurrence, uses, and determination of approximately 100 of the more common minerals. Classroom, 1 hour a week; laboratory, 2 hours a week. Desirable antecedents: General Chemistry and Dynamic Geology 230A. Not given in 1957-1958.

### 350 Field Geology

4 hrs. Summer Trip

A survey of geologic factors responsible for the landscape features between Kalamazoo and western South Dakota. Rock formations of the Black Hills Region. Field mapping techniques. Enrollment is with the Extension Division, but residence credit given. Required of students with minor in geology. Prerequisite: 230B or the equivalent. Post-summer session.

## MATHEMATICS

Charles H. Butler, Head  
Fred A. Beeler  
Pearl L. Ford  
Herbert H. Hannon

Adelaide E. Howson  
Joseph McCully  
Jack R. Meagher

Joseph K. Peterson  
James H. Powell  
Robert C. Seber  
Gertruda Wolinski

The Department offers a variety of courses and sequences designed to serve the interests and meet the needs of students in the various curricula. These might be broadly classified as conventional courses and special courses. The conventional courses are designed to contribute to the general education of college students and to meet the mathematical needs of students who plan to specialize in mathematics, science, economics, engineering, or other professional fields. These courses include trigonometry, college algebra, analytic geometry, calculus, and subsequent courses for which calculus is prerequisite. These courses, taken in the order listed above, form a natural sequence, and in general can be taken only in the order of

that sequence. The special courses are designed to meet special needs of students in various vocational curricula and of those who are preparing to be teachers of mathematics.

A minor in mathematics comprises not less than eight semester hours of work subsequent to 103B or 104B and approved by the departmental adviser. A major in mathematics comprises not less than eight semester hours of work subsequent to a year of calculus and approved by the departmental adviser.

The courses in high school mathematics which a student presents for admission determine the pattern of his work in college mathematics. The appropriate sequence for the freshman and sophomore years can be determined by referring to the following table.

For students who plan to take Calculus

Subjects and number of units presented for entrance	First Year		Second Year	
	First Semester	Second Semester	First Semester	Second Semester
Algebra, 1½ or 2 units Geometry, 1 or 1½ units Trigonometry, ½ unit	104A	104B	205A	205B
Algebra, 1½ or 2 units Geometry, 1 or 1½ units	103A	103B	205A	205B
Algebra, 1 unit only Geometry, 1 unit	100A	100C	104A	104B

For students who plan to take Mathematics of Finance and Statistics

Qualified students (see foregoing table)	104A or 103A	104B or 103B	227A, B and 209
Not qualified for 103A or 104A	105A*	105B*	227A, B and Business Statistics

\*Courses 105A and 105B do not prepare students to take Calculus. Students who are qualified to take courses 103A, B or 104A, B in the freshman year should take these courses in preference to 105A, B.

#### 100 Basic Mathematics

4 hrs.

A terminal course designed primarily for students who enter the university with little mathematical background and who do not plan to specialize in mathematics or science but who wish to learn something about the nature of mathematics and its role in the modern world. Not offered in 1957-1958.

**100A Intermediate Algebra** 3 hrs. Fall, Spring

This course covers the work usually given in the third semester of high school algebra. Prerequisite: Plane geometry and one year algebra.

**100B Solid Geometry** 2 hrs. Spring

An elementary course in solid geometry with emphasis on mensuration. Students who plan to study engineering or to teach mathematics should elect this course unless they have taken it in high school. Prerequisite: Plane geometry and 100A or equivalent.

**100C Plane Trigonometry** 3 hrs. Fall, Spring

A study of trigonometric functions, identities, and equations, inverse functions, logarithms, radian measure, and the solution of triangles. Prerequisite: Plane geometry and 100A or equivalent.

**100D Spherical Trigonometry** 1 hr.

The trigonometry of spherical triangles, including the development of formulas and numerical solutions, with applications to astronomy and navigation. Prerequisite: Plane trigonometry. Not offered in 1957-1958.

**101 Arithmetic for Teachers** 3 hrs. Fall, Spring

This course is designed for students who expect to teach arithmetic in grades 1 to 6. It deals with the history, philosophy, objectives, and methods of teaching arithmetic, and includes a review of the subject matter of arithmetic.

**103A College Algebra and Trigonometry** 5 hrs. Fall, Spring

The first half of a year's work leading to the calculus, this course includes the study of college algebra and a part of plane trigonometry. (See descriptions of 100C and 104A). It should be followed by 103B. Prerequisite: Plane geometry and 100A or equivalent.

**103B Trigonometry and Analytic Geometry** 5 hrs. Fall, Spring

A continuation of trigonometry and a substantial treatment of analytic geometry (see descriptions of 100C and 104B). Prerequisite: 103A.

**104A College Algebra** 4 hrs. Fall, Spring

A semester's work in college algebra with some of the simpler parts and applications of calculus. Topics studied include fractions, exponents, functions, graphs, variation, linear and quadratic equations, systems of equations, the binomial theorem, inequalities, complex numbers, logarithms, permutations and combinations, probability, determinants, and selected topics from the theory of equations. Differentiation and integration, with simple applications, are introduced. Prerequisite: 100A and 100C or equivalent.

**104B Analytic Geometry** 4 hrs. Fall, Spring

The analytic geometry of the straight line, circle, conics, and certain higher plane curves, transformation of axes, polar coordinates, parametric and polar equations, and a few topics from solid analytic geometry. Calculus is used throughout the course where it is applicable.

**105A Introduction to College Mathematics** 3 hrs. Fall

Elementary algebra through quadratic equations. This course, together with 105B, is intended to provide sufficient mathematical background for the subsequent study of Mathematics of Finance and Business Statistics. Prerequisite: Plane geometry and one year of algebra.

**105B Introduction to College Mathematics** 3 hrs. Spring

A continuation of Math. 105A. Topics studied include the binomial theorem, logarithms, progressions, the straight line, and elements of curve fitting and of probability. Prerequisite: 105A.

**106 Industrial Calculators** 1 hr. Fall, Spring

This course covers the fundamentals of operation of the conventional slide rule, of numerous slide rules designed for special purposes, and of the desk computer. Prerequisite: 103A, 104A or 100C.

**112 Applied Mathematics** 3 hrs. Fall, Spring

Designed for students in industrial technology. The course consists mainly of the application of elementary mathematics to problems arising in connection with machines and shop work.

**120A Business Mathematics** 2 hrs. Fall, Spring

Diagnostic and remedial work in the fundamental operations of arithmetic, and a study of elementary business forms and problems. Intended primarily for students in the Department of Business Studies.

**120B Business Mathematics** 2 hrs. Fall, Spring

A study of simple interest, compound interest, annuities, short-term installment buying, graphs, and amortization. Prerequisite: 120A or equivalent.

**205A Calculus** 4 hrs. Fall, Spring

This first half of a year's work in calculus is largely centered around the study of functions, limits, continuity, derivatives, differentials, and integrals. It includes the study of derivatives of algebraic and transcendental functions and the corresponding integrals, parametric and polar forms, curvature and motion, evaluation of indeterminate forms, and curve tracing. Limited to chemistry students currently taking Qualitative Analysis or Quantitative Analysis. Prerequisite: 103B or 104B.

**205B Calculus** 4 hrs. Fall, Spring

A continuation of the work began in 205A. Among the topics considered are special integration procedures and applications, infinite series, expansion of functions, hyperbolic functions, partial derivatives, multiple integrals, and an introduction to differential equations. Limited to chemistry students currently taking Qualitative Analysis or Quantitative Analysis. Prerequisite: 205A.

**206A Calculus****5 hrs. Fall, Spring**

Covers the same topics as 205A but with more emphasis on interpretation of results and more attention to curvature, motion, and indeterminate forms. Prerequisite: 103B or 104B.

**206B Calculus****5 hrs. Fall, Spring**

Covers the same topics as 205B but with more extensive treatment of series, hyperbolic functions, partial derivatives, and multiple integrals. Prerequisite: 205A or 206A.

**209 Elementary Statistical Practice****3 hrs. Fall**

A study of averages, dispersions, sampling, correlation, and tests of significance for small and large samples. Prerequisite: 103B or 104B.

**210 Surveying****3 hrs. Offered on request**

An elementary course in surveying, including both field work and office problems. Each student is required to keep a book of field notes of his work in good standard form. Prerequisite: 100C.

**227A Mathematics of Finance****2 hrs. Fall**

This course includes the study of compound interest, simple annuities certain, and the application of such annuities to problems in the amortization of debts, sinking funds, valuation of bonds, depreciation, and perpetuities. Prerequisite: 103B, 104B, or 105B.

**227B Mathematics of Finance****2 hrs. Spring**

A continuation of 227A. Topics studied include the general case of annuities certain, and contingent annuities, with applications to problems of reinvestment, and especially of life insurance. Prerequisite: 227A.

**301 Teaching of Junior High School Mathematics. 3 hrs. Offered on request.**

A critical restudy of the mathematics commonly taught in grades 7, 8, and 9, with discussion of associated problems of learning and teaching. Prerequisite: 104B or consent of the instructor.

**305 Vector Analysis****3 hrs. Offered on request**

The formal processes of vector analysis, with application to geometry and mechanics. Prerequisite: 205B.

**321 Differential Equations****3 hrs. Fall**

An elementary course in ordinary differential equations with applications to problems of engineering, physics and chemistry. Prerequisite: 205B.

**322 Theory of Equations****3 hrs. Fall**

The major topics studied are complex numbers, properties of polynomials, cubic and quartic equations, algebraic criteria for ruler-and-compass constructions, determinants, and the solution of systems of linear equations. Prerequisite: 205B.

**323 Solid Analytic Geometry** 2 hrs. Spring

Study of lines, planes, space curves, and surfaces; transformations, using matrices. Prerequisite: 205B.

**325 Theoretical Mechanics** 2 hrs. Offered on request

A vectorial treatment of the kinematics and dynamics of particles and of rigid bodies, with emphasis on problem solving. Prerequisite: 305.

**331 Advanced Calculus** 3 hrs. Spring

This course constitutes a further study of limits, continuity, ordinary and partial derivatives, improper integrals, and infinite series, beyond that in the first year's work in calculus. Prerequisite: 205B.

**373A Statistical Methods for Industry** 3 hrs. Offered on request

Statistical methods of quality control; the normal, binomial, and Poisson distributions; the Shewhart control chart; sampling methods for scientific acceptance inspection. Math. 373A and 373B together form an introductory course especially designed for the needs of people in industry in both experimental work and the flow of production. Prerequisite: 205B.

**373B Statistical Methods for Industry** 3 hrs. Offered on request

Significance tests; tests valid for small samples; introduction to linear correlation; elementary design of experiments. Prerequisite: 373A.

**377 Programming in Data Processing** 3 hrs. Offered on request

Fundamental components of computers. Organization of memory. Binary numerical representation. Logic of computers. Flow charts. Problems in reduction of processes to component parts and programming in business, industry and science. Prerequisite: 205B or consent of instructor.

**401 Teaching of Secondary Mathematics** 3 hrs. Fall

In this course some consideration is given to curriculum problems and trends in secondary school mathematics, but the main emphasis is upon specific problems of teaching mathematics effectively to secondary school students. Prerequisite: 104B.

**411 History of Mathematics** 2 hrs. Spring

This course treats of the history of geometry and trigonometry from earliest times to the present. Prerequisite: 104B.

**412 History of Mathematics** 2 hrs. Summer, Spring

This course treats of the history of arithmetic and algebra from earliest times to the present. Prerequisite: 104B. Not offered in 1957-58.

**423 Introduction to Higher Geometries** 3 hrs. Spring

The nature of proof. Introduction to non-Euclidean, inversive, finite and projective geometries. Constructions. Especially recommended for those planning to teach high school geometry. Prerequisite: 103B or 104B.

**473 Introduction to Statistical Analysis****2 hrs. Summer**

The study of statistics as the science of experimentation: averages, dispersions, sampling, correlation, and statistical tests valid for small and large samples. Prerequisite: 104B.

**PHYSICS**

Paul Rood, Head  
George E. Bradley

Stanley K. Derby  
Robert B. Miller  
Walter Marburger

Nathan L. Nichols  
Haym Kruglak

A major consists of 24 hours of credit and a minor consists of 16 hours. Acceptable sequences of courses are arranged in consultation with the departmental adviser. Every major in Physics should have a minor in Mathematics and at least one year of college Chemistry. All physics majors are required to take Physics Seminar during their junior year.

**100A and B Physical Science (See Division of Basic Studies)****102A General Physics****4 hrs. Fall**

A general college physics course in the principles and practical application of mechanics, sound, and heat. Required of all medical and dental students. Recommended for general students desiring a four-hour course in physics.

**102B General Physics****4 hrs. Spring**

This course follows 103A and consists of studies in electricity, magnetism, and light. Prerequisite 102A.

**\*103A Mechanics, Heat, and Electricity (General Physics)****5 hrs. Fall, Spring**

A general college course dealing with mechanics, heat, and electricity and some of their applications. Required for students majoring in physics and for engineers; recommended for students planning to teach physics.

**\*103B Electricity, Sound, and Light (General Physics)****5 hrs. Fall, Spring**

This course follows 103A and consists of studies in electricity, magnetism, sound, light, and modern physics. Prerequisite 103A.

**\*104A Physics Problems****1 hr. Fall**

A course in problems in mechanics, heat, and electricity. This course, together with 104B, is required of engineers presenting only 8 s.h. of credit in Physics whose program calls for 10 s.h. in this subject.

**\*104B Physics Problems****1 hr. Spring**

A course in problems in electricity, sound, and light. Prerequisite: 104A.



**110 Elementary Acoustics****2 hrs. Fall, Spring**

In this course are studied the nature of sound, how sounds are produced, reflection and absorption, reverberation, the physics of hearing, and the physical basis of musical scales. It is a required course for students majoring in music. Open to any student who is not majoring or minoring in physics.

