Bulletin

Catalog & Announcements

1958

1959

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 midwestern cities. The population of greater Kalamazoo is nearly 100,000.

DIRECTIONS FOR CORRESPONDENCE

Director of Admissions
  Admissions, University 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
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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UNIVERSITY CALENDAR 1958-59

FALL SEMESTER

September 15, Monday ........................................ Freshmen Orientation
September 16, 17, Tuesday & Wednesday .................... Registration, undergraduate
September 18, Thursday ...................................... Classes begin
September 20, Saturday ....................................... Principal-Freshman Conference
November 12, Wednesday ..................................... Registration, graduate
November 26, Wednesday (12:00 Noon) ...................... Thanksgiving recess begins
December 1, Monday .......................................... Classes resume
December 19, Friday (6:00 P.M.) .............................. Christmas recess begins
January 5, Monday ............................................. Classes resume
January 23, Friday to January 30, Friday ................. Final examinations
January 25, Sunday ............................................. Mid-year Commencement
January 31, Saturday ......................................... Semester ends

SPRING SEMESTER

February 7, Saturday .......................................... Registration, graduate
February 9, 10, Tuesday ...................................... Registration, undergraduate
February 11, Wednesday ....................................... Classes begin
March 27, Friday (12:00 Noon) ............................... Easter recess begins
April 6, Monday ................................................ Classes resume
May 30, Saturday ............................................... Memorial Day
June 5, Friday to June 12, Friday ............................ Final examinations
June 13, Saturday ............................................... Commencement
June 13, Saturday ............................................... Semester ends

SUMMER SCHOOL

June 23, Monday ................................................ Registration, first session
June 24, Tuesday ................................................ Classes begin
July 4, Saturday ............................................... Independence Day
July 30, Thursday .............................................. Commencement
July 31, Friday ................................................ First session closes
August 3, Monday .............................................. Registration, second session
August 14, Friday ............................................... Second session closes

FALL SEMESTER 1959 - 60

September 14, Monday ......................................... Orientation
September 15, 16, Tuesday & Wednesday ................... Registration
PART I—Administration

STATE BOARD OF EDUCATION

WALTER F. GRIES
CHRIS H. MAGNUSSON

STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

LYNN M. BARTLETT

EXECUTIVE COUNCIL OF PRESIDENTS

CHARLES L. ANSPACH
Central Michigan College

EUGENE B. ELLIOTT
Eastern Michigan College

PAUL V. SANGREN
Western Michigan University

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
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
John J. Pruis, Ph.D., Director, Summer Session
Arnold E. Schneider, Ph.D., Dean, School of Business
Donald N. Scott, M.A., Director, University Student Center and Residence Halls
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
Administration

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, University Student Center
Keith W. Smith, Ph.D., Assistant Registrar
Marie L. Stevens, M.A., Assistant Dean of Women
Robert H. Williams, B.S., Assistant Superintendent, Buildings and Grounds

STAFF

Irving Barber
Homer M. Dunham, B.A.
Eva Falk, B.A.
Margaret Feather, B.A.
Kenneth R. Hawkins, M.A.
Edna L. Hirsch, B.S.
Virginia M. Jarman
Lloyd E. Jesson, B.A.
Eleanor Linden, B.S.
John W. Randall
Myrna Ross
Leah M. Smith
John M. Thompson
Ralph Willis

Supervisor, Grounds Service
Athletic Records and Publicity
Secretary, Dean of Women
Secretary, Dean of Men
Assistant Manager, Campus Stores
Secretary, Counseling
Secretary, Campus School
Secretary to the President
Secretary, Teacher Education
Director, Food Services
Secretary, Adult Education
Secretary, Extension
Manager, Campus Stores
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 university.

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 deans of the five 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 1959—Willis Dunbar, Robert Russel, Mathilde Steckelberg.


Ex officio, Paul V. Sangren, Russell Seibert, Dale Faunce.

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, William 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 1958 - 1959

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.

ADMISSIONS AND SCHOLARSHIP
1. Ellis, Sadler, Trader
2. Kemper, Maus, Manis
3. Osborn, Steckelberg, VanderBeek

EDUCATIONAL POLICIES
1. Crawford, Mabie, Mallinson, Wend
2. Elwyn Carter, Griggs, Maus, Schneider, Stokes
3. Kohrman, Kruglak, Limpus, Osborn

EDUCATIONAL POLICIES
1. Crawford, Mabie, Mallinson, Wend
2. Elwyn Carter, Griggs, Maus, Schneider, Stokes
3. Kohrman, Kruglak, Limpus, Osborn

GRADUATE COUNCIL
1. G. Cooper, Moore, F. Rogers
2. Griggs, Kohrman, Mallinson, Osborn, Schneider
3. Feirer, Bradley, Rothfuss

INSTITUTIONAL SERVICE
1. Brueckheimer, Roell, Stine
2. McClure, Nadelman
3. Kercher, Strolle, Yntema

PUBLIC RELATIONS
1. Dunbar, MacDonald, K. Smith
2. Ackerman, Faunce, C. Smith
3. Bradley, Schroeder, Strong

RESEARCH
1. Bryan, Kruglak, Kuffel
2. Frederick, Greenberg, D. Jackson
3. C. Brown, Elsasser, Luff

STUDENT ACTIVITIES
1. T. Smith, Swickard
2. E. Householder, Jones
3. M. Stevens, Strolle

SCHOLARSHIP, LOAN, GRANTS IN AID
1. MacDonald and Maus, Co-Chairmen
2. Butler, Lichty, T. Smith
THE FACULTY

1957 - 1958

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.
Marion I. Hall, M.A.
Lucia C. Harrison, M.S.
H. Glenn Henderson, M.M.
M. Amelia Hockenberry, B.A.
Ada Hoebeke, M.A.
John C. Hoekje, M.Ed.
Leslie A. Kenoyer, Ph.D.
James O. Knauss, Ph.D.
Dezena Loutzenhiser, M.A.
Katherine A. Mason, M.A.
Eloise McCorkle, M.A.
Florence E. McLouth
Charles S. Nichols, M.A.
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.
Celia 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
Assistant Professor of Education
Associate Professor of Geography
Associate Professor of Music
Associate Professor of Languages
Assistant Professor of Languages
Dean of Administration—Registrar
Professor of Biology
Professor of History
Associate Professor of English
Assistant Professor of Education
Assistant Professor of Education
Assistant Professor of Education
Associate Professor of Industrial Arts
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
Professor of Industrial Arts
Vice President
Professor of Education
Assistant Professor of Languages
FACULTY

Ackerman, Donald H., Assistant Professor of Political Science
  B.A., M.A., D.S.S., Syracuse
Acree, Rachel, Associate Professor of Home Economics
  B.S., Kentucky; M.A., Teachers College, Columbia
Adams, David W., Assistant Professor of Education
  B.A., Ohio Wesleyan; M.A., New York
Adams, Sam B., Assistant Professor of Music
  B.A., Kentucky; M.A., Teachers College, Columbia
Alger, John, SFC, Instructor, R.O.T.C.
Allen, Francis W., Annex Librarian
  B.S., Colby; A.B.L.S., A.M.L.S., Michigan
Anderson, Agnes E., Assistant Professor of Business
  B.S, Ferris; M.S., Tennessee
Anderson, Robert H., Assistant Professor of Chemistry
  B.A., Baker; M.A., Ph.D., Columbia
Ansel, James O., Associate Professor of Rural Life and Education
  B.A., Western Michigan University; M.A., Northwestern; Ed.D., Teachers College, Columbia
Anton, Thehma E., Assistant Professor of English
  B.A., Michigan; M.A., Middlebury
Archer, Hubert G., Superintendent, Paw Paw Schools
  B.A., Central Michigan; M.A., Michigan
Arthur, Maude W., Associate Professor, Paw Paw Schools
  B.A., Iowa State Teachers; M.A., Teachers College, Columbia
Asher, Eston J., Assistant Professor of Psychology
  B.S., Kentucky; M.S., Ph.D., Purdue
Bailey, Keith D., Assistant Professor, Campus School
  B.S., M.A., Western Michigan University
Baker, Lee O., Assistant Professor of Agriculture
  B.S., Wisconsin State; M.S., Wisconsin
Barlock, Robert J., Sgt., Instructor, R.O.T.C.
  B.S., Michigan College of Mining and Technology
Barnes, Betty E., Instructor in Biology
  B.A., Kalamazoo; M.S., Wisconsin
Barron, Richard C., Assistant Director of Alumni Relations
  B.A., Western Michigan University; M.A., Michigan
Bartoo, Harriette V., Professor of Biology
  B.A., Hiram; Ph.D., Chicago
Batson, Robert J., Assistant Professor of Political Science
  B.A., Princeton; M.A., Chicago
Beal, Edwin F., Associate Professor of Business
  B.A., Ohio Wesleyan; M.S., Ph.D., Cornell
Faculty

Beals, Edith Carlson, Assistant Professor, Paw Paw Schools
B.M., MacPhail School of Music

Becker, Albert B., Professor of Speech
B.A., Western Michigan University; M.A., Michigan; Ph.D., Northwestern

Becksfort, Howard F., Assistant Professor of Mathematics
B.A., Hope; M.A., Tulane; Ph.D., Syracuse

Beeler, Fred A., Professor of Mathematics
B.S., Alaska; M.A., Indiana; Ph.D., Michigan

Beeler, Isabel, Associate Professor, Counseling and Guidance
R.N., Ford Hospital, Detroit; B.S., M.A., Michigan

Beinhauer, Myrtle T., Assistant Professor of Economics
B.A., M.A., Drake; Ph.D., Minnesota

Behling, Robert P., Assistant Professor of Accounting
B.S., B.A., Denver; M.S., Illinois; C.P.A.

Beloof, Elmer R., Associate Professor of Music
B.M., B.S., Illinois; M.A., Ed.D., Teachers College, Columbia

Beloof, Margaret Felts, Assistant Professor of Music
B.S.M., Oberlin

Bendix, John L., Assistant Professor of Industrial Arts
B.S., Stout State; M.A., Minnesota

Berger, Owen L., Assistant Professor of Music
B.M., M.M., Boguslawski College of Music; B.S., M.A., Teachers College, Columbia

Bergman, Herbert, Assistant Professor of English
B.S.S., New York City; M.A., Duke; Ph.D., Wisconsin

Berkey, Ada E., Reference Librarian
B.A., Mount Holyoke; A.B.L.S., Michigan; M.A., Iowa

Berry, William J., Head, Department of Geography and Geology
B.A., Iowa State Teachers; M.S., Ph.D., Chicago (Deceased April 4, 1958)

Beukema, Henry J., Associate Professor of Industrial Technology
B.S., Western Michigan University; M.A., Michigan

Bigelow, Howard F., Professor of Economics
B.A., Wesleyan; M.A., Harvard

Birkby, Arthur, Associate Professor of Music

Black, Donald J., Assistant Professor of Industrial Technology
B.A., Kalamazoo; B.S.R.E., Valparaiso Technical Institute; M.A., Western Michigan University

Blagdon, Charles A., Assistant Professor of Business
B.A., Kalamazoo; M.A., Michigan State

Bodine, Gerald L., Assistant Professor of Education
B.S., Wisconsin State; M.A., Northwestern
Faculty

Boot, Ruth, Assistant Professor, Paw Paw Schools
  B.S., Illinois; M.Ed., Wayne

Boot, Samuel K., Captain, Assistant Professor, R.O.T.C.
  B.A., William and Mary

Borr, Earl, Assistant Professor, Campus School
  B.S., M.A., Western Michigan University

Boven, Donald E., Assistant Professor of Physical Education, Men
  B.S., M.A., Western Michigan University

Bowers, Robert S., Professor of Economics
  B.A., Kansas Wesleyan; M.A., American; Ph.D., Wisconsin

Boynton, James W., Associate Professor of Chemistry
  B.A., Western Michigan University; M.S., Michigan

Boynton, William L., Sfc., Instructor, R.O.T.C.

Bradley, George E., Associate Professor of Physics
  B.A., Miami; M.S., Ph.D., Michigan

Breed, Sterling L., Assistant Dean of Men
  B.S., Western Michigan University

Breisach, Ernst A., Assistant Professor of History
  Matura, Realgymnasium Knittelfeld and Vienna VII; Ph.D., Vienna;
  Dr. rer. occ., Hochschule fuer Welthandel, Vienna

Brink, Lawrence J., Associate Professor of Industrial Arts
  B.A., Western Michigan University; M.A., Michigan

Brown, Alan S., Assistant Professor of History
  B.A., M.A., Ph.D., Michigan

Brown, Charles T., Professor of Speech and Director, Center for Communication Research
  B.A., Westminster; M.A., Ph.D., Wisconsin

Brown, Helen, Assistant Professor of Physical Education, Women
  B.S., M.A., Northwestern

Brown, Russell W., Assistant Professor of Music
  B.P.S.M., Oklahoma State; M.M., Notre Dame

Brueckheimer, William R., Assistant Professor of Geography and Geology
  M.A., Chicago; M.A., Ph.D., Michigan

Brune, Elmer J., Assistant Professor of Industrial Technology
  B.S., M.A., Western Michigan University

Brunhumer, Walter J., Assistant Professor of History
  B.A., M.A., Marquette; Ph.D., Northwestern

Bryan, Roy C., Director, Campus School
  B.A., Monmouth; B. Ed., M.A., Ph.D., Teachers College, Columbia

Buelke, John A., Professor of Education
  B.S., Wisconsin State; M.A., Northwestern; Ed.D., Cincinnati

Burdick, William L., Associate Professor of Business
  B.A., Milton, M.B.A., Wisconsin

Burge, Georgiann, Assistant Professor of English
  B.A., North Texas State Teachers; M.A., Michigan
Faculty

Bush, Clara N., Assistant Professor of Speech
  B.A., Western Michigan University; M.A., Michigan (on leave)
Butler, Charles H., Head, Department of Mathematics
  M.A., Chicago; Ph.D., Missouri
Callan, Edward T. O'D., Assistant Professor of English
  M.A., Witwatersrand; M.A., Fordham
Carlson, Bernadine P., Instructor in English
  B.A., M.A., Western Michigan University
Carlson, Theodore L., Professor of Economics
  B.A., Augustana; M.A., Ph.D., Illinois
Carter, Elwyn F., Head, Department of Music
  B.A., Alma; M.A., Ed.D., Teachers College, Columbia
Carter, Esther M., Assistant Professor, Campus School Library
  B.A., Earlham; M.S.L.S., Illinois
Carter, Homer L. J., Professor of Psychology and Director, Psycho-Educational Clinic
  B.S., Wayne; M.A., Ohio State
Chance, Faye S., Assistant Professor, Campus School
  B.S., M.S., Ball State Teachers
Chase, James K., Assistant Professor, Paw Paw Schools
  B.S., M.S., Ball State Teachers
Chiara, Clara R., Professor of Education
  B.S., Miami; M.A., Western Reserve; Ph.D., Ohio State
Chiaverini, Roger, Assistant Professor of Physical Education, Men
  B.S., M.A., Western Michigan University
Christenson, Elmer J., Instructor, Campus School
  B.A., M.A., Michigan State
Clark, Edith E., Periodicals Librarian
  B.A., Western Michigan University; A.B.L.S., Michigan
Clark, Gale W., Instructor in Business
  B.S., M.S., Indiana State Teachers
Clark, Samuel I., Associate Professor of Political Science
  B.A., Ph.D., Chicago
Cleveland, Bernyce, Assistant Professor, Campus School
  B.A., Western Michigan University; M.A., Middlebury
Colcord, Joseph J., M/Sgt, Instructor, R.O.T.C.
Connors, Robert J., Captain, Assistant Professor, R.O.T.C.
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Schoenhals, Neil L., Associate Professor, Campus School  
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Scott, Donald N., Director, University Student Center and Residence Halls  
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Scott, Frank S., Associate Professor of Industrial Technology  
B.S., M.S., Purdue

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Seber, Robert C., Assistant Professor of Mathematics  
B.A., Coe; M.S., Ph.D., Iowa

Seibert, Russell H., Vice President for Academic Affairs and Professor of History  
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Sellers, Helen G., Assistant Professor of English  
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Shaw, Ann M., Assistant Professor of Speech  
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Smith, J. Towner, Dean of Men
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Spence, William P., Assistant Professor of Industrial Arts
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Starring, Charles R., Professor of History
B.A., M.A., Columbia

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VanZee, Gertrude, Cataloging Librarian
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Faculty

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Wiseman, Merrill R., Professor of Biology
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M.Ph., Warsaw, Faculty of Mathematics

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Zinser, Lester M., Assistant Professor of Industrial Technology
B.S., M.S., Illinois

Zoschke, Milton H., Instructor, Paw Paw Schools
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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 contains 20 acres of land. The university now occupies more than 481 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 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 university has come to be recognized as a regional institution of broad scope. Western Michigan University is still one of the leading teacher training institutions of the United States, but the preparation of teachers now represents only one of numerous important areas of study and specialization. Large numbers of students pursue courses, on both the undergraduate and graduate levels, in business, in 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 state legislature recognized the changes that had occurred in the character of Western by renaming it Western Michigan University.

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 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 the master of arts degree.

Administrative functions of the University are housed in this structure, opened in 1952. It is also the classroom home of several departments.
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.

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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 Director of Admissions 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 Director of Admissions 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 the seventh semester in high school. It is preferred, however, that the application be sent after the close of the seventh semester.
Transfers

1. An application blank must be secured from the Director of Admissions 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 Director of Admissions 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 114, 115 (8 hours) or
      College Writing 116, 117 (6 hours)
   b. Science Area .......................................................... 8 hours
      Biological Science 107 (4 hours)
      Human Geography 105 (4 hours)
      Physical Science 108, 109 (4 or 8 hours)
   c. Social Science Area ................................................ 8 hours
      Foundations of Western Civilization 100, 101
      (8 hours) or
      Man and Society 102, 103 (8 hours)
   d. Humanities Area ...................................................... 6 hours
      Humanities 220, 221 (6 hours) or
      Humanities 222, 223 (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 a minor with a minimum of 15 hours. In elementary education the student may complete three minors.
e. A minimum point-hour ratio of 2 must be attained in any major or minor(s) presented for graduation.
f. 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.
g. 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 117 (College Writing), 114 or 115 (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 combination 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. The student’s major and minors will be his subject specialization, such as: mathematics, accounting, biology and chemistry.
2. His curriculum may be general or specific preparing him for a specialized 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 a minor. A candidate for the elementary provisional certificate may elect, instead, three 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.
Admissions, Degrees and Certificates

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 University 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.

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 certifi-
Directions to Holders of Limited Certificates

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.
Admissions, Degrees and Certificates

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 250, Introduction to Directed Teaching 350, and Directed Teaching, Laboratory in Education, and General Educational Problems 470, 420, 450.

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.
Student Responsibilities

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.

CREDIT FOR MUSIC ACTIVITIES

1. A maximum of two hours of academic credit annually is given for one year's regular participation in any of the music ensembles.
2. Eight hours of academic credit is the maximum allowed for participation in any one of the music ensembles.
3. A grand total of not to exceed twelve hours of academic credit is allowed for participation in the music ensembles.

4. Participation in Band may be substituted for physical education credit up to a maximum of three hours. 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 the University Band. Substitution of University Band participation for physical education credit during second semester is possible only if the student has participated in the University 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**

<table>
<thead>
<tr>
<th>1958-59 FEES FOR UNDERGRADUATES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester Hours</strong></td>
</tr>
<tr>
<td>Tuition</td>
</tr>
<tr>
<td>1 - 3</td>
</tr>
<tr>
<td>4 - 6</td>
</tr>
<tr>
<td>7 - 9</td>
</tr>
<tr>
<td>10 or more</td>
</tr>
</tbody>
</table>

*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.

There is a special departmental music fee for Applied Music of $60.00 per semester for one hour per week of private instruction, or $30.00 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 $5.00.

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 paying fees or after the last official registration day, whichever is earlier — 90% of total.
b. More than 7 calendar days and less than 22 days after the last official registration day — 60% of total.
c. More than 21 calendar days and less than 36 days after the last official registration day — 40% of total.
d. More than 35 calendar days and less than 50 days after the last official registration day — 20% 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.

5) The above refund policy does not apply to late enrollment fees.

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 proposed 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

<table>
<thead>
<tr>
<th>Board and Room</th>
<th>Room Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnham Halls</td>
<td>Vandercook Hall</td>
</tr>
<tr>
<td>Davis Hall</td>
<td>$108.00 per semester</td>
</tr>
<tr>
<td>Draper-Siedschlag Halls</td>
<td></td>
</tr>
<tr>
<td>Ellsworth Hall</td>
<td></td>
</tr>
<tr>
<td>Henry Hall</td>
<td></td>
</tr>
<tr>
<td>Spindler Hall</td>
<td></td>
</tr>
<tr>
<td>Walwood Hall</td>
<td></td>
</tr>
<tr>
<td>Zimmerman Hall</td>
<td></td>
</tr>
</tbody>
</table>

$320.50 per semester

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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Significance</th>
<th>Honor Points per hour credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>Failure</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>(see page 55)</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
<td>(see page 55)</td>
</tr>
</tbody>
</table>
"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 x 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.
Student Responsibilities

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 Freshman 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 single men under 25 years of age are required to live in residences approved by the office of the Dean of Men. A list of approved housing is available and will be furnished upon request. Single men, 25 years and older at the time of enrollment, may reside in places of their choice but are required to register their residences in the office of the Dean of Men upon enrollment in the University. All men, regardless of age, must adhere to the social regulations of the University.

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.
School of
Applied Arts and Sciences

GEORGE E. KOHRMAN,
Dean

Departments:
Agriculture
Home Economics
Industrial Arts
Industrial Technology
Military Science and Tactics
Occupational Therapy
Paper Technology

The new Paper Industry Laboratories building offers the finest in instructional facilities for future paper industry leaders.
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. At least 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

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 102, 103 or Chemistry 100, 101</td>
<td>8</td>
<td>Accounting 210</td>
<td>3</td>
</tr>
<tr>
<td>Communication 114, 115 or College Writing 116, 117</td>
<td>6 or 8</td>
<td>Biological Science 107</td>
<td>4</td>
</tr>
<tr>
<td>Effective Living 150</td>
<td>2</td>
<td>Elementary Design 161</td>
<td>2 or 3</td>
</tr>
<tr>
<td>Foods 114</td>
<td>3</td>
<td>General Psychology 200</td>
<td>3</td>
</tr>
<tr>
<td>Western Civil. 100, 101</td>
<td>8</td>
<td>Organic Chemistry 360</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>Sociology 200</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>Textiles 100</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Humanities 222, 223</td>
<td>6</td>
</tr>
</tbody>
</table>

30–32

<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meal Preparation 214</td>
<td>3</td>
<td>Diet and Disease 410</td>
<td>2</td>
</tr>
<tr>
<td>Food Chemistry 340</td>
<td>2</td>
<td>Institutional Mgt. 512</td>
<td>3</td>
</tr>
<tr>
<td>Amer. Gov't. 200</td>
<td>3</td>
<td>Physiology 217</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Nutrition 510</td>
<td>3</td>
<td>Special Methods 340</td>
<td>2</td>
</tr>
<tr>
<td>Bacteriology 312</td>
<td>4</td>
<td>Experimental Foods 518</td>
<td>2</td>
</tr>
<tr>
<td>Bio-chemistry 550, 551</td>
<td>4</td>
<td>Principles of Economics 200</td>
<td>3</td>
</tr>
<tr>
<td>Quantity Foods 312</td>
<td>3</td>
<td>Electives</td>
<td>16</td>
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<tr>
<td>Physical Education</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition 210</td>
<td>3</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
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</tbody>
</table>

32

Recommended minors: Chemistry and Combined Social Science.


Each student is required to work twelve months in a hospital approved by the American Dietetics Association.
### HOME ECONOMICS IN BUSINESS

#### B.S. Degree

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 104, 105</td>
<td>8</td>
<td>Biol. Science 107</td>
<td>4</td>
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<tr>
<td>Communication 114, 115 or College Writing 116, 117</td>
<td>6 or 8</td>
<td>Clothing 202</td>
<td>3</td>
</tr>
<tr>
<td>Effective Living 150</td>
<td>2</td>
<td>Costume Design 204</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Design 161</td>
<td>2 or 3</td>
<td>Home Furnishings 250</td>
<td>2</td>
</tr>
<tr>
<td>Foods 114</td>
<td>3</td>
<td>Home Nursing 252</td>
<td>2</td>
</tr>
<tr>
<td>Western Civil. 100, 101 or Man and Society 102, 103</td>
<td>8</td>
<td>Journalism 264</td>
<td>3</td>
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<tr>
<td>Textiles 100</td>
<td>3</td>
<td>Nutrition 210</td>
<td>3</td>
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<tr>
<td>Physical Education</td>
<td>1</td>
<td>Sociology 200</td>
<td>3</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>33-35</strong></td>
<td></td>
<td><strong>63</strong></td>
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<table>
<thead>
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<th>Fourth Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 210</td>
<td>3</td>
<td>Advanced Nutrition 510</td>
<td>3</td>
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<tr>
<td>Meal Planning 214</td>
<td>3</td>
<td>Consumer Buying 516</td>
<td>2</td>
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<tr>
<td>Amer. Gov't. 200 or St. and Loc. Gov't. 204</td>
<td>3</td>
<td>Experimental Foods 518</td>
<td>2</td>
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<tr>
<td>Economics 200</td>
<td>3</td>
<td>The Homemaking Center and Equipment 552</td>
<td>2</td>
</tr>
<tr>
<td>Family Clothing 306</td>
<td>2</td>
<td>Mar. and Fam. Relations 354</td>
<td>2</td>
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<tr>
<td>Food Demonstration 412</td>
<td>2</td>
<td>Quantity Foods 312</td>
<td>2</td>
</tr>
<tr>
<td>General Psychology 200</td>
<td>3</td>
<td>Radio</td>
<td>3</td>
</tr>
<tr>
<td>Home Management 350</td>
<td>2</td>
<td>Tailoring 304</td>
<td>3</td>
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<tr>
<td>Home Management Prac. 352</td>
<td>3</td>
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</tr>
<tr>
<td>Electives</td>
<td>5</td>
<td></td>
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<td><strong>Total:</strong></td>
<td><strong>31</strong></td>
<td></td>
<td><strong>31</strong></td>
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</table>
INDUSTRIAL ARTS

B.S. Degree

This curriculum meets the needs of students who wish a broad industrial 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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Indus. Design 267</td>
<td>2</td>
</tr>
<tr>
<td>Drawing 120</td>
<td>2</td>
<td>Drawing 226</td>
<td>3</td>
</tr>
<tr>
<td>Woods 100</td>
<td>2</td>
<td>Machine Shop 234</td>
<td>3</td>
</tr>
<tr>
<td>Intro. Elec. 160</td>
<td>2</td>
<td>Machine Woodwork 205</td>
<td>3</td>
</tr>
<tr>
<td>Metals 130</td>
<td>3</td>
<td>Man and Society 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>Graphic Arts 140</td>
<td>2</td>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Intro. to Indus. Arts 170</td>
<td>1</td>
<td>Found. of West. Civil. 100, 101</td>
<td>6</td>
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<tr>
<td>Phy. Ed.</td>
<td>2</td>
<td>Humanities 220, 221</td>
<td></td>
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<tr>
<td>Electives</td>
<td>4-6</td>
<td>or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Humanities 222, 223</td>
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<td>Phy. Ed.</td>
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<td></td>
<td>Electives</td>
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<th>S.H.</th>
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<tbody>
<tr>
<td>American Gov't. 334</td>
<td>3</td>
<td>Shop Electives</td>
<td>5-7</td>
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<tr>
<td>Shop Electives*</td>
<td>7-9</td>
<td>General Electives</td>
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<tr>
<td>Gen. Electives**</td>
<td>21-25</td>
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</table>

*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, 325
- Woodwork — 100, 306, 205, 305, 204, 268
- Metalwork — 130, 234, 335, 336
- Graphic Arts, Electricity, and General Shop — See Dept. Head

**To become an industrial arts teacher, the individual must take: 387 Plan and Org. of School Shop, 388 Teaching of Industrial Arts, and 472 Course Plan and Construction. These are in addition to the required courses in the School of Education.
School of Applied Arts and Sciences

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.

<table>
<thead>
<tr>
<th>First Year</th>
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<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communications 114, 115</td>
<td>8</td>
<td>Science Area</td>
<td>8</td>
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<tr>
<td>Industrial Processes 150, 151</td>
<td>8</td>
<td>Industrial Relations 200</td>
<td>3</td>
</tr>
<tr>
<td>Trigonometry and College</td>
<td></td>
<td>Technical Electricity 248</td>
<td>2</td>
</tr>
<tr>
<td>Algebra 122</td>
<td></td>
<td>Technical Drafting 232</td>
<td>2</td>
</tr>
<tr>
<td>College Algebra and Analytic</td>
<td></td>
<td>Social Science Area</td>
<td>8</td>
</tr>
<tr>
<td>Geometry 123</td>
<td></td>
<td>Physical Education 204, 205</td>
<td>2</td>
</tr>
<tr>
<td>Industrial Calculators 106</td>
<td>1</td>
<td>Business Statistics 244</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education 104, 105</td>
<td>2</td>
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</tr>
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<td>Business and Professional</td>
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<tr>
<td>Speech 104</td>
<td>3</td>
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<table>
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<th>Fourth Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Humanities 220, 221 or 222, 223</td>
<td>6</td>
<td>Purchasing Principles 358</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 210, 211</td>
<td>6</td>
<td>Production Control 306</td>
<td>3</td>
</tr>
<tr>
<td>General Psychology 200</td>
<td>3</td>
<td>Time and Motion Study 304</td>
<td>3</td>
</tr>
<tr>
<td>Business Correspondence 242</td>
<td>3</td>
<td>Materials Handling 404</td>
<td>3</td>
</tr>
<tr>
<td>American Government 200</td>
<td>3</td>
<td>Conference Leadership 406</td>
<td>3</td>
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<tr>
<td>Small Business Management 250</td>
<td>3</td>
<td>Industrial Distribution 402</td>
<td>2</td>
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<tr>
<td>Salesmanship 370</td>
<td>3</td>
<td>Choice of 2nd minor (elective)</td>
<td>15</td>
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<tr>
<td>Management Problems 550</td>
<td>3</td>
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<td></td>
<td>30</td>
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<td>32</td>
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<table>
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<tr>
<th>Summer</th>
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<tbody>
<tr>
<td>Coordinated Industry 350*</td>
<td>3</td>
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</table>

Major—Industrial Distribution ................................................. 26
First Minor—Business .............................................................. 15
Second Minor—Elective

*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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications 114, 115</td>
<td>8</td>
<td>Social Science Area</td>
<td>8</td>
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<tr>
<td>Industrial Processes 150, 151</td>
<td>8</td>
<td>Science Area</td>
<td>8</td>
</tr>
<tr>
<td>Trigonometry and College</td>
<td>5</td>
<td>Industrial Relations 200</td>
<td>3</td>
</tr>
<tr>
<td>Algebra 122</td>
<td></td>
<td>Technical Electricity 248</td>
<td>2</td>
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<tr>
<td>College Algebra and Analytic Geometry 123</td>
<td>5</td>
<td>Technical Drafting 232</td>
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<td>Industrial Calculators 104</td>
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<td>Physical Education 204, 205</td>
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<tr>
<td>Business and Professional Speech 104</td>
<td>3</td>
<td>Humanities 220, 221 or 222, 223</td>
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<td>Physical Education 104, 105</td>
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<table>
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<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>American Government 200</td>
<td>3</td>
<td>Management Problems 550</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Industrial Supervision 300</td>
<td>2</td>
<td>Production Control 306</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 210, 211</td>
<td>6</td>
<td>Materials Handling 404</td>
<td>3</td>
</tr>
<tr>
<td>Plant Maintenance and Safety 302</td>
<td>2</td>
<td>Statistical Quality Control 234</td>
<td>3</td>
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<td>Business Correspondence 242</td>
<td>3</td>
<td>Conference leadership 406</td>
<td>3</td>
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<tr>
<td>Labor - Management Relations 500</td>
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<tr>
<td>Elementary Statistical Practice 209</td>
<td>3</td>
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<tr>
<td>Time &amp; Motion Study 304</td>
<td>3</td>
<td></td>
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<tr>
<td>Business Law 340</td>
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<td>Summer</td>
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<td></td>
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<td>Modern Industrial Practice 478</td>
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Major—Industrial Supervision ........................................... 25
Minor—Business ............................................................ 15
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.  Third Year  S.H.
Military Science 100, 101  4  Military Science 300, 301  8

Second Year  S.H.  Fourth Year  S.H.
Military Science 200, 201  4  Military Science 400  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 114, 115 or 8  Humanities 220, 221 or 6
College Writing 116, 117 and 6  Humanities 222, 223  6
General Speech 100  3  Introduction to Speech Correction
Biological Science 107  4  250  3
Outdoor Science 232, 233  4  Anatomy 216  4
Man and Society 102, 103 or  8  Physiology 217  4
Foundations of Western  General Psychology 200  3
Civilization 100, 101  8  Elementary Design 200  3
O.T. Art Structure 100  2  O.T. General Shop 167  3
O.T. Printing 144  3  Clothing 200  2
Physical Education  1  Needlecraft 110  3
                                Physical Education  1
                                30-32

Third and Fourth Year  S.H.
Kinesiology 320  2  Rehabilitation 432  2
Applied Kinesiology 332  2  Ceramics 402 or Jewelry 403  2
Medical Lectures 324  2  Minor Crafts 202  3
Neurology Lectures 325  2  Weaving 300  3
Abnormal Psychology 322  3  Recreational Therapy 334  2
Psychiatric Lectures 322  2  O.T. Special Wood Shop 108  3
American Government 200  3  Therapeutic Activities 310  2
Hospital Case Studies 326  3  Clinical Training 340  5
Theory of O.T. 230, 231  4  Physical Ed.  2
Theory of O.T. 430  2

49
**PAPER TECHNOLOGY**

**B.S. Degree**

These curricula are intended to prepare students for work in the paper industry in the scientific, manufacturing, sales and executive areas. They are foundational in nature, and provide for actual work experience during the summers in paper mills. It is expected that the student will work in mills at least two of the three summers indicated. The plan operates cooperatively through the use of an advisory committee composed of eleven members from industry and five members from Western Michigan University. Option I stresses preparation for scientific and manufacturing areas, Option II prepares students for technical service work for the paper industry and Option III prepares students for sales positions in the paper industry.

**OPTION I**

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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication 114</td>
<td>4</td>
<td>Communication 115</td>
<td>4</td>
</tr>
<tr>
<td>Trig. and College Algebra 122 or College Algebra 124</td>
<td>5</td>
<td>College Algebra and Analytic Geometry 123</td>
<td>5</td>
</tr>
<tr>
<td>Gen. Chemistry 100 or 102</td>
<td>4</td>
<td>Analytic Geometry 125</td>
<td>4</td>
</tr>
<tr>
<td>Mech. Drawing 221 or 226</td>
<td>2-3</td>
<td>Gen. Chemistry 101 or 103</td>
<td>4</td>
</tr>
<tr>
<td>Orient. to Paper Tech. 100</td>
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<td>Orient. to Paper Tech. 101</td>
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</tr>
<tr>
<td>Physical Education</td>
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<td>Physical Education</td>
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</tr>
<tr>
<td>Electives**</td>
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<td>Electives**</td>
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</table>

17-19

**SUMMER**

Mill Practice 110 ............................................. 2 hours

**SECOND YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Economics 200</td>
<td>3</td>
<td>Economics 201</td>
<td>3</td>
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<tr>
<td>Calculus 222</td>
<td>4</td>
<td>Calculus 223</td>
<td>4</td>
</tr>
<tr>
<td>Physics 112</td>
<td>5</td>
<td>Physics 113</td>
<td>5</td>
</tr>
<tr>
<td>Qualitative Analysis 220</td>
<td>4</td>
<td>Quantitative Analysis 222</td>
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<td>Physical Education</td>
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**SUMMER**

Mill Practice 210 ............................................. 2 hours
### THIRD YEAR

<table>
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<th>S.H.</th>
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<tbody>
<tr>
<td>Man and Society 102</td>
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<td>Man and Society 103</td>
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<tr>
<td>Language and Literature*</td>
<td>3-4</td>
<td>Language and Literature*</td>
<td>3-4</td>
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<tr>
<td>Organic Chemistry 360</td>
<td>4</td>
<td>Organic Chemistry 361</td>
<td>4</td>
</tr>
<tr>
<td>Fiber Microscopy 322</td>
<td>1</td>
<td>Elem. of Indust. Chem. 331</td>
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<tr>
<td>Elem. of Indust. Chem. 330</td>
<td>2</td>
<td>Wood Chemistry 332</td>
<td>2</td>
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<td></td>
<td></td>
<td>Coloring &amp; Filling of Paper 340</td>
<td>1</td>
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<tr>
<td></td>
<td>16-17</td>
<td></td>
<td>18-19</td>
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</table>

**SUMMER**

- Mill Practice 310 .................................. 2 hours
- Mill Inspection Trip 312 ................................1 hour

### FOURTH YEAR

<table>
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<tr>
<th>First Semester</th>
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<td>Language and Literature*</td>
<td>3-4</td>
<td>Language and Literature*</td>
<td>3-4</td>
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<td>Physical Chemistry 530</td>
<td>5</td>
<td>Physical Chemistry 531</td>
<td>5</td>
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<tr>
<td>Bleaching, Pulp Purification, De-inking 440</td>
<td>1</td>
<td>Auxiliary Equipment for Pulp and Paper Mills 400</td>
<td>1</td>
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<tr>
<td>Converting of Paper 442</td>
<td>1</td>
<td>Research Problems in Pulp and Paper 571</td>
<td>2</td>
</tr>
<tr>
<td>Chem. and Tech. of Plastics 530</td>
<td>2</td>
<td>Principles and Practice of Coated Paper Mfg. 540</td>
<td>1</td>
</tr>
<tr>
<td>Research Problems in Pulp and Paper 570</td>
<td>2</td>
<td>Electives**</td>
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<td>Electives**</td>
<td>18-19</td>
<td></td>
<td>14-15</td>
</tr>
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</table>

*Recommended courses: third year, German; Fourth year, Scientific German.

**Recommended electives: Engineering Materials 210; Accounting 210, 211; Metal Processing 250; Business Correspondence 242; Industrial Cost Accounting 312, 313; Business Law 340, 341; Fundamentals of Industrial Supervision 300; Quality Control 305; Introduction to Electronics 360; Production Control 306; Electrical Measurements 562; Management Report Writing 552; Statistical Methods for Industry 360, 361.
### OPTION II

(Preparation for technical service work for the paper industry)

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication 114</td>
<td>4</td>
<td>Communication 115</td>
<td>4</td>
</tr>
<tr>
<td>Trig. and College Algebra 122</td>
<td>5</td>
<td>College Algebra and Analytic</td>
<td>5</td>
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<tr>
<td>or</td>
<td></td>
<td>Geometry 123</td>
<td></td>
</tr>
<tr>
<td>College Algebra 124</td>
<td>4</td>
<td>Analytic Geometry 125</td>
<td>4</td>
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<tr>
<td>Gen. Chemistry 100 or 102</td>
<td>4</td>
<td>Gen. Chemistry 101 or 103</td>
<td>4</td>
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<tr>
<td>Mech. Drawing 221 or 226</td>
<td>2-3</td>
<td>Orient. to Paper Tech. 100</td>
<td>1</td>
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<td>Orient. to Paper Tech. 100</td>
<td>1</td>
<td>Physical Education</td>
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<tr>
<td>Physical Education</td>
<td>1</td>
<td>Electives**</td>
<td>3</td>
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<td>Electives**</td>
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<td>17-19</td>
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#### SUMMER

**Mill Practice 110** ........................................... 2 hours

#### SECOND YEAR

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<th>S.H.</th>
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<tbody>
<tr>
<td>Man and Society 102</td>
<td>4</td>
<td>Man and Society 103</td>
<td>4</td>
</tr>
<tr>
<td>Business Studies*</td>
<td>3</td>
<td>Business Studies*</td>
<td>3</td>
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<tr>
<td>Gen. Physics 110 or 112</td>
<td>4-5</td>
<td>Gen. Physics 111 or 113</td>
<td>4-5</td>
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<tr>
<td>Qualitative Analysis 220</td>
<td>4</td>
<td>Quantitative Analysis 222</td>
<td>4</td>
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<td>Physical Education</td>
<td>1</td>
<td>Physical Education</td>
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#### SUMMER

**Mill Practice 210** ........................................... 2 hours

#### THIRD YEAR

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<th>Second Semester</th>
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<tbody>
<tr>
<td>Language and Literature</td>
<td>3-4</td>
<td>Language and Literature</td>
<td>3-4</td>
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<tr>
<td>Organic Chemistry 360</td>
<td>4</td>
<td>Organic Chemistry 361</td>
<td>4</td>
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<tr>
<td>Eval. of Pulp and Paper 320</td>
<td>2</td>
<td>Eval. of Pulp and Paper 321</td>
<td>2</td>
</tr>
<tr>
<td>Fiber Microscopy 322</td>
<td>1</td>
<td>Coloring and Filling of Paper</td>
<td>1</td>
</tr>
<tr>
<td>Elem. of Indust. Chemistry 330</td>
<td>2</td>
<td>340</td>
<td>1</td>
</tr>
<tr>
<td>Business Studies*</td>
<td>3</td>
<td>Elem. of Indust. Chemistry 331</td>
<td>2</td>
</tr>
<tr>
<td>Electives**</td>
<td>2</td>
<td>Business Studies*</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>2</td>
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<tr>
<td></td>
<td>17-18</td>
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<td>17-18</td>
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</table>
School of Applied Arts and Sciences

**SUMMER**
- Mill Practice 310 ........................................ 2 hours
- Mill Inspection Trip 312 ................................... 1 hour

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Language and Literature</td>
<td>3-4</td>
<td>Language and Literature</td>
<td>3-4</td>
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<tr>
<td>Converting of Paper 442</td>
<td>1</td>
<td>Auxiliary Equipment for Pulp</td>
<td>1</td>
</tr>
<tr>
<td>Chem. and Tech. of Plastics 530</td>
<td>2</td>
<td>and Paper Mills 400</td>
<td>1</td>
</tr>
<tr>
<td>Economics 200</td>
<td>3</td>
<td>Principles and Practice of</td>
<td>3</td>
</tr>
<tr>
<td>Business Studies*</td>
<td>5</td>
<td>Coated Paper Mfg. 540</td>
<td>1</td>
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<tr>
<td>Electives**</td>
<td>3</td>
<td>Economics 201</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business Studies*</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electives**</td>
<td>4</td>
</tr>
</tbody>
</table>

|     | 17-18 | 17-18 |

* Suggested Courses in Business Studies: Accounting 210, 211; Inter. Accounting 310, 311; Advanced Accounting 510, 511; Industrial Cost Accounting 312, 313; Cost Accounting 512; Bus. Correspondence 249; Management Report Writing 552; Bus. Statistics 244; Office Organization 262; Bus. Law 320; Insurance Principles 224; Personnel Admin. 370; Management Problems 560; Salesmanship 370; Sales Management 376; Advertising 374; Credit Management 324; Problems in Marketing 378; Purchasing Principles and Practices 355; Office Management 556; Advanced Salesmanship 570.

**OPTION III**
(Preparation for sales positions in the paper industry)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orient. to Paper Tech. 100</td>
<td>1</td>
<td>Orient. to Paper Tech. 101</td>
<td>1</td>
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<tr>
<td>Communication 114</td>
<td>4</td>
<td>Communication 115</td>
<td>4</td>
</tr>
<tr>
<td>Man and Society 102</td>
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<td>Gen. Chemistry 100 or 102</td>
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<tr>
<td>Mathematics 120 or 124</td>
<td>3-4</td>
<td>Mathematics 121 or 125</td>
<td>3-4</td>
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<td>Physical Education (or R.O.T.C.)</td>
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<td>Physical Education (or R.O.T.C.)</td>
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|     | 17-18 | 17-18 |

**SUMMER**
- Mill Practice 110 ........................................ 2 hours

**SECOND YEAR**

<table>
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<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Qualitative Analysis 220</td>
<td>4</td>
<td>Organic Chemistry 360 or</td>
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<tr>
<td>General Physics 110</td>
<td>4</td>
<td>Quantitative Analysis 222</td>
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<tr>
<td>Principles of Economics 220</td>
<td>3</td>
<td>General Physics 111</td>
<td>4</td>
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<tr>
<td>General Psychology 200</td>
<td>3</td>
<td>Principles of Economics 201</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education (or R.O.T.C.)</td>
<td>1</td>
<td>Psychological Aspects of Bus. 341</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Education (or R.O.T.C.)</td>
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</table>

|     | 17   | 17   |
### Degree Curricula

#### SUMMER

Mill Practice (sales dept. or wholesale house) 210 .......................... 2 hours

#### THIRD YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Eval. of Pulp and Paper 320</td>
<td>2</td>
<td>Eval. of Pulp and Paper 321</td>
<td>2</td>
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<tr>
<td>Money and Credit 320</td>
<td>2</td>
<td>Money and Credit 321</td>
<td>2</td>
</tr>
<tr>
<td>Marketing Problems 378</td>
<td>3</td>
<td>Transportation 342</td>
<td>3</td>
</tr>
<tr>
<td>Economics Statistics 327</td>
<td>2</td>
<td>Graphic Arts 150</td>
<td>2</td>
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<tr>
<td>Salesmanship 370</td>
<td>3</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Credit Management 324</td>
<td>3</td>
<td>Business Cycles 360</td>
<td>2</td>
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<tr>
<td>Electives*</td>
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<td>Electives*</td>
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#### SUMMER

Mill Inspection Trip 312 .................................... 1 hour

Mill Practice 310 ............................................ 2 hours

#### FOURTH YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Convert. of Paper 442</td>
<td>1</td>
<td>Principles and Practice of Coated Paper Mfg. 540</td>
<td>1</td>
</tr>
<tr>
<td>Fiber Microscopy 322</td>
<td>3</td>
<td>Public Speaking II 530</td>
<td>2</td>
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<tr>
<td>Public Speaking I 130</td>
<td>3</td>
<td>American Natl. Gov. 200</td>
<td>3</td>
</tr>
<tr>
<td>Advertising 374</td>
<td>3</td>
<td>Sales Management 376</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Industrial Supervision 300</td>
<td>3</td>
<td>Tech. and Psychological Factors in Sales of Paper 462</td>
<td>3</td>
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<tr>
<td>Paper, Its Markets and Distribution 460</td>
<td>3</td>
<td>Electives*</td>
<td>5</td>
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<tr>
<td>Electives*</td>
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</tbody>
</table>

*Recommended Electives: Marketing 240; Business Law 340 and 341; Management Problems 550; Business Report Writing 552; Advanced Advertising 572; Marketing Research 576; Advanced Salesmanship 570, or courses in Literature.*
School of Applied Arts and Sciences

PRINTING MANAGEMENT

This curriculum provides for a major in printing and minors in business administration and industrial technology. It is designed to train for the management side of the printing industry as supervisors, estimators, salesmen, foremen, shop owners, or technicians. While laboratory experience operating printing machinery is given, emphasis is on machine performance, best uses, limitations, etc., rather than on obtaining skill in operation.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communication 114, 115 or College Writing 116, 117</td>
<td>6 or 8</td>
<td>Western Civilization 100, 101 or Man and Society 102, 103</td>
<td>8</td>
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<tr>
<td>Physical Science 108, 109</td>
<td>8</td>
<td>Humanities 220, 221</td>
<td>6</td>
</tr>
<tr>
<td>Survey of Graphic Arts 140</td>
<td>2</td>
<td>Typography I and II, 240, 241</td>
<td>6</td>
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<tr>
<td>Graphic Arts 143</td>
<td>2</td>
<td>Business Correspondence 232</td>
<td>3</td>
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<tr>
<td>Presswork 141</td>
<td>2</td>
<td>General Psychology 200</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Processes 150, 151</td>
<td>8</td>
<td>Physical Education or ROTC</td>
<td>2</td>
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<tr>
<td>Physical Education or ROTC</td>
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<td>Elective</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Layout and Design 343</td>
<td>3</td>
<td>Business Statistics 244</td>
<td>3</td>
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<tr>
<td>Imposition and Lockup 341</td>
<td>2</td>
<td>Management Problems 550</td>
<td>3</td>
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<tr>
<td>Linotype Composition 245, 246</td>
<td>6</td>
<td>Labor-Management Relations 500</td>
<td>3</td>
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<tr>
<td>Accounting 210, 211</td>
<td>6</td>
<td>Time and Motion Study 304</td>
<td>3</td>
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<tr>
<td>Fundamentals of Industrial Supervision 300</td>
<td>2</td>
<td>Estimating 442</td>
<td>2</td>
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<tr>
<td>Plant Maintenance &amp; Safety 302</td>
<td>2</td>
<td>Production Control 443</td>
<td>2</td>
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<tr>
<td>American Government 334</td>
<td>3</td>
<td>Advanced Presswork 441</td>
<td>3</td>
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<td>Elective</td>
<td>8</td>
<td>Advertising 374</td>
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<td>Elective</td>
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</table>

|
|                      | 32 | 32 |
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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communications 114, 115</td>
<td>8</td>
<td>Science Area</td>
<td>8</td>
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<tr>
<td>Industrial Processes 150, 151</td>
<td>8</td>
<td>Technical Drafting 232</td>
<td>2</td>
</tr>
<tr>
<td>Trigonometry and College Algebra 122</td>
<td>5</td>
<td>Industrial Relations 200</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra and Analytic Geometry 123</td>
<td>5</td>
<td>Social Science Area</td>
<td>8</td>
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<tr>
<td>Industrial Calculators 104</td>
<td>1</td>
<td>Physical Education</td>
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<table>
<thead>
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<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Humanities 220, 221 or 222, 223</td>
<td>6</td>
<td>Business Statistics 244</td>
<td>3</td>
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<tr>
<td>Accounting 210, 211</td>
<td>6</td>
<td>Management Problems 550</td>
<td>3</td>
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<tr>
<td>Principles of Economics 200, 201</td>
<td>6</td>
<td>American Government 200</td>
<td>3</td>
</tr>
<tr>
<td>General Psychology 200</td>
<td>3</td>
<td>Passenger and Freight Traffic 310</td>
<td>2</td>
</tr>
<tr>
<td>Business Correspondence 242</td>
<td>3</td>
<td>Transportation Problems 312</td>
<td>2</td>
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<tr>
<td>Physical Education</td>
<td>2</td>
<td>Management Report Writing 552</td>
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<tr>
<td>Electives</td>
<td>6</td>
<td>Psychology (Either 204, 341 or 340)</td>
<td>2 or 3</td>
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<td>Electives</td>
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</table>

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

Aircraft Welding 156 ........................................ 2 hours
Aircraft Servicing 218 ...................................... 4 hours

OPTION I—Air Transportation

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Summer</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Introduction to Aviation 116</td>
<td>3</td>
<td>Pilot Training 118</td>
<td>2</td>
</tr>
<tr>
<td>Airframes 110</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Second Year</th>
<th>S.H.</th>
<th>Third Year</th>
<th>S.H.</th>
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</thead>
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<tr>
<td>Powerplants 112</td>
<td>4</td>
<td>No option—</td>
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</tr>
<tr>
<td>Airframes 210</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powerplants 212</td>
<td>4</td>
<td></td>
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</tr>
</tbody>
</table>
School of Applied Arts and Sciences

Fourth Year

Airline Operation 410

Major—Air Transportation 25 S.H.
1st Minor—Business 15 S.H.
2nd Minor—Elective

OPTION II—Automotive Transportation

First Year

Automotive Engines and accessories 114
Automotive chassis and running gear 115

Second Year

Automotive Analysis 214 4
Automotive Engine Overhaul 215 4

Third Year

No option—

Fourth Year

Fundamentals of Industrial Supervision 300 2
Automotive Service Management 412 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

Communication 114, 115 8
General Biology 101 8
Animal Industry 110, 111 8
Man & Society 102, 103 8
Phy. Ed. 1

Second Year

Chemistry 100, 101 or 102, 103
Agronomy 220, 221
Phy. Sci. 108, 109
U. S. Hist. 210, 211
Phy. Ed.

33 8 8 8 6 1 31

S.H. S.H. S.H. S.H. S.H. S.H. S.H.
The Aircraft Technology curriculum is intended for students who wish to qualify for the Civil Aeronautics Administration Airframe and Power-plant Technicians 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 are available. Facilities at the airport include well equipped shops, complete airplane service, and university owned and licensed aircraft.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Aviation 116</td>
<td>3</td>
<td>Airframes 110</td>
<td>4</td>
</tr>
<tr>
<td>Communications 114</td>
<td>4</td>
<td>Communications 115</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
</tr>
<tr>
<td>Trigonometry and College Algebra 122</td>
<td>5</td>
<td>College Algebra and Analytic Geometry 123</td>
<td>5</td>
</tr>
<tr>
<td>or Intermediate Algebra 120</td>
<td>3</td>
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</tr>
<tr>
<td>Industrial Calculators 104</td>
<td>1</td>
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<tr>
<td><strong>First Semester</strong></td>
<td><strong>17</strong></td>
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<table>
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<tr>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Airframes 210</td>
<td>4</td>
</tr>
<tr>
<td>Power Plants 212</td>
<td>4</td>
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<tr>
<td>Technical Electricity 248</td>
<td>2</td>
</tr>
<tr>
<td>Physical Science 109</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 105</td>
<td>1</td>
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<td></td>
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<tr>
<td><strong>Second Semester</strong></td>
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**Summer Program**

<table>
<thead>
<tr>
<th>S.H.</th>
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<tbody>
<tr>
<td>Aircraft Servicing 218</td>
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<tr>
<td>Pilot Training 118</td>
</tr>
<tr>
<td>Pilot Training 119</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
School of Applied Arts and Sciences

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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications 114</td>
<td>4</td>
<td>Communications 115</td>
<td>4</td>
</tr>
<tr>
<td>Auto. Engines 114</td>
<td>4</td>
<td>Auto. chassis and running gear 115</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
</tr>
<tr>
<td>Trigonometry and College</td>
<td>5</td>
<td>College Algebra and Analytic</td>
<td>5</td>
</tr>
<tr>
<td>or Intermediate Algebra 120—3</td>
<td>1</td>
<td>Geometry 123</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Calculators 104</td>
<td></td>
<td></td>
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SECOND YEAR

<table>
<thead>
<tr>
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<th>Second Semester</th>
<th>S.H.</th>
</tr>
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<tbody>
<tr>
<td>Physical Science 108</td>
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</tr>
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<td>Auto. Analysis 214</td>
<td>4</td>
<td>Auto. Engine Overhaul 215</td>
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</tr>
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<td>Industrial Relations 200</td>
<td>3</td>
<td>Technical Electricity 248</td>
<td>2</td>
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<tr>
<td>Technical Drafting 232</td>
<td>2</td>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 104</td>
<td>1</td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electives</td>
<td>2</td>
<td></td>
<td>14</td>
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<td>16</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications 114</td>
<td>4</td>
<td>Communications 115</td>
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</tr>
<tr>
<td>Trigonometry &amp; College</td>
<td>5</td>
<td>College Algebra &amp; Analytical</td>
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</tr>
<tr>
<td>or Intermediate Algebra 120—3</td>
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<td>Geometry 123</td>
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</tr>
<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Drafting 130</td>
<td>4</td>
<td>Machine Drawings &amp; Design 131</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Calculators 104</td>
<td>1</td>
<td></td>
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<tr>
<td></td>
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</table>
Two-Year Curricula

SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Physical Science 108</td>
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<td>Physical Science 109</td>
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</tr>
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<td>Physical Education 104</td>
<td>1</td>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Relations 200</td>
<td>3</td>
<td>Production Control 306</td>
<td>3</td>
</tr>
<tr>
<td>Technical Electricity 248</td>
<td>2</td>
<td>Drafting for Production 231</td>
<td>4</td>
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<tr>
<td>Office Machines 280</td>
<td>2</td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td>Geometry of Drafting 230</td>
<td>4</td>
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</table>

HOMEMAKING

For students who do not plan to get a degree.

A diploma is issued at the completion of this course.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Healthful Living 111</td>
<td>2 or 4</td>
<td>St. and Loc. Gov't. 204</td>
<td>3</td>
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<tr>
<td>Communication 114, 115</td>
<td>8</td>
<td>Clothing 202</td>
<td>3</td>
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<tr>
<td>Effective Living 150</td>
<td>2</td>
<td>Costume Design 204</td>
<td>2</td>
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<tr>
<td>Elementary Design 161</td>
<td>2 or 3</td>
<td>Everyday Nutrition 212</td>
<td>2</td>
</tr>
<tr>
<td>Family Foods 116</td>
<td>2</td>
<td>Home Furnishings 250</td>
<td>2</td>
</tr>
<tr>
<td>Textiles 100</td>
<td>3</td>
<td>Home Nursing 252</td>
<td>2</td>
</tr>
<tr>
<td>Physical Ed.</td>
<td>1</td>
<td>Human Growth and Dev. 254</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9 or 10</td>
<td>Physical Ed.</td>
<td>1</td>
</tr>
<tr>
<td>To be selected from history, business education, speech, English, science, and home economics.</td>
<td></td>
<td>To be selected from sociology, business education, speech, English, and home economics.</td>
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<td></td>
<td></td>
<td>Electives</td>
<td>13</td>
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<td></td>
<td>31 or 32</td>
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<td>31</td>
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</tbody>
</table>
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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>Communications 114</td>
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<td>Communications 115</td>
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<td>College Algebra and</td>
<td></td>
</tr>
<tr>
<td>or Intermediate Algebra 120—3</td>
<td></td>
<td>Analytical Geometry 123</td>
<td>5</td>
</tr>
<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
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<td>Industrial Calculators 104</td>
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<td>Industrial Electronics 144</td>
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<tr>
<td>Industrial Electricity 140</td>
<td>4</td>
<td></td>
<td>17</td>
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SECOND YEAR

<table>
<thead>
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<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Science 108</td>
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<tr>
<td>Physical Education 104</td>
<td>1</td>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Relations 200</td>
<td>3</td>
<td>Plant Maintenance and Safety 302</td>
<td>2</td>
</tr>
<tr>
<td>Technical Drafting 232</td>
<td>2</td>
<td>Electronic Circuits 244</td>
<td>4</td>
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<td>Electronic Instrumentation 240</td>
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<td>Technical Electives</td>
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<td>Technical Electives</td>
<td>2</td>
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<td>16</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications 114</td>
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<td>Communications 115</td>
<td>4</td>
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<tr>
<td>Trigonometry and College</td>
<td>5</td>
<td>College Algebra and</td>
<td>5</td>
</tr>
<tr>
<td>Algebra 122</td>
<td></td>
<td>Analytic Geometry 123</td>
<td></td>
</tr>
<tr>
<td>or Intermediate Algebra 120–3</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Manufacturing Processes 154</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Machine Shop 152</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Industrial Calculators 104</td>
<td></td>
<td></td>
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<tr>
<td>FIRST YEAR</td>
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</table>

SECOND YEAR

<table>
<thead>
<tr>
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<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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<tr>
<td>Physical Science 108</td>
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<td>Physical Science 109</td>
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<td>Production Tooling 256</td>
<td>4</td>
<td>Pressworking of Metals 254</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 104</td>
<td>1</td>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Industrial Relations 200</td>
<td>3</td>
<td>Technical Electricity 248</td>
<td>2</td>
</tr>
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<td>Technical Drafting 232</td>
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<td>Tool and Die Design 234</td>
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<td>Technical Electives</td>
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<td>Technical Electives</td>
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<td></td>
<td>16</td>
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</tbody>
</table>

Two-Year Curricula
### 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

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
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<tbody>
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<td>Communications 114</td>
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<td>Trigonometry and College</td>
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<tr>
<td>or Intermediate Algebra 120—3</td>
<td>3</td>
<td>Analytic Geometry 123</td>
<td>4</td>
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<tr>
<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
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<tr>
<td>Industrial Calculators 104</td>
<td>1</td>
<td>Introductory Television 146</td>
<td>—</td>
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<tr>
<td>Introductory Radio 142</td>
<td>4</td>
<td></td>
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#### SECOND YEAR

<table>
<thead>
<tr>
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<th>Second Semester</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Physical Science 108</td>
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<td>Physical Science 109</td>
<td>4</td>
</tr>
<tr>
<td>Physical Education 104</td>
<td>1</td>
<td>Technical Electricity 248</td>
<td>2</td>
</tr>
<tr>
<td>Technical Drafting 232</td>
<td>2</td>
<td>Color Television 246</td>
<td>4</td>
</tr>
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<td>Industrial Relations 200</td>
<td>3</td>
<td>Technical Electives</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Television 242</td>
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<td>Physical Education 105</td>
<td>1</td>
</tr>
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<td>Technical Electives</td>
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<td>14</td>
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<td>16</td>
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</tbody>
</table>
REFRIGERATION & 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.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communications 114</td>
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<td>Communications 115</td>
<td>4</td>
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<td>Domestic Refrigeration 160</td>
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<td>Commercial Refrigeration 161</td>
<td>4</td>
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<td>Industrial Processes 150</td>
<td>4</td>
<td>Industrial Processes 151</td>
<td>4</td>
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<tr>
<td>Trigonometry and College Algebra 122</td>
<td>5</td>
<td>College Algebra and Analytic Geometry 123</td>
<td>5</td>
</tr>
<tr>
<td>or Intermediate Algebra 120—3</td>
<td>1</td>
<td></td>
<td>17</td>
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<tr>
<td>Industrial Calculators 104</td>
<td>1</td>
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SECOND YEAR

<table>
<thead>
<tr>
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<th>S.H.</th>
<th>Second Semester</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Science 108</td>
<td>4</td>
<td>Physical Science 109</td>
<td>4</td>
</tr>
<tr>
<td>Air Conditioning (cooling) 260</td>
<td>4</td>
<td>Air Conditioning (heating) 261</td>
<td>4</td>
</tr>
<tr>
<td>Industrial Relations 200</td>
<td>3</td>
<td>Technical Electricity 248</td>
<td>2</td>
</tr>
<tr>
<td>Technical Drafting 232</td>
<td>2</td>
<td>Physical Education 105</td>
<td>1</td>
</tr>
<tr>
<td>Physical Education 104</td>
<td>1</td>
<td>Technical Electives</td>
<td>3</td>
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<td>Technical Electives</td>
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</tbody>
</table>
PETROLEUM DISTRIBUTION

This two-year curriculum is designed to prepare students in distributive 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 users.

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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications 114, 115</td>
<td>8</td>
<td>Economics</td>
<td>6</td>
</tr>
<tr>
<td>Intro. to Petrol. Ind. 120</td>
<td>2</td>
<td>Coord. Marketing Prac. 202, 203</td>
<td>4</td>
</tr>
<tr>
<td>Intro. to Coord. Work Exp. 107</td>
<td>1</td>
<td>Coord. Industry Practice 108</td>
<td>2</td>
</tr>
<tr>
<td>Plant Survey 109</td>
<td>2</td>
<td>Applied Physics</td>
<td>2</td>
</tr>
<tr>
<td>Applied Chemistry</td>
<td>3</td>
<td>Petrol. Dist. &amp; Handling</td>
<td></td>
</tr>
<tr>
<td>Coord. Ind. Prac. 102, 103</td>
<td>4</td>
<td>Techniques 220</td>
<td>2</td>
</tr>
<tr>
<td>Selling Petrol. Products 123</td>
<td>3</td>
<td>Bus. and Prof. Speech 108</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
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<td>Electives</td>
<td>9</td>
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<td></td>
<td>30</td>
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</table>

Recommended Electives

Business Math. | 2    | Psych. Aspects of Business | 3    |
Accounting | 6    | | |
PART III—Description of Courses

INTER-DEPARTMENTAL COURSES

520 (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. Basic Agriculture is planned to provide this basic information in Agriculture for all listed opportunities in the field of Agriculture.

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.

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 74 of this publication.

A Minor in Agriculture shall consist of the following:

- Animal Industry—110, 111 8 S.H.
- Agronomy—220, 221 8 S.H.
- Agriculture Shop—242, 243 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.

100 Basic Agriculture 3 hrs. Fall, Spring

Includes the fundamental purposes underlying the reasons for Agriculture in our National economy. Consideration is given to the necessary
parts, as income, costs of operation, family support, part-time incomes, investments, land descriptions, proper uses and management. Open to all students and presents the opportunity to learn the sources and importance of agricultural products.

110 (107A) Animal Industry 4 hrs. Fall

111 (107B) Animal Industry 4 hrs. Spring
A continuation of 110.

220 (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.