**\*173A Applied Physics****3 hrs. Fall**

This first-year general physics course is intended for students in the School of Applied Arts and Sciences who are being trained as industrial technicians. Emphasis is placed on industrial and technical applications of physics, rather than on theory. Topics dealt with include mechanics, heat, and sound. Not applicable toward a physics major or minor.

**\*173B Applied Physics****3 hrs. Spring**

A continuation of Applied Physics 173A. It treats the topics of light, electricity and magnetism, and atomic physics. Prerequisite: 173A.

**210 Astronomy****3 hrs. Fall, Spring**

A non-mathematical course in astronomy for all students who desire an acquaintanceship with our solar system, with stars and constellations, and with the great galaxies of stars which nature has spread so abundantly throughout the known universe. Frequent use is made of an 18 ft. Spitz planetarium and a 4½" refracting telescope. Open to freshmen.

**220 Photography****3 hrs. Fall, Spring**

This is an elementary course in the theory and use of photographic materials.

**300 Teaching of Physical Science**

(See Division of Science and Mathematics).

**342 Heat and Elementary Thermodynamics****3 hrs. Spring**

An intermediate course dealing with expansion, specific heats, change of state, kinetic theory, and the elementary principles of thermodynamics. Prerequisite: 103A, B, Calculus 205A, B.

**350 Light**

This is a course in physical optics. The main topics discussed are: wave motion, interference, diffraction, velocity of light, and polarization and double refraction. Prerequisite: 103A, B, Calculus 205A, B.

**361 Introduction to Electronics****3 hrs. Fall, Spring**

This course includes an introduction to electric circuit analysis with particular reference to electron-tube circuits. The more important uses of electron tubes are considered in some detail. Prerequisite: 103A, B, Calculus 205A, B.

**399 Advanced Laboratory Physics** 2 hrs. Fall, Spring

A course in laboratory experimentation more advanced than that in 103A, B. May be elected only on arrangement with the instructor. Prerequisite: 103A, B and a minor or major in physics. Open to qualified Juniors, Seniors.

**\*403 Applied Spectroscopy** 3 hrs. Spring

A combined class and laboratory course on methods of spectrographic analysis. The topics studied will include the history of spectroscopy, the origin of line spectra, spectrographic instruments, and modern techniques of qualitative and quantitative analysis. Prerequisite: 103A, B.

**440 Atomic Physics** 3 hrs. Fall

A study is made of the electron, photoelectric effect, thermionic emission, the physics of x-rays, quantum theory, devices for accelerating nuclear particles, isotopes, spectra, and atomic structure. Prerequisite: 103A, B, Calculus 205A, B.

**441 Nuclear Physics** 3 hrs. Spring

Designed to follow 440. It includes natural and artificial radio-active transformations, the experimental methods of nuclear physics, properties of neutrons, binding energy, nuclear reactions, nuclear structure, fission and cosmic rays. Prerequisite 440, or consent of the instructor.

**\*442 Current Developments in Physics** 2 hrs. Summer

The course will consist of demonstration lectures and discussions of some of the outstanding developments in physics in recent years, such as nuclear energy and its applications, semi-conductors and transistors, ultrasonics, elementary particles, and high energy accelerators. Special attention will be given to making the course of value to high school teachers of science. Prerequisite: 103A, B. (Not given summer 1957)

**443 Theoretical Physics** 3 hrs. Fall

A course designed to present the fundamental structure of physics in precise mathematical terms. It is particularly arranged for students who are majoring in physics or in mathematics. The topics will include mechanics from a vector point of view, flow of fluids, electric and magnetic fields. Prerequisite: 103A, B, Calculus 205A, B.

**462 Electrical Measurements** 4 hrs. Fall, Spring

This course deals with the theory and use of instruments to measure electrical and magnetic quantities. Both AC and DC bridge methods are included. Prerequisite: 103A, B, Calculus 205A, B.

**465 Advanced Electronics** 3 hrs. Spring

Applications of electronics in different types of radio frequency communication systems, in control devices and in general instrumentation are considered in this course. Some laboratory measurements at both audio and radio frequencies are included. Prerequisites: 361, Calculus 205A, B.

**501E Modern Advances in Physical Science****2 hrs. Summer**

Some modern development in the fields of chemistry and physics will be treated. Such topics as additions to the periodic table, radioactive isotopes, new organic compounds, ultrasonics, semi-conductors and transistors, and nuclear energy will be considered. Lectures, demonstrations, readings. Prerequisite: 16 semester hours in physics and chemistry.

**PSYCHOLOGY**

Stanley Kuffel, Head  
Eston J. Asher  
Homer L. J. Carter

George G. Mallinson  
Dorothy J. McGinnis  
William B. Pavlik  
Frank A. Fatzinger

William F. Reynolds  
Richard H. Schmidt  
Charlotte Sumney

General Psychology 200 is prerequisite to all other courses in this department, except courses 100 and 102. A major may be obtained by completing 24 hours of work in the department, including course 301. A minor consists of 15 hours.

Students majoring in psychology are advised to elect from the Department of Biology and the Department of Sociology.

**100 Introduction to Learning and Adjustment****1 hr. Fall, Spring**

Psychological principles of effective learning will be presented; methods of note-taking, reading, memorizing, and organization will be discussed. Emphasis will be placed upon problems of personal, educational, and social adjustment. This course may not be counted toward a major or a minor in psychology or in fulfillment of the requirements in the science area.

**102 General Psychology (for Nurses)****2 hrs. Fall**

An introductory course intended to fit the needs of students of nursing. Not open to regular students. It covers the recommendations of the "Curriculum Guide for Schools of Nursing".

**200 General Psychology****3 hrs. Fall, Spring, Summer**

A brief survey of the elementary principles of psychology. This course affords a general introduction to the field.

**204 Applied Psychology****2 hrs. Fall, Spring**

An overview course introducing the student to the various areas of psychology at work. Some areas covered are: educational, industrial, business, military, clinical, criminal, and legal.

**207 Psychology of Personality****3 hrs. Fall, Spring, Summer**

Attention is given to individual differences, traits, content, and synthesis of personality; modification of behavior and varieties of adjustive behavior. Emphasis is placed upon constructive personal adjustment and the manner in which it is achieved in various interpersonal relations.

**210 Psychological Aspects of Business 3 hrs. Fall, Spring**

This course deals with basic wants and the motives that make men buy and sell, work for a living, like or dislike their jobs. It points out the psychological principles involved in buying, selling, market research, and advertising.

**213 Psychology of Adolescence 3 hrs. Fall, Spring, Summer**

This course deals with the various kinds of development in the adolescent. It discusses his problems and difficulties and the proposals for reducing his difficulties and improving his adjustment.

**300 Introduction to Industrial Psychology 2 hrs. Fall, Spring**

This course introduces the student to the many applications of psychology in industry, such as: evaluation of the worker's worth, training on the job, promotion, rating, wages and job evaluation, working conditions as they affect safety, efficiency, morale, and labor turnover.

**301 Elementary Experimental Psychology 3 hrs. Spring**

An introduction to current psychological problems and laboratory methods through experimental work in motivation, emotion, memory, learning, and perception. This is a course for majors.

**302 Laboratory in Psychological Testing 3 hrs. Fall, Spring**

The course will consider selecting, administration, and interpretation of educational, personality, and aptitude tests. Lecture and laboratory. Summer 1957.

**303 Comparative Psychology 2 hrs. Spring**

This is primarily a course for psychology majors. 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 behavior. Consult instructor before enrolling.

**305 Abnormal Psychology 3 hrs. Fall, Spring, Summer**

A discussion of the deviant individual, with particular attention to the recognition of disordered behaviors, to the factors contributing to their development and to the principles of therapy. Consult instructor before enrolling.

**307 Mental Testing 2 hrs. Fall, Spring**

The purpose of this course is to provide training in the administration, scoring, and interpretation of various mental tests. This course supplements 302. Summer 1957.

**308 Elementary Statistical Methods in Psychology 3 hrs. Fall**

Computation and interpretation of statistical techniques useful in the production and understanding of psychological and educational research.

**309A, B, C Clinical Psychology****2 - 4 hrs. Fall, Spring**

This course considers theory and practice of the case study. It involves individual case studies, home visits, interviewing, conferences, laboratory, and clinical procedures. Courses 309 B or C involve additional cases and practice in clinical procedure. Prerequisite: 302, 305, and 307, or consent of instructor.

**310A, B, C Special Projects in Psychology****1 - 2 hrs. Fall, Spring**

General prerequisites must include twelve hours in psychology, and the permission of the instructor. Arrangements will be made for adequately prepared students to undertake individual problems under the direction of a member of the staff. This is a course for majors.

**315 Emotion and Motivation****2 hrs. Fall**

The various theories of emotion and motivation. The physiology and psychological significance of emotion and motivation. A major purpose of this course is to introduce the major in psychology to the seminar type course.

**404 Occupational Analysis and Classification****2 hrs. Spring**

Sources of occupational information; procedures and techniques of job analysis and job classification; applications in employment procedures, placement, and vocational counseling. Summer 1957.

**406 Vocational Psychology****2 hrs. Fall**

The problems of vocational choice and of occupational group-differences. Lectures, reading, and an occasional laboratory period substituted for a class hour. Summer 1957.

**410 Learning and Memory****2 hrs. Spring**

A survey of the general principles of learning and memory and an introduction to learning theory. Summer 1957.

## DIVISION OF SOCIAL SCIENCES

**William V. Weber, Chairman**

The Division includes the Departments of Economics, History, Political Science, and Sociology. It functions through the Divisional Planning Committee, working in conjunction with the department heads and the staff members of the Division.

Majors and minors in individual departments of the Division must have the approval of the heads of the respective departments. Special requirements are listed under the separate department headings.

Students preparing for social work should consult the head of the Sociology Department concerning their departmental or group major in the social sciences and their minor in social work. See the Social Work Curriculum for special requirements.

Group majors and minors in the Division, except those of students pursuing the Social Work Curriculum, must have the approval of Mr. Crawford, Room 131, or Dr. Weber, Room 219, Administration Building.

1. A group major must include:
  - a. Thirty or more hours in the Division.
  - b. A minimum of fifteen hours in one department of the Division.
  - c. Acceptable courses in at least three departments of the Division.  
(Man and Society 101A, B, do not alone satisfy this requirement.)
2. A group minor must include:
  - a. Twenty or more hours in the Division.
  - b. A minimum of ten hours in one department of the Division.
  - c. Acceptable courses in at least three departments of the Division.  
(See rule 1A-C above.)
3. A group minor for students in certain non-teaching curricula:
  - a. Must include sixteen or more hours in the division and is open only to students in the following non-teaching curricula: preprofessional, non-teaching professional and combined curricula and the general degree curriculum without a teaching certificate.
  - b. May be developed around any one of the following patterns:
 

a. Western Civilization 100A, B.....	8 hrs.
Electives .....	8 hrs.
b. Man and Society .....	8 hrs.
Electives .....	8 hrs.
4. The required 3 hours of work in government may be applied toward the satisfaction of any of the above group majors and minors if it has not been applied toward a political science major or minor.
5. Students in the Secondary Curriculum may not count courses in Philosophy toward a group major or minor.

**DIVISIONAL COURSES**

The general education offerings of the division include two sequences, one unit in history and the other in the combined social studies.

The history sequence is made up of the two courses, Foundations of Western Civilization 100A, B. These courses, which are described under Division of Basic Studies, carry only history credit. They are especially recommended for those students in teaching curricula who know in advance that they will take a group or departmental major or minor in the Division.

The combined social studies sequence consists of the course Man and Society 101A, B, listed below. Credit for this sequence is allotted in either group — majors or minors — or departmental majors on the basis of two hours each to Economics, Political Science and Sociology.

Both Foundations of Western Civilization 100A, B and Man and Society 101A, B may be counted toward group majors or minors in the Division in non-teaching curricula, and, in exceptional cases the elementary curricula.

The course in the teaching of the social studies is an elective course open to graduates and qualified juniors and seniors. Credit earned in the course may be applied on (1) Economics, History, Political Science or Sociology majors (not minors) in the Secondary Curriculum and (2) on Social Science group majors or minors in the Secondary Curriculum, providing it is not included in the minimum of 15 hours in one department for a major or the minimum of 10 hours in one department for a minor.

**101A, B Man and Society** 8 hrs. Fall, Spring

For description of the course, see Division of Basic Studies.

**100A, B Foundations of Western Civilization** 8 hrs. Fall, Spring

For description of the course, see Division of Basic Studies.

**400 Teaching of the Social Studies** 2 hrs. Fall, Spring

Teaching of the social studies in the Junior and Senior High School. Definition of objectives. Selection, organization and development of content materials. Study of the procedures and problems of effective teaching in the social studies.

**401 Social Studies Seminar: England — 1957** 6 hrs. Summer

A foreign-study seminar especially designed for teachers and advanced college students in the social studies. It consists of regularly scheduled lectures and discussions on British life, institutions, social problems, and international relations. The seminar is in formal session at Ashridge College, England, for a period of about five and a half weeks, after which the party will travel on the continent for approximately four weeks. Credit, up to a maximum of three semester hours in any one department, may be distributed among economics, history, political science, and sociology.

## ECONOMICS

Floyd W. Moore, Head  
Myrtle T. Beinhauer

Howard F. Bigelow  
Robert S. Bowers  
Theodore L. Carlson

Marguerite Patton  
Jared S. Wend

Courses 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 social sciences, business studies, 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.

Either a major or a minor in the Department of Economics is required of all graduates from the Business Administration curriculum.

Principles 220A-B are prerequisite to all other courses offered in the department except 223, 322, and 325.

A minor in Economics consists of a minimum of 15 hours in the department.

A major in Economics consists of a minimum of 24 hours in the department.

There are no set patterns for these minors and majors. The selection of specific courses depends a great deal upon the student's interest and the kind of work he plans to take up following graduation. For example, the selection of courses for the prospective graduate student might be quite different from those for the persons planning to be an accountant; by the same reasoning, a good background of courses for a salesman might be quite different from those sought by a person planning to do personnel work.

The head of the department will assist students in selecting courses suited to their needs in fulfilling the minor and major requirements.