221 (200B) Agronomy 4 hrs. Spring
A continuation of 220.

222 (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.

240 (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.

242 (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 346, 347.

243 (264B) Agricultural Shop 2 or 3 hrs. Spring
A continuation of 242. A study of electrical and gas power uses on a farm; also, work in plumbing and machine operation and repair.

310 (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.

320 (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.
Distributive Education

322 (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.

324 (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.

330 (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.

332 (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.

334 (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.

430 (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.

COURSE DESCRIPTIONS

102 (101) Coordinated Industry Practices 2 hrs. Fall

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.

103 (102) Coordinated Industry Practices 2 hrs. 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.

107 (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.

108 (103) Coordinated Industry Practices 2 hrs. Summer

A continuation of 103, but the student will be assigned to a different type of work experience.

109 (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 (105) Introduction to the Petroleum Industry 2 hrs. Fall
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.

121 (120) Petroleum Products Application 2 hrs. Spring
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.

123 (122) Selling Petroleum Products 3 hrs. Spring
The principles of selling as applied to the petroleum industry. Class will be conducted on a laboratory basis with students planning sales campaigns based on selling petroleum products and associated TBA products at both wholesale and retail levels.

202 (201) Coordinated Marketing Practices 2 hrs. Fall
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.

203 (202) Coordinated Marketing Practices 2 hrs. Spring
A continuation of 202. The student is assigned to a different job experience. Report of work will be required.

220 (210) Petroleum Distribution and Handling Techniques 2 hrs. Fall
This course deals with crude oil and such things as its transportation, refining, product distribution, costs and methods of safe handling. It also includes marketing channels used by integrated petroleum companies. The nature and significance of markets including market research are also stressed along with the balance between supply and demand.

227 (212) Petroleum Distribution Finance 2 hrs. Summer
The financial structure of petroleum retail outlets as it relates to proper capital investment, securing capital, taxes, interest, depreciation, and insurance. It also deals with the principles of retail credit and collections and retail installment selling.

570 (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.

572 (420) Teaching Techniques in Cooperative Education 2 hrs. Fall
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.
School of Applied Arts and Sciences

573 (430) Coordination Techniques in Cooperative 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.

575 (425) Instructional Materials in Distributive Education
2 hrs. Spring
A study of the sources and use of such instructional materials as visual aids, field trips, trade publications, pamphlets, books, speakers, display materials, dummy merchandise, demonstrations and exhibits.

577 (435) Job Analysis and Training Program
2 hrs. Summer
This course deals with the principles and techniques of job analysis in the business field. Extensive job studies will be made and training schedules prepared for representative jobs in business. A very helpful course for students preparing to coordinate cooperative programs.

671 (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 plan for 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 reimbursed homemaking 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 60, 61 and 77 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 104, 105 and Biology 107 as part of the Basic Studies Program. American Government 200, or State and Local Government 204, Sociology 200 and Economics 200 or 430 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 340, 341, and Education Courses 350, 470, 420, 450 in order to be eligible for a provisional certificate.

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<tr>
<th>Home Economics Major</th>
<th>Home Economics Major with Minor in Clothing</th>
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<td>Effective living 150</td>
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<td>Foods 114</td>
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<td>Meal Planning 214</td>
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<td>Quantity Foods 312</td>
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<tr>
<td>Clothing 202</td>
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<td>Home Furnishings 250</td>
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<th>Home Economics Major with Minor in Food</th>
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<td>Institutional Mgt. 512</td>
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<td>Marriage &amp; Family Relations 354</td>
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<td>Experimental Foods 518 or Adv. Nutrition 510</td>
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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: 100, 116, 152, 200, 204, 250, 212, 252, 350, 550, 552, 554 and 424. Students may enter other courses if pre-requisites are met.
CLOTHING AND TEXTILES

100 (103) Textiles 3 hrs. Fall, Spring
A basic course. Textiles is taught from the consumer point of view. Some testing of fabrics is required.

202 (205) Clothing 3 hrs. Fall, Spring
Consists of making garments to develop a knowledge of construction techniques. Includes problems in pattern alteration. Prerequisite: 100.

204 (209) Costume Design 2 hrs. Fall
This course is intended to develop more discriminating judgment in the selection of appropriate clothes for individuals. Prerequisite: Art 161.

302 (303) Advanced Textiles 2 hrs.
The study of the composition, construction, finishing, and care of textiles. Prerequisite: One clothing course, 100.

304 (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: 202 or consent of instructor.

306 (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: 202, 204.

308 (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: 202, 204, 306 or consent of instructor.

500 (426) Textile Fiber Clinic 2 hrs.
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. Not offered 1958-59.

FOODS AND NUTRITION

114 (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 104, 105.

116 (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.
118 (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.

210 (211) Nutrition 3 hrs. Fall
A study of the essential nutrients and their function in the human body. Prerequisite: Chemistry 104, 105 and 114.

212 (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.

214 (311) Meal Planning and Food Preservation 2 hrs. Fall, Spring
Marketing, meal preparation and table service. Emphasis on food preservation.

312 (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: 114, 214.

410 (317) Diet and Disease 2 hrs.

412 (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: 214.

510 (416) Advanced Nutrition 3 hrs. Spring
Study of recent developments in nutrition through readings and experiments. Prerequisite: 214.

512 (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: 214, 312. Not offered 1958-59.

514 (425) Food Technology 2 hrs. Fall
Food preparation with special emphasis on individual problems related to school food teaching units. Study of commercial food preparation. Prerequisite: 214.

516 (439) Consumer Buying 2 hrs. Fall
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.

518 (419) Experimental Foods 2 hrs. Spring
HOME MANAGEMENT, CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS

150 (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.

152 (120) Personality Development  2 hrs. Fall, Spring
Social usage and personality development are considered. Elective non-majors by Freshmen and Sophomores.

154 (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.

200 (203) Clothing  2 hrs. Fall, Spring
Gives experience in using commercial patterns and learning elementary construction techniques. Elective non-majors.

250 (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.

252 (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.

254 (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.

350 (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.

352 (324) Home Management Practice  3 hrs. Fall, Spring
Students live in family size groups. They learn to manage on two economic levels. Prerequisite: 350.

354 (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 200. Elective.
552 (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: 250 or consent of instructor.

554 (422) Housing 2 hrs. Spring
A study of economic and social aspects of housing. Single, duplex, and multiple housing problems are considered. Prerequisite: 250 or consent of instructor.

HOME ECONOMICS EDUCATION

340 (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.

341 (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: 340.

550 (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 total school program. Prerequisite: Soc. 200.

INDUSTRIAL ARTS

John L. Feirer, Head
John Bendix
Lawrence J. Brink
John Lindbeck
Lindsay G. Farnan
Fred S. Huff
Gilbert Hutchings
Waldemar E. Klammer
Don O. Pullin
William Spence
Theo. C. Zimmerman

INDUSTRIAL ARTS COURSES
The Department offers shop and professional courses for teachers and supervisors of industrial arts.
It also offers a curriculum in printing management.
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 205, Metals 130, and Machine Shop 234, Printing 140, Drawing 120 and 226, Electricity 160 and 260. Introduction to Industrial Arts 170, Industrial Design 276, and three professional courses in Industrial Arts during the junior and senior years.
School of Applied Arts and Sciences

A group minor consists of the following courses: 100, 205, 120, 226, 130, 234, 160, 260, 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 (100) Basic Woodworking  2 hrs. Fall, Spring
S

Survey course that provides experiences in the care, purchase, use of tools, and information about production and consumption of wood products. Wood classification, elementary wood finishing, and the operation of wood lathe, drill press, router, and scroll saw.

104 (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.

108 (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.

204 (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.

205 (305A) Machine Woodwork  3 hrs. Fall, Spring
An introductory course on the use of machinery used in woodworking. The student will receive experience in setting-up, operating, and caring for the more commonly used machinery such as circular saw, jointer, shaper, planer, etc. Parts for selected projects will be machined. Prerequisite: 100.

304 (305B) General Woodwork  3 hrs. Spring
Additional machine experience including advanced techniques in wood turning. Methods of upholstery including tools, materials, frames, and upholstery procedure.

306 (106) Advanced Woods  3 hrs. Fall
Covers experiences in house construction and wood pattern making. House construction will cover framing a house. Pattern making will include building up patterns for school shop use. Also, caning will be covered.

506 (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 (120) Beginning Drafting 2 hrs. Fall, Spring
A survey course in general drafting providing the student an opportunity to develop basic drafting skills. Many types of drafting are covered including sketching, engineering, architectural, and shop drafting. For Industrial Arts and Pre-engineering students.

221 (221) Engineering Drawing 3 hrs. Fall, Spring
Sketching, geometric construction, pictorial drawing, orthographic projection, sections, assembly and detail drawings, intersections, threads, tolerances, and other aspects of drawing needed by engineers.

222 (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 (226) Advanced Drafting 3 hrs. Fall, Spring
A continuation of principles emphasized in Drafting 120. Orthographic projection, dimensioning, pictorial drawing, sections, auxiliary views, architectural drawing, sheet metal drafting, electrical drafting, and drawing reproduction are included.

324 (325A) Architecture 2 hrs. Fall, Spring

325 (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.

326 (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.

METAL WORK

130 (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.

234 (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.
**School of Applied Arts and Sciences**

**235 (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.

**334 (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.

**336 (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 (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, electro-plating, and welding processes.

**PRINTING AND GRAPHIC ARTS**

**150 (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.

**152 (141) Presswork**
2 hrs. Fall, Spring
This is a beginning course in presswork, which includes simple lockup, make-ready, and feeding.

**154 (140B) Graphic Arts**
2 hrs. Spring
A continuation of 150. A thorough study of all graphic arts processes used in industry is undertaken. Letterpress, offset, flexographic and intaglio receive special emphasis. Advantages and best uses as well as disadvantages and limitations are considered for each of the methods of printing.

**156 (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.

**250 (240A) Typography I**
3 hrs. Fall
Work in the arrangement and use of various type faces in typical printed jobs and in advertisements.
Industrial Arts

251 (240B) Typography II 3 hrs. Spring
A continuation of 250 with the emphasis on the more complicated kinds of composition.

254 (245A) Linotype Composition 3 hrs. Fall
This course deals primarily with the operation of the linotype keyboard. Straight composition is emphasized. Consult instructor for laboratory schedule before enrolling.

255 (245B) Linotype Composition 3 hrs. Spring
This course considers the problems of job, advertisement, and newspaper composition. Consult instructor for laboratory schedule before enrolling.

350 (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.

352 (243) Layout and Design 3 hrs. Fall
Students will undertake the complete layout, design, and composition of such jobs as tickets, name cards, letterheads, programs, newspaper advertisements, newspaper pages, and covers. Principles of balance, proportion, harmony, art, color, copy-fitting, etc., as applied to such jobs will be studied.

356 (246A) Printing Machinery Maintenance 2 hrs. Fall
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.

357 (246B) Printing Machinery Maintenance 2 hrs. Spring
This course gives the student practical experience in caring for machinery in actual operation.

450 (341) Advanced Presswork 2 hrs. Fall
Practical presswork and make-ready of various kinds of type forms for both cylinder and jobbers is undertaken. Offset press problems and practice are also studied.

452 (242) Estimating 2 hrs. Fall
A study of the methods used in estimating the price of printed matter before manufacture and in the final pricing of that matter after production.

453 (242) Production Control 2 hrs. Spring
A study of various systems used in the printing industry for planning and controlling the flow of work through the plant in order to maintain equalized work loads and meet delivery schedules.

455 (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.
School of Applied Arts and Sciences

ELECTRICAL

160 (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.

260 (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.

550 (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

170 (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.

174 (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.

177 (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.

270 (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.

271 (262B) Jewelry 2 hrs. Spring
A beginning course dealing with the design and construction of items of jewelry and enameling.

272 (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.
273 (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.

374 (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.

375 (264B) Building Construction 2 hrs. Spring

A continuation of 374 with the addition of special problems related to home building and construction.

276 (266) Industrial Arts Design 2 hrs. Fall, Spring

A laboratory course dealing with the elements and principles of good design as applied to industrial arts projects. Course emphasis is upon developing design techniques, recording design ideas, and constructing project models.

278 (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 (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.

570 (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.

572 (463) Arts and Crafts for Teachers 2 hrs. Summer, 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.

POWER AND TRANSPORTATION

180 (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.
School of Applied Arts and Sciences

284 (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.

285 (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.

PROFESSIONAL COURSES IN INDUSTRIAL ARTS

345 (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.

344 (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.

540 (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

Joseph W. Giachino, Head
Herbert E. Ellinger
Roy Groulx
Frank Scott
Clarence VanDeventer
Andrew C. Luff
Dale King
William Weeks
Henry J. Beukema
Don W. Nantz
William Wichers
Donald Black
Robert Ring
Glade Wilcox
Elmer Brune
William Schreiber
Lester Zinser

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, 150 and 151, are considered prerequisites to any sequence of courses.

Technical Core:—16 hours

Industrial Relations—200  3
Technical Electricity—248  2
Technical Drawing—232  2
Industrial Processes—150 and 151  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 coordinated industry. 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.

AUTOMOTIVE MAINTENANCE

114 (155A) Automotive Engines and Accessories  4 hrs. Fall, Spring
A study of the construction features and operation of all component parts of modern automobiles.

115 (155B) 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.

214 (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.
School of Applied Arts and Sciences

215 (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.

412 (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.

510 (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.

514 (424) Automotive Performance Problems 2 hrs.
This course deals with the correct usage of testing equipment for locating and correcting automotive engine malfunctions. It is designed particularly for teachers of auto mechanics.

AVIATION

110 (103) Airframes 4 hrs. 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.

112 (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.

116 (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.

117 (213) Basic Ground School 2 hrs. Fall, Spring, Summer
Ground school theory for the flight student which will enable him to meet the CAA Private Pilot Rating examination.

118 (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.
119 (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.

210 (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 CAA requirements, including periodic inspections.

212 (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.

216 (207) The Airline Hostess 2 hrs. Spring

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

218 (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.

310 (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.

312 (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.

314 (301) Aeronautical Navigation 2 hrs. Fall

A course in which the student may learn the fundamentals of aircraft navigation and the use of the navigational computer.

316 (302) Aeronautical Meteorology 3 hrs. Fall

A study of the weather elements, such as clouds, cloud formations, pressure systems, fronts, reading weather maps, teletype, and interpretation of forecasts for aerial navigation.
School of Applied Arts and Sciences


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.

319 (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.

410 (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.

414 (303) Transportation Terminals 3 hrs. Spring

The student will have an opportunity to become acquainted with problems of design, operation and management of air, motor-bus and motor-truck terminals.

512 (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.

DRAFTING

130 (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.

131 (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 130 or equivalent.

230 (224A) Geometry of Drafting 4 hrs. Fall, Spring

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

231 (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 130 or equivalent.

ELECTRONICS

140 (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.

141 (146) Industrial Electronics 4 hrs. Spring

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

240 (245) Electronic Instrumentation 4 hrs. Fall
(Prerequisite 140)

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

241 (246) Electronic Circuits 4 hrs. Spring
(Prerequisite 240)

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

FOUNDRY TECHNOLOGY

154 Molding and Coremaking

A course of study designed to give the student laboratory experiences and a knowledge of the processes, methods, tools, machines and materials used in molding and coremaking applications. The course includes the testing of materials used in molding and coremaking by the gray iron, steel, malleable iron, and non-ferrous founding industries.
School of Applied Arts and Sciences

155 Foundry Metallurgy
This course consists of laboratory experiences and the study of cast metals. Their chemical, physical, and mechanical characteristics during melting and heat treating processes are analyzed. The course also includes the study of equipment, melting charges, fuels, refractories, and control of techniques and instruments used by the industry.

254 Production Techniques
A study of the principles, fundamentals, mechanics and methods used by foundries in the manufacture of castings. Emphasis is placed on casting design, metal flow and solidification, patterns, plant layout and the tools and equipment used in the successive stages of foundry operation.

255 Control Procedures
This course includes laboratory activities and study of the inspection methods and the control measures used to produce quality castings. Inspection will include the visual, mechanical, physical, magnetic, radiographic, penetrant and sonic methods. Emphasis will be placed on the control of raw materials to the end products.

MACHINE TOOLS

152 (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.

153 (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: 152 or equivalent.

254 (260) Pressworking of Metals 4 hrs. 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.

253 (230) Production Tooling 4 hrs. Fall
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.
Radio - T. V.

142 (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.

143 (135B) Introductory Television  4 hrs.  Fall, Spring
Television fundamentals with emphasis on television testing and servicing equipment.

242 (235A) Advanced Television  4 hrs.  Fall, Spring
A continuation of course 146 with greater emphasis on television circuitry and theory. Principles of closed circuit television operation is also included.

243 (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.

Refrigeration, Air Conditioning, Heating

160 (115A) Domestic Refrigeration  4 hrs.  Fall, Spring
This course covers refrigeration theory and function, types of refrigerants, and the basic laws applying. Installation techniques.

161 (115B) Commercial Refrigeration  4 hrs.  Fall, Spring
This course covers refrigeration units of standard design and construction, installation, service operations, testings and factory-recommended repair procedures.

260 (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 radiation, filtration, and maintenance of various types of heating systems.

261 (215B) Air Conditioning and Heating  4 hrs.  Fall, Spring
A continuation of course 260, including calculations, design, layout and installation of air conditioning and heating units.

Related Technical Subjects

150 (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, seams, 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.
School of Applied Arts and Sciences

151 (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 microstructure 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.

156 (174) Aircraft Welding 2 hrs. Fall, Spring

A course designed to develop skills and knowledge pertinent to testing and design of aircraft welds in aircraft manufacture, maintenance and repair. Laboratory experiences will be provided in fabrication of aircraft structure, components, and parts by welding.

158 (175) Industrial Welding 2 hrs. Fall, Spring

This course involves study of the techniques and processes used to fabricate metals by welding. Laboratory experiences will include oxy-acetylene, electric-arc and helium-arc equipment.

200 (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.

232 (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. Diagrammatic and schematic drawing are included together with plant layout drawing.

234 (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 232 or equivalent.

248 (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.
250 (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.

256 (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.

350 (370) Strength of Materials 3 hrs. Fall, Spring
This course deals with compression, tension, shear, torsion, and bending forces in structural members, including distribution of stress and fatigue on construction materials.

352 (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.

354 (275) Fluid Mechanics 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.

356 (231) Basic Metallurgy 3 hrs. Fall, Spring
This course offers practice in heat treating and testing all standard materials used in machine, tool, and die work.

INDUSTRIAL SUPERVISION

300 (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.

302 (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.

304 (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.
306 (356) Production Control

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.

308 (354) Quality Control

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.

400 (360) Modern Industrial Practices

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.

402 (390) Industrial Distribution

A course introducing the student to the methods used in distributing the technical tools and equipment required by industry. Emphasis is placed on the ways and means of acquiring the necessary skills to qualify in this highly competitive field.

404 (361) Materials Handling

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.

406 (362) Conference Leadership

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.

500 (459) Practical Labor-Management Relations

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

120 (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.

121 (152) Coordinated Industry 3 hrs. Fall, Spring
Continuation of 120.

220 (250) Coordinated Industry 3 hrs. Fall, Spring
Continuation of 121.

221 (252) Coordinated Industry 3 hrs. Fall, Spring
Continuation of 220.

PROFESSIONAL COURSES IN VOCATIONAL-INDUSTRIAL EDUCATION

320 (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.

520 (452) Teaching of Vocational-Industrial Education 3 hrs. 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.

522 (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.

524 (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.

526 (460) Cooperative Education in the Secondary School 2 hrs.
The nature and purposes of cooperative education in the secondary schools. Problems and procedures involved in the organization and operation of cooperative work-study programs are discussed.

528 (476) History and Philosophy of Industrial Education 2 hrs.
Industrial education in America, with special attention to European influences, experiments, industrial developments and theories. Emphasizes developments leading to modern practices both in industrial arts and in vocational-industrial education.
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. However, students who enroll in the basic course will be required to complete the two-year basic course as a requirement for graduation. Transfer students of less than Junior standing who started ROTC training in another institution will be required to register for the appropriate class of the basic course and complete the basic course as a requirement for graduation.

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 placing such students in the appropriate ROTC class. 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 only 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 100 (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 101 (102) Military Science**  
2 hrs.  
Includes American Military History; School of the Soldier and Exercise of Command.

**MS 200 (201) Military Science**  
2 hrs.  
Includes instruction in Map and Aerial Photograph reading; School of the Soldier and Exercise of Command.

**MS 201 (202) Military Science**  
2 hrs.  
Crew Served Weapons and Gunnery; Role of the Army; 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 300 (301) Military Science**

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 301 (302) Military Science**

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

**MS Summer Camp**

Between MS 301 and MS 400 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 400 (401) Military Science**

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 401 (402) Military Science**

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  
Rosalia Kiss

Alice Lewis  
Dean Tyndall

The Department offers courses in the following curricula: B.S. degree, 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 registra-
Occupational Therapy

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.

100 (106) Art Structure for Occupational Therapy Students
3 hrs. Fall, Spring
A course giving experience in drawing, lettering, color, and design.

110 (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.

200 (215) Elementary Design for Occupational Therapy Students
3 hrs. Fall, Spring
A course to develop creativeness in color and design through a variety of media and techniques. Prerequisite: 100.

202 (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.

230 (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.

231 (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.

300 (328) 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.

310 (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: 320.
School of Applied Arts and Sciences

320 (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 216 and Physiology 217.

322 (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.

324 (410B) Medical Lectures 3 hrs. Fall
A series of lectures on medical conditions. These will be correlated with occupational therapy treatment.

325 (410C) Neurology 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: 320.

326 (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.

332 (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: 320.

334 (222) Recreational Therapy 2 hrs. Fall, Spring
Course covers planning of recreational activities for patients in hospitals, including musical therapy, dramatic programs, and games.

340 (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: 230 and 231.

402 (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: 100, and 200.

403 (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.
430 (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.

432 (316) 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: 230 and 231.

504 (425A) Ceramics  2 hrs.  Fall
The design of functional form in clay. Covers ceramic processes, glazing and kiln management. Prerequisite: Design 200 and Art Structure 100.

505 (425B) Jewelry  2 hrs.  Spring
Covers the design and technical essentials of jewelry. Includes study of ceramics, copper, sterling silver, stone-setting and enameling.

524 (410B) Medical Lectures  3 hrs.  Fall
A series of lectures on medical and orthopedic conditions. These will be integrated with occupational therapy treatment.

525 (410C) Neurology 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 and orthopedics. Prerequisite: Kinesiology 320.

530 (410A) Theory of Occupational Therapy  2 hrs.  Fall, Spring
Specific instruction in the organization and administration of an occupational therapy department. Supplemented by field trips to hospitals, social agencies, and allied industries.

PAPER TECHNOLOGY

Alfred H. Nadelman, Head
Robert A. Diehm
John R. Fanselow
Raymond L. Janes
Carola Trittin

The Department offers three curricula. Option I stresses preparation for scientific and manufacturing areas, Option II prepares students for technical service work for the paper industry and Option III prepares students for sales positions in the paper industry.

A major may be earned only by meeting all requirements of Option I, Option II or Option III. A minor consists of sixteen semester hours and must include courses 100 and 101, 240, 241, 110, 320, 321 and 322 plus three hours in other courses offered by this department.
School of Applied Arts and Sciences

100 (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.

101 (130B) Orientation to Paper Technology 1 hr. Spring
A continuation of course 100. The fundamentals of paper making are studied. Prerequisite: 100, or 100 being taken concurrently.

110 (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: 100, 101.

210 (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: 240, 241. (Open only to majors in Paper Technology.)

240 (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: 100, 101; General Chemistry 102, 103, or 100, 101.

241 (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: 100, 101; General Chemistry 102, 103 or 100, 101; Pulp and Paper Manufacture 240.

310 (331) Summer Mill Practice 2 hrs.
Course 310 is optional for students who receive credit for courses 110 and 210.

312 (337) Mill Inspection Trip 1 hr.
One week's inspection trip to representative pulp and paper mills.

320 (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: 240, 241; Quantitative Analysis 222.

321 (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: 240, 241; Quantitative Analysis 222, 320.
Paper Technology

322 (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: 240, 241; Physics 111 or 113.

330 (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 102, 103, or 100, 101.

331 (334B) Elements of Industrial Chemistry 2 hrs. Spring
A continuation of course 330. Prerequisite: Elements of Industrial Chemistry 330; Organic Chemistry 360.

332 (335) Wood Chemistry 2 hrs. Spring
A lecture course which includes the chemistry of cellulose hemicellulose, lignin and extractives. Prerequisite: 240, 241; Organic Chemistry 360.

340 (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: 240, 241; Quantitative Analysis 222.

400 (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: 240, 241; Mechanics, Heat and Electricity 103A; Electricity, Sound and Light 103B.

440 (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: 332; Quantitative Analysis 222.

442 (435) Converting of Paper 1 hr. Fall
A thorough study of a variety of converting operations. Prerequisite: 240, 241.

460 Paper, Its Markets and Distribution 3 hrs.
A discussion on marketing and distribution of paper. The subjects are presented with the assistance of experienced sales managers and sales engineers from the paper industry.

462 Technical and Psychological Factors in Sales of Paper 3 hrs.
A discussion on the technical and psychological factors involved in the sales of paper. They will be presented with the assistance of experienced sales managers and sales engineers from the paper industry.
School of Applied Arts and Sciences

530 (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 360, 361.

540 (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.

541 (437B) Principles and Practice of Coated Paper Manufacture 1 hr.
A continuation of course 540.

550 (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.

570 (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.

571 (436B) Research Problems in Pulp and Paper 2 hrs.
A continuation of course 570.
School of Business

ARNOLD E. SCHNEIDER,
Dean

Departments:
Accounting
General Business
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

The East Campus has been the scene of Western classes since 1905. The Schools of Business and Education are centered here.
I. DEGREE CURRICULA

BUSINESS ADMINISTRATION

Bachelor of Business Administration Degree

Students must complete the requirements of the core curriculum in the School of Business as well as a major area of concentration as shown on the next page under "Majors in Business Administration". In addition, a minor in Economics and at least 48 hours in the fields of Business and Economics is required. Students in the Business Administration curriculum must also meet the general requirements of the University for the degree. The maximum number of hours in any department of the School of Business a student may present for graduation is 45.

REQUIRED CORE CURRICULUM

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communication 114, 115 or College Writing 116, 117</td>
<td>8-6</td>
<td>Humanities 220, 221 or 222, 223</td>
<td>6</td>
</tr>
<tr>
<td>Man and Society 102, 103 or West. Civil. 100, 101</td>
<td>8</td>
<td>Speech 104</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 100, 101 or 102, 103*</td>
<td>4-6</td>
<td>Accounting Prin. 210, 211</td>
<td>6</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>Marketing 240</td>
<td>3</td>
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<tr>
<th>Third Year</th>
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<th>Fourth Year</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>General Psychology 200</td>
<td>3</td>
<td>Management Problems 550</td>
<td>3</td>
</tr>
<tr>
<td>Insurance Prin. 224 or Corporation Finance 320</td>
<td>3</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>American Nat'l. Govt. 202</td>
<td>3</td>
<td>Major and Minor Requirements and Electives</td>
<td>27</td>
</tr>
<tr>
<td>Business Law 340, 341</td>
<td>6</td>
<td>If possible, elect two or more</td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>from the following:</td>
<td></td>
</tr>
<tr>
<td>Major and Minor Requirements and Electives</td>
<td>15</td>
<td>Economic Geography 244</td>
<td>3</td>
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<tr>
<td></td>
<td></td>
<td>Economic History of U.S. 316</td>
<td>3</td>
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</tbody>
</table>

MAJOR AREAS OF CONCENTRATION IN BUSINESS ADMINISTRATION

1. Accounting 210, 211; Intermediate Accounting 310, 311; Cost 512; Tax 514; Audit. 416; Accounting Theory and Problems 418. Students planning to major in Accounting should take 210, 211, in their freshman year. Adviser: Wetnight.

*If a student has had 2 years of high school Mathematics, he may elect Mathematics 102, 103.
2. Air Transportation: (Students under the Air Transportation curriculum may major in Business Administration.)


4. 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.

5. Insurance:
   a. Agency (Sales)—Insurance Principles 224; Property Insurance 424; Casualty Insurance and Suretyship 426; Life Insurance 522; Disability, Group, and Social Insurance 428; Salesmanship 370; and either Sales Management 376 or Advertising 374. Adviser: Burdick.
   b. Management—Insurance Principles 224; Property Insurance 424; Casualty Insurance and Suretyship 426; Life Insurance 522; Disability, Group, and Social Insurance 428; Office Management 556; and either Management Report Writing 552 or Personnel Administration 350. Adviser: Burdick.

6. Secretarial Administration: Secretarial Science 186, 187; Office Machines 280, 281; Office Organization 252; Records Management 188; Personnel Administration 350; Management Report Writing 552. (Required courses on the Business Administration Curriculum may be waived in order to meet the needs of the Secretarial Administration program.) Adviser: Cooper.

7. Marketing:
   a. Salesmanship:
      Marketing 240; Salesmanship 370; Sales Management 376; Marketing Problems 378; Marketing Research 576; and six hours from any of the following: Purchasing Principles 358; Credit Management 324; Advertising 374; Retailing 172. Adviser: Trader.
   b. Advertising:
      Marketing 240; Advertising 374; Salesmanship 370; Sales Management 376; and six to nine hours from any of the following: Marketing Research 576; Personnel Administration 350; Office Management 556; Small Business Management 250. 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 240; Principles of Retailing 172; Retail Advertising 274; Retail Buying Techniques 278; and ten hours from any of the following: Merchandise Information 178; Retail Credits and Collections 222; Interior and Window Display 272; Color and Design in Retailing 175; or related courses recommended by the adviser: Trader.
   d. Small Business Management:
      Marketing 240; Small Business Management 250; Advertising 374; Salesmanship 370; Personnel Administration 350; and six hours from any of the following: Sales Management 376; Purchasing 358; Marketing Research 576; Credit Management 324. Adviser: Trader.
8. Management:
   a. Office Management: Intermediate Accounting 310, 311 or Cost Accounting 512 and Income Tax Accounting 514; Survey of Office Machines 246; Office Management 556; Personnel Administration 350; Records Management 188; Proficiency in Typewriting or Typewriting 182, 183; Management Report Writing 552. (Minor in Psychology recommended.) Adviser: Niemi.
   b. Personnel Administration: Personnel Administration 350; Industrial Organization and Management 354; Wage and Salary Administration 352; plus one or more from the following: Training and Education of Personnel 454; Disability, Group, and Social Insurance 428; Employee Publications and Services 458. (A minor in Psychology or Sociology recommended.) Adviser: Beal.
   d. Integrated (Electronic) Data Processing: Office Management 556; Management Report Writing 552; Cost Accounting 512; Office Machines 280, 281; Integrated Data Processing 452. (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. Business Mathematics 100 must be elected. A major and/or 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.

Students who intend to take a major or a minor in Business Teacher Education should confer with their advisors 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. Counselors: Cooper, McBeth.
II. TWO-YEAR CURRICULA

BUSINESS (TECHNICAL)

The Technical Business Curricula have been specifically designed for those students who are planning to attend 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

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 during the student's sophomore year.

Students enrolled in this program will have the opportunity to elect such 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**

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>College Writing 116, 117 or</td>
<td>6-8</td>
<td>Secretarial Accounting 212, 213</td>
<td>6</td>
</tr>
<tr>
<td>Communication 114, 115</td>
<td></td>
<td>Office Machines 280, 281</td>
<td>4</td>
</tr>
<tr>
<td>Ind. and Bus. World 140, 141</td>
<td>4</td>
<td>Records Management 188</td>
<td>2</td>
</tr>
<tr>
<td>*Secretarial Science 186, 187</td>
<td>10</td>
<td>Electives**</td>
<td>14</td>
</tr>
<tr>
<td>Personal and Social Prob. 120</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td></td>
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<tr>
<td>Electives**</td>
<td>8</td>
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</tbody>
</table>

*Students who have not had shorthand or typewriting in high school should register for Shorthand 180 and Typewriting 182.

**Students should consult their faculty counselor before making their selections.

The General Business Department includes all of the following areas in the School of Business: Finance, Secretarial Administration, Marketing, Management, Business Teacher Education, Technical Business, Cooperative Secretarial Training, Cooperative Retailing.