### 220A Principles of Economics

3 hrs. Fall, Spring

A study of the fundamental principles of economics and their application to some of our more important economic problems. This course and the following one, 220B, are basic to intelligent understanding of our American economic system as compared with communism or other "isms".

### 220B Principles of Economics

3 hrs. Fall, Spring

A continuation of Principles of Economics 220A. Among the problems to which Principles are applied are those of national income, wages, interest, rents, profits, public utilities, monopolies, international economics, and fiscal policies, including taxes.

### 222 Marketing

3 hrs. Fall, Spring

An analysis of the eight marketing functions as they apply to our distribution of physical goods and the transfer of title to those goods. Some attention is given to principles, methods and the increasing problems of



successful marketing, together with a recognition of the general criticisms of the existing marketing structure and some proposals for its improvement.

Prerequisite: Principles of Economics 220A, B which may be taken either before or in conjunction with this course.

This course may be counted as credit in either the Economics Department or in the Business Studies Department.

**223 Economics of Consumption** 3 hrs. Fall, Spring

A study of the problems of the individual and the family face in trying to satisfy their wants with the money income and other resources at their disposal.

**321A Money and Credit** 2 hrs. Fall

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. Prerequisite: 220A, B.

**321B Money and Credit** 2 hrs. Spring

A continuation of 321A with special emphasis on banking and other financial institutions. Prerequisite: 321A.

**322 Budgeting** 2 hrs. Spring

A detailed study of the principles of modern budget practice as applied to financial operations, use of materials, and distribution of time, and exemplified in the budgets of households, businesses and governments; and an analysis and evaluation of budgeting as a tool of management.

**324 Transportation** 3 hrs. Spring

An analysis of the various means of transportation, including the items of service, cost, revenues, and government regulations. Prerequisite: 220A, B.

**329 Public Utilities** 3 hrs. Spring

The nature and problems of the public utility industries and the reasons for and methods of government regulation. Prerequisite: Principles of Economics 220A, B.

**330 Business Cycles** 2 hrs. Spring

An historical and theoretical analysis of business cycles. Prerequisite: 220A and 220B.

**420 Public Finance** 3 hrs. Fall

A study of government expenditure, revenues, debts, and problems of fiscal administration. Prerequisite: 220A, B. Work in government may be substituted in special cases by permission of the instructor.

**421A Labor Problems** 2 hrs. Fall

An analysis of the nature and underlying causes of the problems facing the worker in modern economic society. Prerequisite: 220A, B.

**421B Labor Problems****2 hrs. Spring**

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. Prerequisite: 421A.

**422 Corporations****3 hrs. Fall, Spring**

A study of the nature of the modern business corporation, and its place in modern business life. Consideration is given to problems of organization, direction, finance, and control. Prerequisite: 220A, B.

**423 Collective Bargaining****3 hrs. Fall**

An analysis of the major problems in present-day collective bargaining including the negotiation of collective agreements, the practical aspects and the economic implications. Prerequisite: 421A, B, or the consent of the instructor.

**424 International Economics****2 hrs. Spring**

A general course in international relations with special emphasis on the fundamentals of international trade theory and the impact of national economic policies on international relations. Prerequisite: 220A and B.

**425 Consumption and Standards of Living****2 hrs. Fall**

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 and various economic levels. Of special interest to the teacher. Prerequisite: 220A, B or consent of the instructor.

**426 Business and Government****3 hrs. Fall**

A study of the regulatory policies of government and their impact on private enterprise. The course seeks to explain the needs for regulation, and to provide an analysis and evaluation of the various laws from the viewpoint of encouragement, subsidization, and control. Special attention will be directed to certain aspects of concentration of economic power, public ownership, and nationalization programs. Prerequisite: 220A, B. Work in Political Science may be substituted in special cases by permission of the instructor.

**427 History of Economic Thought****2 hrs.**

The course aims to give the student the historical background for modern economic thinking. Beginning with the leaders of ancient economics 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. Prerequisite: not fewer than 9 hours in Economics. Not offered in 1957-58.

**428 Comparative Economic Systems****2 hrs. Spring**

The economic institutions and conditions of capitalism, socialism, communism, fascism, and the cooperative movement are critically examined as to ideology and actual operation. Prerequisite: 220A, B.

**429 Business Administration****3 hrs. Fall, Spring**

This course deals with the elementary principles of internal organization and management of industrial enterprises. It includes a discussion of 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. Prerequisite: 220A, B.

**430 Modern Economics****3 hrs. Fall, Spring**

A one semester survey course designed for students who do not intend to major or minor in economics and hence do not take 220A and B. The basic economic principles necessary for a better understanding of present-day economic problems are illustrated by current developments. This course should be of value to prospective teachers, graduate students, and others who have the opportunity for only one course in economics. Credit in either 220A or 220B will preclude credit in 430.

**HISTORY**

Robert R. Russel, Head  
 Alan S. Brown  
 Sherwood S. Cordier  
 Willis F. Dunbar

Edward O. Elsasser  
 Robert Friedmann  
 H. Nicholas Hamner  
 Margaret B. Macmillan

A. Edythe Mange  
 Gilbert W. Morell  
 Howard Mowen  
 Charles R. Starring

Students preparing to teach in the later elementary grades are advised to take Foundations of Western Civilization 100A, B 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 select instead advanced courses in the field.

A major in history should include at least 12 semester hours in courses numbered above the one-hundreds, and at least two 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, namely, 322A, B; 403; 404A, B; 405A, B; 406A, B; 408; 409; 410; 411; 415; 416; 418; 426.

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.

- 100A Foundations of Western Civilization** 4 hrs. Fall, Spring  
For description, see Division of Basic Studies.
- 100B Foundations of Western Civilization** 4 hrs. Fall, Spring  
For description, see Division of Basic Studies.
- 201A United States History to 1865** 3 hrs. Fall, Spring  
A general survey of American history from the beginnings of the Thirteen Colonies to the end of the Civil War.
- 201B United States History, 1865 to the Present** 3 hrs. Fall, Spring  
A general survey of United States history for the period.
- 202A Great Britain and the British Empire, 1688-1815** 3 hrs. Fall  
A general survey of the history of Great Britain and the British Empire from the Revolution of 1688 to the close of the Napoleonic Wars.
- 202B Great Britain and the Commonwealth, 1815 to Now** 3 hrs. Spring  
A general survey of the history of Great Britain and members of the Empire and Commonwealth since 1815 and of the evolution of the present British Commonwealth of Nations.
- 307A Colonial Latin American History** 2 hrs. Fall  
A study of the social, political, economic, and cultural aspects of Latin American history to the end of the wars for independence.
- 307B History of the Latin American Republics** 2 hrs. Spring  
A study of the development of Latin America since the achievement of independence. Special stress is placed on foreign relations.
- 311 Economic History of Europe** 3 hrs.  
A study of the evolution of the economic institutions of Europe with comparisons between Europe and the United States. Not offered in 1957-58.
- 312 Economic History of the United States** 3 hrs. Fall  
A general survey of the subject. A general knowledge of United States history such as may be gained from 201A, B is presupposed, and a knowledge of the principles of economics is very helpful.
- 313 History of Michigan** 3 hrs. Fall, Spring  
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 the Far East** 3 hrs. Spring  
A comprehensive survey of the Far East from the earliest times down to the present. The internal development and cultures of China, Japan, and India are considered, and special emphasis is placed upon the foreign relations of these countries in the nineteenth and twentieth centuries.

**317 Constitutional History of the United States** 3 hrs. Spring

A study of the development 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 the United States history, such as may be gained from 201A, B is presupposed.

**319 History of Russia** 3 hrs. Fall

This course stresses (1) those phases in the evolution of the Russian people necessary to an understanding of the present and (2) conditions and tendencies in contemporary Russia.

**320 Ancient Greece** 3 hrs. Fall

Near Eastern and Aegean background; the Homeric Age; rise and fall of Athens; Alexander the Great; Hellenism; and the political achievements and cultural legacy of the Greeks.

**321 Ancient Rome** 3 hrs. Spring

Growth, civil wars, and conquests of the Roman Republic and Empire; constitutional history; Roman law; rise of the Christian church; and the decline and fall of the Empire.

**322A The Renaissance** 2 hrs. Fall

Social and economic conditions in Italy in the fourteenth century; life, thought, and art of the Renaissance, 1350-1550; Humanism in northern Europe.

**322B The Reformation** 2 hrs. Spring

A history of the religious reformation in Europe at the beginning of Modern Times.

**323 Modern Nationalism in Europe and America** 2 hrs.

Factors promoting its rapid growth in early Modern Times; its part in eighteenth- and nineteenth-century revolutions; changes in twentieth-century nationalism; and recent effects of nationalism on international relations. Not offered in 1957-58.

**326 The Modern Near East** 3 hrs. Spring

A study of the lands formerly part of Ottoman Empire with special attention to the problems resulting from racial conflicts, economic imperialism, and the rise of nationalism.

**327 History of United States Foreign Policy** 3 hrs. Fall

A study of the formation and evolution of foreign policy by the United States from the time of independence to the present.

**403 American Foundations** 2 hrs.

The English colonies in America both continental and island, 1607-1763, with emphasis upon the development of institutions and upon imperial policy and administration. Not offered in 1957-58.

**404A The Era of the American Revolution 1763-1787 2 hrs. Fall**

The causes, character, and consequences of the American Revolution. An intensive study of selected topics. Principal aims are to acquaint students with all kinds of historical materials and to introduce them to methods of advanced historical study.

**404B United States History 1787-1815 2 hrs. Spring**

The making of the Constitution and establishment of the early republic. This course is conducted in the same manner as 404A.

**405A United States History 1815-1848. 2 hrs.**

An intensive study of selected topics. Principal objects are to acquaint students with the various classes of historical materials and to introduce them to methods of advanced historical study. Not offered in 1957-1958.

**405B United States History 1848-1877 2 hrs. Spring**

This course deals principally with the great sectional struggle over slavery. It is conducted in the same manner as 405A. Not offered in 1957-1958.

**406A United States History 1901-1933 2 hrs. Fall**

An intensive study of a short period. The principal topics are the Progressive Movement, World War I, and the causes of the Great Depression.

**406B United States History 1933 to the Present 2 hrs. Spring**

A continuation of 406A. The big topics are the Great Depression, the New Deal, World War II, and our foreign relations since the war.

**408 Europe, 1900-1925 3 hrs. Fall**

A study of the causes of World War I and the frustrated opportunities of the peace, to the Locarno Conference.

**409 Europe, 1925 to the Present 3 hrs. Spring**

A study of the crucial problems after 1925 and the solutions offered. Special attention is given to the World Depression, Fascism and Communism, the tensions and ideological conflicts that culminated in World War II, and the positions of victor and vanquished after the war.

**410 Continental Europe, 1815-1870 3 hrs. Fall**

The principal topics are the reaction following the Napoleonic Wars; the revolutions in behalf of liberty and democracy; the emergence of new states; and the unification of Germany and Italy.

**411 Continental Europe, 1870-1914 3 hrs. Spring**

The principal topics are the liberal and socialist movements of the time and the growth of nationalism and its consequences.

**415 The Old Regime****2 hrs. Fall**

A study of the development of absolute monarchy; of the institutions, life, and thought of the eighteenth century, with special emphasis upon France; and of the causes of the French Revolution. Prerequisite: An introductory course in European history.

**416 The French Revolution and the Napoleonic Era, 1789-1815****2 hrs.**

The overthrow of the French Monarchy and the establishment of the First French Republic; the rise and fall of the Napoleonic Empire; and the spread of revolutionary principles throughout Europe. Prerequisite: An introductory course in European history. Not offered in 1957-1958.

**418 The Old South****2 hrs.**

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. Not offered in 1957-1958.

**425A Intellectual History of Western Man, to 1550****2 hrs. Fall**

Leading ideas and intellectual movements in Western Civilization: their foundations in Judaeo-Christian traditions; Medieval thought; Arab influences; the spirit of Gothic art; the Renaissance and Humanism; and the final breakup of the Medieval system through the Protestant Revolution.

**425B Intellectual History of Western Man, 1550 to 1957****2 hrs. Spring**

Four hundred years of the Modern mind; the dominance of the scientific perspective and its conflict with Christian ideas and ideals; Calvinism and the economic revolution; rationalism, the Enlightenment, and the secularization of life; romanticism, liberalism, and the challenge of socialism; and the world at a crossroads.

**426 Twentieth Century Britain****2 hrs.**

A study of British political, social, and economic developments since 1900 and of the changing character of the Empire and Commonwealth. Not offered in 1957-1958.

**430 The Literature of History****2 hrs.**

The reading of selected writings of great historians. The purpose is to develop (1) standards for evaluating approaches, the use of sources, and the handling of controversial matters and (2) appreciation of the pleasures of reading good history. Not offered in 1957-1958.

## **COURSES IN PHILOSOPHY AND RELIGION**

Robert Friedmann

Cornelius Loew

A student may earn a minor in philosophy but not, at present, a major. Political Science 390 (History of Political Philosophy) and 391 (Political Philosophy) count toward such a minor.

**A. Philosophy****290 Design for Living 2 hrs.**

Man viewed as an individual: life with and without a design; conflict situations in life and the issue of freedom; the meaning of life; responsibilities toward one's self and one's neighbors; concern, service, and love. Not offered in 1957-1958.

**291 Social Values 3 hrs. Fall**

Man viewed as a member of organized society: forms of social relationships and responsibilities; moral implications of democracy; individualism, cooperation, and the problem of planning; the need for international order; and the essence of liberty.

**292 Logic 3 hrs. Fall**

A study of the primary principles and methods of deductive and inductive reasoning and of the sources of common fallacies.

**390 Introduction to Philosophy 3 hrs. Fall**

A first acquaintance with the problems of philosophy. Some of the topics are the relationships between philosophy, science, and religion; theoretical and practical philosophy; man and the universe; inner life, moral conduct, and aesthetics; and different schools of philosophical thought.

**391A History of Philosophy—Greek and Christian Philosophy 3 hrs.**

The great thinkers of the Greeks and Romans, as Plato, Aristotle, and the Stoics; the church fathers and schoolmen of the Middle Ages. Not offered in 1957-1958.

**391B History of Philosophy—Modern and Recent Thinkers 3 hrs.**

The new world-view since the Renaissance: Bruno, Galileo, Descartes, Spinoza, and Leibnitz; English thinkers from Locke to Hume; German thinkers from Kant to Hegel; the more recent philosophers of Europe and America. Not offered in 1957-1958.

**392 The Philosophy of Science 2 hrs. Spring**

The logical foundations and the methodology of science; the eternal principles of the universe as discussed in physics, chemistry, and biology; natural law and causality; mechanism and vitalism.

**393 The Philosophy of History 2 hrs.**

Theories about the laws and principles of history; question of fate or contingency; inner meanings of historical events; traditions and revolutions; Toynbee, Sorokin, Spengler, and other theorists. Not offered in 1957-1958.



**B. Religion****200 Introduction to Religion** 3 hrs. Fall, Spring

This course concerns three areas: (1) the nature, origin, practices and psychology of religion; (2) the problems of religious knowledge; (3) the philosophy of religion as related to origin of things, the end of things, intelligence, ethics and moral values, the concepts of the nature of God, the concepts of the problem of evil, immortality.

**218A The English Bible—The Old Testament** 2 hrs. Fall

For a description, see English 218A.

**218B The English Bible** 2 hrs. Spring

For a description, see English 218B.

**302 The World of the Old Testament** 2 hrs. Fall

The distinctive religious faith and traditions of the Hebrew people studied against the background of the ancient civilizations of the Middle East.

**303 The World of the New Testament** 2 hrs. Spring

The distinctive religious faith and traditions of the early Christian Church studied against their Jewish background and Hellenistic environment.

**305 Christianity and Modern Thought** 3 hrs. Spring

Eighteenth- and nineteenth-century intellectual challenges to Christianity; Christian responses, especially those supported by recent trends in biblical studies and the philosophy of religion.

**322B The Reformation** 2 hrs. Spring

For description, see History 322B.

**POLITICAL SCIENCE**

William V. Weber, Head  
Donald H. Ackerman, Jr.

Samuel I. Clark  
Milton Greenberg  
Jack C. Plano

John H. Romani  
Leo C. Stine

Courses in the Department are designed to prepare student to become (1) a functioning citizen; (2) a teacher of government or civics; (3) a governmental employee or officer; (4) to understand the part government plays in every day business or other activities; (5) to develop sound methods of investigation and reflection as well as the ability to evaluate political information critically; (6) to make clear the role which individuals and organized groups can play in the Political Process; and (7) to demonstrate relationship of the study of government and public affairs to the other social sciences.

The state legislature in 1954 passed a law requiring that all colleges receiving public money shall grant neither degree nor diploma after June 30, 1956, to any student unless such student shall have successfully completed a three semester hour course in Political Science, or in government and public

administration, covering the form and functions of our federal and state governments, and of counties, cities and villages, and stressing the rights and responsibilities of citizenship. This requirement may be met by one of the following department courses: Nos. 230A or 230B or 334.

A major shall consist of 24 hours in the Department and a minor of 15 semester hours in the Department. Majors and minors in the Department are required to take Political Science 230A and/or 230B, 351, and 360. Students majoring or minoring in Political Science should consult the head of the Department to determine the appropriate advanced courses to be included in the student's program.

Political Science 230A and 230B overlap with 334. Therefore, credit in either 230A or 230B will preclude credit in 334.

**230A National Government and Administration 3 hrs. Fall, Spring**

An introductory course dealing with the national government structure, processes and functions. The structure and functions of political parties are touched upon incidentally. Emphasis is placed on the relationships and obligations of citizens to their government. Comparisons are made with our state and local governments. This course is intended for those who expect to major or minor in the department or to teach government or civics in the secondary schools.

**230B State and Local Government and Administration 3 hrs. Fall, Spring**

Detailed attention is given to the structure, functions, and processes of state, county, township, municipal and school government, with emphasis upon Michigan patterns and practices. Comparison is made with our National Government and its relationships to state and local governments. This course is intended for those who expect to major or minor in the department or to teach government or civics in the secondary schools.

**300 Readings and Research in Political Science 1 to 3 hrs. Fall, Spring**

Is intended to give an opportunity to advanced students with good scholastic records to pursue independently the study of some subject having especial interest for them. Subjects are chosen and arrangements are made to suit the needs of each particular student. Approval of head of department and instructor required.

**330 Legislative Process 3 hrs.**

This course deals with the organization, procedure, and practice of American, national and state legislative bodies. Emphasis will be placed on the relationship between the executive and legislative bodies in the determination of legislative policy. Not offered in 1957-58.

**334 American Government 3 hrs. Fall, Spring**

The structure and function of our federal, state, county and municipal governments. Emphasis is placed on the rights and responsibilities of citizenship. This course is intended primarily for those who do not have an opportunity to take more courses in Political Science.

**337 Current Issues and Legislation****3 hrs. Spring**

Congress and the State Legislature in action. An examination of the major legislative problems of the current session of Congress and the State Legislature. Critical examination of the impact of current legislation upon vital community matters such as, agriculture, education, taxation, welfare, housing, and civil rights are considered. Prerequisite: Junior standing.

**340 Political Parties****2 hrs. Fall**

A study of the nature of political parties and the part they play in government. Party principles, organization and the role of parties in the electoral process is emphasized. Prerequisite: Junior standing.

**341 Public Opinion and Pressure Groups****2 hrs. Spring**

An analysis of the nature of public opinion, the methods of influencing it, and the techniques of opinion and attitude measurements, the organization, characteristics, methods, and results of propaganda are considered. Prerequisite: Junior standing.

**351 Comparative Governments of Europe****3 hrs. Fall, Spring**

The organization and procedure of the political institutions of England, France, Germany, and the U.S.S.R. Political trends and forces challenging or reshaping democratic institutions are examined. Prerequisite: 230A or Junior standing.

**360 International Politics****3 hrs. Fall**

This course includes a study of the forces which have operated to bring conflict among the states in the international community. It also includes an analysis of power and the ways in which power is gained, maintained and used in international relations. Prerequisite: Political Science 230A or a course in modern history or equivalent.

**361 International Organization****3 hrs. Spring**

A study of systems and methods derived by states for dealing with their common problems. Consideration of the principles, objectives and methods of the United Nations. Emphasis will be given to the military, political, economic, social and cultural role of international agencies. (This course is designed as a continuation of 360 but may be taken separately.) Prerequisite: 230A or a course in modern history or equivalent.

**370 Introduction to Public Administration****3 hrs. Fall**

Development of administrative organization; administration and the executive, legislature, and judiciary; principles of organization, including line and staff relationships; the staff services of finance and personnel; formal and informal control. Prerequisite: 230A or 334.

**371 Problems of Public Administration 2 hrs. Spring**

The course will include an analysis of some typical problems of administration at all three levels of government. An attempt will be made to develop some principles which will aid the administrator in his consideration of such matters as organization and reorganization of agencies of government personnel and financial administration, techniques of control within the unit and public relations. Individual problems will be assigned at the level of government in which each is particularly interested.

**372 American Chief Executive 2 hrs. Fall**

This course considers the role and position of the chief executive in American government with primary attention given to the office of the President and the office of the Governor. The constitutional, political, administrative functions of the chief executive as well as the relation of the executive branch to the legislature and courts will be examined. The growth and development of the executive office in the 20th Century and the implications of this for democratic leadership will be studied. Prerequisite 230A or B, or 334.

**381 Constitutional Law 3 hrs.**

This course considers the nature, principles, and the view of the government of the United States as embodied in written Constitutions and judicial decisions. Prerequisite: 230A or 334. Not offered in 1957-58.

**383 International Law 3 hrs.**

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 World War II. Prerequisite: A course in modern European history or international affairs. Not offered in 1957-58.

**385 The Constitution and Civil Liberties 2 hrs.**

A study of free speech loyalty in a democratic state, citizenship, freedom of religion, rights of persons accused of crime, and government's responsibility to protect persons from racial and religious discrimination, with special attention to the role of law and judges. Prerequisite: Junior standing. Not offered in 1957-58.

**390 History of Political Philosophy 3 hrs. Fall**

An introduction to a selected portion of the political thought that has influenced the thinking of all ages. The works of the great political philosophers will be studied.

**391 Political Philosophy 3 hrs. Spring**

This course does not consider political philosophy historically but rather examines certain areas of concern to the political philosopher. It considers, among others, such problems as the nature of man, the purposes of government, the meaning of liberty, and the extent of political authority. Prerequisite: Junior standing.

**437 Current Problems of American Government 2 hrs.**

An advanced study of the issues and policies in government, politics, and economics in their historic and sociological perspectives for elementary and secondary teachers. Specific units for teaching may be developed by individuals or groups. Not offered in 1957-58.

**439 Municipal Government 2 hrs.**

City Governments: their relation to the state, the rights and liabilities of municipal corporations, city pressure groups, and detailed analysis of the forms of municipal governments. Prerequisite: 230B or the equivalent. Not offered in 1957-58.

**451 British Government and Politics 2 hrs. Spring**

The organization and operation of the government of Great Britain and a survey of contemporary British political issues and problems. Prerequisite: 230A or equivalent.

**452 Governments and Problems of the Far East 2 hrs.**

This course includes a study of the governmental organization and an analysis of some current problems of organization and administration of Japan, India, the Philippines, and other countries of the Far East. Special attention will be given to such problems as the growth of communism, land reform, industrialization efforts, and the development of democratic philosophy. Not offered in 1957-58.

**453 Government of the Soviet Union 2 hrs.**

The government and politics of the U.S.S.R. and a survey of the new regimes established in Poland, Czechoslovakia, Hungary, Romania and Yugoslavia. Prerequisite: Modern European History or equivalent. Not offered in 1957-58.

**454 Governments and Problems of Central and South America 2 hrs. Fall**

This course includes a study of the governmental organization, an analysis of some of the more current economic, and social problems of selected Latin American countries.

**465 American Foreign Relations 2 or 3 hrs. Spring**

An analysis of the diplomatic relations of the United States with emphasis on present foreign problems. Consideration will be given to the formation and execution of American foreign policy. Prerequisite: 230A or a course in American History or equivalent.

## SOCIOLOGY

Leonard C. Kercher, Head  
H. Mark Flapan

Paul B. Horton  
Chester L. Hunt  
Charles Whatley

Jerome G. Manis  
Nellie N. Reid

Courses are designed (1) to give students in general a better understanding of the significant 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 prerequisite study for the profession of social work.

A major in the field consists of 24 hours and a minor of 15 hours of course work.

Courses 241 and 242 or 243 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.

The curriculum in social work requires a major in sociology or a major in social science with a sociology concentration and a minor in social work, consisting of 19-20 semester hours selected from courses 255, 348A, 348B, 351, 353, 355, 358A, 358B and 359. Students intending to pursue this curriculum should seek counsel and guidance early from the instructor in social work.

## SOCIOLOGY COURSES

### 241 Principles of Sociology 3 hrs. Fall, Spring

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 and the various forms and processes of group association are analyzed.

### 242 Modern Social Problems 3 hrs. Fall, Spring

A general survey of some of the major social problems now confronting American society, such as inter-group conflict, physical and mental ill health, economic insecurity, juvenile delinquency and crime, population changes, and mass communication. Prerequisite: 241.

### 243 Social Psychology 3 hrs. Fall

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. Prerequisite: 241.

### 244 Sociology (for Nurses) 2 hrs. Spring

An introductory course in sociology especially adapted to the need of students of nursing. Not open to regular students.

**245 Modern Marriage****2 hrs. Fall, Spring**

A general education course designed to increase the students' competence for coping with interpersonal problems arising in dating, courtship, engagement, marriage and parenthood. Choosing a mate wisely, planning for marriage, adjusting to one's partner, preparing for successful parenthood are considered. One section of the course, reserved for persons already married, will be primarily concerned with increasing marital and parental competence and will focus on situations arising in the marital relationship.

**247 The City****2 hrs. Spring**

A study of city life as influenced by the processes of industrialization and urbanization. Community problems and social planning for community life are given appropriate consideration. Prerequisite: 241.

**248 Cultural Anthropology****3 hrs. Spring**

A description and comparative study of the cultures of primitive peoples; their technology, art, social life, and religion. The course includes also a consideration of the origins and functional interrelationships of significant aspects of contemporary culture.

**342 Criminology****3 hrs. Spring**

A study of crime as a social problem. Course includes (1) an analysis of causative factors in crime, (2) a study of American police and court systems, (3) a survey of the problems of penology, and (4) a consideration of crime prevention. Visits to institutions are made. Prerequisite: 241.

**343 Mass Communication****3 hrs.**

The study of the media of mass communication in modern society. Impact of radio, television, movies, and newspaper on family life, delinquency, leisure, and mass behavior. Analysis of rumor, propaganda and ideologies. Not offered in 1957-58.

**344 Cooperative Social Organization****2 hrs.**

A study of cooperative enterprise and cooperative movements; covering principles, historical developments, forms and manifestations, problems of operation, and place in contemporary society. Prerequisite: 241, or Man and Society 101A. Not offered in 1957-58.

**345 Marriage and the Family****3 hrs. Fall, Spring**

A study of both the personal and the institutional aspects of marriage and family living. Courtship and mate selection, marital adjustment, parent-child relations, family disorganization, and the adaptation of the family to modern society are considered. Students who have taken 245 Modern Marriage should obtain written permission from the instructor before enrolling in this course.

**346 Industrial Sociology****2 hrs. Fall**

A study of human relations in business and industry. The functioning of informal groups and the varying roles of dealership are analyzed. Consideration is given also to the problems of depersonalization, of worker morale and output, and of labor-management conflicts.

**347 Race Relations****2 hrs. Fall**

A study of race and inter-group relations, stressing (1) the meaning of race, (2) the nature and roots of race prejudice, race discrimination, and inter-group conflict, and (3) the character and effectiveness of various means of adjustment to the problem. Prerequisite: 241.