School of Business

2. Retailing or Sales Occupations

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

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prin. of Retailing 172</td>
<td>3</td>
<td>Ret. Advertising 274</td>
<td>3</td>
</tr>
<tr>
<td>Retail Salesmanship 176</td>
<td>3</td>
<td>Ret. Cr. and Collection 222</td>
<td>3</td>
</tr>
<tr>
<td>Mdse. Info. 178, 179</td>
<td>4</td>
<td>Ret. Buying Tech. 278</td>
<td>3</td>
</tr>
<tr>
<td>Communications 114, 115 or Col. Writing 116, 117</td>
<td>3-4</td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td>Business Math. 100</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td>Physical Education</td>
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<td></td>
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<tr>
<td>Electives</td>
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</tbody>
</table>

**Retail Electives**

- Selling Fash. Mdse. 174: 2
- Selling Home Furn. 276: 2
- Color and Design in Retailing 175: 2
- Interior and Window Display 272: 2

**Non-Retail Electives**

- Man and Soc. 102, 103 or Foundations of West Civ. 100, 101: 8
- Bus. and Prof. Speech 104: 3
- Business Math. 101: 2
- Genl. Psych. 200: 3
- Prin. of Acctg. 210, 211: 6
- Prin. of Econ. 200, 201: 6
- Bus. Correspondence 242: 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

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Community 114, 115 or</td>
<td>8</td>
<td>Man and Society 102, 103 or</td>
<td>8</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Prin. of Economics 200, 201</td>
<td>6</td>
</tr>
<tr>
<td>Ind. and Bus. World 140, 141</td>
<td>4</td>
<td>Bus. Statistics 244</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Corres. 242</td>
<td>3</td>
<td>Insurance Prin. 224</td>
<td>3</td>
</tr>
<tr>
<td>Prin. of Acctg. 210, 211</td>
<td>6</td>
<td>Small Bus. Mgmt. 250 or</td>
<td>3</td>
</tr>
<tr>
<td>Bus. Math.</td>
<td>3</td>
<td>Mgmt. Elective</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>Business Law 340</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>5-7</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>10-12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fields of Specialization in Technical Business Curriculum

1. Clerical Accounting: Select from Accounting 310, 311; Pay Roll and Social Security Accounting 214; Office Machines 280, 281; Business Law 340, 341; Office Organization 252; or other Business courses on consent of class instructor; proficiency in typewriting or Typewriting 182, 183.

2. General Business: Select courses in keeping with the student's vocational interests with consent of counselor.

3. Secretarial Training: Secretarial Science 186, 187; Office Machines 280, 281; Records Management 188; Office Organization 252; General Psychology 200.

4. Salesmanship: Salesmanship 370; Advertising 374; Small Bus. Management 250; Sales Management 376; Credit Management 324.

5. General Clerical: Office Machines 280, 281; Typewriting 182, 183; Records Management 188; Office Organization 252; Industrial Cost Accounting 312, 313; Pay Roll and Social Security Acctg. 214.

6. Small Business Management: Accounting 210, 211; Small Bus. Management 250; Advertising 374; Salesmanship 370; Credit Management 324; Real Estate Fundamentals 322.
III. DESCRIPTION OF COURSES

ACCOUNTING

Robert B. Wetnight, Head
Robert P. Behling
George Cooper
E. E. Grossnickle
George Kirby
Leo Niemi

The department of accounting prepares its majors for positions as accountants in industrial, governmental and public accounting enterprises. Twenty-four hours of accounting plus the completion of the core curriculum in Business Administration is required of all majors.

210 (210A) Accounting 3 hrs. Fall, Spring
The elementary principles of accounting and the consideration of the more common technical devices for recording business transactions according to those principles. Prerequisite: Sophomore standing or consent of instructor. Accounting majors should start 210 as freshmen, if possible.

211 (210B) Accounting 3 hrs. Fall, Spring
A continuation of course 210, 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: 210.

212 (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.

213 (211B) Secretarial Accounting 3 hrs. Spring
A continuation of course 212 in which practical applications will be applied in a large number of work situations. Prerequisite: 212.

214 (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.

310 (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: 210, 211.
311 (310B) Intermediate Accounting  3 hrs. Spring
   A continuation of Accounting 310, including the following topics: partnerships, consignments, installment sales, mergers, holding companies, receiverships, estates, and trusts. Prerequisite: 310.

312 (316A) Industrial Cost Accounting  2 hrs. Fall
   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 210.

313 (316B) Industrial Cost Accounting  2 hrs. Spring
   A continuation of 312. Prerequisite: 312.

314 (324) Governmental Accounting  2 hrs. Spring
   The study of the accounting principles and practices of federal, state, county and city governmental agencies as well as general institutional agencies. Prerequisite: Accounting 210, 211.

416 (313) Auditing  3 hrs. Fall
   The theory and practice of making audits of business enterprises. Prerequisite: Senior standing, accounting major.

418 (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.

510 (410A) Advanced Accounting  3 hrs. Fall
   Designed specifically for the study of the balance sheet accounts. Prerequisite: 210, 211.

511 (410B) Advanced Accounting  3 hrs. Spring
   A study of accounts for special sales, consolidations, and miscellaneous accounting matters.

512 (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: 310 or consent of instructor.

514 (412) Income Tax Accounting  3 hrs. Fall
   A study of the federal income tax laws, as they apply to individuals, partnerships, and corporations. Prerequisite: 310 or consent of instructor.
The General Business Department includes all of the following areas in the School of Business: Finance, Secretarial Administration, Marketing, Management, Business Teacher Education, Technical Business, Cooperative Secretarial Training, Cooperative Retailing.

FINANCE

222 (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.

224 (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.

320 (355) Corporation Finance 3 hrs. Fall, Spring
Corporate financing, methods of securing and managing capital, distribution of net income. Prerequisite: Accounting 210, 211.

322 (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, and land use, and related topics.

324 (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 studies.
420 (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.

424 (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: 224.

426 (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: 224.

428 (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: 224.

520 (520) Security Analysis 3 hrs. Spring
Analysis of securities, market values, and investment programs. Interpretation of financial reports, factors, and conditions. Prerequisite: 420 Current Business Trends.

522 (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: 224.

GENERAL BUSINESS

140 (135A) Industrial and Business World 2 hrs. Fall
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.

141 (135B) Industrial and Business World 2 hrs. 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: 140.

242 (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.
School of Business

244 (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.

246 (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.

340 (320A) Business Law 3 hrs. Fall, Spring
A study of basic principles applicable to business including legal rights and remedies, contracts, and agency, and employer and employee relations.

341 (320B) Business Law 3 hrs. Fall, Spring
Continuation of Business Law 340 with emphasis on negotiable instruments, sales, and property.

MANAGEMENT

250 (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.

252 (239) Office Organization 3 hrs. Fall, 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.

370 (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 220.

352 (372) Wage and Salary Administration 3 hrs. Fall
Job analysis and job evaluation; methods of wage and salary payment; incentive systems; community wage and salary surveys; employee merit rating.

354 (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.

356 (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 550 as offered.
### Marketing

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>358 (348)</td>
<td>Purchasing Principles</td>
<td>3 hrs.</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>Organization and operation of the purchasing department, basic materials, substitutes, imitations, sources of supply, catalogs, terms, discounts, and relations with salesmen.</td>
<td></td>
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</tr>
<tr>
<td>452 (359)</td>
<td>Integrated Data Processing</td>
<td>3 hrs.</td>
<td>Spring</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>454 (374)</td>
<td>Training and Education of Personnel</td>
<td>3 hrs.</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>Surveying the new profession of industrial trainer; job analysis for training; preparation of job breakdowns and training outlines; on-the-job training of workers; supervisory training; educational program and executive development; training aids and training methods.</td>
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<tr>
<td>458 (378)</td>
<td>Employee Publications and Services</td>
<td>3 hrs.</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>Editing the employee publication; functions of employee communication media and recreational services; public relations aspects of employee and community relations.</td>
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<tr>
<td>550 (449)</td>
<td>Management Problems</td>
<td>3 hrs.</td>
<td>Fall, Spring</td>
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<tr>
<td></td>
<td>An opportunity to approach business from the case-study method by working solutions to actual management problems.</td>
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<tr>
<td>552 (433)</td>
<td>Management Report Writing</td>
<td>2 hrs.</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>556 (439)</td>
<td>Office Management</td>
<td>3 hrs.</td>
<td>Spring</td>
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<tr>
<td></td>
<td>Areas of office services from the managerial viewpoint. A brief overview of the problems of organizing, constructing, installing, and maintaining office systems.</td>
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<tr>
<td>558 (562)</td>
<td>Purchasing Problems</td>
<td>3 hrs.</td>
<td>Spring</td>
</tr>
<tr>
<td></td>
<td>A case study course of purchasing problems such as organization, operation, materials management, vendors relations, make or buy. Value analysis and the evaluation of purchasing department performance.</td>
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</tr>
</tbody>
</table>

### MARKETING

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>170 (100A)</td>
<td>Coordinated Retail Experience</td>
<td>2 hrs.</td>
<td>Fall</td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>
School of Business

171 (100B) Coordinated Retail Experience 2 hrs. Spring
A continuation of 170. Prerequisite: Retailing curriculum.

172 (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.

174 (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.

175 (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.

176 (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.

178 (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.

179 (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.

240 (222) Marketing
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: Principles of Economics 200, 201, which may be taken either before or in conjunction with this course.

270 (200A) Coordinated Retail Experience 2 hrs. Fall
A continuation of 170, 171. Prerequisite: Retailing curriculum.
271 (200B) Coordinated Retail Experience  2 hrs. Spring
   A continuation of 270. Prerequisite: Retailing curriculum.

272 (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.

274 (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.

276 (242) Selling Home Furnishings  2 hrs. Spring
   A study of period styles, materials, construction, and arrangement of fur-
   niture as a selling factor. The proper use of accessories, such as lamps,
   wall decorations, plastics, etc. is emphasized.

278 (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.

370 (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.

374 (342) Advertising  3 hrs. Spring
   An analysis of the principles and practices used in various types of ad-
   vertising such as newspaper, radio, and direct mail advertising. Attention
   is devoted to preparing copy and analyzing current advertising practices.

376 (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, ter-
   ritories, conventions, and sales promotion. Prerequisite: Salesmanship 370.
   or approval of instructor.

378 (347) Problems in Marketing  3 hrs. Sprin.g
   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: Marketing 240.

570 (440) Advanced Salesmanship  3 hrs. Fall
   Background of basic principles and analysis of selling techniques applied
   principally to specialty fields.
School of Business

572 (442) Advanced Advertising 3 hrs. Spring
Special concentration on media, copy and layout. Study and projects on radio, television, newspapers, and magazines.

576 (447) Marketing 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: 240 Marketing, Junior or Senior status, or approval of instructor.

SECRETARIAL ADMINISTRATION AND BUSINESS EDUCATION

180 (100A) Shorthand 3 hrs. Fall, Spring
A study of the theory and principles of Gregg shorthand. Typewriting 182 or its equivalent is a requirement for course credit.

181 (100B) Shorthand 3 hrs. Fall, Spring
A continuation of 180. Dictation is given at various rates of speed. Typewriting 183 or its equivalent is a requirement for course credit. Prerequisite: 180 or 182.

182 (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.

183 (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: 182 or its high school equivalent.

186 (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. Prerequisites: 181 and 183 or its high school equivalent.

187 (130B) Secretarial Science 5 hrs. Fall, Spring
A continuation of the development of speed and accuracy in shorthand, typewriting, and transcription. Prerequisite: 186.

188 (103) Records Management 2 hrs. Fall, Spring
A study of the indexing and filing rules and all types of filing methods and card systems.

280 (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.
Business Education

281 (230B) Office Machines 2 hrs. Fall, Spring
A continuation of 280. This course is intended primarily for the student preparing for the various office occupations.

282 (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 186.

283 (200B) Coordinated Business Experience 2 hrs. Spring
A continuation of course 282 open to students currently enrolled in 187.

346 (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.

348 (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.
The Health Services building is the focal point for health functions on the campus, for several clinics, and houses offices of the School of Education.
The School of Education consists of the following departments: Education, Librarianship, Physical Education for Men, Physical Education for Women, Rural Life and 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.

Those preferring to teach in smaller communities may elect Rural Life and Education curricula which lead to either the State Elementary or Secondary Provisional certificates, or the State Limited certificate. The latter is valid in the elementary grades of school districts which do not maintain an approved high school.
ELEMENTARY CURRICULUM

A.B. or B.S. Degree
State Elementary Provisional Certificate

(For the preparation of Teachers of Kindergarten and Grades 1-8)

A. Course Requirements

1. Language and Literature
   Communication 114, 115 or
   College Writing 116, 117
   Literature for Children 282
   S.H. 9-11

2. Science and Mathematics
   Biological Science 107*
   Human Geography 105*
   Physical Science 108, 109
   S.H. 12
   *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
   Western Civilization 100, 101 or
   Man and Society 102, 103
   American Government 202, 204 or 200
   S.H. 11

4. Humanities
   Humanities 220, 221* or 222, 223*
   S.H. 6
   *Temporary equivalents for these courses may be permitted with the consent of the counselor.

5. Education
   Human Growth & Development 250
   Teaching of Reading 322
   Introduction to Directed Teaching 300
   Directed Teaching, Laboratory in Education, and General Education Problems 470, 410, 450
   S.H. 24

6. Fine and Practical Arts
   (Include one course in Art, one teaching course in Music, and one course in Practical Arts.)
   S.H. 12

7. Physical Education
   Must include Elementary School Phys. Ed. 340
   S.H. 4

8. Additional General Education Courses
   Eight hours additional work (ten if the student takes College Writing 116, 117) 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.
   S.H. 8-10

9. Electives
   S.H. 36
School of Education

B. Three minors of not less than 15 hours each, or one major of not less than 24 hours and one minor of not less than 15 hours 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)

<table>
<thead>
<tr>
<th>A. Course Requirements</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Language and Literature</td>
<td>6-8</td>
</tr>
<tr>
<td>Communication 114, 115 or</td>
<td>8</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
</tr>
<tr>
<td>2. Science</td>
<td>8</td>
</tr>
<tr>
<td>Biological Science 107*</td>
<td>4</td>
</tr>
<tr>
<td>Human Geography 105*, 107*</td>
<td>4</td>
</tr>
<tr>
<td>Physical Science 108, 109*</td>
<td>4 or 8</td>
</tr>
<tr>
<td>*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.</td>
<td></td>
</tr>
<tr>
<td>3. Social Science</td>
<td>11</td>
</tr>
<tr>
<td>Western Civilization 100, 101 or</td>
<td>8</td>
</tr>
<tr>
<td>Man and Society 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>American Government 202, 204, or 200</td>
<td>3</td>
</tr>
<tr>
<td>4. Humanities 220, 221* or 222, 223*</td>
<td>6</td>
</tr>
<tr>
<td>*Temporary equivalents for these courses may be permitted with the consent of the counselor.</td>
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<tr>
<td>5. Education</td>
<td>21</td>
</tr>
<tr>
<td>Human Growth and Development 250</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Directed Teaching 350</td>
<td>3</td>
</tr>
<tr>
<td>Directed Teaching, Laboratory in Education, and General Education Problems 470, 420, 450</td>
<td>15</td>
</tr>
<tr>
<td>6. Physical Education</td>
<td>4</td>
</tr>
<tr>
<td>7. Additional General Education Courses</td>
<td>8-10</td>
</tr>
<tr>
<td>Eight hours additional work (ten if the student takes College Writing 116, 117) 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.</td>
<td></td>
</tr>
<tr>
<td>8. Electives</td>
<td>62</td>
</tr>
</tbody>
</table>
B. One major of not less than 24 hours and one minor of not less than 15 hours 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)

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Studies</strong></td>
<td></td>
<td><strong>Humanities 220, 221</strong></td>
<td>6</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>General Psychology 200</td>
<td>3</td>
</tr>
<tr>
<td>Found. of Western Civilization 100, 101</td>
<td>8</td>
<td>Children's Literature 282</td>
<td>3</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>8</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>Modern Foreign Language</td>
<td>8</td>
<td>Physical Education</td>
<td>2</td>
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<tr>
<td>Introd. to Librarianship 100, 101</td>
<td>2</td>
<td>Electives</td>
<td>17</td>
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<tr>
<td>Physical Education</td>
<td>2</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
</tr>
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<tbody>
<tr>
<td>American Government 200</td>
<td>3</td>
<td>Introd. to Directed Teaching 300</td>
<td>3</td>
</tr>
<tr>
<td>Organization of Library Materials 230</td>
<td>2</td>
<td>Introd. to Classification and Cataloging 530</td>
<td>4</td>
</tr>
<tr>
<td>Reference Service 512</td>
<td>3</td>
<td>Field Assignment and Seminar 520</td>
<td>2</td>
</tr>
<tr>
<td>Selection of Books and Related Materials 510</td>
<td>3</td>
<td><strong>Storytelling 546</strong></td>
<td>2</td>
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<tr>
<td>Electives</td>
<td>21</td>
<td><strong>Library Materials for Children 516</strong></td>
<td>2</td>
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<tr>
<td></td>
<td>32</td>
<td>*Reading Interests of Young Adults 542</td>
<td>2</td>
</tr>
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<td></td>
<td></td>
<td>Directed Teaching</td>
<td>15</td>
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<tr>
<td></td>
<td></td>
<td>Electives</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30-32</td>
</tr>
</tbody>
</table>

**Required only for teacher-librarian candidates in the elementary curriculum.**

*Required only for teacher-librarian candidates in the secondary curriculum.

Note: A portion of the Directed Teaching period is spent in selected school library.
**MUSIC CURRICULUM**

B.M. Degree with a major in Public School Music, State Elementary or Secondary Provisional Certificate

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Music*</td>
<td>4</td>
<td>Applied Music*</td>
<td>4</td>
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<tr>
<td>Communications 114, 115</td>
<td></td>
<td>Humanities 220 or 221</td>
<td></td>
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<tr>
<td>or College Writing 116, 117</td>
<td>8 or 6</td>
<td>or Humanities 222 or 223</td>
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<tr>
<td>Physical Science 108 and/or 109</td>
<td></td>
<td>or Approved Alternate</td>
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<tr>
<td>Biological Science 107</td>
<td></td>
<td>String Class 128, 129</td>
<td>2</td>
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<tr>
<td>or Found. of West. Civil. 100 and/or 101</td>
<td></td>
<td>Sophomore Theory 260, 261</td>
<td>8</td>
</tr>
<tr>
<td>or Man &amp; Society 102 and/or 103</td>
<td>8</td>
<td>Advanced Piano Class 220, 221</td>
<td>2</td>
</tr>
<tr>
<td>Freshman Theory 160, 161</td>
<td>8</td>
<td>Woodwind Class 126, 127</td>
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<tr>
<td>Voice Class 122, 123</td>
<td>2</td>
<td>Elementary Acoustics 103</td>
<td>2</td>
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<tr>
<td>Piano Class 120, 121</td>
<td>2</td>
<td>Elementary Music Methods 240</td>
<td>3</td>
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<tr>
<td>Large Ensemble</td>
<td>2</td>
<td>Percussion Class 130</td>
<td>1</td>
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<tr>
<td>Physical Education</td>
<td>2</td>
<td>Large Ensemble</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elective (non-music)</td>
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<tr>
<td><strong>Third Year</strong></td>
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<td><strong>Fourth Year</strong></td>
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<tr>
<td>Applied Music*</td>
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<td>Applied Music*</td>
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<tr>
<td>Brass Class 124, 125</td>
<td>2</td>
<td>Directed Teaching 470</td>
<td>8</td>
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<tr>
<td>Choral and Inst. Conducting</td>
<td>2</td>
<td>Lab. in Education 420</td>
<td>4</td>
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<td>330, 331</td>
<td></td>
<td>Genl. Ed. Prob. 460</td>
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<tr>
<td>Junior H.S. Methods 340</td>
<td>3</td>
<td>Elective (Non-Music)</td>
<td>3</td>
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<tr>
<td>Senior H. S. Methods 341</td>
<td>3</td>
<td>Large Ensemble</td>
<td>2</td>
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<tr>
<td>Hist. and Lit. of Music 370, 371</td>
<td>8</td>
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<tr>
<td>Human Growth and Devel. 250</td>
<td>3</td>
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<tr>
<td>Introd. to Dir. Teach. 300</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Arranging 366</td>
<td>2</td>
<td></td>
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</tr>
<tr>
<td>Political Science 200</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Ensemble</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>S.H.</strong></td>
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</tr>
<tr>
<td></td>
<td>36 or 34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plus the following courses which carry no credit:

- Music Education Band (1 year)
- Music Education Orchestra (1 year)
- Major Performance Literature (1 year)
- Italian Dict. and Song Lit. (1 year)

---

*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 extracurricular 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.


A. 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.
School of Education

1. English
   - College Writing 116 (in addition)

2. Science
   - Rural Sociology 220
   - Rural Economics 230
   - Political Science
   - Elective

3. Social Sciences
   - Rural Sociology 220
   - Rural Economics 230
   - Political Science
   - Elective

4. Education
   - Curriculum 100
   - Intro. to Directed Teaching 202
   - Directed Teaching 203
   - Rural School Administration 305
   - Elective

5. Fine Arts

6. Practical Arts

7. Physical Education
   - Men: General Physical Education 102, 103 or 104, 105
   - Women: Rural School Physical Education 240

8. Electives

---

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:

B. Junior or Community College — School 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 102; American Literature 222 or 223; Literature for Children 283.
2. Basic Agriculture 100; Outdoor Science 231 or 233; Human Geography 105; Health Education 285.
3. State and Local Government 204; United States History 211.
4. Teaching of Reading 312; Human Growth and Development 250. Those selected students permitted to do Directed Teaching 203 in the field while in residence there for six weeks receive 5 instead of 4 hours credit.
6. Rural Practical Arts 104; Family Foods 116; Consumer Problems 154; Clothing 200; Home Furnishings 250; Everyday Nutrition 212; Marriage and Family Relations 354.
7. Men and Women: Square Dancing 125; Social Dancing 124; Rural School Physical Education 240. Women: Physical Education 103; Basketball 105; Individual Gym 100; Swimming 110; Tennis 200; Golf 203; Folk Dancing 120; Advanced Swimming 113; Archery 204; Tap Dancing 126; Badminton 206; Modern Dance 122.
8. These electives may well be chosen from the preferred courses listed in the above notes (1-6), supplemented if necessary from such courses as follows: College Writing 117; Reading Interests of Children 542; Literary Interpretation 210; The English Bible 256, 257; Principles of Speech Correction 252; Arithmetic 150; World Regions 106; Physical Science 108, 109; United States History 210; Illustrative Handwork 121; Industrial Arts 123; University Orchestra 111; University Band 110; University Singers 113.
### 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**

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Language and Literature</td>
<td></td>
</tr>
<tr>
<td>Communications 114, 115 or</td>
<td>8</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
</tr>
<tr>
<td>Literature for Children 282</td>
<td>3</td>
</tr>
<tr>
<td>Problems of the Deaf and Hard of Hearing 254</td>
<td>3</td>
</tr>
<tr>
<td><strong>1. Language and Literature</strong></td>
<td>12–14</td>
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<tr>
<td>2. Science</td>
<td></td>
</tr>
<tr>
<td>Biological Science 107*</td>
<td>4</td>
</tr>
<tr>
<td>Human Geography 105* or Physical Science 108*</td>
<td>4</td>
</tr>
<tr>
<td>Healthful Living 111 or Health Education 242</td>
<td>2</td>
</tr>
<tr>
<td>General Psychology 200</td>
<td>3</td>
</tr>
<tr>
<td>Abnormal Psychology 322</td>
<td>3</td>
</tr>
<tr>
<td>Mental Testing 481</td>
<td>2</td>
</tr>
<tr>
<td><strong>2. Science</strong></td>
<td>18</td>
</tr>
<tr>
<td>3. Social Science</td>
<td></td>
</tr>
<tr>
<td>Western Civilization 100, 101 or</td>
<td>8</td>
</tr>
<tr>
<td>Man and Society 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>American Government 202, 204 or 200</td>
<td>3</td>
</tr>
<tr>
<td><strong>3. Social Science</strong></td>
<td>11</td>
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<tr>
<td>4. Humanities</td>
<td></td>
</tr>
<tr>
<td>Humanities 220, 221* or</td>
<td>6</td>
</tr>
<tr>
<td>Humanities 222, 223*</td>
<td>6</td>
</tr>
<tr>
<td><strong>4. Humanities</strong></td>
<td>6</td>
</tr>
<tr>
<td>5. Education</td>
<td></td>
</tr>
<tr>
<td>Human Growth and Development 250</td>
<td>3</td>
</tr>
<tr>
<td>Teaching of Reading 312</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Directed Teaching 300</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Special Education 331 or</td>
<td>2</td>
</tr>
<tr>
<td>Education of Exceptional Children 530</td>
<td>2</td>
</tr>
<tr>
<td>Mental Hygiene of Childhood and Adolescence 585</td>
<td>2</td>
</tr>
<tr>
<td>Speech for the Deaf 536</td>
<td>2</td>
</tr>
<tr>
<td>Language for the Deaf 537</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Lip Reading 535</td>
<td>2</td>
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<tr>
<td>Basic Audiometry 434</td>
<td>3</td>
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<tr>
<td>Anatomy and Pathology of the Aural Mechanism 538</td>
<td>3</td>
</tr>
<tr>
<td>Directed Teaching, Laboratory in Education, and General Education Problems 470, 410, 450</td>
<td>15</td>
</tr>
<tr>
<td><strong>5. Education</strong></td>
<td>40</td>
</tr>
<tr>
<td>6. Fine and Practical Arts</td>
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</tr>
<tr>
<td>Industrial Arts for Elementary Teachers 164</td>
<td>4</td>
</tr>
<tr>
<td>Electives (must include at least one course in Music and one course in Art)</td>
<td>8</td>
</tr>
</tbody>
</table>
7. Physical Education .................................................. 4

8. Additional General Education Courses .......................... 8–10

Eight hours additional work (ten if the student takes Col-
lege Writing 116, 117) must be elected from non-profes-
sional 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 one minor. The one minor 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 In-
structors of the Deaf, and the American Speech and Hearing Asso-
ciation.

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

1. Language and Literature ........................................... 9–11
   Communication 114, 115 or .................................. 8
   College Writing 116, 117 ...................................... 6
   Literature for Children 282 ................................. 3

2. Science ...................................................................... 22
   Biological Science 107 ........................................... 4
   Human Geography 105* ......................................... 4
   Physical Science 108* .......................................... 4
   Healthful Living 111 (or Health Education 242) ....... 2
   General Psychology 200 ....................................... 3
   Abnormal Psychology 322 .................................... 3
   Mental Testing 481 .............................................. 2
   *If the student demonstrates proficiency in any of these subjects by com-
   prehensive examination, he may elect other courses from the division upon
   the recommendation of his counselor.

3. Social Science ........................................................... 11
   Western Civilization 100, 101 or ............................ 8
   Man and Society 102, 103 ...................................... 8
   American Government 202, 204 or 200 ................... 3
4. Humanities ....................................................... 6
   Humanities 220, 221 or .................................... 6
   Humanities 222, 223 ........................................ 6
   *Temporary equivalents for these courses may be permitted with the consent of the counselor.

5. Education .................................................... 36-37
   Human Growth and Development 250 .................. 3
   Introduction to Special Education 331 or .......... 2
   Education of Exceptional Children 530 ............ 2
   Teaching of Reading 312 ................................ 3
   Mental Deficiency 532 .................................... 3
   Introduction to Mental Hygiene 381 or .............. 3
   Mental Hygiene of Childhood and Adolescence 585 .. 2
   Education and Control of Mentally Handicapped 533 .. 3
   Methods of Teaching Mentally Handicapped Children 534 2
   Introduction to Directed Teaching 300 .............. 3
   Directed Teaching, Laboratory in Education, and
   General Education Problems 470, 410, 450 .......... 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 116, 117) 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 one minor. The equivalent of one minor 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.
## A. Course Requirements

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Language and Literature</td>
<td>30-32</td>
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<tr>
<td>Communication 114, 115 or College Writing 116, 117</td>
<td>8</td>
</tr>
<tr>
<td>Speech for Teachers 102</td>
<td>6</td>
</tr>
<tr>
<td>Problems of Deaf and Hard of Hearing 254</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Speech Correction 250</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Speech Correction 252</td>
<td>3</td>
</tr>
<tr>
<td>Phonetics 350</td>
<td>3</td>
</tr>
<tr>
<td>Basic Voice and Speech Science 550</td>
<td>3</td>
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<tr>
<td>Stuttering and Allied Disorders 552</td>
<td>3</td>
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<tr>
<td>Applied Speech Correction 554</td>
<td>3</td>
</tr>
<tr>
<td>2. Science</td>
<td>18-19</td>
</tr>
<tr>
<td>Biological Science 107*</td>
<td>4</td>
</tr>
<tr>
<td>Physical Science 108*</td>
<td>4</td>
</tr>
<tr>
<td>Healthful Living 111</td>
<td>2</td>
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<td>General Psychology 200</td>
<td>3</td>
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<tr>
<td>Abnormal Psychology 322</td>
<td>3</td>
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<tr>
<td>Mental Testing 481 or</td>
<td>2</td>
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<tr>
<td>Laboratory in Psychological Testing 380</td>
<td>3</td>
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<tr>
<td>*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.</td>
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<tr>
<td>3. Social Science</td>
<td>14</td>
</tr>
<tr>
<td>Western Civilization 100, 101 or Man and Society 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>Marriage and the Family or Modern Marriage 240</td>
<td>8</td>
</tr>
<tr>
<td>American Government 202, 204 or 200</td>
<td>3</td>
</tr>
<tr>
<td>4. Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Humanities 220, 221 or</td>
<td>6</td>
</tr>
<tr>
<td>Humanities 222, 223</td>
<td>6</td>
</tr>
<tr>
<td>*Temporary equivalents for these courses may be permitted with the consent of the counselor.</td>
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<td>5. Education</td>
<td>25-26</td>
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<tr>
<td>Human growth and Development 250</td>
<td>3</td>
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<tr>
<td>Introduction to Special Education 231 or</td>
<td>2</td>
</tr>
<tr>
<td>Education of Exceptional Children 530</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Mental Hygiene 381 or</td>
<td>3</td>
</tr>
<tr>
<td>Mental Hygiene of Childhood and Adolescence 585</td>
<td>2</td>
</tr>
<tr>
<td>Introduction to Directed Teaching 300</td>
<td>3</td>
</tr>
<tr>
<td>Directed Teaching, Laboratory in Education, and</td>
<td>15</td>
</tr>
<tr>
<td>General Education Problems 470, 410, 450</td>
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</tbody>
</table>
6. Physical Education

7. Additional General Education Courses
   Eight hours additional work (ten if the student takes College Writing 116, 117) 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
   Suggested electives: Anatomy 216, Public Speaking 130, Social Psychology 220, Principles of Social Case Work 360, Teaching of Reading 312, Basic Audiology 434 or Introduction to Lip Reading 535, Cultural Anthropology 330, Learning and Memory 510.

B. The candidate must satisfy the requirements of the B.S. degree.
II. DESCRIPTION OF COURSES

EDUCATION

Roland S. Strolle, Head
David Adams
Gerald Bodine
Earl Borr
Roy C. Bryan
John A. Buelke
Homer L. J. Carter
Clara R. Chiara
George K. Cooper
Isabel Crane
James A. Davenport
Manley M. Ellis
John L. Feirer

Orie I. Frederick
Mitchell J. Gary
Louis A. Govatos
Jane Griffith
James H. Griggs
Wendell Hunt
Donald Ihrman
Elizabeth Johnson
John W. Klousia
Eunice E. Kraft
Dana Kurfman
L. Morris McClure
Dorothy McCuskey

Dorothy J. McGinnis
George G. Mallinson
Arthur J. Manske
Harvey Overton
Hazel Paden
Lois Robinson
Esther D. Schroeder
Carl B. Snow
Bess L. Stinson
Sara R. Swickard
Alfred R. Thea
Robert Vermeulen

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 250, three hours; The Teaching of Reading 312, three hours for elementary teachers; Introduction to Directed Teaching 300, three hours; and Directed Teaching, Laboratory in Education, and General Educational Problems 470, 410 or 420, 450, fifteen hours.

Applicants for the secondary provisional certificate are not permitted to major in Education.

Elective courses are available in the following fields: elementary education, secondary education, special education, methods of teaching, foundations of education, guidance, mental hygiene, and related areas. Certain special-methods courses are available in other departments of the university.