**348A Introduction to Social Research****3 hrs. Fall**

An introductory course in the principles and techniques of social investigation. The leading research approaches are surveyed. Procedures for planning, organizing, and conducting limited research projects are analyzed. Statistical concepts and methods are studied. Each student will take part in a group study project. Prerequisite: 12 semester hours of social science other than history.

**348B Social Research Projects****2 hrs. Spring**

A concrete application of scientific methods to specific research projects developed in the introductory research course. Each student will participate in one or more field studies. Prerequisite: 348A Introduction to Social Research.

**349 Sociology of Religious Institutions****2 hrs.**

A study of the social role of religious institutions and beliefs, with particular reference to the United States; the relation between religion and other aspects of society. The course considers social factors affecting the development of different types of religious institutions and the influence of religion on American society. Prerequisite: 241. Not offered in 1957-58.

**350 Sociology of Education****3 hrs. Spring**

The class room as a social situation analyzed in terms of the interaction between teacher-student and student-student. The educative process as a function of the interpersonal relations among teachers and between teachers and administrators. The school as a social system as it affects and is affected by the community in which it is located and society at large. Prerequisite: 241.

**443 Population Problems****3 hrs.**

A study of population trends and their human significance. The social and cultural factors influencing the reproductive behavior of man are examined. Biosocial facts are presented and analyzed, but primary stress is on the social implications of present and probable future population trends. World pressure spots as well as the United States are considered. Prerequisite: 12 semester hours of Social Science. Not offered in 1957-58.

**444 History of Social Thought****2 hrs. Spring**

A critical survey of the social thinking of outstanding students of society from Plato to those of modern social science. Prerequisite: 241 or Man and Society 101A, or 540.



**445 Family Life Counseling and Education** 2 hrs. Spring

This course is designed to acquaint the student with procedures for increasing competence for family living. The course will focus on interpersonal competence as an aim of family life counseling and education and will concern itself with methods, appropriate in the school, church and social agency, for working with individuals and small groups who desire preparation for marriage and parenthood.

**446 Juvenile Delinquency and the Community** 2 or 3 hrs. Fall, Spring

A study of juvenile delinquency as a social problem. Extent, causative factors, methods of treatment, and programs of prevention and control are covered. When possible, extensive use of community resource people is made. Prerequisite: 241, or 540, or equivalent.

**447 Community Agency Resources** 2 hrs. Spring

A study of community agencies and resources for those concerned with family and personal problems. Emphasis is placed upon the availability of these resources and their effective use by business and industry, speech therapists, guidance counselors, teachers, etc.

**448 Comparative Culture Studies** 2 hrs.

A comparative study of the structure and the functioning of selected aspects of culture in Britain and America. The courts, the educational system, the welfare state, class stratification, correctional institutions, political organization, and the basic structure of government are considered. Prerequisite: 241, or 540. Not offered in 1957-58.

**449 Contemporary Social Movements.** 3 hrs.

A study of the growth and place in contemporary society of selected social movements, including communism, fascism, Ku Klux Klan, the Townsend movement, and the like. Prerequisite: 241, or 540. Not offered in 1957-58.

**SOCIAL WORK COURSES****255 The Field of Social Work** 2 hrs. Fall

A study of social work as a professional field. The philosophy, functions, employment opportunities, patterns of specialization, and methods of social work are surveyed. Interpretative visits to varied types of social work agencies are made.

**351 Family and Child Adjustment** 3 hrs. Fall

A study of personality development and adjustment in family situations during childhood and adolescence. Cases are analyzed to reveal the common emotional problems encountered by social workers.

**353 Public Welfare** 3 hrs. Spring

The history of social legislation and public welfare and their underlying philosophy are considered from the Elizabethan Poor Law to the Social Security Act. An analysis is made of various aspects of welfare legislation of importance to the social worker.

**355 Principles of Social Case Work****2 hrs. Fall**

A course designed for students without social work experience. It constitutes a general introduction to the basic principles and processes of social case work and social group work. Prerequisite: consent of the instructor.

**357 Community Welfare Organization****2 hrs. Fall**

A study of the community organization method as it applies to the planning, coordination, and integration of social, health, welfare, and recreation services. The class will observe a community organization agency by visits to its meetings and offices.

**358A Orientation to Field Work****2 hrs. Fall**

A course in agency observation and study, aiming to orient the student to a specific field work assignment. A minimum of 90 hours of on-the-spot study of the agency's organization, functions, and methods is required. Prerequisite: 355 or 356, and consent of the instructor.

**358B Supervised Field Work****3 hrs. Spring**

A continuation of 358A, with emphasis on supervised participation in the work of the agency. Each student is required to complete 135 hours of field work on specific assignments. The student's work is evaluated jointly by the agency supervisor and the instructor. Prerequisite: 358A, and consent of the instructor.

# **PART VI—***School of Graduate Studies*

George G. Mallinson, Dean

## **GENERAL STATEMENT**

Graduate instruction began at Western Michigan University in February 1939, under a cooperative arrangement with the University of Michigan. On October 12, 1951, the State Board of Education authorized the four state colleges to grant the master's degree with specialization in education to students completing a program of study under the rules, regulations and procedures adopted by each institution and approved by the State Board. Western Michigan University decided to inaugurate its own graduate program at the beginning of the fall semester of 1952 as permitted by this State Board action.

## **PERMISSION TO ENROLL**

Permission to enroll in graduate courses will be granted to those students who present evidence that they have received the bachelor's degree from an accredited college whose requirements for the degree are equal to those maintained by Western Michigan.

A graduate from a non-accredited college may be admitted to take up to six hours of graduate work with a review of his status after he has taken these six hours. Any student from Western Michigan who is within six hours of receiving his bachelor's degree may be permitted to enroll in up to six hours of graduate credit during the last semester before receiving his degree. **Permission to enroll, however, is not considered as acceptance for Candidacy for the Master's Degree.** Candidacy is granted only after the student has met certain basic requirements of scholarship, achievement and character both at the undergraduate and graduate levels. A student may apply for acceptance into candidacy after having completed ten hours of graduate work on campus. These requirements are listed in the Graduate Bulletin, a copy of which may be obtained by writing the Dean, School of Graduate Studies, Western Michigan University.

## **TRANSFER CREDIT**

After the student has been admitted to candidacy for the degree, a total of six hours of satisfactory work taken at other approved institutions, for which such institutions grant graduate credit, may be transferred to a master's degree program in the School of Graduate Studies of Western Michigan University, provided such courses are approved by the Curriculum Adviser as a part of the student's program of studies.

## **EXTENSION CREDIT**

A total of twelve hours of satisfactory graduate work taken through the Division of Field Services may be counted toward the requirements for the master's degree provided such courses are approved by the student's Curriculum Adviser as a part of the student's program of studies.

## DOUBLE REGISTRATION

The regulation covering any student taking both graduate and undergraduate work follows:

A student taking more undergraduate than graduate hours will pay tuition and fees for the total hours he is taking on both levels according to the rate for undergraduate work.

A student taking more graduate than undergraduate hours will pay tuition and fees for the total hours he is taking on both levels according to the rate for graduate work. A student taking the same number of graduate as undergraduate hours will pay whichever fee is the higher.

Fall and Spring Semesters						
Sem. Hrs.	Resident Fees			Non-Resident Fees		
	Tuition	Local	Total	Tuition	Local	Total
1-2	\$ 9.00	\$20.00	\$29.00	\$18.00	\$20.00	\$38.00
3-4	18.00	26.00	44.00	36.00	26.00	62.00
5-6	27.00	32.00	59.00	54.00	32.00	86.00
7-8	36.00	38.00	74.00	72.00	38.00	110.00
9 or more	54.00	42.50	96.50	108.00	42.50	150.50
Summer Session						
1-2	\$ 9.00	\$26.00	\$35.00	\$18.00	\$26.00	\$44.00
3-4	18.00	26.00	44.00	36.00	26.00	62.00
5-6	27.00	26.00	53.00	54.00	26.00	80.00
Post-Summer Session Workshop						
1	\$ 4.50	\$13.00	\$17.50	\$ 9.00	\$13.00	\$22.00
2	9.00	13.00	22.00	18.00	13.00	31.00

Due to rising costs, an increase of approximately 20 per cent is anticipated for 1957-58.

## CURRICULA

Work in the following curricula is offered in the School of Graduate Studies:

Cur. Development & Coord.	Teaching of Industrial Ed.
Elem. Admin. & Supervision	Teaching of Lit. & Language
General Admin. & Supervision	Teaching of Music
Guidance	Teaching of O. T.
School Librarianship	Teaching of Physical Ed.
Sec. Admin. & Supervision	Teaching of Science and Math.
Special Education	Teaching of Social Science
Teaching in the Elem. School	Teaching of Speech
Teaching of Art	Teaching in the Jr. High School
Teaching of Business Education	Teaching in the Jr. College
Teaching of Distributive Ed.	Unclassified
Teaching of Home Economics	

Further information is available in the Graduate Bulletin which may be obtained by writing to the Dean, School of Graduate Studies, Western Michigan College.

## **PART VII—***Miscellaneous Information*

### **AWARDS, FELLOWSHIPS, SCHOLARSHIPS**

For complete details and application blanks, please write to the registrar.

#### **AWARDS**

##### **DEPARTMENTAL**

**ATHLETICS**—The Athletic Board of Control Award is a medal given to an outstanding athlete who ranks high in scholarship and participation.

**BIOLOGY**—The Harold Cook Memorial Prize of \$20 is given to a student judged most proficient by the Committee on Scholarship, in cooperation with the president of the Faculty Science Club.

**CHEMISTRY**—The William McCracken Award was named in honor of the first head of the Chemistry Department. It is given to a senior who, in the opinion of the chemistry staff, has shown the greatest aptitude in the field of basic chemistry.

**EDUCATION**—Election to Kappa Delta Pi.

**FRENCH**—The French Embassy gives an annual prize to the outstanding student of French in the graduating class.

**HISTORY**—The James O. Knauss History Award was established in honor of a distinguished scholar and teacher who was on the faculty for thirty years and was head of the History Department for eleven. It is awarded annually to the senior history major who has made the most outstanding record in history during his university career.

**HOME ECONOMICS**—An award to a freshman girl based on scholarship and leadership.

**INDUSTRIAL ARTS**—A plaque is given to the outstanding student in that department.

**MATHEMATICS**—This prize is awarded to the senior student judged by the Department of Mathematics to have exhibited the highest proficiency and promise in that field.

**OCCUPATIONAL THERAPY AWARD**—An annual award of \$25 and a letter of commendation are given by the Alumni Association to an outstanding senior in the department who gives promise of being a superior Occupational Therapist.

**PAPER TECHNOLOGY**—Awards ranging from \$100.00 to \$500.00 are given to students above freshman level who have demonstrated superior performance in the curriculum. These awards may be for one year only, and vary in amount and number.

**PHYSICS**—An annual prize of \$50 is given to the senior judged most proficient throughout his college course in the field of physics. An annual prize of a Handbook of Chemistry and Physics and \$10 cash is awarded to the best freshman student in physics.

**SCIENCE**—Membership in Kappa Rho Sigma.

**SPEECH**—Membership in Tau Kappa Alpha.

## ORGANIZATIONAL

**ASSOCIATED WOMEN STUDENTS**—A prize to the outstanding woman student.

**KAPPA DELTA PI**—A prize to the outstanding student in academic areas.

**MEN'S UNION**—A prize to the outstanding male student.

**PI KAPPA RHO**—A scholarship cup awarded annually by the Committee on Scholarship to the outstanding women's organization.

**TAU KAPPA EPSILON**—A scholarship cup awarded annually by the Committee on Scholarship to the outstanding men's organization.

## FELLOWSHIPS

**WM GRADUATE FELLOWSHIPS**—Ten graduate fellowships are awarded each year on the campus, permitting persons to pursue fulltime graduate study towards the master of arts degree, with specialization in education. These fellowships carry a stipend of \$750 for two semesters. Applications should be filed by March 1 with the graduate office.

**STATE COLLEGE FELLOWSHIP**—A State College Fellowship with a stipend in the amount of \$800 is offered each year to a graduate of the university by the Horace Rackham School of Graduate Study at the University of Michigan.

**GRADUATE FELLOWSHIPS AND ASSISTANTSHIPS**—These are available in the leading universities for students who have a high scholarship record and who show promise of success in graduate work.

## SCHOLARSHIPS

**GENERAL MOTORS**—The Scholarship Committee annually selects two recipients for the General Motors Foundation Scholarship, which is awarded for a period of four years. This generous award is recommended for prospective freshmen who present outstanding scholastic and extra-curricular records from high school and show promise of continued success. The amount of the award is based on need which is determined by the Educational Testing Service and Western Michigan University.

**STATE BOARD OF EDUCATION SCHOLARSHIPS**—The Michigan State Board of Education has made available for Western Michigan University 693 tuition scholarships for high school graduates who wish to enter the teaching profession. These cover tuition and not local fees. The scholarship is awarded for two years, providing the student maintains a satisfactory scholastic average. It may be renewed for two additional years.

**ALPHA BETA EPSILON SCHOLARSHIPS**—Each of the 16 chapters of the sorority gives one or more scholarships each year. A student who receives a scholarship must fill the requirements set by the chapter.

**ATLAS PRESS**—Two scholarships, each worth \$500 for the four years of college, are given by the Atlas Press Company. They are open to high school students in Michigan, matriculating in industrial arts. Application must be made before March 1 of each year.

**ATHLETIC**—Western Michigan University offers these scholarships to students excelling in athletics, and participating in/or preparing to participate in varsity sports. A student must be recommended by the Physical Education Department and approved by the Registrar's Office. Application should be made directly to the Physical Education Department.

**GROVER C. BAKER**—A grant of \$100.00 per year is being made available to a freshman, enrolled in Science, and planning to major in Physics (or Science). The recipient should come from a rural high school (or small city school) and be recommended by the Physics teacher of his high school.