Students take Directed Teaching 470 and Laboratory in Education 410 or 420, twelve hours, during one semester, and General Educational Problems 450, 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 (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

250 (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

300 (351) Introduction to Directed Teaching 3 hrs. Fall, Spring
This course is designed to prepare students for successful student-teaching. Prerequisite: 250 or equivalent and as many honor points as hours of credit.

SENIOR YEAR

470, 410 or 420, 450 (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: 250 and 300, or equivalent; and as many honor points as hours of credit.

470 (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 Student Teaching Office well in advance of the semester in which the Directed Teaching is to be done.

410, 420 (370B) Laboratory in Education 4 hrs. Fall, Spring
(Elementary students enroll in 410; secondary in 420)
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.

450 (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

471 (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 470. Students should enroll at the Student Teaching Office for Directed Teaching 471, 472, or 473 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.

472 (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 471. This course is also offered in extension.

473 (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 Student Teaching, need more experience in teaching. Prerequisite: 472 or 470.

GENERAL COURSES

502 (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.

504 (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 1958-1959.

506 (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 1958-1959.

508 (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.
ELEMENTARY EDUCATION

310 (208) Stories for Childhood 2 hrs. Fall
A study of stories and poems suitable to childhood. Classroom practice in story telling.

312 (212) The Teaching of Reading (Elementary) 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.

313 (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 1958-1959.

414 (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.

415 (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 1958-1959.

416 (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 1958-1959.

510 (411A) The Elementary Curriculum—I 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.

511 (411B) The Elementary Curriculum—II 2 hrs.
A continuation of 510. 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 1958-1959.

515 Seminar in the Teaching of Reading 2 hrs.
This course is designed to acquaint teachers, reading specialists and administrators with the current literature, research, methods and materials used in teaching children how to read. Special emphasis is placed on reading in relation to other aspects of language and on reading in the content fields. Not offered in 1958-1959.
School of Education

SECONDARY EDUCATION

322 (212) The Teaching of Reading (Secondary) 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.

421 (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 1958-1959.

520 (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

331 (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: 250. Not offered in 1958-1959.

434 (334) Basic Audiometry 2 hrs.

530 (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.

532 (434) Mental Deficiency 3 hrs.
A course in the psychology and pathology of mental deficiency including causation, diagnosis, classification, prognosis and therapy at all levels. Prerequisite: 250 or equivalent. Not offered in 1958-1959.

533 (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: 250 or equivalent.
534 (437) Methods and Materials for Mentally Handicapped Children

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.

535 (433A) Introduction to Lip Reading

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.

536 (433B) Speech for the Deaf

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.

537 (433C) Language for the Deaf

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 1958-1959.

538 (435) Anatomy and Pathology of the Aural Mechanism

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 1958-1959.

539 (440) Advanced Audiometry

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 1958-1959.

METHODS OF TEACHING

340 (340) Art Observation

Observation of art activities in the training school and discussion and illustration of these problems.

344 (348) Teaching of Industrial Arts

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.
School of Education

345 (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.

346 (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.

347 (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.

348 (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 1958-1959.

541 (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: 151, 153, 217, 232, 233, 251.

442 (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.

544 (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.

546 (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, psychological 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.
548 (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.

549 Production of Instructional Materials 2 hrs.
This workshop or course provides for many laboratory experiences in making such instructional materials as: bulletin board displays, charts, wet and dry mounting of pictures, film strips and 2" x 2" slides, silk screen process, magnetic boards, handmade slides, mimeograph techniques, etc. Not offered in 1958-1959.

FOUNDATIONS OF EDUCATION

350 (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 1958-1959.

550 (450) Education for Moral and Spiritual Values 2 hrs.
Open to teachers, counselors, administrators, and others who are interested in helping children and youth develop desirable behavior patterns based on fundamental moral and ethical principles. Involves a study of procedures and activities designed to develop good value-judgments which will carry over in family, school and community relationships. Not offered in 1958-1959.

551 (451) Philosophy of Education 2 hrs. Spring
For graduate students and teachers of experience. Analyzes and interprets the changes in education taking place in this and other countries.

ADMINISTRATION AND SUPERVISION

460 (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.

561 (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.
GUIDANCE, MENTAL HYGIENE, AND INDIVIDUAL SERVICES

381 (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.

482 (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.

580 (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.

581 (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.

582 (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.

583 (485) Guidance Workshop 2 hrs. Spring
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.

585 (436) Mental Hygiene of Childhood and Adolescence 2 hrs. Fall, Spring
Deals with the problems of emotional adjustment and maladjustment in childhood and adolescence.

587 (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.
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 115 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.

No student is excused from fulfilling the requirement because of physical disability, but program adjustments are arranged to take care of individual needs.

Students with irregular programs or with physical disabilities 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 140, 141, 240, 241, 230, 231, 232, 233, 370; Biology 100, Healthful Living 111, and Anatomy-Physiology 213. Strongly recommended electives are 270, 351.

Minimum requirements for men who elect physical education as their minor are 140, 141, 240, 241, 230, 231, 232, 233, 370.

Education 360 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 100 (Applicable only to Men Phys. Ed. Majors) or Biological Science 103 | 4 | Healthful Living 111 | 2
Health Education 242 | 2 | Anatomy and Physiology 213 | 4
--- | --- | Psychology of Personality 220 | 3
--- | --- | Anatomy & Physiology 216, 217 | 8
--- | --- | Community Hygiene 212 | 3
--- | --- | Psychology of Adolescence 270 | 3
--- | --- | Everyday Nutrition 212 | 2
--- | --- | Introduction to Mental Hygiene 381 | 3
--- | --- | Modern Marriage 240 | 2
--- | --- | Methods & Materials for School Health Education 514 | 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 113 and 115 during one-half of each semester. Freshmen must enroll in either 113 or 115 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 102, 103, 104, or 105 and either 113 or 115 should be completed before the student enrolls in the 200 group. A student may not receive credit for both 102 and 104. This also applies to 103 and 105, to 113 and 115, and to corresponding courses at the 200 and 300 levels.

Either 202 or 204 and either 203 or 205 must be completed before the student enrolls in the 300 group. One semester of Bowling 213 or 215 may be elected at the 200 level. The 300 courses are organized to give additional participation in activities of major interest. A course may not be repeated for additional credit.

102 (102A) General Physical Education ½ hr.
103 (102B) General Physical Education ½ hr.
104 (103A) General Physical Education 1 hr.
105 (103B) General Physical Education 1 hr.
106 (104) General Physical Education 1 hr. (Summer only)
107 (107) Beginning Swimming 1 hr. (Summer only)
108 (101) General Physical Education (Tennis) (Summer only) 1 hr.
113 (152) General Physical Education (Swimming) 2/3 hr.
115 (153) General Physical Education (Swimming) 1 hr.
202 (202A) General Physical Education 2/3 hr.
203 (202B) General Physical Education 2/3 hr.
204 (203A) General Physical Education 1 hr.
205 (203B) General Physical Education 1 hr.
206 (204) General Physical Education 1 hr. (Summer only)
213 (132) General Physical Education (Bowling) 2/3 hr.
215 (133) General Physical Education (Bowling) 1 hr.
302 (302A) General Physical Education 2/3 hr.
303 (302B) General Physical Education 2/3 hr.
304 (303A) General Physical Education 1 hr.
305 (303B) General Physical Education 1 hr.

COURSES FOR SPECIALIZING STUDENTS

140 (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.

141 (105B) Elementary Gymnastics and Outdoor Games 1 hr. Spring
A continuation of 140 with the addition of wrestling, softball, and touch football. Prerequisite: 140.

150 (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.

240 (205A) Advanced Athletics and Gymnastics 1 hr. Fall
This course advances the skills covered in 140 and stresses leadership. The work is outdoors during seasonable weather and takes up gymnastics indoors during the winter months. Prerequisite: 141.
241 (205B) Advanced Gymnastics and Outdoor Games 1 hr. Spring

This continues 240, but in the spring playground games and activities are covered and a track pentathlon suitable for playground uses. Prerequisite: 240.

270 (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.

230 (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.

231 (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.

232 (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.

233 (211) Fundamentals and Technique of Track and Field 2 hrs. Fall, Spring

The accepted forms for starting sprinting, hurdling, distance running, and for field events. Factors affecting speed, endurance, and fatigue. The selection and preparation of contestants. Managing of meets.

330 (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.

351 (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.
School of Education

370 (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.

440 (305) Principles and Technique of Gymnastic Teaching 2 hrs. Fall

The materials and skills covered in 140, 141, 240, 241 are now presented from the angle of the prospective teacher. Notebook. Leadership emphasized. Prerequisite: 241.

PHYSICAL EDUCATION FOR WOMEN

Crystal Worner, Head             Joette Hainks             Margie Miner
Helen Brown                      Doris Hussey             Candace Roell
Isabel Crane                     Margaret Large           Marion Spalding
Eleanor Douglass

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 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. Body Mechanics 100 is a requirement for those students with postural defects for whom it is recommended. When this is the case, 100 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 150, 180, 181, 245, 246, 247, 248, 276, 280, 281, 350, 360, 380, 381, 480, 544, 550, 561; Biology 102, Hygiene 112, Anatomy 216 and Physiology 217.

Health Education 242 is required of all physical education majors, but it may be counted toward the major in physical education or toward the minor in health education. 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 either Elementary School Physical Education 245, 246 or Secondary School Physical Education 247, 248; six hours of physical education activity courses to be approved by the department advisor and additional academic courses to make a total of fifteen hours selected from the following: 150, 242, 276, 360, 544, and 561.
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.

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<tr>
<th>Required Courses</th>
<th>S.H.</th>
<th>Elective Courses</th>
<th>S.H.</th>
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<tr>
<td>General Biology 100 (Applicable only to Men Phys. Ed. Majors)</td>
<td>4</td>
<td>Healthful Living 111</td>
<td>2</td>
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<tr>
<td>Biological Science 107</td>
<td>2</td>
<td>Anatomy &amp; Physiology 213</td>
<td>4</td>
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<tr>
<td>Health Education 242</td>
<td>6</td>
<td>Psychology of Personality 207</td>
<td>3</td>
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<td>Anatomy &amp; Physiology 216, 217</td>
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<td>Community Hygiene 212</td>
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<td></td>
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<td>Psychology of Adolescence 270</td>
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<td>Everyday Nutrition 212</td>
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<tr>
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<td>Introduction to Mental Hygiene 381</td>
<td>3</td>
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<td>Modern Marriage 240</td>
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<td>Materials for School Health Education 514</td>
<td>2</td>
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</tbody>
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GENERAL PHYSICAL EDUCATION COURSES

99 (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 (109) Body Mechanics 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.

101 (108) Adapted Physical Education 2/3 hr.


102 (108) Adapted Physical Education 1 hr.


103 (100) General 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.

104 (100) General Physical Education 1 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.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>105</td>
<td>Individual and Team Sports</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>106</td>
<td>Individual and Team Sports</td>
<td>1</td>
<td>Fall, Spring</td>
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<td>108</td>
<td>Horesmanship</td>
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<td>109</td>
<td>Horsemanship</td>
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<tr>
<td>110</td>
<td>Swimming, Beginning and Intermediate</td>
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<td>Fall, Spring</td>
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<td>111</td>
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<td>Swimming, Advanced &amp; Synchronized</td>
<td>2/3</td>
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<tr>
<td>113</td>
<td>Swimming, Life Saving &amp; Instructors' Test</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>120</td>
<td>Folk Dance</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>121</td>
<td>Folk Dance</td>
<td>1</td>
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</tr>
<tr>
<td>122</td>
<td>Modern Dance</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>123</td>
<td>Modern Dance</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>124</td>
<td>Social Dance</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>125</td>
<td>Square Dance</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>126</td>
<td>Tap Dancing</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>200</td>
<td>Tennis</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>201</td>
<td>Tennis</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>202</td>
<td>Golf</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>203</td>
<td>Golf</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>204</td>
<td>Archery</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>205</td>
<td>Archery</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>206</td>
<td>Badminton</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>207</td>
<td>Badminton</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>213</td>
<td>Bowling</td>
<td>2/3</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>215</td>
<td>Bowling</td>
<td>1</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>240</td>
<td>Rural School Physical Education</td>
<td>2/3</td>
<td>Spring</td>
</tr>
</tbody>
</table>

Individual and group study of expression through rhythmical movement.

Practice of form for the various shots, with some work on the course.

Indoor and outdoor programs for mixed age groups. Ideas for track meets, picnics, play days, holiday programs, and student leadership systems.
241 (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.

340 (330) Physical Education for the Classroom Teacher 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.

Courses Giving Academic Credit: (These credits may be used as academic electives, but not to satisfy any part of the physical education requirement.)

150 (171) First Aid 2 hrs. Fall, Spring
180 (151A) Physical Education Theory and Practice 2 hrs. Fall
Body mechanics, swimming, folk dance, modern dance, field hockey, volleyball and basketball.

181 (151B) Physical Education Theory and Practice 2 hrs. Spring
Tennis, swimming, folk dance, modern dance, basketball and softball.

242 (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.

245 (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.

246 (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.

247 (274A) Secondary School Physical Education 2 hrs. Fall
A study of the physical education program of high school girls with opportunities for participation in teaching.

*Students who are neither majoring nor minoring in Physical Education may elect courses from this group with consent of the departmental advisor.
248 (274B) Secondary School Physical Education 1 hr. Spring
A continuation of course 247. Apparatus work and calisthenics, stunts, testing, tournaments, track and field, and tumbling are included.

270 (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 1958-1959.

276 (276) Community Recreation, Scouting, and Camp Fire 2 hrs. Fall
The study of the organization and administration of community play.

280 (251A) Physical Education Theory and Practice 2 hrs. Fall
Square dance, modern dance, basketball, volleyball, soccer and swimming.

281 (251B) Physical Education Theory and Practice 2 hrs. Spring
Social dance, modern dance, basketball, tennis, softball and swimming.

350 (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 216, Physiology 217.

351 (473) Corrective and Adapted Physical Education 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 216, Physiology 217, Applied Anatomy 350.

360 (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.

380 (351A) Physical Education Theory and Practice 2 hrs. Fall
Individual and team sports, dancing and advanced swimming.

381 (351B) Physical Education Theory and Practice 2 hrs. Spring
Continuation of the activities of 380 with opportunities to teach dance and to officiate in sports.

480 (361) Physical Education Theory and Practice 2 hrs. Fall
Archery and golf. Advanced work in sports and dance with opportunities for teaching and officiating.
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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 advisor 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) 424 or 425, Rural School Supervision (Seminar) 408 or 409 Special Problems of Community Schools (Seminar) 411; Introduction to Special Education 331, Introduction to Mental Hygiene 381, Speech Correction 252, Education Therapy in Reading 587, Audio-Visual Education 348, Introduction to Guidance Services 580; and one or more courses in Vocational Education such as Rural Practical Arts 104, Family Foods 116, Consumer Problems 154, Clothing 200, Home Furnishings 221, Everyday Nutrition 212, Marriage and Family Relations 354, Housing 554, Consumer Buying 516.

RURAL EDUCATION

100 (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.

202 (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.

203 (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.

305 (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.
School of Education

408 (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.

409 (346) Rural School Supervision (Seminar) 2 hrs. Spring

Continuation of 408. Study of individual and group problems pertaining to supervisory and related administrative demands in rural schools. Field work is encouraged. Prerequisite: consent of instructor.

411 (348) Special Problems of Community Schools (Seminar) 2 hrs. Spring

Planned for teachers, principals and superintendents, supplementing Rural School Administration 305. 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 (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 (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.

424 (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.

425 (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.
School of
Liberal Arts and Sciences

GERALD OSBORN,
Dean

Departments:
Art
Basic Studies
Biology
Chemistry
Economics
English
Geography
History
Languages
Mathematics
Music
Physics
Political Science
Psychology
Sociology
Speech
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**

<table>
<thead>
<tr>
<th>Communication Area</th>
<th>6-8 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication 114, 115 (8 hours) or College Writing 116, 117 (6 hours)</td>
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<table>
<thead>
<tr>
<th>Science Area</th>
<th>8 hours</th>
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<tbody>
<tr>
<td>Biological Science 107 (4 hours)</td>
<td></td>
</tr>
<tr>
<td>Human Geography 105 (4 hours)</td>
<td></td>
</tr>
<tr>
<td>Physical Science 108, 109 (4 or 8 hours)</td>
<td></td>
</tr>
</tbody>
</table>

The West Campus is the new center of university activities, and the scene of most classes for the School of Liberal Arts and Sciences.
School of Liberal Arts and Sciences

Social Science Area 8 hours
- Foundations of Western Civilization 100, 101 (8 hours) or
- Man and Society 102, 103 (8 hours)

Humanities Area 6 hours
- Humanities 220, 221 (6 hours) or
- Humanities 222, 223 (6 hours)
  (See counselors for alternative courses temporarily permitted.)

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 majors, minors and electives to make a total of 124 hours

LIBERAL ARTS 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 and 500 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):


H. Courses to complete major, minors and electives to make a total of 124 hours.
MEDICAL TECHNOLOGY

A Bachelor of Science degree is awarded in the field of Medical Technology on completion of the following series of courses and a one-year internship in Medical Technology at a hospital affiliated with Western Michigan University. The curriculum fulfills the minimum requirements of the American Society of Clinical Pathologists as well as their recommendations for a strong program. A major is allowed in Medical Technology with 30 hours credit for the year of internship. This credit is only allowed if the internship is preceded by the required work in Chemistry and Biology.

Tuition must be paid during the year of internship and grades for the work completed during that year are recorded on the student's record.

At the completion of the course, the registry examination must be passed in order to become a Registered Medical Technologist.

Medical Technology Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 100</td>
<td>4</td>
<td>Qual. and Quant.</td>
<td>220, 222</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Bacteriology 312, 313</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry 100, 101, 102, 103</td>
<td>8</td>
<td>Gov't 202, 204 or 200</td>
<td>3</td>
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<tr>
<td>Man and Society 102, 103</td>
<td>8</td>
<td>Humanities 220, 221</td>
<td>6</td>
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<tr>
<td>Physiology 213</td>
<td>4</td>
<td>Electives</td>
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<table>
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<tr>
<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Physics 110, 111</td>
<td>4</td>
<td>Medical Tech.</td>
<td>435</td>
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<tr>
<td>Zoology 241</td>
<td>4</td>
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<tr>
<td>Organic Chem. 360</td>
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<td>Biochem. 550, 551</td>
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<tr>
<td>Electives</td>
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<tr>
<td>Phys. Ed.</td>
<td>1-½</td>
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<tr>
<td>To total at least 94 Semester Hours.</td>
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</table>

Recommended electives: Mathematics, Psychology, Parasites and Parasitism 551, Histology 341.

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.
**School of Liberal Arts and Sciences**

**MUSIC THERAPY CURRICULUM**

(Effective Fall Semester 1958)


<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit</th>
<th>Second Semester</th>
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<td>Applied Music (Piano)</td>
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<tr>
<td>Freshman Theory 160</td>
<td>4</td>
<td>Fresh. Theory 161</td>
<td>4</td>
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<tr>
<td>Communications 114</td>
<td>4</td>
<td>Communications 161</td>
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</tr>
<tr>
<td>Physical Science 108</td>
<td>4</td>
<td>Biological Science 107</td>
<td>4</td>
</tr>
<tr>
<td>*Physical Education</td>
<td>1</td>
<td>*Physical Education</td>
<td>1</td>
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<tr>
<td>†Large Ensemble (Vocal or Inst.)</td>
<td>1</td>
<td>†Large Ensemble (Vocal or Inst.)</td>
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<td>Freshman Year</td>
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<tr>
<td>Sophomore Year</td>
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<td>Applied Music (Piano)</td>
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<tr>
<td>Soph. Theory 260</td>
<td>4</td>
<td>Soph Theory 261</td>
<td>4</td>
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<tr>
<td>Intro. to Music Therapy 280</td>
<td>2</td>
<td>Meth. &amp; Materials of Music Therapy 281</td>
<td>2</td>
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<tr>
<td>Man &amp; Society 102 or 103</td>
<td>3</td>
<td>Psych. of Adolescence 270 (213)</td>
<td>3</td>
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<tr>
<td>Psychology 200</td>
<td>3</td>
<td>Psychology of Adolescence 270</td>
<td>3</td>
</tr>
<tr>
<td>*Physical Education</td>
<td>1</td>
<td>*Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>†Large Ensemble (Vocal or Inst.)</td>
<td>1</td>
<td>†Large Ensemble (Vocal or Inst.)</td>
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<tr>
<td>Junior Year</td>
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<tr>
<td>Applied Music (Organ &amp; Voice)</td>
<td>2</td>
<td>Applied Music (Organ &amp; Voice)</td>
<td>2</td>
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<tr>
<td>Recreational Music 390</td>
<td>2</td>
<td>Instr. Cond. 331</td>
<td>1</td>
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<tr>
<td>Choral Conduct. 330</td>
<td>1</td>
<td>Style &amp; Struc. 365</td>
<td>2</td>
</tr>
<tr>
<td>Style &amp; Structure 364</td>
<td>2</td>
<td>Brass Class 124</td>
<td>1</td>
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<tr>
<td>Woodwind Class 126</td>
<td>1</td>
<td>Infl. of Music on Behavior</td>
<td>2</td>
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<tr>
<td>Music Arranging 366</td>
<td>2</td>
<td>382</td>
<td>2</td>
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<tr>
<td>Abnormal Psych. 322</td>
<td>3</td>
<td>Marriage &amp; the Family 340</td>
<td>3</td>
</tr>
<tr>
<td>Influence of Music on Behavior 381</td>
<td>2</td>
<td>Psychology of Music 380</td>
<td>2</td>
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<tr>
<td>†Large Ensemble (Vocal or Inst.)</td>
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<td>†Large Ensemble (Vocal or Inst.)</td>
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<tr>
<td></td>
<td></td>
<td>Elective</td>
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<td>16</td>
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</tbody>
</table>
The student should select all of the various types of dancing courses offered.

The student should participate in as many different types of Large Ensemble groups as possible. Participation in the Music Ed. Band and Orchestra is strongly recommended.

May be in any field of Applied Music if the student has demonstrated piano skill through level H49 (25B).

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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
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</thead>
<tbody>
<tr>
<td>Communication 114, 115</td>
<td>8</td>
<td>General Psych. 200</td>
<td>3</td>
</tr>
<tr>
<td>Biological Sci. 107</td>
<td>4</td>
<td>Psych. of Personality 220 or Intro. to Mental Hygiene 381</td>
<td>3</td>
</tr>
<tr>
<td>Human Geography 105</td>
<td>4</td>
<td>Human Growth 250</td>
<td>3</td>
</tr>
<tr>
<td>West. Civil 100, 101</td>
<td>8</td>
<td>Economics of Consumption 230</td>
<td>3</td>
</tr>
<tr>
<td>Physical Ed.</td>
<td>2</td>
<td>Prin. of Economics 201</td>
<td>3</td>
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<tr>
<td>Electives</td>
<td>6</td>
<td>Principles of Sociology 200</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modern Social Problems 210</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Psych. 220</td>
<td>3</td>
</tr>
<tr>
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<td>Fields of Social Work 260</td>
<td>2</td>
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<tr>
<td></td>
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<td>Physical Ed.</td>
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<td>Humanities 220, 221</td>
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<tr>
<td></td>
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<td>Electives</td>
<td>2</td>
</tr>
</tbody>
</table>
School of Liberal Arts and Sciences

Third and Fourth Year

Community Hygiene 212 or Genetics 306 3-2
American Nat'l Gov't 202 3
State & Local Gov't 204 3
A minimum of 8 hours of adv. sociology in addition to the courses listed below, selected with the advice and approval of the departmental advisor 8
Intro. to Social Research 380 3
Social Research Projects 381 2

Family & Child Adjust. 362 3
Intro. to Public Welfare 364 or 3
Community Welfare Organ. 368 2
Prin. of Social Wk. 360 3
Orientation to Field Work 462 2
Supervised Field Wk. 463 3
Electives 28-32

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 182, Home Management 350, 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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Humanities 222, 223</td>
<td>6</td>
</tr>
<tr>
<td>General Lit. 112, 113</td>
<td>6</td>
<td>German, French, or Latin</td>
<td>8</td>
</tr>
<tr>
<td>Physical Science 108</td>
<td>4</td>
<td>Religion 200</td>
<td>3</td>
</tr>
<tr>
<td>Biological Science 107</td>
<td>4</td>
<td>Philosophy (Logic)</td>
<td>3</td>
</tr>
<tr>
<td>Western Civ. 100, 101</td>
<td>8</td>
<td>Philosophy (Ethics)</td>
<td>3</td>
</tr>
<tr>
<td>Phy. Ed.</td>
<td>2</td>
<td>Introductory courses in major field (the Association considers a major in English or History most desirable)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
<th>Fourth Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>German, French, or Latin</td>
<td>6 or 8</td>
<td>Complete requirements of the major, and include electives in at least two of the following fields: Economics, Sociology, Psychology, Political Science, Education.</td>
<td></td>
</tr>
<tr>
<td>History 554, 555</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophy 360, 361</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English or Speech</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pol. Sci. 200</td>
<td>3</td>
<td></td>
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</table>

**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:

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Physics 110, 111</td>
<td>8</td>
</tr>
<tr>
<td>Biology 100, 101</td>
<td>8</td>
<td>Organic Chem. 360, 361</td>
<td>8</td>
</tr>
<tr>
<td>Chem. 100, 101 or 102, 103</td>
<td>8</td>
<td>Phys. Ed. 204, 205 or R.O.T.C.</td>
<td>2-4</td>
</tr>
<tr>
<td>Man and Society 102, 103 or</td>
<td>8</td>
<td>Language or Humanities</td>
<td>6-8</td>
</tr>
<tr>
<td>Western Civil. 100, 101</td>
<td></td>
<td>Electives</td>
<td>6-8</td>
</tr>
<tr>
<td>Phys. Ed. 104, 105 or R.O.T.C.</td>
<td>2-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trig. (If none in high school)</td>
<td>3</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoology</td>
<td>8</td>
</tr>
<tr>
<td>Psychology</td>
<td>6</td>
</tr>
<tr>
<td>Electives (complete minors)</td>
<td>6</td>
</tr>
<tr>
<td>School of Liberal Arts and Sciences</td>
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<tr>
<td><strong>ENGINEERING</strong></td>
<td></td>
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<tr>
<td><strong>Chemical and Metallurgical</strong></td>
<td></td>
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<tr>
<td><strong>First Year</strong></td>
<td></td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
</tr>
<tr>
<td>or Communication 114, 115</td>
<td>8</td>
</tr>
<tr>
<td>Trig. and College Alg. 122</td>
<td></td>
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<tr>
<td>Gen. Chem. 100, 101 or 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>Mech. and Mach. Drwg. 221</td>
<td>3</td>
</tr>
<tr>
<td>Descriptive Geometry 222</td>
<td>3</td>
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<tr>
<td>Physical Ed.</td>
<td>1</td>
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<tr>
<td>Electives</td>
<td>0-3</td>
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<tr>
<td><strong>Chemical and Metallurgical</strong></td>
<td></td>
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<tr>
<td><strong>Third Year</strong></td>
<td></td>
</tr>
<tr>
<td>Modern Economics 502 and Accounting 210</td>
<td>6</td>
</tr>
<tr>
<td>Organic Chemistry 360, 361</td>
<td>8</td>
</tr>
<tr>
<td>General Speech 100</td>
<td>3</td>
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<tr>
<td><strong>Aeronautical, Civil, Electrical, Marine and Mechanical</strong></td>
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<tr>
<td><strong>Second Year</strong></td>
<td></td>
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<tr>
<td>Calculus 222, 223</td>
<td>10</td>
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<tr>
<td>General College Physics 112, 113</td>
<td>10</td>
</tr>
<tr>
<td>Eng. Material 210</td>
<td>3</td>
</tr>
<tr>
<td>Metal Processing 250</td>
<td>2</td>
</tr>
<tr>
<td>General Speech 100</td>
<td>3</td>
</tr>
<tr>
<td>Physical Ed.</td>
<td>1</td>
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</table>

Notes: 1. Differential Equations 306 is required in Aeronautical, Electrical, Marine and Mechanical Engineering.
2. Geology 230 and 231 should be taken in the third year of Civil Engineering Curriculum.
3. Civil Engineering requires surveying (Math. 200).
FORESTRY

The following is a two-year program approved by Michigan State University:

**First Year**
- College Writing 116, 117: 6
- Physical Sci. 108: 4
- Western Civil. 100, 101: 8
- Math. 6, 8 or 10: 6
- Biological Sci. 107: 4
- Phy. Ed. or R.O.T.C.: 2 or 4
- Speech 100 should be taken if a 3-hour math course is taken.

**Second Year**
- Chemistry 102, 103: 8
- Soils 200: 3
- Botany 220, 221: 8
- Man & Society 102, 103: 8
- Comparative Arts 231 or Humanities: 3-4
- Phy. Ed. or R.O.T.C.: 2 or 4

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.

**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**
- College Writing 116, 117 or Communication 114, 115: 6
- General Chem. 100, 101: 8
- West. Civil. 100, 101 or Man & Society 102, 103: 8
- Gen. Biology 100, 101: 8
- Trig. 121: 3

**Second Year**
- Geology 230: 4
- Physics 112: 5
- Soils 320: 3
- Economics 200, 201: 6
- Surveying 200: 3
- Botany 220: 4
- Botany 224: 2

**College Writing 116, 117**
- Speech 100: 3
- Phy. Sci. 108: 4
- Western Civil. 100, 101: 8
- Biol. Sci. 107: 4
- Phy. Ed.: 1½ or 2
- Electives: 3 or 4

**Journalism 264, 265**
- U. S. Hist. 210, 211: 6
- Man & Society 102, 103: 8
- Comparative Arts 231: 3-4
- Phy. Ed.: 1½ or 2
- Electives: 3 or 4
LAW

An increasing number of law schools are requiring a 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 University with his counselor according to the requirements of the school of his choice.

Below is a suggested program covering three years of work:

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>English Lit.</td>
<td>6</td>
</tr>
<tr>
<td>Math. or Lab. Sci.</td>
<td>8-10</td>
<td>History 210, 211</td>
<td>6</td>
</tr>
<tr>
<td>Western Civil. 100, 101</td>
<td>8</td>
<td>Prin. of Econ. 200, 201</td>
<td>6</td>
</tr>
<tr>
<td>Foreign Lang.</td>
<td>8</td>
<td>Acctg. 210, 211</td>
<td>6</td>
</tr>
<tr>
<td>Phy. Ed.</td>
<td>1</td>
<td>Gen. Psych. 200</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amer. Nat'l &amp; St. Govt. 202, 204</td>
<td>6</td>
</tr>
<tr>
<td>Prin. of Soc. 200</td>
<td>3</td>
</tr>
<tr>
<td>Modern Social Prob. 210</td>
<td>3</td>
</tr>
<tr>
<td>Public Finance 524</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>Second Year</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Qual. &amp; Quant. 220, 222</td>
<td>8</td>
</tr>
<tr>
<td>Biology 100, 101</td>
<td>8</td>
<td>Physics 110, 111</td>
<td>8</td>
</tr>
<tr>
<td>Chem. 100, 101 or 102, 103</td>
<td>8</td>
<td>Lang. or Humanities</td>
<td>6-8</td>
</tr>
<tr>
<td>Lang.</td>
<td>8</td>
<td>Man &amp; Society 102, 103</td>
<td>8</td>
</tr>
<tr>
<td>Phy. Ed. or R.O.T.C.</td>
<td></td>
<td>Phy. Ed. or R.O.T.C.</td>
<td></td>
</tr>
</tbody>
</table>
Third Year  S.H.  Summer
Zoology 240, 241  8  Emb. 343 or Histology 341
Organic Chemistry 360, 361  8
Electives in Soc. Sci.  6
Electives

Fourth Year
(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 116, 117  6  Biology 100  4
Chem. 100, 101 or 102, 103  8  Small Bus. Mgmt. 250  3
Man & Society 102, 103 or 8  Phy. Ed.  2
West. Civ. 100, 101  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. Most universities offering a correlated program leading to a B.S. degree and R.N. accept transfer students from an accredited institution upon the completion of specified requirements.

Students should plan with care, in cooperation with the pre-nursing counselor, to meet the admission requirements of the school they wish to attend.
A typical one-year pre-professional required program:

College Writing 116, 117 or Communication 114, 115  6-8
Chemistry 100, 101 or 102, 103  8
Biology 100, 101  4-8
Psych. 200  3
Social Science  8
Sociology 200  3
Phys. Education  Each sem.
Electives (to bring total to at least 30 semester hours)

A typical two-year pre-professional required program:

College Writing 116, 117 or Communication 114, 115  6-8
Chemistry 100, 101 or 102, 103  8
Biology 100, 101  8
Zoology 240, 241  4-8
Psychology 200  3
Social Studies  14-18
Phys. Education  Each sem.
Electives (to bring total to at least 60 semester hours).

Bronson Methodist Hospital School of Nursing students receive pre-clinical instruction at Western in special courses arranged for their particular needs. These courses are given University credit but their applicability to curricula or graduation requirements here is determined by departmental evaluation.

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.

<table>
<thead>
<tr>
<th>First Year</th>
<th>S.H.</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 100, 101 or 102, 103</td>
<td>8</td>
<td>Electives (Speech 100 recommended)</td>
</tr>
<tr>
<td>College Writing 116, 117</td>
<td>6</td>
<td>Phy. Ed. or R.O.T.C.</td>
</tr>
<tr>
<td>Biology 100, 101</td>
<td>8</td>
<td>Math. (if Trig. was not taken in high school)</td>
</tr>
</tbody>
</table>
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 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 freshman year.

The two Humanities sequences, Humanities 220 & 221, 222 & 223, are recommended for the sophomore or junior year.

COMMUNICATION:

114 (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.

115 (104B) Communication 4 hrs. Spring, Fall

A continuation of 114.

116 (106A) College Writing 3 hrs. Fall, Spring

The course is planned to aid the student in developing greater facility in the use of language, with special emphasis on reading and writing.

117 (106B) College Writing 3 hrs. Fall, Spring

A continuation of 116. The critical approach is given special emphasis.

SCIENCE:

*107 (*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.
School of Liberal Arts and Sciences

*105 (*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.

*108 (*100A) Physical Science 4 hrs. Fall, Spring

The major objective of the course is to prepare the student for intelligent living in the nuclear age. The course is designed for students who are not planning to specialize in any of the physical sciences. Physical Science 108 with 109 are planned to provide a scientific background for understanding our rapidly changing culture.

109 (*100B) Physical Science 4 hrs. Spring

This course continues with a more complete treatment of the major topics in 108. New topics from astronomy, physics, and chemistry are introduced. This course emphasizes the applications of physical science principles to broad problems of social and industrial significance. Prerequisite: Physical Science 108.

SOCIAL SCIENCE:

*100 (*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.

101 (*100B) Foundations of Western Civilization 4 hrs. Spring, Fall

A continuation, from the seventeenth century, of 100. While this course deals primarily with the West, it surveys important developments in all parts of the world. It emphasizes the last half-century. Prerequisite: 100.

*102 (*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.

*103 (*101B) Man and Society 4 hrs. Spring, Fall

A continuation of 102.
HUMANITIES:

220 (201A) Humanities 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 "Man and Society").

221 (201B) Humanities 3 hrs. Spring
This course is a continuation of 220 and is concerned with the Renaissance, the age of enlightenment and the contemporary period.

222 (202A) Humanities 3 hrs. Fall
This course explores esthetic expression in painting, music, and literature, and acquaints students with principles of composition and techniques of analysis in all three arts. (This course is primarily for students who have taken "Foundations of Western Civilization").

223 (202B) Humanities 3 hrs. Spring
This course makes use of a selection of great writings and works of art to stimulate the student to examine human values.
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  Hazel I. Paden  Lydia Siedschlag
Marc F. Hansen  Stanley K. S. Phillips  Elizabeth Smutz
John G. Kemper  Paul Robbert  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: 151 (105), 153 (106), 121 (107), 111 (108), 123 (110), 243 (211), and 134 (113A), 135 (113B), 222 (216A).

A minor in art consists of: 153 (106), 151 (105), 134 (113A), 135 (113B), or 232 (213A), 233 (213B), and art electives to complete 15 hours of credit.

Two points of 231 may be substituted for 134 and 135.

A major in art consists of: 151, 153, 133, 251, 261, 217, 232, 233, and 347, 357, 351, 355, and electives to make 40 hours. 340 and 541 are offered as required education courses for art majors.

151 (105) Elementary Design  2 or 3 hrs.  Fall, Spring

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

153 (106) Art Structure  3 hrs.  Fall, Spring

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

121 (107) Illustrative Handwork  3 hrs.  Fall, Spring

An elementary craft course with manual problems related to interests in the primary grades.

111 (108) Lettering and Poster Making  2 hrs.  Spring

Emphasis is on lettering and poster making for school and commercial use.

133 (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.
193

**Art**

140 (112) **Learning Through Art** 3 hrs. Fall, Spring

This is a laboratory course designed to help classroom teachers recognize art as a vital factor in child growth. Discussions, films, demonstrations, examination of children's work, supply sources, classroom display, studio projects relating to all grade groups, and current teaching practices are a part of the course.

251 (205) **Figure Drawing** 3 hrs. Spring, 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: 153 or consent of instructor.

261 (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: 153, 151.

253 (211) **Modeling** 3 hrs. Fall

Basic course in sculpture. Mediums are plaster, wood, metal, clay and stone.

225 (212) **Handicraft** 3 hrs. Spring and Fall

Includes problems in metal, wood, and other materials. Emphasis on technique. Prerequisite: Art Structure 153, Industrial Art 133, or consent of instructor. A fee of two dollars will be charged for materials.

232 (*213A) **History of Art** 3 hrs. Fall

Study of primitive, Egyptian, Chaldean, Greek, and Roman architecture, sculpture, and painting.

233 (*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: 232 or consent of instructor.

217 (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: 151, 153.

231 (*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.
School of Liberal Arts and Sciences

222 (216A) Ceramics 3 Credits Fall and Spring
Basic course in the designing and building of pottery—emphases on casting, throwing, glazing, and firing techniques.

223 (216B) Ceramics 2 Credits Fall and Spring
Continuation of Ceramics 222, developing greater knowledge of advanced ceramic techniques. Prerequisite: 222.

134 (*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.

135 (*113B) Art Appreciation 1 hr. Spring and Fall
A brief survey of the history of sculpture, architecture, and minor arts is given. Prerequisite: 134.

255 (220) Stage Design 2 hrs.
A course for art and speech majors. Class makes practical use of knowledge of scene painting, lighting, and mechanics of staging.

253 (221) Home Furnishing 2 hrs.
A study of interior design and color, furniture past and present, experience in practical problems.

347 (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: 153.

328 (307) Jewelry 3 hrs. Fall, Spring
Basic course in the designing and making of jewelry; study of basic techniques and processes—to include enameling.

351 (308) Advanced Art Composition 2 hrs. Spring
Continuation of Art Composition 261. Mediums are oil, tempera, and casein. Prerequisite: 153, 151, 261.

357 (309) Advanced Design 3 hrs. Fall
Continuation of Elementary Design 151. Applied Art Problems. Prerequisite: 151, 153, 261.

355 (310) Graphics 2 hrs. Fall, Spring
Study of prints and print making, etching, wood-block, lithograph, and silk screen. Prerequisite: 151, 153, 261.

540 (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: 151, 153, 261, or consent of instructor.
Music

575 (414) Advanced Commercial Art 3 hrs. Fall

Continuation of Commercial Art 217 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.

MUSIC

Elwyn F. Carter, Head
Sam B. Adams
Elmer R. Beloof
Margaret F. Beloof
Owen L. Berger
Arthur Birkby
Russell W. Brown
Arthur Eresman
Marcella Faustman
Robert R. Fink
Jack J. Frey
Tom R. Fulton
Ethen M. Green
Thomas C. Hardie
Daniel A. Kyser
Holton Matthews
Leonard V. Meretta
Charles E. Osborne
Peggy Ramstad
Robert Schieber
Alexander Schuster
Dorothea S. Snyder
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 39 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 160, 161; Theory 260, 261; Music History and Literature 370, 371; Style and Structure 364; and one semester of an advanced theory or music literature course.

Minors in music must complete Theory 160, 161 (B), eight hours; a Methods and Materials course of three hours; Piano Class 120, 121 two hours; Conducting, either 331 or 330 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

120 (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.

121 (117B) Piano Class  1 hr. Spring
A continuation of 120.

122 (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.

123 (116B) Voice Class  1 hr. Spring
A continuation of 122.

124 (320A) Brass Class (Cornet)  1 hr. Fall, Spring

125 (320B) Brass Class (Mixed)  1 hr. Fall, Spring
The study of French horn, Trombone, Baritone, and Tuba, to the extent that the student can demonstrate a knowledge of the basic fundamentals of all four instruments. The study of a limited repertoire for these instruments.

126 (219A) Woodwind Class (Clarinet)  1 hr. Fall, Spring

127 (219B) Woodwind Class (Mixed)  1 hr. Fall, Spring
The study of oboe, flute, and bassoon, to the extent that the student can demonstrate a knowledge of the basic fundamentals of all three instruments. The study of a limited repertoire for these instruments.

128 (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.

129 (118B) String Class  1 hr. Spring
A continuation of 128. Prerequisite: 128.
130 (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.

131 (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.

132 (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.

140 (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.

141 (100B) Music for Classroom Teachers
3 hrs.  Spring

A continuation of 140.

160 (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 forms and harmonization.

161 (106B) Freshman Theory
4 hrs.  Spring

A continuation of 160.

*170 (*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.

*171 (*107B) Music Appreciation
2 hrs.  Spring

A continuation of 170.
190 (312) Accompanying  
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.)  
1 hr. Fall, Spring

220 (217A) Advanced Piano Class  
A continuation of 120, 121. Recommended to elementary education majors. Prerequisite: Piano Class 120, 121.  
1 hr. Fall

221 (217B) Advanced Piano Class  
A continuation of 220.

231 (322) French Diction and Song Literature  
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.  
No credit. Spring

232 (324) German Diction and Song Literature  
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.  
No credit. Spring

233 (323) Major Performance Literature  
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.)  
1 hr. Fall, Spring

240 (208) Elementary School Methods and Materials  
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.  
3 hrs. Fall, Spring

241 (109) Rural School Music Methods and Materials  
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.  
3 hrs. Fall, Spring

260 (206A) Sophomore Theory  
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.  
4 hrs. Fall

261 (206B) Sophomore Theory  
A continuation of 260.  
4 hrs. Spring
330 (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.

331 (311B) Instrumental Conducting 1 hr. Fall, Spring
A continuation of 331. Application is made by use of easy literature for instrumental ensembles.

340 (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. Instrumentality, 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.

341 (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.

362 (306A) Composition 2 hrs. Fall
Original work in composition, starting with the smaller forms in both the vocal and instrumental fields. Prerequisite: 260, 261.

363 (306B) Composition 2 hrs. Spring
A continuation of 362.

364 (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: 260, 261.

365 (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.

366 (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.
School of Liberal Arts and Sciences

*370 (*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.

*371 (*307B) Music History and Literature 4 hrs. Spring
A continuation of 370.

442 (309S) Instrumental Organization and Administration in Public Schools 2 hrs. Summer
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.

490 (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.

530 (452) Advanced Choral Conducting 1 hr. Fall
Supervised experience in conducting vocal groups. The student may be called upon to prepare an ensemble for public performance. Prerequisite: 330, 331.

531 (451) Advanced Instrumental Conducting 1 hr. Spring
Supervised experience in conducting instrumental groups. The student may be called upon to prepare an ensemble for public performance. Prerequisite: 330, 331.

540 (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.

542 (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.

543 (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.
560 (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: 260, 261.

561 (405B) Counterpoint 2 hrs. Spring
A continuation of 560 (405A)

562 (456A) Advanced Composition 2 hrs. Fall
Further original work in composition dealing with the larger forms in both vocal and instrumental fields. Prerequisite: 362, 363.

563 (456B) Advanced Composition 2 hrs. Spring
A continuation of 562.

567 (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 260, 261.

568 (455B) Orchestration 2 hrs. Spring
A continuation of 567.

570 (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.

590 (402) Operetta and Musical Production 2 hrs. Summer
A course designed to give the school music teacher the techniques for presenting musical productions. Such areas as selection of the production, casting, lighting, scenery, staging, publicity, costumes, make-up, etc. will be discussed. The course will culminate in a public performance.

Graduate students will be required to assist with other parts of the production in addition to participating in the performance.

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 de-
gree 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.

H20 through H35 Harp
H40 through H55 Piano
H60 through H75 Organ
H80 through H95 Voice
Z20 through Z35 Stringed Instruments: Violin, Viola, Cello, Bass Viol
Z40 through Z55 Brass Instruments: Cornet or Trumpet, Trombone, French Horn, Tuba, Baritone
Z60 through Z75 Woodwind Instruments: Flute, Oboe, Bassoon, Clarinet, Saxophone
Z80 through Z95 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 (117). 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.

110 (133) University Band Mr. Meretta

This organization affords to the student who plays some instrument an opportunity for development in both marching and playing. The band furnished 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.)

111 (132) University 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, and the orchestra joins with other campus organizations in joint programs. Instruments are available for the use of the students.
The University 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.

University Singers is open to all students (men and women) who wish to obtain a knowledge of choral music. The choir sings concerts on campus and for other organizations in the area.

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.

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.

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.

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.
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
Thelma E. Anton
Herbert Bergman
Georgiann Burge
Edward T. Callan
Bernadine P. Carlson
Philip S. Denenfeld
John R. Freund
Lorena M. Gary
Clayton A. Holaday
Frank C. Householder
Robert M. Limpus
Irving Lo
John J. McNally
Jean Malmstrom
Helen E. Master
Ralph N. Miller
Arnold Nelson
Lucille A. Nobbs
John B. Orr
Dorothy Osborn
Robert A. Palmatier
David G. Paugh
Katharine D. Rogers
William R. Rosegrant
David F. Sadler
Helen G. Sellers
Charles A. Smith
Anne O. Szalkowski
Ruth G. Van Horn
Louise J. Walker
John W. Woods

The study of English has a time-honored place in the university as a force to increase a student's sensitivity to art, to people, and to language. It is recognized also for its importance as a preparation for certain vocations.

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 university 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 a balanced and coherent 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

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Literary Interpretation</td>
<td>3</td>
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<td>American Literature or Great American Writers</td>
<td>3</td>
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<tr>
<td>Shakespeare</td>
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<td>Chaucer</td>
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<tr>
<td>Advanced Writing or Creative Writing or Journalism</td>
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<tr>
<td>English Language</td>
<td>2</td>
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<td>Development of Modern English</td>
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<td>Electives chosen with aid of Departmental adviser to complete 15-hour minimum.</td>
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### Majors in the Secondary Curriculum

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School of Liberal Arts and Sciences

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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**

**104 and 105** Communication (See Division of Basic Studies)

**106 and 107** College Writing (See Division of Basic Studies)

**264 (201A) Journalism**

3 hrs. Fall

Theory and practice in writing news stories, interviews, features, and publicity; copy-editing and headlines.

**265 (201B) Journalism**

3 hrs. Spring

A continuation of 264. Editorials, opinion columns, critical writing, cartoons, advertising copy and lay-out, typography, and page lay-outs are studied. Prerequisite: 264.

**270 English Language**

2 hrs. Spring

A preliminary inquiry into the principles which govern language study.

**362 (326) Advanced Writing**

2 hrs. Fall, Spring

Individualized instruction intended to prepare students to write for professional and avocational purposes.

**366 (328) Creative Writing**

2 hrs. Fall

Original writing in the field of the student's choice. Open to sophomores on recommendation of their freshman writing teachers.

**367 Creative Writing**

2 hrs. Spring

Additional original writing. 366 is not a prerequisite.
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. Prerequisite: 270.

Modern English Usage  
2 hrs. Fall, Spring  
An examination of tendencies in the usage of contemporary speakers and writers. Prerequisite: 372.

Literary Criticism  
2 hrs.  
A study of ancient and modern writers on the nature of literature and how it may be examined and judged. Prerequisite: 210.

Structure of Modern English  
2 hrs. Spring  
A study of the evolution of modern syntax. Prerequisite: 372.

Children's Literature  
3 hrs. Fall, Spring  
A general survey of the field of literature suited to the needs and interests of children.

Teaching of English  
2 hrs. Fall, Spring  
Teaching methods and sources of materials for the English teacher.

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.

Source Material for Literature in Elementary Grades  
2 hrs. Spring  
Books and materials about children's literature—indexes, lists, studies both critical and historical. Prerequisite: 282.

General Literature  
3 hrs. Fall  
Readings in European literature from the Greeks to the Middle Ages.

General Literature  
3 hrs. Spring  
Readings in European literature from the Renaissance to the contemporary period.

Literary Interpretation  
3 hrs. Fall, Spring  
An introduction to literary study to develop skills in critical interpretation.

American Literature  
3 hrs. Fall, Spring  
A survey of American Literature from the beginning to the Civil War.
232 (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.

232 (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.

238 (216A) Contemporary Literature 2 hrs. Fall, Spring
Readings in British poetry, fiction, and drama since 1900.

239 (216B) Contemporary Literature 2 hrs. Fall, Spring
Readings in American poetry, fiction and drama since 1900.

244 (219) Short Story 2 hrs. Fall, Spring
A study of the short story as an art form.

252 (214A) Shakespeare 3 hrs. Fall, Spring
A study of Shakespeare’s art through the application of several critical methods to selected tragedies, histories, and comedies.

253 (214B) Shakespeare 3 hrs. Spring
An intensive study of special critical problems in Shakespeare’s dramatic writing. Prerequisite: 252.

254 (228) Milton 3 hrs. Spring
An intensive study of Milton’s poetry and prose.

336 (305A) Victorian Literature 3 hrs. Fall
English poetry and prose from 1832 to 1859. Prerequisite: 210.
337 (305B) Victorian Literature  3 hrs.  Spring
English poetry and prose from 1859 to 1900. Prerequisite: 210.

342 (308) English Drama  2 hrs.  Fall, Spring
A study of representative plays and playwrights from 1580 to 1890. Prerequisite: 210.

343 (338) Modern Drama  2 hrs.  Spring
European and American plays from Ibsen to the present. Prerequisite: 210.

344 (313) English Novel  3 hrs.  Fall, Spring
The development of the English novel from Defoe to Hardy. Prerequisite: 210.

345 (314) Contemporary Novel  3 hrs.  Fall, Spring
A study of the tendencies in fiction since 1900. Prerequisite: 210.

350 (391) Chaucer  3 hrs.  Fall, Spring
A study of Chaucer's major poems. Prerequisite: 210.

396 English Honors  2 hrs.  Fall
A course providing opportunity for studies in special topics under departmental guidance, for selected English majors.

397 English Honors  2 hrs.  Spring
A continuation of 396.

496 English Honors  2 hrs.  Fall
A continuation of 397.

534 (416) Eighteenth-Century Literature  2 hrs.

535 (417) Eighteenth-Century Literature  2 hrs.
The decline of the old and the development of new literary interests are studied in the work of Thomson, Gray, Cowper, Blake and others. Prerequisite: 210. (Not offered in 1958-59).

536 (409A) Romantic Literature  2 hrs.  Fall
Readings in Blake, Burns, Wordsworth, Coleridge, Scott, and the major criticism of the period. Prerequisite: 210.

537 (409B) Romantic Literature  2 hrs.  Spring
Readings in Byron, Shelley, Keats, Hazlitt, Lamb, and DeQuincey. Prerequisite: 210.

559 (422) Midwestern Literature  2 hrs.  Fall
The origins, characteristics, and historical development of the imaginative literature of the American Midwest. Prerequisite: 210.
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 two-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**
- Phonetics 406 3 hrs.
- France and the French 304, 305 2 hrs.
  19 hrs. in sequence in addition

**Major in German**
- German Conversation and Composition 310, 311 4 hrs.
  20 hrs. in sequence in addition

**Major in Latin**
- Latin Writing 420 3 hrs.
  21 hrs. in sequence in addition

**Major in Spanish**
- 24 hrs. in sequence

**Minor in French**
- Phonetics 406 3 hrs.
- France and the French 304, 305 2 hrs.
  10 hrs. in sequence in addition

**Minor in German**
- 15 hrs. in sequence

**Minor in Latin**
- 15 hrs. in sequence

**Minor in Spanish**
- 15 hrs. in sequence

In the Secondary Curriculum, the elementary courses cannot be used for a major or minor.

Students who wish to do practice teaching in Latin, should take Teaching of Latin 442.

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 unless the elementary course is completed.

**FRENCH**

100 (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.
101 (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 100. About 150 pages of reading will be used as a basis for conversation practice. French records and the recorder will be used frequently.

200 (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.

201 (102B) Intermediate French 4 hrs. Spring
This is a continuation of 200. In this semester 300 pages of reading are completed.

300 (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: 100-101, 200-201 or equivalent.

301 (203B) Nineteenth Century French Literature 3 hrs. Spring
This continuation of 300 is a study of naturalism, with readings from Balzac, Flaubert, Zola, Rostand; and the Parnassian and symbolistic schools of poetry.

302 (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.

303 (201B) Conversation and Free Composition 2 hrs. Spring
This is a continuation of 302.

304 (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.

305 (207B) France and the French 1 hr. Spring
This is a continuation of 304.

400 (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. Not offered 1958-1959.
401 (307B) Contemporary French Literature 2 hrs.
This continuation of 400 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

402 (310A) Seventeenth Century French Literature 3 hrs.
This is a study of the development of classicism against the social back-
ground 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 1959-1960.

403 (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 1959-1960.

404 (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.

405 (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.

406 (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 pro-
nunciation. Required of all students majoring or minoring in French. Pre-
requisite: two years of college French or equivalent.

407 (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.

500 (437) Studies in Contemporary France 2 hrs.
This course investigates more deeply some phases of French life which
were only mentioned in 304, 305. An effort is made to understand those
factors in French thinking which strongly affect international thought
today. There is no prerequisite in foreign language.

502 (408A) Contemporary French Literature 2 hrs. Fall
This study of selected masterpieces of contemporary French fiction will
be offered upon sufficient demand.

503 (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,
GERMAN

110 (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.

111 (100B) Elementary German 4 hrs. Spring
This is a continuation of 110. Approximately 100 pages of prose are read, and grammar, oral work, and composition are correlated. No credit is given for 110 unless 111 is completed.

210 (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.

211 (102B) Intermediate German 4 hrs. Spring
This is a continuation of the reading and related work of 200. 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.

212 (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.

213 (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.

310 (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.

311 (201B) German Conversation and Composition 2 hrs.
This is a continuation of 310. Offered in 1957-1958.

410 (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.
School of Liberal Arts and Sciences

411 (305B) German Literature to 1825 4 hrs. Spring
This is a study of the classical period, and a continuation of 410. The life and works of Goethe, Schiller, and other poets of the period are studied. Offered in 1957-1958.

412 (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.

413 (306B) German Literature from 1825 to the Present 4 hrs. Spring
This course is a continuation of 412. 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.

510 (407) The Central European Area 2 hrs.
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.

512 (417) Evolution of German Thought 2 hrs. Fall
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 1958-1959.

514 (427) Germany Through the Centuries 2 hrs.
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.

580 (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.
LATIN

120 (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 121 it covers the work of two units of high school language requirement.

121 (100B) Elementary and Second-Year Latin  4 hrs.  Spring
A continuation of 120. A student may present one unit of high school Latin and enter the course in the second semester.

220 (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 120, 121. Offered in 1958-1959.

221 (102B) Cicero and Ovid  4 hrs.
This is a continuation of 220. Selections from Cicero and from Ovid's "Metamorphoses" are read. Offered in 1958-1959.

222 (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 1959-1960.

223 (103B) Virgil  4 hrs.  Spring
This is a continuation of 222. Intensive study of the first six books is continued, and the survey of the whole is completed. 1959-1960.

224 (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.

225 (104B) Latin Literature  2 hrs.  Spring
In this continuation of 224, selections from the Histories of Livy and the Latin poets are read.

320 (204A) Horace  4 hrs.
The Odes, Epodes, and Satires are read. A study of the philosophy of Horace accompanies the reading.

321 (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.

358 (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.
School of Liberal Arts and Sciences

420 (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. Offered in 1958-1959.

558 (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

130 (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.

131 (100B) Elementary Spanish 4 hrs. Spring
This is a continuation of 130.

230 Intermediate Spanish 4 hrs. Fall
This is a complete review course designed to strengthen the knowledge and abilities acquired in Spanish 130, 131 and, at the same time, enlarge the vocabulary. Cultural and historical accomplishments of Spain provide the basis for reading and conversational practice. Prerequisite: two years of high school Spanish, or 130, 131.

231 (102B) Intermediate Spanish 4 hrs. Spring
This is a continuation of 230.

332 (201A) Spanish Conversation 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 130, 131.

333 (201B) Spanish Conversation and Composition 2 hrs.
This is a continuation of 332. It will be offered if there is sufficient demand.

330 (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: 230, 231.

331 (203B) Advanced Spanish 4 hrs. Spring
This is a continuation of 330.

334 (207A) Latin-American Life and Culture 4 hrs. Spring
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.
Languages

336 (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.

430 (305A) Spanish-American Literature 2 hrs.
This is a survey of Spanish-American literature from the pre-Columbian period to the present, including the literature of the Conquest, the Colonial and Independence period, and that of the Gauchos. Prerequisite: 330, 331 or its equivalent.

431 (305B) Spanish-American Literature 2 hrs. Spring
This is a continuation of 430 bringing the survey to the contemporary writers of Latin-America.

432 (306A) Spanish Literature
Readings from Spanish literature from the sixteenth century to the end of the Golden Age are selected for this course. Prerequisite: Spanish 330, 331, or consent of the instructor.
First semester. Mr. Jones. Two semester hours.

433 (306B) Spanish Literature
This is a continuation of 432 and includes the literature from the eighteenth century to the present. Prerequisite: 330, 331 or its equivalent.
Second semester. Mr. Jones. Two semester hours.

434 (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: 330 or the permission of the instructor. Offered in 1958-1959.

435 (307B) The Spanish Novel 2 hrs. Spring
The study of the novel is continued through reading works of Pérez Galdós, Blasco Ibáñez and contemporaries. Offered in 1958-1959.

436 (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: 330, 331, or permission of instructor.

437 (308B) Golden Age of Spanish Literature 2 hrs. Spring
This is a continuation of 436.

530 (405) Contemporary Spanish Theater 2 hrs.
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.
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 114, 115; Speech Courses 102, 100, 104. These courses may not be counted toward minimum requirements for a major or minor in speech. General speech 100 is required 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, 130, 222, 234, 250, 320, 562, 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. All students are urged to include in their programs Parliamentary Usage 230 and as many additional courses in speech as possible.

Six minor sequences are offered requiring 15 semester hours each.

1. Teaching minor in dramatics and interpretation: Courses 110, 222, 320, 562 and 130 or another course in an area other than dramatics and interpretation.

2. Teaching minor in forensics: 130, 234, 566, 562, and 110 or another course in an area other than forensics.

3. Teaching minor in general speech: 110, 130, 562, and electives to make a total of 15 semester hours.

4. Teaching minor in elementary education: 100, 560, 564, and 8 hours electives (4 hours may be Communication).

5. Non-teaching minor in radio: 140, 240, 242, 340, 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.

*Exceptions may be made upon the recommendation of an instructor and/or approval of the chairman of the department.
219

Speech

99 (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.

100 (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.

102 (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.

104 (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 (110) Interpretive Reading

3 hrs. Fall, Spring

Analysis and interpretations 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.

114, 115 (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.

130 (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 (140) Radio Speaking

3 hrs. Fall, Spring

Study and practice of radio techniques as they apply to announcing, talks, interviews, and discussion.

220 (217) History of the Theatre

2 hrs. Fall

From the beginnings to the English Renaissance.

221 (218) History of the Theatre

2 hrs. Spring

From the English Renaissance to the present day.
220

School of Liberal Arts and Sciences

222 (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.

224 (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.

226 (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.

228 (221) Stage Make-up 1 hr. Fall, Spring
Study and practice of the principles and techniques of stage make-up.

230 (201) Parliamentary Procedure 1 hr. Fall, Spring
Designed for students who desire knowledge and practice in participating in and conducting business meetings.

232 (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.

234 (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.

236 (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.

240 (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.

242 (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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 (250)</td>
<td>Introduction to Speech Correction</td>
<td>3 hrs.</td>
<td>Fall, Spring</td>
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<td></td>
<td>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.</td>
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<tr>
<td>252 (251)</td>
<td>Principles of Speech Correction</td>
<td>3 hrs.</td>
<td>Fall, Spring</td>
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<td></td>
<td>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.</td>
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<tr>
<td>254 (232)</td>
<td>Problems of the Deaf and Hard of Hearing.</td>
<td>3 hrs.</td>
<td>Spring</td>
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<td></td>
<td>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.</td>
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<tr>
<td>300 (307)</td>
<td>Voice and Diction</td>
<td>3 hrs.</td>
<td>Fall, Spring</td>
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<td></td>
<td>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.</td>
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<tr>
<td>310 (310)</td>
<td>Interpretive Reading II</td>
<td>2 hrs.</td>
<td>Offered as needed</td>
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<td></td>
<td>Advanced work in the oral interpretation of literature, with special emphasis on the dramatic form. Prerequisites: 110, 222 or consent of instructor.</td>
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<tr>
<td>320 (320)</td>
<td>Play Production</td>
<td>3 hrs.</td>
<td>Fall, Spring</td>
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<td></td>
<td>Theory and application of basic principles of directing and staging plays with particular emphasis upon production problems of school and community.</td>
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<tr>
<td>340 (342)</td>
<td>Radio Scriptwriting</td>
<td>2 hrs.</td>
<td>Fall</td>
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<td></td>
<td>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.</td>
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<tr>
<td>350 (318)</td>
<td>Phonetics</td>
<td>3 hrs.</td>
<td>Fall</td>
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<td>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.</td>
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<tr>
<td>352 (351)</td>
<td>Practicum in Speech Therapy</td>
<td>1 hr.</td>
<td>Fall, Spring</td>
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<td></td>
<td>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. Prerequisite: 250.</td>
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<tr>
<td>354 (352)</td>
<td>Practicum in Speech Therapy</td>
<td>1 hr.</td>
<td>Fall, Spring</td>
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<td></td>
<td>A Continuation of 351. Prerequisite: 351.</td>
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<tr>
<td>356 (353)</td>
<td>Practicum in Speech Therapy</td>
<td>1 hr.</td>
<td>Fall, Spring</td>
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<tr>
<td></td>
<td>A continuation of 351. Prerequisite: 354.</td>
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</table>
500 (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.

516 (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.

520 (414) Children's Theatre 2 hrs. Spring
Deals with the production of formal plays with and for children. Considers the dramatic literature of the field; selection, staging and direction of children's plays; and psychology of child audiences.

522 (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: Acting 222 or consent of instructor.

524 (422) Problems in Play Production
Consider special problems facing the teacher in the field with little or no formal theatre training. Study limited to selecting and casting the play; approach and preparation of the role and directing the play.

526 (424) Technical Problems of Play Production
Companion course to 524. Emphasis placed on problems in planning and executing scenery, lighting, costuming, and makeup.

530 (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 130 or consent of instructor.

532 (409) Persuasion 2 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.

540 (440) Fundamentals of Broadcasting 2 hrs. Spring
Instruction concerning every department of the broadcasting studio. Prerequisites: 130 or 110 or consent of instructor.

542 (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.
544 (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.

550 (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.

552 (452) Stuttering and Allied Disorders 3 hrs. Spring

Designed to provide the student with more detailed knowledge of the nature, and causes, development of stuttering and other serious functional speech disorders. The literature will be surveyed, and the various methods for treating these disorders will be described in detail. Prerequisite: 252.

554 (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: 252 or consent of instructor.

558 (454) The Organic Speech Disorders 3 hrs. Spring

This course is concerned with the diagnosis and treatment of the speech disorders of organic origin: cleft palate, cerebral palsy, aphasia, aphonia, and dysarthria. Prerequisite: 252 or consent of instructor.

560 (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.

562 (499) Teaching Speech in the Secondary School 3 hrs. Fall, Spring

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 students academic training and its application to the teaching situation.

564 (404) Creative Dramatics for Children 2 hrs. Fall, Spring, Summer

The study of the principles, materials and techniques of informal dramatics as a classroom activity in elementary grades. Includes observation of demonstration groups.
School of Liberal Arts and Sciences

566 (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.

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 freshmen level. A group minor in science must include at least twenty 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 freshmen 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 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.