**CAMPUS STORES COMPETITIVE SCHOLARSHIPS**—The campus stores of the college offer annually three scholarships on a competitive basis. The prospective freshman scoring highest on a series of tests administered each spring receives \$175. The one scoring second highest receives \$125. The third receives \$100. Each award is renewable annually, provided the student's record continues satisfactory.

**COMPETITIVE SCIENCE SCHOLARSHIPS**—In connection with the annual Science Day, a prospective freshman may compete for two scholarships. One is valued at \$150 per year; the other at \$100 a year. The scholarships are awarded only when the students actually enroll at Western. They may be renewed annually for the second, third and fourth year, provided the student carries a major in science or mathematics and maintains a satisfactory grade average.

**CONSUMERS POWER COMPANY SCHOLARSHIP**—The Consumers Power Company offers one scholarship of \$200.00 per year to a freshman entering Western Michigan. This scholarship is not renewable. Scholarships will be awarded on scholastic ability, character and personality, citizenship and extra-curricular activities, seriousness of purpose, and financial need. Applicants must be February or June 1957 graduates of their high school and should contact their high school principal for particulars regarding this scholarship.

**DEBATE SCHOLARSHIPS**—Six Debate Scholarships are offered to three men and three women participating in debate. These scholarships will pay tuition and student fees. The recipients of these scholarships must be recommended by the Speech Department and are renewable only by further recommendation of this department.

**DETROIT EDISON COMPANY SCHOLARSHIP**—The Detroit Edison Company offers one scholarship of \$250.00 per year, not renewable, to a freshman entering Western Michigan from an area serviced by the Detroit Edison Company. Scholarships will be awarded on scholastic ability, character and personality, citizenship and extra-curricular activities, seriousness of purpose, and financial need. Applicants must be February or June 1957 graduates of their high school and should contact their high school principal for particulars regarding this scholarship.

**DURAMETALLIC SCHOLARSHIP**—The Durametallic Corporation offers \$250 per semester to a student who has completed two years of a technical program at the university and elects to go into the degree program in industrial supervision. Application should be made two weeks before the end of the semester.

**ERNEST BURNHAM RURAL LIFE FUND**—This fund was established by friends and students of the late Ernest Burnham, to commemorate the twenty-fifth anniversary of his work at Western Michigan University. Income from the fund may be used for books or scholarships in the Department of Rural Life and Education.

**EXCHANGE CLUB MEMORIAL SCHOLARSHIPS**—These scholarships, one for a man and one for a woman, are sponsored and administered by the Kalamazoo Exchange Club in memory of former faculty members of the Exchange Club. They are full-tuition scholarships and are limited to students from Kalamazoo County.

**JOHN E. AND EDWIN S. FOX SCHOLARSHIP**—This is a \$200.00 award for beginning freshman who may show promise in the field of Physics. Application for this scholarship should be made by April 1, and should be accompanied by a recommendation from the instructor in Physics and Mathematics. The applicant will be requested to come to the campus before the award is given. The recipient will receive the \$200.00 at the rate of \$100.00 per semester. This scholarship is not renewable.



**GILMORE BROTHERS COOPERATIVE RETAILING SCHOLARSHIPS**

—Gilmore Brothers Department Store of Kalamazoo annually offers two scholarships of \$140 each to students currently enrolled in the two-year Cooperative Retail Training Program. The awards are based on need, scholastic ability, good character, a pleasing personality, and a real interest in retailing as a career.

**HONORARY SCHOLARSHIPS**—A limited number of these scholarships

are available to deserving high school graduates. They cover tuition only. Scholarships may be renewed up to three times. Applications for renewal must be made at the end of each academic year.

**JUDSON A. HYAMES MEMORIAL SCHOLARSHIP**—The fund was

established in memory of the late Judson A. Hyames of the Department of Physical Education. A scholarship amounting to one year's resident tuition and fees will be made annually to the student chosen by the Committee on Scholarships upon recommendation of the head of the Department of Physical Education. Only men majoring in physical education of junior or senior status are eligible.

**JOHNSON FOUNDATION SCHOLARSHIP**—Since September, 1953, the

S. C. Johnson and Sons, Inc. of Racine, Wisconsin have presented to a senior majoring in chemistry a scholarship of \$500. The actual granting of the scholarship is administered by the Chemistry Department.

**KALAMAZOO ACCOUNTANTS' ASSOCIATION SCHOLARSHIP**—This

scholarship is awarded to two students; one a senior, and one a junior. These scholarships cover tuition and fees and any funds in excess are to be divided equally between the scholarship holders to cover books and other costs. Recipients must major in accounting in the School of Business. Recipients will be recommended by a committee composed of three members of the Board of Directors of the Kalamazoo Accountants, by the head of the Accounting Department of the School of Business, and the Chairman of the Committee on Scholarships and Awards of the School of Business. Recipients will be granted automatic membership in the association for the duration of their scholarship. Administration of this scholarship will be made through the Scholarship Committee.

**KALAMAZOO MOTOR CARRIERS' ASSOCIATION SCHOLARSHIP**—

The Kalamazoo Motor Carrier Association offers two scholarships of \$300.00 per year to students entering their junior or senior year, enrolled in the Business Administration Curriculum, and recommended by the Business Department. The awarding of these scholarships is based on merit, need, and extra-curricula activities, specifically in the Business area. An over-all scholastic average of 2.5 (C+) and a 2.75 (B-) average in Business Studies subjects is required. Application must be made to the Registrar's Office on/or before May 1.

**MUSIC SCHOLARSHIPS**—A. Ensemble: 10 Band, 10 Orchestra, and 10 Choral. These scholarships pay tuition only, and are valid for a period of one year. They are recommended by the Conductor of the Ensemble, with the approval of the Head of the Department of Music. Applications must be filed by July 1.

B. Applied Music: 8 Stringed Instrument, 8 Wind and Percussion, 8 Voice and 8 Piano and Organ. These scholarships pay state tuition and \$30.00 of the Applied Music fee, and are valid for one school year, provided the student maintains a 2.75 (near B average). Bachelor of Music degree candidates only are eligible. Applications must be filed by April 1, since competitive auditions are held near the end of April.

C. Special Ability: A maximum of 4 scholarships that pay state tuition and student fees. These scholarships are valid for one school year and are renewable annually for three additional years, provided the student maintains a 2.75 (near B average), and satisfactorily discharges his other duties. Students who have displayed superior ability are eligible, and may be recommended by the Head of the Music Department. Applications must be filed by August 1.

D. Drum Major and Majorette: Four awards are made annually on a competitive basis to pay student tuition and fees. These awards may be renewed annually, based on an audition and a minimum 2.0 (C) average. Applications should be received by May 1, since auditions are held approximately June 1.

**NATIONAL SECRETARIES ASSOCIATION SCHOLARSHIPS**—The Kalamazoo chapter offers a scholarship of \$100 to a student enrolled in the two-year cooperative secretarial curriculum the second semester of each year. The award is based upon the student's record, need and an essay written to the National Secretaries Association.

**OCCUPATIONAL THERAPY ALUMNI ASSOCIATION SCHOLARSHIP**—A grant of \$100 is given annually to a first or second semester freshman enrolled as a prospective Occupational Therapy student. The grant must be refunded to the Alumni Association if the student later changes to some other major field of study.

**THE ORTHOPEDIC FRAME COMPANY SCHOLARSHIP**—The Orthopedic Frame Company offers one scholarship of \$500.00, distributed over a period of four years, to an outstanding student interested in Industrial Arts. All graduating seniors in Michigan schools are eligible, providing they have had at least one course in Industrial Arts. Application should be made to the Registrar before May 1. The recommendation for this scholarship will be made by the Industrial Arts Department.

**PAPER TECHNOLOGY SCHOLARSHIPS**—A number of scholarships ranging from \$200.00 to \$500.00 per year are awarded to freshmen on a competitive basis. These scholarships are normally renewable three times. Application may be made by applying directly to Dr. Alfred Nadelman, Head of the Paper Technology Department, or the Registrar, by March 1.

**THE ELIZABETH R. STEWART SCHOLARSHIP**—This scholarship, made available by the Michigan Congress of Parents and Teachers, is in the amount of \$250.00 per year. Applicants must have completed two years at Western Michigan University, and recipients of this scholarship must commit themselves to at least three years of teaching. Parents and recipients must be citizens of the United States and residents of the State of Michigan. Qualifications in respect to scholarships shall be the same as those for State Board Scholarships. Application must be made to the Registrar's Office and forwarded to the Michigan Congress of Parents and Teachers by July 1.

**STUDENT COUNCIL SCHOLARSHIPS**—Scholarships are available to all students enrolled in a full-time course of study, beginning with the second semester of the freshman year. The amount of the grant is determined by the need of the recipient but may not exceed \$200.

## STUDENT LOAN AND MEMORIAL FUNDS

Please address requests for information to the Comptroller. All funds are administered by the Committee on Student Loans.

**AMELIA BISCOMB MEMORIAL LOAN FUND**—Established in 1939 through the will of Mrs. Biscomb, for over 30 years a teacher of English in Western Michigan University, who provided the sum of \$500 for this purpose.

**DWIGHT B. WALDO MEMORIAL FUND**—Initiated by a group of faculty members at the time of Dr. Waldo's death in 1939. Loans from the fund are available to any worthy student.

**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. 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.

**FRENCH STUDENT LOAN FUND**—The fund was started in 1944 by Miss Marion Tamin in tribute to the students of French who have made the supreme sacrifice on the battlefields of the world, insuring thus the liberation of France.

**GRAND RAPIDS PANHELLENIC SOCIETY LOAN FUND**—The Grand Rapids Panhellenic Society has established a permanent Student Loan Fund for emergency or long term loans available to deserving women students to continue their education. It is preferred that this fund be loaned to sorority members but if they have no use for it, it can be loaned to any needy woman student.

**HELEN STATLER FUND**—Established in 1944 by Mrs. Frederic C. Fischer and Frederick C. Statler in honor of their mother and is available to any worthy student.

**KALAMAZOO VALLEY SECTION, TAPPI, ROTATING LOAN FUND**—For students of paper technology. This fund amounts to \$1,500. Loans are available to students upon recommendation of the head of the department of paper technology. There is no charge for interest while the student is enrolled at Western Michigan.

**LEROY H. HARVEY MEMORIAL LOAN FUND**—Established in 1925 by the student Science Club to honor the memory of Dr. LeRoy H. Harvey, who until his death was the head of the Department of Biology. Loans are made to students whose major interest is in the field of science.

**OCCUPATIONAL THERAPY FUND**—Loans and grants have been provided by the Kellogg and Kalamazoo Foundations for the use of Occupational Therapy students. Loans up to \$300 are available to these students at any time after the successful completion of their first year at Western Michigan. The purpose of the fund is to help defray the cost of clinical training when necessary. They are available only to those who have completed their first year in Occupational Therapy which is their second year in college.

**SIGMA TAU GAMMA MEMORIAL LOAN FUND**—Chi Chapter of Sigma Tau Gamma fraternity established this memorial loan fund to perpetuate the memory of Ode Custer, Elmer Stillwell, Harry Karnemont, Robert Fletcher and Robert Harvey who made the supreme sacrifice in World War II. Loans from this fund may be obtained by any male upper-classman with a point-hour ratio of at least 1.5. The loans are non-interest bearing.

**SOPHIA REED-MARY MOORE HOME ECONOMICS LOAN FUND**—The Home Economics Club of Western Michigan University set up the loan fund in 1953 in honor of Miss Sophia Reed and Miss Mary Moore who served on the home economics faculty for many years. The maximum amount per applicant will be \$50. This is a non-interest loan to be paid back within a year of the recipient's graduation date. Recommendations are made by the staff of the Home Economics Department.

**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.

**STONE D.A.R. STUDENT LOAN FUND**—Established in 1932 through gifts from the Lucinda Hinsdale Stone Chapter of the Daughters of the American Revolution.

**W.M.U. STUDENT LOAN FUND**—In September, 1912, the nucleus of a student loan fund was established by a 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 exceeding one year are accepted.

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WILLIAM McCracken LOAN FUND IN CHEMISTRY—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 (1907-1939). Loans are granted 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 University. Applications for loans should be presented to the head of the chemistry department.

# **BUILDINGS and GROUNDS**

## **EAST CAMPUS**

The original area of this campus was a hilltop site of 20 acres. Now this campus contains more than 70 acres, including 15 acres devoted to physical education and athletics. The principal buildings in this area, exclusive of student housing and athletic facilities, are:

### **BUSINESS STUDIES**

**EDUCATION**—The building houses the Campus Laboratory School, the Educational Service Library, the Audio-Visual Center, Women's Physical Education and Education Classrooms.

### **ENGLISH HALL**

**HEALTH SERVICE**—The second floor of this building is devoted entirely to student health service. Also in this building are the Psycho-Educational and Speech Clinics, the Research Division and several academic departments.

### **INDUSTRIAL ARTS**

**LIBRARY**—This building also houses the Departments of Librarianship and Mathematics.

**MAINTENANCE**—Storage and repair shops are located here.

**MECHANICAL TRADES BUILDING**—This building was a 1941 gift from the W. E. Upjohn Unemployment Trustee Corporation of Kalamazoo.

**NATURAL SCIENCE**—There is an adjoining greenhouse.

**THEATRE**—This is the center of campus dramatics and speech activities. It has an auditorium seating 350 persons.

**WALWOOD UNION**—This is the student center opened in 1938. It provides private dining rooms, a cafeteria, lounge, student offices, recreation rooms and a grand ballroom.

## **WEST CAMPUS**

Following World War II, additional land purchases became necessary. This brought about a new campus of 180 acres called the West Campus. All the buildings in this area, except the President's house, have been erected since 1948. They are of one architectural pattern and modern in every respect. Exclusive of housing, they are:

**ADMINISTRATION BUILDING**—Opened in 1952, it contains the Administrative offices, a branch library and 24 classrooms for the Divisions of Social Science and Languages.

**ARCADIA BROOK CLUB HOUSE AND CAFETERIA**

**HARPER C. MAYBEE MUSIC HALL**—Opened in 1949, this modern music building houses music and radio activities.

**KANLEY MEMORIAL CHAPEL**—This is the campus religious center. It was made possible in 1951 through a gift from the estate of the late William Kanley, a former student.