The following Divisional freshman courses are offered: Biological Science; Human Geography; Physical Science. Descriptions of these courses are found under the Division of Basic Studies. In addition to these, the following courses are offered:

203 Teaching of Elementary Science 3 hrs. Spring
This course covers more important subject matter of the physical and biological sciences with methods for its effective presentation in the classroom, particularly in rural schools.

300 Teaching of Physical Science 2 hrs. Spring
Prerequisite: a major or minor in physics or chemistry.
# College Science Courses Recommended for Training Prospective Science Teachers for Secondary Schools

<table>
<thead>
<tr>
<th>Teaching Pattern</th>
<th>Biology</th>
<th>Chemistry</th>
<th>Physics</th>
<th>Mathematics</th>
<th>General Education Basic Science</th>
<th>Other Science Courses</th>
<th>Science Methods</th>
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<tbody>
<tr>
<td>A. Biology and General Science, In combination with Physical Education</td>
<td>A Basic Course in Introductory Biology A Field Course in Botany Additional Courses to total at least a 15-hour teaching minor in Biology</td>
<td></td>
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<td>Physical Science (2 semesters)</td>
<td>Meteorology (one semester)</td>
<td>Biology Methods (one semester)</td>
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<td>General Chemistry (one semester)</td>
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<tr>
<td>B. Biology and General Science</td>
<td>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</td>
<td>General Chemistry (2 semesters)</td>
<td>General Physical (2 semesters)</td>
<td>Trigonometry (one semester) College Algebra (one semester) Analytic Geometry (one semester) Additional Courses to make a minor (15 hours)</td>
<td>Biological Science (one semester) Human Geography (one semester)</td>
<td>Astronomy (one semester)</td>
<td>Physical Science Methods (one semester)</td>
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<td>Additional Courses to make a major (24 hours) in Chemistry or in Physics or a group major (30 hours) in a Chemistry-Physics combination</td>
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<td>C. Chemistry Mathematics Physics and General Science</td>
<td>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)</td>
<td>General Chemistry (2 semesters)</td>
<td>General Physics (2 semesters)</td>
<td>Trigonometry (one semester) College Algebra (one semester) Analytic Geometry (one semester) Additional Courses to make a minor (15 hours)</td>
<td>Biological Science (one semester) Human Geography (one semester)</td>
<td>Astronomy (one semester)</td>
<td>Physical Science Methods (one semester)</td>
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<tr>
<td>D. Biology Chemistry Physics and General Science</td>
<td>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)</td>
<td>General Chemistry (2 semesters)</td>
<td>General Physics (2 semesters)</td>
<td>Trigonometry (one semester) College Algebra (one semester) Analytic Geometry (one semester) Additional Courses to make a minor (15 hours)</td>
<td>Biological Science (one semester) Human Geography (one semester)</td>
<td>Astronomy (one semester)</td>
<td>Physical or Physical Science Methods (one semester)</td>
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BIOLOGY

W. C. Van Deventer,  A. Verne Fuller  Edward E. Reynolds
   Head  Frank J. Hinds  Thane S. Robinson
Lee O. Baker  Elaine Hurst  Edwin B. Steen
Bette E. Barnes  Daniel F. Jackson  Leo C. Vander Beek
Harriette V. Bartoo  George G. Mallinson  Merrill R. Wiseman
Bettina B. Carter  Myrtle M. Powers

Courses 100 and 101 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 general prerequi-
sites for advanced courses in the department. Students who are not planning
to specialize in biology generally take course 103.

A recommended major for pre-medical and pre-dental students includes
100, 101, 240, 241, 341 and 343. If possible 312 and 313 should be elected.
A recommended major for students preparing to enter forestry, horticul-
ture or landscape architecture consists of 100, 101, 220, 221, 240 and 241.
If possible, 224, 347 and 320 should be elected. Those majoring in biology
are required to take their general education science work in the physical
science area.

A major or minor for secondary teachers should embrace as wide a
range of courses as possible within the department, 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. A recommended minor or major for secondary teachers
must include 304. This course should be taken before the student enrolls for
directed teaching in biology.

A recommended biology minor for elementary teachers consists of 103,
232, 233 and three or more elective hours of work beyond the 100 level.

All biology majors are required to attend biology seminar.

100 (100A) General Biology  4 hrs. Fall

   This and the following course, 101, cover 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.

   First semester. Six class hours weekly, including lecture and laboratory.

101 (100B) General Biology  4 hrs. Spring

   A continuation of 100, covering the higher animal groups, the plant groups,
genetics, evolution, ecology and conservation.

   Second semester. Six class hours weekly, including lecture and laboratory.
107 (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.

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.

231 Outdoor Science for Teachers 3 hrs. Summer
An abridgement of 232 and 233, designed for teachers in service. Offered only in summers and by extension.

232 (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.

233 (231B) Outdoor Science 4 hrs. Spring
This course has the same aims as 232. It includes spring plants, pond life, migratory and resident birds, rocks, minerals and weather. Especially desirable for elementary teachers. Field trips are a part of the scheduled work. Students may enter without having had 222.

302 (301) Man and the Living Environment 3 hrs. Fall, Summer
A study of interrelationships among plants and animals, including man. Emphasis is placed on classroom and field experiences which will lead to an understanding of man's dominance and of the development of the human-plant-animal community.

304 Methods and Materials in Biology 2 hrs. Fall, Spring
This consists of class discussion, laboratory practice and field work, illustrating the collection, preparation, care and use of materials for biology teaching, with particular reference to high school. This course is required of all students who are following a secondary education curriculum, and list biology as a major or minor.
Prerequisite: twelve hours of biology, including both zoological and botanical aspects.

306 (305) Genetics 2 hrs. Fall
A comprehensive study of the laws of heredity, including their application to plant and animal breeding and to man.
Prerequisite: Three semesters of laboratory biology.
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308 (306) Evolution 2 hrs. Fall
A consideration of the evidence for and the principles involved in the evolution of plants and animals, including man.
Prerequisite: 100 and 101, or equivalent.

309 (408) Nature of Science 2 hrs. Spring
A consideration of the nature and application of scientific attitude and scientific methodology as exemplified by specific cases from the history of scientific research.
Prerequisite: eight hours of college biology, or consent of instructor.

313 (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: 100 or equivalent.
214 (213) Anatomy and Physiology for Nurses 4 hrs. Fall
An abridgement of 216 and 217, especially adapted to meet the needs of students in the Bronson Methodist Hospital School of Nursing. For Bronson students only.

215 (214) Bacteriology for Nurses 3 hrs. Spring
A specialized course dealing with microorganisms, adapted to the needs of students in the Bronson Methodist Hospital School of Nursing. For Bronson students only.

216 (211A) Anatomy 4 hrs. Fall
A study of the gross and microscopic structure of the organs and tissues of the mammalian body, with emphasis on that of man. In the laboratory, the cat is dissected in detail.
Prerequisite: eight hours of biology or equivalent.

217 (211B) Physiology 4 hrs. Spring
A study of the functions of the various organs and tissues of the human body. Experiments concerned with fundamental life processes are performed in the laboratory.
Prerequisite: 213 or 216 or equivalent.

312 (312A) Bacteriology 4 hrs. Fall
A general introduction to the principles governing the study of all microorganisms. Practical techniques are employed in the laboratory.
Prerequisite: twelve hours of science selected from the fields of biology and chemistry, or equivalent.

313 (312B) Advanced Bacteriology 4 hrs. Spring
This course is for more advanced students who are particularly interested in microorganisms which cause disease. Special techniques are used in the laboratory, and a number of unknowns are identified.
Prerequisite: 312 or equivalent.

512 (413) Health Problems 2 hrs. Fall, Summer
This course is an intensive study of those diseases and practices which constitute major social problems. Frequent reports are made, and an investigative project is required for graduate credit.
Prerequisite: sixteen hours in the fields of biology and/or chemistry, or consent of instructor.

514 (414) Methods and 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.
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515 (415) Alcohol Problems 2 hrs. Spring, Summer

An objective study of a major social problem, examined critically with regard to its physiological, psychological, legal, cultural and sociological aspects. Frequent reports are made, and an extensive project is required of graduate students.

Prerequisite: twenty hours in the fields of biology and/or sociology or consent of instructor.

BOTANY

220 Botany of Seed Plants 4 hrs. Fall

The study of seed plants, their fundamental gross and microscopic structure, physiology, classification and development. The university greenhouse is used in experiments involving living plants and their propagation.

Prerequisite: eight hours of biology, or consent of instructor.

221 (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 class time. The second half of this course may be taken separately, without the first half, under the title of course 225.

Prerequisite: eight hours of biology, or consent of instructor.

224 (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, and to their economic uses.

Prerequisite: eight hours of biology, or consent of instructor.

225 (224) Local Flora 2 hrs. Spring, Summer

An elementary field course in the identification of flowering plants. Especially designed for those who need an acquaintance with the common wild flora occurring in this region. This course corresponds to the last half of 221. Students taking 221, therefore cover the material of this course, and cannot obtain additional credit for 225. Those wishing additional work in this area should take course 421.

Prerequisite: eight hours of biology, or consent of instructor.

320 Plant Pathology 3 hrs. Fall

For students with an interest in biology, agriculture, forestry, or allied fields of botany. This course deals with the common diseases of higher plants, caused by fungi, viruses and physiological factors, as well as those connected with the presence of animals such as nematodes and insect larvae. Emphasis is on causes, carriers and “cures” for plant diseases commonly found in farm, garden and greenhouse cultivation.

Prerequisite: one semester of botany or equivalent.
323 Reproduction and Growth in Plants 3 hrs. Spring

Intended for advanced students in biology, who feel the need for a survey type course covering a comparative approach to the study of reproduction from the lower forms to advanced organisms. Discussion lectures will deal with such topics as asexual and sexual reproduction, alternation of generations, parthenogenesis, apospory and apogamy. Experiments in these areas as well as in subsequent growth of type organisms will be set up.

Prerequisite: at least twelve hours of biology, including four hours of botany, or consent of instructor.

421 (420) Flowering Plants 2 hrs. Spring

An advanced course in field study and identification of flowering plants. Students will be expected to use keys for identification, and assemble an herbarium collection for their own use.

Prerequisite: eight hours of biology.

423 Paleobotany 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 are 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 are arranged during the semester.

Prerequisite: twelve hours of biology, including 221.

424 (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 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. Desirable also for students in business, economics and industrial education.

426 Plant Physiology 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.

Prerequisite: 220 or its equivalent. A course in high school or college chemistry is desirable.

521 (520) Plant Taxonomy 2 hrs. Summer

Designed for those interested in carrying on investigations in the identification, classification and ecological distribution of the higher plants. Students should have some knowledge of plant classification and plant families. They should be able to use standard plant keys, and should be familiar with the organization of an herbarium. A special problem is required.

Prerequisite: the equivalent of an undergraduate minor in the field of biology, which should include a course in botany.
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. Eight class hours weekly.
Prerequisite: 100, 101 and eight additional hours of biology.

343 (342) Embryology
4 hrs. Spring
The development of the individual from the origin of the germ cells to adulthood. The frog and chick are emphasized in the laboratory. Eight class hours weekly.
Prerequisite: 100, 101 and eight additional hours of biology.
347 (243) Ornithology 3 hrs. Spring, Summer

A development of knowledge and appreciation of birds through a study of their plumage, song, flight, migration, nesting habits, relation to environment and importance to man. The student learns to identify birds in the field, and a minimum of 100 species in the laboratory. Early morning field trips are required.

504 Microtechnique 2 hrs. Fall

A study of the methods employed in the preparation of tissues for microscopic study.

Prerequisite: three semesters of laboratory biology, or consent of instructor.

518 Endocrinology 2 hrs. Fall

A study of the glands of internal secretion, the active principles produced by each and their effects on bodily metabolism.

Prerequisite: three semesters of laboratory biology, or consent of instructor. A course in chemistry is recommended.

542 Entomology 2 hrs. Fall, Summer

A general study of insects, their structure, classification, life histories, ecological relationships, economic importance and methods of control.

Prerequisite: 100 and 101, or equivalent, or consent of instructor.

543 Protozoology 2 hrs. Spring

A study of the comparative anatomy, physiology and ecology of the free-living protozoa, with consideration of their evolutionary relationships.

Prerequisite: a minor in biology, or consent of instructor.

545 Ichthyology 2 hrs. Spring

A study of the anatomy, physiology, taxonomy and ecology of fresh-water fishes, with particular emphasis on those occurring in Michigan.

Prerequisite: eight hours of biology, or consent of instructor.

547 (441) Advanced Ornithology 3 hrs. Spring, Summer

Investigation of details of song, habitat, habits and identification of shore and marsh birds in their native haunts. Skins of birds of Michigan, both resident and migrant, are provided for identification. Early morning field trips are required.

Prerequisite: eight hours of college laboratory courses in biology, or consent of instructor.

551 Parasites and Parasitism 2 hrs. Spring

A study of parasitism and its effects on parasite and host. Typical representatives of the principal groups of animal and plant parasites will be studied in detail. Special attention will be given to the parasites of humans.

Prerequisite: three semesters of laboratory biology or equivalent, or consent of instructor.
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555 Natural History of Land Vertebrates 3 hrs. Summer
To acquaint students and teachers with the classification, life histories, adaptations, ecology and behavior of amphibians, reptiles and mammals.
Prerequisite: two college laboratory courses in biology or equivalent, or consent of instructor.

557 Natural History of Invertebrates 3 hrs. Summer
To acquaint students and teachers with the ecology, distribution and taxonomy of the invertebrates of the region, with special reference to their life histories and economic importance. Students will prepare their own teaching collections.
Prerequisite: two college laboratory courses in biology or equivalent, or consent of instructor.

CHEMISTRY

Gerald Osborn, Head
Lillian H. Meyer, Acting Head
Robert H. Anderson
James W. Boynton

Paul Holkeboer
Don C. Iffland
Lawrence G. Knowlton
Robert C. Nagler
Lauri E. Osterberg
Elizabeth F. Tuller
Esther Woodruff
Elaine Zimmerman

A major in chemistry consists of one year of general chemistry (8 hours) and 16 hours from the following: 220, 222, 360, 361, 340, 350, 351, 580, 530, & 531. 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: 220, 222, 360, 361, 340, 350, 351, 580.

100 (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.

101 (100B) General Chemistry 4 hrs. Spring
A continuation of General Chemistry 100. Prerequisite: 100.

102 (101A) General Chemistry 4 hrs. Fall, Spring
This is a more advanced course than 100. 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.

103 (101B) General Chemistry 4 hrs. Fall, Spring
A continuation of course 102. Prerequisite: 102.
104 (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.

105 (105B) General Chemistry 4 hrs. Spring
A continuation of course 104. 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: 104.

106 (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.

107 (110) Applied Chemistry 3 hrs. Spring
A course for the students in the curriculum in Petroleum Distribution. Fundamental principles of chemistry and an introduction to petroleum chemistry are given emphasis.

205 (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.

210 (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: 100, 101 or 102, 103.

220 (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: 100, 101, 102, 103.

222 (202) Quantitative Analysis 4 hrs. Fall, Spring
This course includes the theory and practice of volumetric and gravimetric analysis. Prerequisite: Qualitative Analysis 220. A knowledge of quadratic equations and common logarithms is essential.

310 (398) Inorganic Preparations 1-2 hrs.
Consult instructor before enrolling. Laboratory work only. Given on request.
School of Liberal Arts and Sciences

320 (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.

322 (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: 222. Given on request.

340 (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: 360, 361.

360 (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: 100, 101 or 102, 103. Open to qualified sophomores.

361 (306B) Organic Chemistry 4 hrs. Spring
A continuation of course 360. Prerequisite: 360.

462 (399) Organic Analysis 2 hrs.
Determination of carbon, hydrogen, and nitrogen by combustion methods. Laboratory work only. Consult instructor before enrolling. Given on request.

505 (405) Chemical Literature 2 hrs.
An introduction to the use of the various types of chemical literature such as journals, handbooks, abstracts, monographs, government and institutional publications, and patents. Problems in the course require literature searches in analytical, inorganic, biological, organic and physical chemical fields.

530 (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: 222, Physics 113 and Calculus 223. (Five hours includes laboratory.)

531 (403B) Physical Chemistry 3 or 5 hrs. Spring
A continuation of course 530. This course includes radioactivity, quantum theory, atomic structure, conductance of solutions, pole potentials, oxidation potentials, polarization, chemical thermodynamics, colloids, etc. Prerequisite: 530. (Five hours includes laboratory.)
550 (350) Biochemistry  2 hrs. Spring
Elementary study of the chemistry of the body, digestion, metabolism, excretion, the endocrines, and vitamins. Prerequisite: 360. Open only to Junior and Seniors.

551 (351) Biochemistry Laboratory  1 hr. 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 Biochemistry 550. Prerequisite: 222 or 340 and 360.

560 (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: 361.

564 (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.

565 (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.

580 (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.

590 (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: 222, 361, 550, 430. Given on request.

591 (497B) Special Problems in Chemistry  2 hrs.
A continuation of special problem work started under 590. Given on request.
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 360 or 366 is prerequisite to receiving departmental recommendation for directed teaching or for a teaching position in geography.

Any other course offered by the department is acceptable on either a major or 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.
SURVEY REGIONAL COURSES

210 (206) United States and Canada  3 hrs.  Fall, Spring
Study of areal differentiation in Anglo-American and of present-day problems, with emphasis upon occupational crises in selected regions. Prerequisite: 105 or 308.

212 (208) South America  3 hrs.  Fall
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: 105 or 308.

213 (209) Mexico and the Caribbean Lands  2 hrs.  Spring
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: 105 or 308.

214 (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: 105 or 308.

225 (225) Meteorology  2 hrs.  Fall
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.

GEOLOGY

230 (230A) Physical 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.

231 (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: Physical Geology 230.

FUNCTIONAL COURSES

244 (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.
308 (305) Introductory World Geography 3 hrs.
Course should be elected instead of 105, 106 by students who do not begin the study of geography before the junior year. Not open to students who have received credit for 105 or 106. Not offered in 1958-1959.

310 (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: 105 or 308. Not offered in 1958-1959.

INTENSIVE REGIONAL COURSES

314 (304) The British Isles 2 hrs.
Geographical analysis of their present and potential development. Prerequisite: 105 or 308 and Europe 214. Not offered in 1958-1959.

315 (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: 105 or 308.

316 (320) Japan 2 hrs.
Detailed study of the geography of Japan, with attention focused on present developments and future potentialities. Prerequisite: 105 or 308. Not offered in 1958-1959.

318 (308) Africa 3 hrs.
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: 105 or 308. Not offered in 1958-1959.

319 (309) Islands of the Pacific 3 hrs. Spring
Study of populations and natural resources of Pacific Islands with emphasis upon economic and political problems which have arisen. Prerequisite: 105 or 308.

325 (325) Climatology 2 hrs.
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: 105 or 308 or 225, or consent of instructor. Not offered in 1958-59.

332 (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: Dynamic Geology 230. Not offered in 1958-59.
335 (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 230. Not offered in 1958-1959.

339 (350) Field Geology—Summer Trip 4 hrs.
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: Geology 231 or the equivalent. Post-summer session.

350 (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 wildlife; and study of the utilization of these resources so as to yield the greatest ultimate good. Methods in teaching conservation.

360 (303) Geographic Techniques 3 hrs. Fall, 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: 105 or 308.

FIELD GEOGRAPHY

366 (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: 108 or 308.

368 (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: 366 or consent of the instructor. A planning conference is required.

380 (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: 105 or 308.

510 (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.
School of Liberal Arts and Sciences

512 (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 1958-59.

514 (323) Union of Soviet Socialist Republics 3 hrs.
Analysis of the geography of the whole of the Soviet realm. Prerequisite: 105 or 308. Not given in 1958-59.

540 (416) Political Geography 2 hrs. Summer, Fall
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.

542 (411) Historical Geography of North America 2 hrs. Summer
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.

560 (410) Studies in Geographic Education 2 hrs.
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 360. Not offered in 1958-1959.

576 (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.

MATHEMATICS

Charles H. Butler, Head
Howard F. Becksford
Fred A. Beeler
Pearl L. Ford
Herbert H. Hannon
Adelaide E. Howson
Stanislaw Leja
Joseph C. 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
Mathematics

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 123 or 125 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

<table>
<thead>
<tr>
<th>Subjects and number of units presented for entrance</th>
<th>First year</th>
<th>Second year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Semester</td>
<td>Second Semester</td>
</tr>
<tr>
<td>Algebra, 1 ½ or 2 units</td>
<td>124</td>
<td>125</td>
</tr>
<tr>
<td>Geometry, 1 or 1 ½ units</td>
<td>(104A)</td>
<td>(104B)</td>
</tr>
<tr>
<td>Trigonometry, ½ unit</td>
<td>122</td>
<td>123</td>
</tr>
<tr>
<td>(103A)</td>
<td>(103B)</td>
<td></td>
</tr>
<tr>
<td>Algebra, 1 ½ or 2 units</td>
<td>120</td>
<td>121</td>
</tr>
<tr>
<td>Geometry, 1 unit only</td>
<td>(100A)</td>
<td>(100C)</td>
</tr>
</tbody>
</table>

For students who plan to take Mathematics of Finance and Statistics

<table>
<thead>
<tr>
<th>Qualified students (see foregoing table)</th>
<th>124 (104A) or 122 (103A)</th>
<th>125 (104B) or 123 (103B)</th>
<th>202, 203 and 260 or (227A, B) (209)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not qualified for 122 or 124</td>
<td>102* (105A)</td>
<td>103* (105B)</td>
<td>202, 203 and Business Statistics (227A, B)</td>
</tr>
</tbody>
</table>

100 (120A) Business Mathematics

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.

*Courses 102 and 103 do not prepare students to take Calculus. Students who are qualified to take courses 122, 123, or 124, 125 in the freshman year should take these courses in preference to 102 and 103.
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School of Liberal Arts and Sciences

101 (120B) Business Mathematics 2 hrs. Fall, Spring
A study of simple interest, compound interest, annuities, short-term installment buying, graphs, and amortization. Prerequisite: 100 or equivalent.

102 (105A) Introduction to College Mathematics 3 hrs. Fall
Elementary algebra through quadratic equations. This course, together with 103, 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.

103 (105B) Introduction to College Mathematics 3 hrs. Spring
A continuation of Math. 102. Topics studied include the binomial theorem, logarithms, progressions, the straight line, and elements of curve-fitting and of probability. Prerequisite: 102.

104 (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.

105 (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. Not offered in 1958-1959.

110 (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 1958-1959.

120. (100A) Intermediate Algebra 3 hrs. Fall, Spring
The course covers the work usually given in the third semester of high school algebra. Prerequisite: Plane geometry and one year algebra.

121 (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 120 or equivalent.

122 (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 description of 121 and 124). It should be followed by 123. Prerequisite: Plane geometry and 120 or equivalent.

123 (103B) Trigonometry and Analytic Geometry 5 hrs. Fall, Spring
A continuation of trigonometry and a substantial treatment of analytic geometry (see descriptions of 121 and 125). Prerequisite: 122.
124 (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: 120 and 121 or equivalent.

125 (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. Prerequisite: 124 or equivalent.

150 (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.

200 (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: 121.

202 (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: 123, 125, or 103.

203 (227B) Mathematics of Finance 2 hrs. Spring

A continuation of 202. Topics studied include the general case of annuities certain, and contingent annuities, with applications to problems of reinvestment, and especially of life insurance. Prerequisite: 202.

210 (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 120 or equivalent.

211 (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 1958-1959.
220 (206A) Calculus 5 hrs. Fall, Spring
Covers the same topics as 222 but with more emphasis on interpretation of results and more attention to curvature, motion, and indeterminate forms. Prerequisite: 123 or 125.

221 (206B) Calculus 5 hrs. Fall, Spring
Covers the same topics as 223 but with more extensive treatment of series, hyperbolic functions, partial derivatives, and multiple integrals. Prerequisite: 222 or 220.

222 (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: 123 or 125.

223 (205B) Calculus 4 hrs. Fall, Spring
A continuation of the work begun in 222. 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: 222.

260 (209) Elementary Statistical Practice 3 hrs. Fall
A study of averages, dispersions, sampling, correlation, and tests of significance for small and large samples. Prerequisite: 123 or 125.

264 (271) Statistical Quality Control 3 hrs. Fall, Spring
A study of the binomial, Poisson, and normal distributions; control charts; single, double, and sequential acceptance sampling plans, and non-parametric tests. Industrial applications will be emphasized. Prerequisite: Math 260.

302 (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: 223 or consent of instructor.

306 (321) Differential Equations 3 hrs. Fall
An elementary course in ordinary differential equations with applications to problems of engineering, physics and chemistry. Prerequisite: 223.
Mathematics

330 (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: 223.

340 (323) Solid Analytic Geometry 2 hrs. Spring
Study of lines, planes, space curves, and surfaces; transformations, using matrices. Prerequisite: 223.

350 (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: 125 or consent of the instructor.

360 (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. 360 and 361 together form an introductory course especially designed for the needs of people in industry in both experimental work and the flow of production. Prerequisite: 223.

361 (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: 360.

404 (425) 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: 405.

405 (405) Vector Analysis 3 hrs. Offered on request
The formal processes of vector analysis, with application to geometry and mechanics. Prerequisite: 223.

440 (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: 123 or 125.

450 (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: 125.

452 (411) History of Mathematics 2 hrs. Spring
This course treats of the history of geometry and trigonometry from earliest times to the present. Prerequisite: 125.
This course treats of the history of arithmetic and algebra from earliest times to the present. Prerequisite: 125.

The study of statistics as the science of experimentation; averages, dispersions, sampling, correlation, and statistical tests valid for small and large samples. Prerequisite: 125.

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: 223.

Paul Rood, Head
George E. Bradley
Stanley K. Derby
Jacob Dewitt

Haym Kruglak
Walter G. Marburger
Robert B. Miller
Nathan L. Nichols

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 advisor; these courses are listed below. Every major in Physics should have a minor in Mathematics and a minor in Chemistry. All physics majors are required to take Physics Seminar during their junior and senior year.

Courses applicable on a major in Physics:

112 and 113 Mechanics, Heat, Electricity and Electricity, Sound, Light 10 s.h.

Fourteen semester hours chosen from the following:

201 Astronomy 2 s.h.

or

203 Photography 2

431 Theoretical Physics 3

441 Heat and El. Thermodynamics 3

451 Light 3

453 Applied Spectroscopy 3

461 Introduction to Electronics 3

463 Electrical Measurements 4

465 Adv. Electronics 3

471 Atomic Physics 3

473 Nuclear Physics 3

481 Adv. Laboratory Physics 2 14

24 s.h.
Courses applicable on a minor in Physics:

110 and 111 General Physics 8 s.h. 8
or
112 and 113 Mechanics, Heat, Electricity and Electricity, Sound, Light 10 s.h.
Eight (or six) semester hours chosen from the “200” and “400” courses listed under “Courses Applicable on a Major in Physics.”

PHYSICS COURSES

100 and 101 Physical Science (See Division of Basic Studies)

103 (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.

110 (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.

111 (102B) General Physics 4 hrs. Spring
This course follows 110 and consists of studies in electricity, magnetism, and light. Prerequisite: 110.

112 (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.

113 (103B) Electricity, Sound, and Light (General Physics) 5 hrs. Fall, Spring
This course follows 112 and consists of studies in electricity, magnetism, sound, light, and modern physics. Prerequisite: 112.

114 (104A) Physics Problems 1 hr. Fall
A course in problems in mechanics, heat, and electricity. This course, together with 115, is required of engineers presenting only 8 s.h. of credit in Physics whose program calls for 10 s.h. in this subject.

115 (104B) Physics Problems 1 hr. Spring
A course in problems in electricity, sound, and light. Prerequisite: 114.
School of Liberal Arts and Sciences

201 (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.

203 (220) Photography 3 hrs. Fall, Spring
This is an elementary course in the theory and use of photographic materials.

431 (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, electrical and magnetic fields. Prerequisite: 112, 113, Calculus 220, 221, or 222, 223.

441 (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: 112, 113, Calculus 220, 221, or 222, 223.

451 (350) Light 3 hrs. Fall, Spring
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: 112, 113, Calculus 220, 221, or 222, 223.

453 (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: 112, 113.

461 (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: 112, 113, Calculus 220, 221, or 222, 223.

463 (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: 112, 113, Calculus 220, 221, or 222, 223.

465 (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: 461, Calculus 220, 221, or 222, 223.
471 (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 112, 113, Calculus 220, 221, or 222, 223.

475 (441) Nuclear Physics 3 hrs. Spring
Designed to follow 471. 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 471, or consent of the instructor.

481 (399) Advanced Laboratory Physics 2 hrs. Fall, Spring
A course in laboratory experimentation more advanced than that in 112, 113. May be elected only on arrangement with the instructor. Prerequisite: 112, 113, and a minor or major in physics. Open to qualified Juniors, Seniors.

491 (300) Teaching of Physical Science (See Division of Science and Mathematics).

610 (501E) Modern Advances in Physical Science 2 hrs. Summer
Some modern developments in the fields of chemistry and physics will be treated. Such topics as additions to the periodic table, radioactive isotopes, new organic compounds, ultrasounds, semi-conductors and transistors, and nuclear energy will be considered. Lectures, demonstrations, readings. Prerequisites: 16 semester hours in physics and chemistry. (Given Summer 1958)

612 (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 application, semi-conductors and transistors, ultrasounds, elementary particles, and high energy accelerators. Special attention will be given to making the course of value to high school teachers of science. Prerequisites: 112, 113. (Not given summer of 1958)

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
William Yankee

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 432. A minor consists of 15 hours.

Students majoring in psychology are advised to elect from the Department of Biology and the Department of Sociology.
School of Liberal Arts and Sciences

100 (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 (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 (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 (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.

220 (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.

270 (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.

322 (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.

330 (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.

340 (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.
341 (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.

380 (302) Psychological Testing 3 hrs. Fall, Spring

The course will consider selecting, administration, and interpretation of educational, personality, and aptitude tests. Lecture and laboratory.

415 (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.

432 (301) Elementary Experimental Psychology 3 hrs. Fall, 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.

481 (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 380.

490 (310 A, 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.

492 (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. Course 492 involves additional cases and practice in clinical procedure. Prerequisite: 380, 322, and 481, or consent of instructor.

510 (410) Learning and Memory 2 hrs. Spring

A survey of the general principles of learning and memory and an introduction to learning theory.

512 (400) Physiological Psychology

Neurophysiological correlates of learning, perception, emotion, motivation, and problem solving. Interrelation between physiological processes and behavior theory is considered.
514 (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.

542 (404) Occupational Analysis and Classification 2 hrs. Fall, Spring
Sources of occupational information; procedures and techniques of job analysis and job classification; applications in employment procedures, placement, and vocational counseling.

560 (406) Vocational Psychology 2 hrs. Fall, Spring
The problems of vocational choice and of occupational group-differences. Lectures, reading, and an occasional laboratory period substituted for a class hour.

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 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 102, 103, do not alone satisfy this requirement.)

2. A group minor for those who qualify for a teaching certificate must include:
   a. To teach in the elementary schools:
      1. Twenty or more hours in the Division.
      2. Acceptable courses in at least three departments of the division. (Man and Society 102, 103, does not satisfy this requirement.)
b. To teach in the secondary schools (Open only to those who major or minor in a department of the Division):

1. Twenty or more hours in the Division.
2. Acceptable courses in the three departments other than the one in which a student has a major or minor. (Man and Society 102, 103, does not satisfy this requirement.)

3. A group minor for students not working toward a teaching certificate must include:
   a. Twenty or more hours in the Division.
   b. May be developed around any one of the following patterns:
      1. Western Civilization 100, 101 ....................................8 hrs.
         Electives .................................................................12 hrs.
      2. Man and Society .....................................................8 hrs.
         Electives .................................................................12 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 teaching certificate.

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 (100, 101). 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 102-103, 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.

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 and (2) on Social Science group majors providing it is not included in the minimum of 15 hours in one department for a major.

100-101 Foundations of Western Civilization 8 hrs. Fall, Spring
For description of the course, see Division of Basic Studies.

102-103 Man and Society 8 hrs. Fall, Spring
For description of course, see Division of Basic Studies.
500 (400) Teaching of the Social Studies 3 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.

504 (401) Social Studies Seminar: England 6 hrs.

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. Next offered in 1960.

**ECONOMICS**

Floyd W. Moore, Head
Myrtle T. Beinhauer
Howard F. Bigelow
Robert S. Bowers
Theodore L. Carlson
Marguerite Patton
K. Philip Rahbany
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 200, 201 are prerequisite to all other courses offered in the department except 230, 322, 502, 508, 604, 626, 628, 612.