**WILLIAM McCracken Hall**—Erected at a cost of over \$1,000,000 in 1949, it is the home of the Departments of Chemistry, Paper Technology, Physics, Art, Home Economics and Occupational Therapy.

## FACULTY AND STUDENT HOUSING

Archie Potter, A.M., Director of Housing.

Between the years 1938-1956, the following modern residential structures for students and faculty have been erected:

### EAST CAMPUS

**SPINDLER HALL**—for 197 women—Mrs. Edith M. Lake.

**VANDERCOOK HALL**—for 210 men—Dr. and Mrs. Robert S. Bowers.

**WALWOOD HALL**—for 115 men—Mr. and Mrs. Edward A. Gabel.

### WEST CAMPUS

**BURNHAM HALLS**—for 514 men—Ernest Burnham Hall—Dr. and Mrs. Louis Govatos; Smith Burnham Hall—Mr. and Mrs. Archie Potter.

**DAVIS HALL**—for 250 women—Mrs. Helen Inman.

**DRAPER-SIEDSCHLAG HALLS**—for 520 women—Draper Hall—Mrs. Lucile Yost; Siedschlag Hall—Mrs. Katharine Chapman.

**ELLSWORTH HALL**—for 450 men—Mr. and Mrs. Homer Cox.

**ZIMMERMAN HALL**—for 250 women—Mrs. Mable Hinkle.

**ELMWOOD APARTMENTS**—Contain 192 units for married students.

**HILLSIDE APARTMENTS**—Provide 32 living units for faculty members.

## LABORATORY SCHOOLS

Four laboratory schools are provided for the use of student teachers. On the East Campus, there is the Elementary School and Western State High School. West of Kalamazoo is the Hurd Rural School for the use of the Division of Rural Life and Education. At Paw Paw, there is a city-graded school and high school for the use of our student teachers.

## ATHLETIC FACILITIES

**GOLF COURSE**—Adjacent to the West Campus is the 79 acre nine-hole Gateway Golf Course owned by the college.

**HYAMES FIELD**—One of the finest collegiate baseball layouts in the country, has seating for 2,500 spectators.

**KANLEY FIELD**—Includes three practice football fields, a baseball field, landscaped park, and picnic area.

**FIELD HOUSE**—A new field house adjoining the physical education building on the West Campus was completed in the spring of 1957. It is 160 feet in width by 312 feet in length and has a dirt floor. Facilities include a removable basketball floor, seating capacity for 6,000, and an eight-lap track.

**MEN'S GYMNASIUM**—This building has the usual facilities for physical education and seats 2,500 for basketball. The building is being remodeled for use by the women's physical education department.

**PHYSICAL EDUCATION BUILDING**—This new, west campus structure was completed in the spring of 1956. It has a regulation basketball court, with seating for 800 on rollaway bleachers; three handball courts; a swimming pool 42 feet by 75 feet, with seating for 300 spectators; special purpose rooms, classrooms and offices for the men's physical education department. Dressing rooms are also provided so that women students may use the pool.

**TENNIS COURTS**—12 are provided on the East Campus and 10 on the West Campus.

**WALDO STADIUM**—There are two concrete stands, each seating 7,500 persons. There is also an eight-lane quarter-mile track with a 220-yard straightaway.

**WOMEN'S GYMNASIUM**—This building has a floor 60 feet by 119 feet, a stage, offices, locker rooms and a swimming pool. It is being renovated this year for use by the campus school.

## OTHER FACILITIES

**KLEINSTUECK WILD LIFE PRESERVE**—This is a tract of nearly 50 acres given to the university in 1922 by the late Mrs. Caroline Hubbard Kleinstueck.

**UNIVERSITY FARM**—Six miles south of the university is a farm of approximately 150 acres operated by the university as a training school for students in Agriculture.

## STUDENT ACTIVITIES AND ORGANIZATIONS

In order to meet the needs of students, opportunity is afforded for participation in many extra-curricular activities. All campus organizations must be chartered by the Student Activities Committee consisting of both student and faculty members.



## CHARTERS

Regulation adopted by the Michigan State Board of Education, September 17, 1952.

Charters of Clubs and Organizations may be granted provided that:

- (1) the aims and functions of such societies and clubs are in harmony with the ideals of the university as now defined, or hereafter defined, by the university authorities and the State Board of Education;
- (2) the aims and functions are in harmony with the American form of government, and are constructive in furthering the American way of life. No organization or its officers, local or national, shall be associated with any subversive groups or so-called fronts; and,
- (3) the purposes and functions of the proposed new organization shall not unnecessarily duplicate organizations already chartered by a university.

## GENERAL ORGANIZATIONS

### STUDENT ASSOCIATION

Every student is a member of the Student Association. The organization is governed by the Student Council. The council conducts two student elections annually—in November to select the class officers and representatives, and in the spring to elect the officers for the Student Association, the Associated Women Students and Men's Union.

### ASSOCIATED WOMEN STUDENTS

All undergraduate women at the university are members of the Associated Women Students. The organization has traditions of upholding the highest social standards on the campus. Women of the faculty are honorary members. The headquarters of the group is the Davis Room in the Walwood Union.

### MEN'S UNION

Organized in 1936 the Men's Union includes in its membership all undergraduate students, the men of the faculty and administration. A lounge, recreation rooms with game equipment, radio and television are located on the second floor of the union.

## OTHER ORGANIZATIONS

### CLUBS

AMATEUR RADIO CLUB—Open to people interested in radio communication.

ART—Open to anyone interested in art.

**ATHLETICS**—The W Club is composed of men who have won an official letter in one of the major sports.

**AUTOMOTIVE SOCIETY**—For students who have completed an automotive course.

**BUSINESS**—Alpha Kappa Psi is a business professional organization.

**CHEMISTRY**—This is the Student Affiliate Chapter of the American Chemical Society.

**EDUCATION**—The Association of Childhood Education: For students of elementary education; it is a chapter of the National Association of Childhood Education.

**THE COUNTRY LIFE CLUB**—Open to students in the Department of Rural Life and Education and any others interested in rural life. Delegates are sent annually to the national conference of the Rural Youth of the U.S.A.

**FLYING**—SKY BRONCOS—To promote flying.

**FUTURE TEACHERS OF AMERICA**—The George H. Hilliard Chapter is open to both men and women students interested in teaching.

**GEOGRAPHY**—Gamma Theta Upsilon: For students specializing in Geography.

**HOME ECONOMICS**—The Colhecon Club: Open to any student in the department.

**INDUSTRIAL ARTS**—Open to students interested in industrial arts education.

**INTERNATIONAL STUDENTS**—For students whose homes are outside of the continental limits of the United States.

**LANGUAGES**—The Der Deutsche Verein: For students who have had the equivalent of one year of college German.

Ecos Espanoles: For students specializing in Spanish.

Le Cercle Francais: For students who have had the equivalent of one year of college French.

**LIBRARIANSHIP**—Colophon Club: Open to majors and minors in librarianship.

**MODERN DANCE**—Students interested in modern dance study.

**OCCUPATIONAL THERAPY CLUB**—Occupational therapy students.

**PAPER TECHNOLOGY**—Ts' ai Lun: An organization for students in this department.

**PHILOSOPHY**—The Philosophy Forum.

**PRE-MEDICAL**—The club is open to students interested in the study of medicine or dentistry.

**PUBLICATIONS**—Brown and Gold Yearbook; Herald—weekly newspaper  
W.I.D.R.—Inter-Dorm Radio Station.

**R.O.T.C.**—Pershing Rifles—National society of R.O.T.C. Drill Team.

Torch and Blade—Organized as a local branch General R.O.T.C. Fraternity.

R.H.A.—Council for 10 Residence Halls.

SWIMMING—Water Sprites, open to men and women interested in swimming.

THEATRE—An organization open to any enrolled student interested in active participation in dramatics.

WESTERN WIVES—Membership open to wives of Western students.

WOMEN LIVING OFF CAMPUS—Omega Chi Gamma.

WOMEN'S PHYSICAL EDUCATION—Phi Epsilon.

YOUNG DEMOCRATS

YOUNG REPUBLICANS

## SERVICE ORGANIZATIONS

ALPHA PHI OMEGA—A national service fraternity of Western men in the fellowship of the Scout oath, to promote service to students, to community and the nation.

CIRCLE K—Sponsored by the Kiwanis Club.

## HONOR SOCIETIES

ARISTA—Honor society for senior women.

ALPHA KAPPA PSI—A national professional fraternity for men in the Department of Business Studies, Gamma Tau Chapter.

EPSILON PI TAU—An international professional organization in industrial education.

GAMMA THETA UPSILON—For students specializing in geography. Alpha Gamma Chapter.

KAPPA DELTA PI—A national honorary society in education. Beta Iota Chapter, 1928.

KAPPA RHO SIGMA—For students in mathematics and science.

PHI MU ALPHA SINFONIA FRATERNITY OF AMERICA—A national honorary music fraternity for men.

PI GAMMA MU—A national honorary fraternity for students in social studies.

PI OMEGA PI—A national honorary fraternity for students in business education.

SIGMA ALPHA IOTA—A national honorary fraternity for music women.

SIGMA TAU CHI—A national honorary fraternity for students in Business Studies. Beta Chapter.

## FRATERNITIES

The Inter-Fraternity Council is the governing and coordinating body. It is composed of two men from each fraternity and two faculty members.

DELTA CHI—National. Western Michigan chapter.

DELTA SIGMA PHI—National. Beta Tau chapter.

DELTA UPSILON—National. Western Michigan chapter.  
KAPPA ALPHA PSI—National. Gamma Beta chapter.  
PHI SIGMA EPSILON—National. Phi Gamma chapter.  
SIGMA PHI EPSILON—National. Michigan Beta chapter.  
SIGMA TAU GAMMA—National. Chi chapter.  
TAU KAPPA EPSILON—National. Delta Alpha chapter.  
THETA XI COLONY.

## SORORITIES

The Panhellenic Council is the governing and coordinating body for sororities. It is composed of representatives from each sorority and two faculty sponsors.

ALPHA CHI OMEGA—National. Gamma XI Chapter.  
ALPHA OMICRON PI—National. Kappa Rho Chapter.  
ALPHA SIGMA ALPHA—National. Beta Psi Chapter.  
DELTA SIGMA THETA—National.  
DELTA ZETA—National. Gamma Pi Chapter.  
SIGMA KAPPA—National. Gamma Beta Chapter.  
SIGMA SIGMA SIGMA—National. Beta Rho Chapter.  
THETA UPSILON—National. Nu Alpha Chapter.

## RELIGIOUS ORGANIZATIONS

BAPTIST STUDENT FELLOWSHIP.  
CALVIN CLUB—Christian Reform Church.  
CAMPUS CHRISTIAN FELLOWSHIP—Baptist, Congregational, Disciples of Christ and Presbyterian.  
CANTERBURY CLUB—Episcopal.  
CHRISTIAN SCIENCE CLUB.  
CONGREGATIONAL STUDENT FELLOWSHIP.  
DISCIPLE STUDENT FELLOWSHIP—Central and Kalamazoo Christian Churches (formerly Campbell Club).  
EVANGELICAL and UNITED BRETHREN.  
GAMMA DELTA—Zion Lutheran—Synodical Conference.  
GENEVA CLUB—Reformed and Christian Reformed.  
HILLEL—Jewish.  
INTER-VARSITY  
KAPPA PHI SORORITY for Methodist Women.  
LUTHERAN STUDENT ASSOCIATION—National Lutheran Council.  
NEWMAN CLUB—Catholic.  
PRESBYTERIAN STUDENT FELLOWSHIP.  
SIGMA THETA EPSILON—Fraternity for Methodist Men.  
WESLEY FOUNDATION—Methodist.  
Y. W. C. A.

## STUDENT OPPORTUNITIES AND SERVICES

**CAFETERIAS**—On the East Campus are located Walwood Cafeteria and Soda Bar. On the West Campus are located the Student Center Cafeteria and Snack Bar.

## ATHLETICS

Athletics consists of two major programs: intercollegiate athletics and intramural athletics.

**INTERCOLLEGIATE**—The university is represented by teams in football, baseball, basketball, indoor and outdoor track, cross country, tennis, wrestling, swimming, and golf. Representative teams from all parts of the country are scheduled in these sports with the emphasis on mid-western teams.

Western Michigan University has been a member of the Mid-American Conference since 1947. The other members of the Conference are Bowling Green, Kent State, Marshall, Miami, Ohio and Toledo. The athletics are governed by an Athletic Board, composed of faculty members and students, which adheres to the Athletic Code of the Mid-American Conference and the policies and principles established by the National Collegiate Athletic Association. The teams winning the Mid-American Conference championship, both in basketball and baseball, qualify automatically for the annual NCAA playoffs.

To date Bronco teams have finished in the first division 49 times and have finished in the second division only 14 times. Teams have won championships 13 times in addition to one tie for a championship.

Western Michigan University is a member of the Central Collegiate Conference. Participation in this conference furnishes competition with a number of the stronger track teams in the middle west.

**INTRAMURAL**—An extensive intramural program provides opportunity for students to engage in competitive sports on campus as members of clubs, fraternities or independent teams. Sports offered for men include basketball, bowling, hand ball, tennis, volley ball, indoor baseball, outdoor baseball, track, archery, horseshoe pitching, golf and swimming. Any sport in which a sufficient number of students indicate an interest and for which facilities are available may be set up in the intramural schedule.

## CLINICS

### PSYCHO-EDUCATIONAL CLINIC

The purpose of the Psycho-Educational Clinic is to provide psychological service for maladjusted children and adults, centering not only upon diagnosis but upon remedial measures as well. It is the plan of the clinic, whose laboratory is equipped with modern psychological apparatus, to train a number of competent students to deal with psycho-educational problems involving academic, social and emotional maladjustment and with educational and vocational counseling.

## **SPEECH CLINIC**

Among the services provided students are those of the Speech Clinic. Diagnosis and therapy are provided for all individuals with voice, articulation, stuttering, hearing, cleft palate, or foreign accent problems. Individuals unable to carry on their classroom activities or to achieve adequate results in the general speech courses or to do their practice teaching because of speech difficulties are treated in this modern clinic. Student speech therapists use the facilities of the clinic in preparing for their careers.

## **WRITING CLINIC**

The clinic is for those students recommended by their instructors to receive help in improving organization, expression, and technical competence in written English. The clinician analyzes the particular difficulties of each student and tries to help him establish ways of overcoming them. No credit.

## **DEBATING—FORENSICS—DRAMATICS**

Opportunities are offered for participation in all or any of the following activities: (1) Debate—separate programs for women and men offer experience in debating current issues with other colleges of the state and nation. (2) Forensics—extemporaneous speaking, oratory, discussion and various activities and contests are held on local, state, and national bases. (3) Dramatics—activity in theatre includes the production of 5 major plays per year including a production for children. In none of the above activities is it necessary to belong to an organization or to be enrolled in the speech curriculum.

## **EMPLOYMENT FOR STUDENTS**

Students interested in earning money with which to pay in part their expenses will be given advice and detailed information upon application to the Dean of Men and the Dean of Women. Students whose point-hour ratio is less than 1.8 are not eligible for campus employment.

## **HEALTH SERVICE**

The purpose of the student health service is to help students develop an appreciation of the essentials of healthful living; to assume the responsibility for intelligent self-direction, and a knowledge of when to ask for expert advice.

## **REQUIRED HEALTH EXAMINATION**

Students enrolling for the first time, or after a prolonged absence are required to file a health appraisal report, as a part of the pre-registration requirements. **No physical examinations will be given by the university student health service.** In order that our records may be uniform, a university

health service blank will be sent to each student with the acceptance notice from the Records Office. Students will not be allowed to complete their registration until the health examination report has been received.

## HEALTH SERVICE FACILITIES

The main clinic and infirmary are located on the east campus in the Health Service Building. The clinic on the west campus is in Room 139 of the Administration building. Clinic hours are Monday through Friday 8 A.M. to 4:30 P.M. and Saturday from 9 A.M. to 12 noon.

Students registered for nine or more hours are entitled to medical care for minor illnesses and emergencies in the health service clinics and infirmary. The Health Service provides the services of medical and surgical consultants, psychiatrists, a dermatologist, and a dentist as well as a full-time staff of registered nurses. These services are free to the students during the scheduled clinics, but a nominal charge is made for medications.

For more serious conditions requiring elaborate diagnostic study, or surgery the student will be referred to a private physician of his choice. In addition, if it is necessary for a physician to see a student in a dormitory or rooming house or to make night calls in the infirmary, the physician will charge the student for the call.

A university approved accident and illness insurance policy (covering major illness and hospitalization) is offered to all students by a private insurance company for a nominal fee. Students and their families are urged to give this serious consideration for the additional protection.

## LABORATORY SCHOOLS

The training schools of the university are unique in that they include a wide range of typical schools; a rural 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 graduating. Neighboring public school systems are also used. Transportation to outlying schools is provided by the university.

## LIBRARIES

**EDUCATIONAL SERVICE LIBRARY.** The Educational Service Library is located in Room 103, Education Building. It provides for students of education a representative collection of the latest editions of textbooks both in the elementary and secondary fields, texts for each of the common branches and special subjects, books in general education, professional books in the different subject areas, teaching and curriculum aids, source and reference material, a fine collection of elementary and secondary courses of study in all subject fields.

**GENERAL LIBRARY.** Its collection consists of about 113,500 volumes. Approximately 1,200 periodicals are currently received and of these more than 594 are bound for permanent retention.

About 2,250 volumes are housed on the West Campus in Room 206, Maybee

Hall, where a Music Library with a seating capacity of 50 is supervised by a member of the professional library staff as a branch of the General Library. This branch receives 26 current periodicals and has a collection of 2,500 phonograph records which can be used in the adjoining listening room.

In Room 208, Administration Building, the Library Annex has a seating capacity of 85. The library's holdings include 2,000 books in the physical sciences, over 400 books on reserve for the Social Sciences and English and some 600 general reference books. The library subscribes to 90 current science and 20 general periodicals and to four newspapers. The holdings include 1,400 bound periodicals in science.

## MUSIC

The Band rehearses twice a week, three times during the football season, and gives concerts on and off the campus. Any student with adequate playing ability on a band instrument is eligible for membership. The Orchestra meets twice a week throughout the year and presents concerts both on the campus and in other cities of the state. It joins each year with the choral groups to present the Christmas program. Any student with reasonable proficiency in any orchestral instrument is eligible for membership.

An important part in the musical life of the college is played by the Glee Clubs and the Choirs. The Men's Glee Club, Women's Glee Club, the College Choir and the Auxiliary Choir aim to develop and maintain a high standard of choral ensemble singing. They make a number of appearances on the campus, at high schools throughout the state, and with organizations like the Kalamazoo Symphony. The Auxiliary Choir is designed for students with little choral experience, but many of the students in this organization later find their way into the Glee Club and the College Choir.

## COUNSELING AND GUIDANCE SERVICES

Student counseling and guidance services are centered in Room 131, Administration Building.

Services are provided for all new students preceding the semester or summer session of entrance to the university. Students who have not been counseled prior to the day of registration will be referred to a counselor on registration day. No student may register without presenting either a "Student Schedule" or a "Counselor's Approval Card" which is obtained from the counselor.

Counselors assist all students in planning for a total program leading toward a degree, with or without certification, as well as students enrolling in two year terminal curricula. This includes:

1. Help in understanding the educational requirements of the university.
2. Help in understanding the requirements of the curriculum in which enrolled.
3. Help in selection of major and minor fields of concentration.



4. Referral to the responsible departmental adviser for help in outlining requirements of the major and minor fields.

Students are expected to assume responsibility for obtaining information relative to the above requirements. It is advisable that all necessary procedures pertaining thereto be completed by the end of the sophomore year. An adjustment in time is made for transfer students in which to complete these procedures.

Counselors are available to all students to help them with other educational problems, or personal and social problems, and to interpret policies and procedures of the university.

An occupational counseling service is offered students to assist them in making a suitable vocational choice. Students are urged to take advantage of this service.

Veterans are given help in—

1. Proper enrolling.
2. Preparing necessary papers and reports required by Veterans Administration.
3. Filing applications for loans.
4. Other items or questions which need clarification.

Students are urged to avail themselves both of the counselors' and Departmental Advisers' help. Names of Advisers, their rooms and office hours are published each semester on a mimeographed sheet to be found in the counseling office. Their names also are published in the Schedule of Classes.

## PUBLICATIONS

The Brown and Gold is the annual yearbook written and edited by the students of the university. Policies and control of the publication are handled by the Brown and Gold student-faculty committee. The editor and business manager are appointed and receive remuneration for their work. They are responsible for naming other staff members and carrying the project to completion. Offices are maintained in the Ty house, East campus.

The Western Herald is the student newspaper, now published weekly through the fall and spring semesters. Policies controlling the publication are set by the Herald student-faculty committee. The editor and business manager are paid positions, appointed by the above committee. Offices are maintained in the Ty house and the paper is printed in the college print shop.

The Student Directory is published during the fall semester each year by the Student Council, with that organization's publicity director charged with the responsibility.

The Western Way is published each fall by the Student Council as a guide for students to the campus organizational and social life. Copies are available free for all students at the opening of school.

Calliope, a student authored literary magazine, is published twice each year. Supervision in its management is provided by the English faculty.

## RADIO

WMCR, the FM voice of Western Michigan University, began official broadcasts in April, 1951, operating at 97.1 megacycles with an effective radiated power of 400 watts.

In 1954 a grant of \$7,500 from the Kellogg Foundation made it possible for the station to secure equipment increasing its power to 36,000 watts, effective radiated power. With the power increase WMCR enables the college to serve an area sixty miles in radius.

In addition to broadcasting classroom lectures, special programs from various departments, athletic events, recitals from the Music Department, assembly speakers, and special college events, the station also brings to its service area scores of significant radio series from the tape network of the National Association of Educational Broadcasters.

WIDR is the student-operated radio station, broadcasting eight hours each day. It can be heard only in college residence halls.

## READING LABORATORY

Individuals wishing to improve their reading skill may spend from one to two hours in the Reading Laboratory on Tuesday and Thursday of each week. Twenty-two assignments have been prepared, and each student is expected to proceed from assignment to assignment as his ability permits. These assignments show the student how to improve his reading ability as he does his regular college work. The facilities of the Psycho-Educational Clinic will be drawn upon to provide clinical service whenever the student's needs warrant.

## R.O.T.C.

The United States Army has established a Reserve Officer Training Corps Unit at Western Michigan University, which offers the student an opportunity to prepare for military service and to occupy positions of leadership in the Armed Forces. Students pursue a General Military Science course including subjects common to all branches of the army.

The first two years of ROTC comprise the Basic Course, and the final two years the Advanced Course. Uniforms and textbooks are furnished. Advanced Course students receive a monetary allowance of approximately \$27 each month. Two hours' credit is allowed for the Advanced Course.

Upon completion of the four-year course, and attendance in summer camp training, students are eligible to apply for appointment as Second Lieutenant, United States Army Reserve. Enrollment in ROTC together with an acceptable scholastic average will entitle a student to apply for a draft deferment so that he may complete his college training without interruption.

## RELATED SERVICES

### ALUMNI

Western Michigan University has granted degrees and/or certificates to more than 26,000 individuals. An additional 55,000 former students have

received part of their educational training here. All of these persons are considered alumni and are eligible to membership in the Alumni Association.

The News Magazine, published quarterly, contains a section devoted exclusively to alumni activities. It is sent free to all students in their senior year and regularly to all alumni who become active dues-paying members of the Alumni Association. Membership rates are nominal.

About 1,000 of Western's alumnae are members of Alpha Beta Epsilon. This is a sorority having 17 chapters in various cities of Michigan and Indiana. A chief activity of each chapter is to maintain one or more outstanding students at Western by means of a fine scholarship program.

Since it is a most difficult task to maintain accurate mailing lists for a large and constantly moving alumni group, all graduates are urged to keep their own mailing address up to date. We always appreciate receiving names and addresses of any alumni who have been out of contact with the college.

The Office of Placement and Alumni Relations is located in Room 231, Administration Building.

## ART COLLECTION

Through the courtesy of the family of the late Hon. Albert M. Todd, an interesting collection of paintings, sculpturing, and fine ceramics gathered by Mr. Todd in many years of travel has been presented to the University.

These were formerly concentrated in an exhibition room in the Library, but through the extensive building program they have been distributed among different buildings to provide distinctive decorative notes appropriate to the building.

## 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 University 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. This collection is housed in McCracken Hall in the Art Department Gallery.

## DIVISION OF FIELD SERVICES

The Division offers educational opportunities to persons who do not participate in the regular full-time undergraduate or graduate program of the college.

Serving primarily the 16 counties of Southwestern Michigan, Western's offerings last year reached more than 39,000 persons. Of these, over 6,000 represented extension class and correspondence enrollments. The remainder were contacted through adult education activities in conferences and discussion groups; through in-service education programs; and through extension course planning meetings.

A variety of courses is offered to benefit teachers in the field and the other interested adult students. Course offerings in the 16 counties are planned in committees with County Superintendents, Public School Superintendents, and their teacher committees. Courses are offered on both the undergraduate and graduate levels. A special schedule of on-campus offerings is planned each semester for persons who can attend Saturday or evening classes.

There is also a wide variety of correspondence courses available. These may be taken for credit and applied toward an undergraduate degree within the limitations described in this bulletin.

In the field of adult education the office supplies advising services, speakers, discussion leaders, and persons qualified to handle leadership training programs. Upon request, such services are available to farm groups, labor unions, schools, church organizations, and other organizations.

In-service education programs are planned with schools, businesses, and any institution seeking to improve personnel within the institutions. Advisory services are offered, as well as actual training programs.

For details of policy, and further information please write the Office of Field Services.

Fees for undergraduate credit are \$11.00 per semester hour; for graduate credit, \$11.00 per semester hour.

Fees for auditors are one-half the amounts indicated.

## PLACEMENT SERVICE

Western Michigan University has operated a free placement office for many years. No graduating student can be guaranteed employment; but all graduates have the opportunity to meet prospective employers from the public schools, business, industry, social agencies and governmental services. Active communication is maintained between the university and hundreds of employing officials. Information concerning employment trends and general job opportunities is made available. Alumni are always welcome to use the placement service free of charge. Summer employment contacts for students are also maintained. The office is located in Room 231, Administration Building.

## TEACHER EDUCATION AND RELIGION PROJECT

On December 4, 1953, Western Michigan University was selected as one of fifteen institutions in the United States to participate in the Teacher Education and Religion Project of the American Association of Colleges for Teacher Education. Funds to underwrite the beginning of the project were provided by the Danforth Foundation.

The A.A.C.T.E. through its committee on Teacher Education and Religion has formulated the following statement of purpose:

"The Committee recommends that the chief purpose of this study of Teacher Education and Religion be to discover and develop ways and means to teach the reciprocal relation between religion and other elements in human culture in order that the prospective teacher,

whether he teaches literature, history, the arts, science or other subjects, be prepared to understand, to appreciate, and to convey to his students the significance of religion in human affairs."

As a result of the work here during the first three years of the project, the following have been accomplished: (1) Publication of a book entitled, **Focus on Religion in Teacher Education**; (2) attendance of many faculty members at various workshops; (3) holding the national meeting of representatives of all 16 pilot centers on our campus; (4) organizing a credit workshop on "Education for Moral and Spiritual Values" for teachers and others; (5) the addition to the faculty of a full-time person in Philosophy and Religion; (6) enrichment of the offerings by the addition of new courses in religion; (7) planning for faculty discussion groups; (8) beginning a research project in the Campus School in studying the development of attitudes; (9) studying the issues involved in relating religion and education; and (10) planning, in cooperation with other regional colleges, area conferences for public school teachers.

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