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.
Principles and General Theory

200 (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, 201, are basic to intelligent understanding of our American economic system as compared with communism or other "isms".

201 (220B) Principles of Economics 3 hrs. Fall, Spring
A continuation of Principles of Economics 200. 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.

301 (320) The Price System 2 hrs. Fall
A basic course in economic theory, with emphasis on production and income distribution theory. Prerequisite 200, 201.

502 (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 200 and 201. 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 200 or 201 will preclude credit in 502.

504 (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: 200, 201.

506 (427) History of Economic Thought 2 hrs. Fall
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.

508 (434) Economic Development 3 hrs. Fall
An analysis of the economic factors such as population, resources, innovation and capital formation which affect economic growth. Selected underdeveloped areas will be studied to understand the cultural patterns and economic reasons for lack of development and the steps necessary to promote economic progress. Special attention will be paid to evaluating the effectiveness of the United States foreign aid program and examining the issues arising as a result of the conflict with the U.S.S.R. Prerequisite 200, 201.
School of Liberal Arts and Sciences

Labor

510 (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: 200, 201.

511 (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: 510.

512 (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: 510, 511 or the consent of the instructor.

514 (432) Labor and Government 3 hrs. Spring
The course deals with the government's role in the problems arising from labor-management relations and from labor's search for security. It covers the court's attitude toward labor organization from the rule of conspiracy through Taft-Hartley. It also includes protective legislation and the development of security legislation.

Money, Credit and Finance

320 (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: 200, 201.

321 (321B) Money and Credit 2 hrs. Spring
A continuation of 320 with special emphasis on banking and other financial institutions. Prerequisite: 320.

322 (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.

524 (420) Public Finance 3 hrs. Fall
A study of government expenditure, revenues, debts, and problems of fiscal administration. Prerequisite: 200, 201. Work in government may be substituted in special cases by permission of the instructor.
Consumption Economics

230 (223) Economics of Consumption 3 hrs. Fall, Spring
A study of the problems faced by the individual and the family in trying to satisfy their wants with the money income and other resources at their disposal.

532 (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: 200, 201 or consent of the instructor.

Marketing and Transportation

240 (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 200, 201 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.

342 (324) Transportation 3 hrs. Spring
An analysis of the various means of transportation, including the items of service, cost, revenues, and government regulations. Prerequisite: 200, 201.

Public Utilities and Government Regulation

350 (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 200, 201.

552 (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: 200, 201. Work in Political Science may be substituted in special cases by permission of the instructor.
Economic Growth and Fluctuations

360 (330) Business Cycles 2 hrs. Spring

An historical and theoretical analysis of business cycles. Prerequisite: 200, 201.

Business Economics

574 (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: 200, 201. (Because of overlapping content, the same student is not permitted to receive credit in both Economics 574 Corporations, and Business course 380 Corporation Finance.)

576 (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: 200, 201.

International Economics

580 (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: 200, 201.

HISTORY

Robert R. Russel, Head
Ernst A. Breisach
Alan S. Brown
Walter J. Brunhumer
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
Russell H. Seibert
Charles R. Starring

Students preparing to teach in the later elementary grades are advised to take Foundations of Western Civilization 100, 101 and a sequence of courses in United States history.

Students who have previously acquired a good general knowledge of United States history are advised to by-pass the general survey courses United States History 210, 211 and take more advanced courses in the field. In case of uncertainty as to whether or not courses 210 and 211 ought to be by-passed, the departmental adviser should be consulted.

A major in history must include at least 5 hours in courses numbered in the five hundreds. The five-hundreds courses deal intensively with short periods or with single historical topics and, therefore, afford students
better opportunity than general survey courses do to become acquainted with methods of advanced historical study.

A minor in history must include at least one 300s or 500s course.

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.

100 (100A) Foundations of Western Civilization 4 hrs. Fall, Spring
   For description, see Division of Basic Studies.

101 (100B) Foundations of Western Civilization 4 hrs. Fall, Spring
   For description, see Division of Basic Studies.

202 (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.

203 (202B) Great Britain and the Commonwealth, 1815 to the Present 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 British Commonwealth of Nations.

210 (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.

211 (201B) United States History, 1865 to the Present 3 hrs. Fall, Spring
   A general survey of United States history for the period.

302 (326) The Modern Middle East 3 hrs. Spring
   A study of the lands formerly parts of the Ottoman Empire with special attention to the problems resulting from racial conflicts, economic imperialism, and the rise of nationalism.

310 (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.

316 (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 210, 211 is presupposed, and a knowledge of the principles of economics is very helpful.

340 (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.
346 (311) Economic History of Europe 3 hrs.

350 (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.

351 (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.

352 Medieval Europe 3 hrs. Fall
A general survey of the history of Medieval Europe from the fall of the Roman Empire to the Renaissance with emphasis on cultural development and political and economic institutions.

370 (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.

371 (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.

380 (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.

506 (425A) Intellectual History of Western Man, to 1550 2 hrs.
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. Not offered in 1958-59.

507 (425B) Intellectual History of Western Man, 1550 to 1959 2 hrs.
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. Not offered in 1958-59.
508 (323) Modern Nationalism in Europe and America  2 hrs. Spring
Factors promoting the rapid growth of nationalism 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.

516 (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.

518 (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.

520 (403) American Foundations  2 hrs. Fall
The English colonies in America, both continental and island, 1607-1763, with emphasis upon the development of institutions and upon imperial policy and administration.

521 (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.

522 (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 521.

523 (405A) United States History 1815-1848. 2 hrs. Fall
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.

524 (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 523.

527 (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 1958-59.

532 (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.

533 (406B) United States History 1933 to the Present  2 hrs. Spring
A continuation of 532. The big topics are the Great Depression, the New Deal, World War II, and our foreign relations since the war.
School of Liberal Arts and Sciences

554 (322A) The Renaissance 2 hrs. Spring
The life, thought, and art of the Renaissance, 1350-1550; Humanism; social and economic conditions in Renaissance Europe.

555 (322B) The Reformation 2 hrs. Fall
A history of the religious reformation in Europe at the beginning of Modern Times.

558 (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.

559 (416) The French Revolution and the Napoleonic Era, 1789-1815 2 hrs. Spring
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.

560 (410A) 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.

561 (410B) 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.

562 (408) Europe, 1900-1925 3 hrs. Fall
A study of the causes of World War I and of the frustrated opportunities of the peace, to the Locarno Conference.

563 (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.

567 (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 1958-59.

592 (430) The Literature of History 2 hrs. Spring
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.
A student may earn a minor in philosophy but not, at present, in religion. Political Science 360 History of Political Philosophy, and 362 Political Philosophy count toward a minor in philosophy.

A. Philosophy

200 (390) Introduction to Philosophy 2 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. Not offered in 1958-59.

250 (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.

360 (391A) History of Philosophy—Greek and Christian Philosophy 3 hrs. Fall
The great thinkers of the Greeks and Romans, as Plato, Aristotle, and the Stoics; the church fathers and schoolmen of the Middle Ages.

361 (391B) History of Philosophy—Modern and Recent Thinkers 3 hrs. Spring
The new world-view since the Renaissance: Bruno, Galileo, Descartes, Spinoza, and Liebnitz; English thinkers from Locke to Hume; German thinkers from Kant to Hegel; the more recent philosophers of Europe and America.

370 (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 1958-59.

371 (291) Social Values 3 hrs.
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. Not offered in 1958-59.

380 (393) The Philosophy of History 2 hrs. Fall
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.
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381 (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.

B. Religion

200 (200) Introduction to Religion 3 hrs. Fall, Spring
   A survey of anthropological, archaeological, and historical data which
   provide a background against which the Biblical view of nature, man, and
   God can be seen and understood.

310 (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.

   The distinctive religious faith and traditions of the early Christian Church
   studied against their Jewish background and Hellenistic environment.

330 (394) Great Religions of the World: The East 3 hrs. Spring
   A study of Hinduism and Buddhism in terms of their historical develop-
   ment, their systems of thought, and their contemporary revival. Special
   emphasis is placed on reading and analysis of original sources available
   in English translation.

341 (305) Christianity and Modern Thought 3 hrs. Spring
   Eighteenth- and nineteenth-century intellectual challenges to Christian-
   ity; Christian responses, especially those supported by recent trends in
   biblical studies and the philosophy of religion.

344 Religious Aspects of Modern Poetry and Drama 2 hrs. Fall
   A study of selected literary works of Eliot, Auden, Tennessee Williams,
   Graham Greene, Robert Penn Warren, Albert Camus, and other contempo-
   rary artists. The concern of the course is to teach students to read imagi-
   native literature in genuinely religious as well as fully aesthetic terms.

500 Religious Heritage of America 2 hrs. Fall
   A survey of the histories of Judaism, Protestantism, and Roman Catholi-
   cism in the United States, followed by a study of distinctive beliefs and
   practices which are characteristic of these three traditions at the present
   time.
Courses in the Department are designed to prepare a 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. This requirement may be met by one of the following department courses: Nos. 200, 202, or 204.

A major in Political Science consists of a minimum of 24 semester hours of work in the Department plus an acceptable amount of work in other areas related to the individual student's interests. A minor consists of a minimum of 15 semester hours in the Department. It is strongly recommended that if you wish to major or minor in Political Science, that you take Political Science 202, 204, 340 and 350. The student should plan his program so that he will have work in at least three of the major areas listed below.

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 202, 204 overlap with 200. Therefore, credit in either 202 or 204 will preclude credit in 200 (334).

**MAJOR AREAS**

**American Government**

*200 (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.

*202 (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
School of Liberal Arts and Sciences

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.

204 (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 (337) Current Issues and Legislation 3 hrs.

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. Not offered in 1958-59.

500 (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 1958-59.


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.

Politics

310 (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.

312 (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.
Political Science

316 (330) Legislative Process 2 hrs. Spring
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.

Public Law

320 (381) Constitutional Law 3 hrs. Fall
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: 202 or 200.

322 Administrative Law 2 hrs.
A study of the legal requirements for, and the limits on, the exercise of administrative powers by public officials; of the means of safeguarding individual rights; the delegation of power; elements of fair administrative procedure; judicial control over administrative determination. Not offered in 1958-59.

324 (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 1958-59.

520 (385) The Constitution and Civil Liberties 2 hrs. Spring
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.

Public Administration

330 (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: 200 or 202.

332 (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.
270

School of Liberal Arts and Sciences

336 (372) American Chief Executive 2 hrs.

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 200 or 202. Not offered in 1958-59.

Comparative Government

340 (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: 202 or Junior standing.

540 (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: 202 or equivalent. Not offered in 1958-59.

542 (452) Governments and Problems of the Far East 2 hrs. Fall

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.

544 (454) Governments and Problems of Central and South America 2 hrs.

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. Not offered in 1958-59.

546 (453) Government of the Soviet Union 2 hrs.

The organization and government of the Soviet Union deals primarily with the present political structure with special emphasis on the Communist Party and its relationship to the organization of the state. Attention will be paid to youth organizations and education in general as well as to the socio-economic basis of the current system. Not offered in 1958-59.

International Relations

350 (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 202 or a course in modern history or equivalent.
352 (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 350 but may be taken separately.) Pre-requisite: 202 or a course in modern history or equivalent.

550 (465) American Foreign Policy 2 or 3 hrs. Fall

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: Political Science 202 or a course in American History or equivalent.

Political Theory and Methodology

360 (390) History of Political Philosophy 3 hrs.

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. Not offered in 1958-59.

362 (391) Political Philosophy 3 hrs. Spring

This course does not consider political philosophy historically but rather examines certain areas of concern to the political philosophers. 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. Pre-requisite: Junior standing.

Readings and Research

470 (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.

SOCIOMETRY

Leonard C. Kercher, Chester L. Hunt
Head
Paul B. Horton Robert F. Maher
Nellie N. Reid Jerome G. Manis
Charles D. Whatley

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 200 and 210 or 220 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 260, 380, 381, 362, 364, 360, 462, 463, and 574. Students intending to pursue this curriculum should seek counsel and guidance early from the instructor in social work.

**SOCIOTHERO COURSES**

**100 (244) Sociology (for Nurses)**
An introductory course in sociology especially adapted to the need of students of nursing. Not open to regular students.

**200 (241) Principles of Sociology**
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.

**210 (242) Modern Social Problems**
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: 200.

**220 (243) Social Psychology**
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 200.

**230 Introduction to Anthropology**
An introduction to the principal fields of anthropological study in terms of their concern with the nature of man as it is revealed in his development as a creator and user of culture.

**240 (245) Modern Marriage**
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.
SOCIAL WORK COURSES

260 (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.

312 (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: 200.

314 (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: 200.

322 (343) Mass Communication
3 hrs. Spring
The study of the media of mass communication in modern society. Impact of radio, television, movies, and newspapers on family life, delinquency, leisure, and mass behavior. Analysis of rumor, propaganda and ideologies.

330 Cultural Anthropology
3 hrs. Spring
A study of the nature of culture through an investigation of the ways of life of both "primitive" and civilized" peoples. The structure and functions of culture are considered along with its relationships to environment, society, and the individual. Prerequisite: 200, 230 or 600, or equivalent.

340 (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 240, Modern Marriage, should obtain written permission from the instructor before enrolling in this course.

353 (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: 200. Not offered in 1958-59.

360 (355) Principles of Social 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.
School of Liberal Arts and Sciences

362 (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.

364 (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.

368 (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.

374 (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.

376 (350) Sociology of Education 3 hrs. Spring
The classroom 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: 200.

377 (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: 110, Man and Society 102. Not offered in 1958-59.

380 (384A) Introduction to Social Research 2 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.

381 (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: 380, Introduction to Social Research.
462 (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: 360, and consent of the instructor.

463 (358B) Supervised Field Work 3 hrs. Spring
A continuation of 462, 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: 462, and consent of the instructor.

500 (444) History of Social Thought 2 hrs.
A critical survey of the social thinking of outstanding students of society from Plato to those of modern social science. Prerequisite: 200 or Man and Society 102, or 600. Not offered in 1958-59.

502 (449) Contemporary Social Movements 3 hrs.
A study of the growth and place in contemporary society of selected social movements, including communism, fascism, Klu Klux Klan, the Townsend movement, and the like. Prerequisite: 200, or 600.

514 (446)—Juvenile Delinquency and the Community 2 or 3 hrs. Fall
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: 200, or 600, or equivalent.

532 Culture and Personality 3 hrs. Spring
An investigation of the interaction of culture and personality with particular attention to the role of culture as a force in the development of the individual. Prerequisite: 200 or 230, or 600, or equivalent.

534 (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: 200, or 600. Not offered in 1958-59.

542 (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 in 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.
School of Liberal Arts and Sciences

554 (443) Population Problems 3 hrs. Fall
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.

572 (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.

574 (349) Sociology of Religious Institutions 2 hrs. Spring
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: 200.
School of Graduate Studies

GEORGE G. MALLINSON, Dean

Departments:
Librarianship
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.

The new field house is a center for athletic and recreational activities. It is located adjacent to the physical education building.
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.

### SUMMER SESSION

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### ON-CAMPUS SHORT COURSES

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Work in the following curricula is offered in the School of Graduate Studies:

- Elem. Admin. & Supervision
- Guidance
- Librarianship
- School Psychologist
- Sec. Admin. & Supervision
- Special Education
- Teaching in the Elem. School
- Teaching of Art
- Teaching of Business Education
- Teaching of Distributive Ed.
- Teaching of Home Economics
- Teaching of Industrial Ed.
- Teaching of Lit. & Language
- Teaching of Music
- Teaching of O.T.
- Teaching of Physical Ed.
- Teaching of Science and Math.
- Teaching of Social Science
- Teaching of Speech
- Teaching in the Jr. High School
- Teaching in the Jr. College
- Unclassified

Further information is available in the Graduate Bulletin which may be obtained by writing to the Dean School of Graduate Studies, Western Michigan University.
LIBRARIANSHIP

Alice Louise LeFevre, Head  Mate Graye Hunt  Esther Carter  
Frederic J. O'Hara  Gertrude Van Zee  Mary L. Pressler

The undergraduate curriculum in librarianship offers preparation for the teacher-librarian or for the student who expects to enter the graduate program in library science either at Western Michigan University or at some other library school. Starred courses are open to prospective teachers or others who desire a wider acquaintance with books and library materials and methods.

Students in the elementary or secondary curricula may meet certification requirements for teacher-librarianship by taking the undergraduate minor in library science along with a subject major and a subject minor. This Librarianship minor consists of the following courses: 100, 101, 230, 510, 512, 530 and 542 or 546 and 516 if the candidate is in the elementary curriculum. The field Assignment and Seminar 520 is also required. A portion of the Directed Teaching period is spent in one of the cooperating school libraries.

The sequence for the Pre-professional Minor consists of 230, 510, 512, 530, and 520. Each candidate will be assigned to one of the cooperating libraries for experience in the area of library science of special interest to him, and for which he is qualified.

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 laboratory containing books and other materials in library science and related fields is provided in the new quarters of the Department of Librarianship in the University Library Building.

I. PRE-PROFESSIONAL

A.B. or B.S. Degree

PRE-PROFESSIONAL

Students who expect to enter a graduate school of library science either at Western Michigan University or elsewhere should matriculate in the following curriculum.

<table>
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<tr>
<th>First Year</th>
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<td>Basic Studies</td>
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<td>Humanities 220, 221</td>
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<td>College Writing 116, 117</td>
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<td>General Psychology 200</td>
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<td>Found. of Western Civilization</td>
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<td>Modern Foreign Language</td>
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<td>Introd. to Librarianship 100, 101</td>
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School of Graduate Studies

Third Year

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<td>American Government 200</td>
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<td>History of Michigan 310</td>
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<tr>
<td>Reference Service 512</td>
<td>3</td>
<td>Introd. to Classification and Cataloging 530</td>
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<td>Selection of Books and Related Materials 511</td>
<td>3</td>
<td>Field Assignment Seminar 520</td>
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<td>Electives</td>
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<td>Audio-visual Education 548</td>
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Fourth Year

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<td>512 (411) Reference Service</td>
<td>3</td>
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<tr>
<td>516 (*407) Library Materials for Children</td>
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</table>

100 (*100A) Introduction to Librarianship

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.

101 (*100B) Introduction to Librarianship

A continuation of 100.

230 (360) Organization of Library Materials

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.

510 (403) Selection of Books and Related Materials


512 (411) Reference Service

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. Attention given to organization and methods of reference services.

516 (*407) Library Materials for Children

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. Prerequisite: Children's Literature 203 or equivalent.
283

Librarianship

520 (480) Field Assignment and Seminar 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.

521 (481) Field Assignment and Seminar 3 hrs. Spring, Summer
A continuation of 520. May be elected concurrently.

522 (461) School Library Service 2 hrs. Spring
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.

530 (470) Introduction to Classification and Cataloging 4 hrs. Fall
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.

542 (*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.

546 (406) Storytelling 2 hrs. Fall, Summer
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.
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.

BUSINESS—Gamma Tau chapter, Alpha Kappa Psi, professional fraternity in commerce, awards annually a Scholarship Key to the male senior student pursuing a degree in the School of Business, who has attained the highest scholastic average for three years of work at this University.

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.

ENGLISH—The George Sprau Award in English is given to the graduating senior with the best grades in English throughout his university career.

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.
Awards

OCCUPATIONAL THERAPY—The Marian R. Spear Award is an annual award of $25 and a letter of commendation 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.

POLITICAL SCIENCE—The D. C. Shilling Award was established in honor of a distinguished scholar and teacher who was on the faculty of Western Michigan University for thirty years, and Head of the Political Science Department for seven years. An annual award of thirty dollars is given to the graduating senior Political Science major or minor who has made the most outstanding record in Political Science during his university career.

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

WESTERN MICHIGAN 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 $1,000 for two semesters. Applications should be filed by March 1 with the graduate office.
SCHOLARSHIPS

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.

For complete details and application blanks, please write to the registrar.

GENERAL

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.

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.

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.

DETROIT EDISON COMPANY SCHOLARSHIP—The Detroit Edison Company offers one scholarship of $300.00 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. Applicant must be February or June 1957 graduates of their high school and should contact their high school principal for particulars regarding this scholarship.

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.

THE FORD MOTOR COMPANY FUND maintains a scholarship program for the sons and daughters of Ford Motor Company employees.
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.

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.

STUDENT COUNCIL GRANTS IN AID 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.

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.

BUSINESS

KALAMAZOO ACCOUNTANTS’ ASSOCIATION SCHOLARSHIP—This scholarship is awarded to two students; one senior, and one a junior. These scholarships cover tuition and fees. 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 year 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-curricular activities, specifically in the Business and Transportation areas. 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.

GILMORE BROTHERS COOPERATIVE RETAILING SCHOLARSHIPS—Gilmore Brothers Department Store of Kalamazoo annually offers two scholarships of $215 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.

NATIONAL SECRETARIES ASSOCIATION SCHOLARSHIPS—The Kalamazoo chapter offers a scholarship of $100 to a freshman 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 essay written to the National Secretaries Association.

EDUCATION

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.

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.

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. Applications must be made to the Registrar's Office and forwarded to the Michigan Congress of Parents and Teachers by July 1.

INDUSTRIAL ARTS

ATLAS PRESS—One scholarship, worth $500 for the four years of college, is given by the Atlas Press Company. It is open to high school students in Michigan, matriculating in industrial arts. Application must be made before March 1 of each year.

INDUSTRIAL DISTRIBUTION

MICHIGAN INDUSTRIAL DISTRIBUTORS SCHOLARSHIP—Michigan Industrial Distributors offer $250 per year to a junior or senior student of business background or interest who shows evidence of being a promising distributor, a prospective salesman or a potential executive. A C+ average is required. The scholarship may be renewed, subject to available funds.
INDUSTRIAL SUPERVISION

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.

LIBRARIANSHIP

JUNIOR COLLEGE SCHOLARSHIPS IN LIBRARIANSHIP—These tuition scholarships granted to graduates of Michigan Junior Colleges and Community Colleges who are entering the Librarianship curriculum.

STATE BOARD OF EDUCATION TUITION SCHOLARSHIPS—These are available for those students in the Librarianship curriculum who are preparing to be teacher-librarians.

MUSIC

MUSIC SCHOLARSHIPS—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.

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.

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.

Drum Major and Majorette: Four awards are made annually on a competitive basis to pay student tuition and fees. The 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.

OCCUPATIONAL THERAPY

UNITED CEREBRAL PALSY GRANT—awards resident tuition and fees to O.T. juniors, or above. It is based on scholarship and need.

MICHIGAN O.T. ASSOCIATION—grants $100.00 per year to a Michigan O.T. student, junior or above based on scholarship and need.
KALAMAZOO SCHOOL ALUMNI ASSOCIATION—grants two scholarships—one amounting to $100.00 each semester to a beginning O.T. student based on need. Another scholarship of $100.00 per year is given to a beginning O.T. student. This scholarship may be retained for two years.

THE OFFICE OF VOCATIONAL REHABILITATION GRANT—makes it possible to give assistance to juniors, seniors, advanced standing and clinical students in O.T.

PAPER TECHNOLOGY

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.

PETROLEUM DISTRIBUTION

PURE OIL COMPANY'S FINANCIAL AID PROGRAM—grants $500 for two years to relatives of Pure Oil Company dealers, jobbers and employees.

THE CARL H. KAISER MEMORIAL SCHOLARSHIP—given by Helen E. (Kaiser) Wood and Fred Kaiser. This scholarship grants $700 for two years to any eligible high school graduate from the Port Huron area.

PHYSICAL EDUCATION

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.

SPEECH

THEATRE ASSISTANTSHP—This assistantship carries a stipend of $300 per year and is available to a student selected by the Theatre Staff of the Speech Department.

DEBATE SCHOLARSHIPS—Four Debate Scholarships are offered to two men and two 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.
Student Loans and Memorial Funds

SCIENCE

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.

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.

JOHN E. AND EDWIN S. FOX SCHOLARSHIP—This is an 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. This scholarship is not renewable.

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.

UPJOHN SCIENCE SCHOLARSHIPS—are presented to students who live within a reasonable distance of the city of Kalamazoo and who expect to enter and continue in some field of Science.

These generous awards are recommended for prospective freshmen who present outstanding scholastic records from high school and show promise of continued success. The amount of the award is based on need which is determined by Western Michigan University. Applications should be made to the Director of Admissions.

STUDENT LOANS AND MEMORIAL FUNDS

Please address requests for information to the Comptroller. All funds are administered by the Committee on Student Loans.

AMELIA BISCOB 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.

DEBATE LOAN FUND—This loan fund is for the use of Varsity Debaters only.

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.
ILLUSTRATIONS

Miscellaneous Information

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
Awards

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.

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

This campus originally included only a hilltop site of 20 acres. Now more than 70 acres are in use, with 15 acres devoted to physical education and recreation. The principal buildings in this area, exclusive of student housing and athletic facilities, are:

BUSINESS STUDIES
EDUCATION—University Elementary and High school are housed here, along with the Educational Service Library and School of Education classrooms.

ELECTRONICS—Houses classrooms for department of industrial technology.

HEALTH SERVICE—The main floor of this building is devoted to the University health service. Also housed here are the Psycho-Educational and Speech clinics, the Research division, and the headquarters for the School of Education and School of Applied Arts and Sciences.

INDUSTRIAL ARTS

MAINTENANCE—Headquarters for university maintenance, building and supply services.

MECHANICAL TRADES—A 1941 gift from the W. E. Upjohn Unemployment Trustee Corporation of Kalamazoo, this structure houses much of the department of industrial technology.

NATURAL SCIENCE—Biology and the C. C. Adams Center for Ecological Studies are the principal occupants.

THEATRE—Center for campus dramatic and speech activities. The auditorium, with a completely equipped stage, seats 350.

WALWOOD UNION—East campus student center provides a snack bar, student offices and the ballroom.

SPEECH ANNEX

WEST CAMPUS

During World War II, additional land was purchased to increase the campus area by 180 acres. Lying west of the New York Central railroad, the campus provides a hillside panorama of functional, modern buildings exclusive of housing and athletics, they are:

ADMINISTRATION—Opened in 1952, this structure houses administrative offices, and 24 classrooms for the social sciences, languages and literature.

ARCADIA—The department of occupational therapy is housed here.

Dwight B. Waldo Library—This main library building is the newest building to be added to the campus, and in addition to its book collection, includes the department of librarianship and the university Audio-Visual Center.
HARPER C. MAYBEE MUSIC HALL—Besides housing all music activities, studios for WMCR-FM are located here.

KANLEY MEMORIAL CHAPEL—This is the campus religious center. It was made possible through a gift from the estate of the late William Kanley, an alumnus, and was opened in 1951.

UNIVERSITY STUDENT CENTER—This giant structure on West Michigan avenue was opened in the fall of 1957. Social and recreational facilities are provided here for students, and are made available to other educational ventures as they can be scheduled. A snack bar, bowling alleys, game room, lounges, ballroom, cafeteria, music room and faculty lounge are included.

WILLIAM McCracken Hall—Erected in 1949, this building is the home for the departments of chemistry, physics, art and home economics. In 1957 there was added to it another structure for paper technology, the Paper Industry Laboratories.

FACULTY AND STUDENT HOUSING

Archie Potter, A.M., Director of Housing.

Between the years 1938 and 1958 the following modern residential structures for students and faculty have been erected:

**EAST CAMPUS**

LAVINA SPINDLER HALL—197 women; Mrs. Edith M. Lake, director.
HENRY VANDERCOOK HALL—210 men; Dr. and Mrs. Robert S. Bowers, directors.
WALWOOD HALL—115 men; Mr. and Mrs. John Coe, directors.

**WEST CAMPUS**

BERTHA DAVIS HALL—250 women; Mrs. Helen Inman, director.
BLANCHE DRAPER HALL—260 women; Mrs. Lucille Yost, director.
ERNEST BURNHAM HALL—275 women; Mr. and Mrs. Harry Hefner, directors.
FRANK ELLSWORTH HALL—450 men; Mr. and Mrs. Homer Cox, directors.
ELMWOOD APARTMENTS—192 units for married students.
THEODORE HENRY HALL—450 men; Mr. and Mrs. Fred Stevens, directors.
HILLSIDE APARTMENTS—32 units for faculty and staff.
LYDIA SIEDSCHLAG HALL—260 women; Mrs. Katharine Chapman, director.
SMITH BURNHAM HALL—257 men; Mr. and Mrs. Archie Potter, directors.
LABORATORY SCHOOLS

Four Laboratory schools are provided for the use of student teachers. On the East Campus, there are the University Elementary school and University High School. West of Kalamazoo is the Hurd rural school for the use of the department of rural life and education. At Paw Paw, 17 miles west, there is a city-graded school and a high school for the use of our student teachers. Other student teachers are placed throughout South-western Michigan, many of them taking not only their practice teaching, but also their education courses at the school in which they are working.

ATHLETIC FACILITIES

GATEWAY GOLF COURSE—Adjacent to the west campus, this 79-acre nine-hole course provides recreational opportunities for students and faculty. It is open to the general public.

HYAMES FIELD—One of the finest collegiate baseball layouts in the nation. Permanent seating is provided for 2,500 spectators.

KANLEY FIELD—Includes three practice football fields, a baseball field, landscaped park and picnic area. Used by the Men's physical education department and intramural leagues.

FIELD HOUSE—Opened in the fall of 1957, the field house provides indoor facilities for basketball, track, and practice areas for football, baseball, golf and tennis. The main dirt floor is 160 feet by 312 feet, and seating for basketball is more than 5,000. An eight-lap track is provided.

EAST CAMPUS GYMNASIUM—Now the headquarters for the women's physical education department, this structure can seat 2,500 for basketball, and has a balcony running track.

PHYSICAL EDUCATION BUILDING—Opened in 1956, this complete physical education facility has a regulation swimming pool, three handball courts, a basketball court which can be divided by powered doors, wrestling room, special purpose rooms, classrooms and locker facilities; as well as offices for the men's physical education department. Dressing rooms for women are also provided adjacent to the pool. The field house connects to this building.

TENNIS COURTS—Twelve lawn-tex courts are provided on the East Campus, along Davis street, and 10 new asphalt courts are on the West Campus, behind Ellsworth Hall.

WALDO STADIUM—Two concrete stands, each seating 7,500, line this field, and an eight-lane, quarter-mile track with a 220 yard straight-away are included with the football field. A press box rises above the southeast stands.

CAMPUS SCHOOL GYMNASIUM—A playing floor of 60 to 119 feet is provided, along with a stage, offices, locker rooms and a swimming pool.
OTHER FACILITIES

KLEINSTUECK WILD LIFE PRESERVE—Given to the University in 1922 by Mrs. Caroline Hubbard Kleinstueck, this 50-acre tract provides instructional space for biological sciences near the campus and inside the city of Kalamazoo.

UNIVERSITY FARM—Six miles south of the university, this farm of 150 acres is a training area 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 submersive 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.

DEPARTMENTAL CLUBS AND PROFESSIONAL ORGANIZATIONS

AMATEUR RADIO CLUB—Operates station W8CVQ.
ART CLUB.
ATHLETICS—W club for varsity lettermen.
AUTOMOTIVE SOCIETY—For those who have completed an automotive course.
BIOLGOGY—Beta Beta Beta.
BUSINESS—Alpha Kappa Psi, a national professional fraternity, Gamma Tau chapter, an auxiliary for wives of members. Society for the Advancement of Management, student chapter of national management group.
COUNCIL ON WORLD AFFAIRS.
EDUCATION—Association of Childhood Education, for students in elementary education, a chapter of the National Association of Childhood Education. Country Life club, for students in the Department of Rural Life and Education. Future Teachers of America, George H. Hilliard chapter, open to students interested in teaching.
FLYING—Sky Broncos. Sigma Alpha Tau—honorary aviation.
GEOGRAPHY—Gamma Theta Upsilon, Alpha Gamma chapter.
HISTORY CLUB.
HOME ECONOMICS CLUB.
INDUSTRIAL ARTS ASSOCIATION.
INTERNATIONAL STUDENTS CLUB—Open to all students.
LAMBDA XI DELTA—For Alpha Beta Epsilon scholarship students.
LANGUAGES—Der Deutsche Verein: for students of German; Ecos Españoles: for students of Spanish; Le Cercle Francais: for students of French.
LIBRARIANSHIP—Alpha Beta Alpha.
MODERN DANCE CLUB.
OCCUPATIONAL THERAPY CLUB.
PAPER TECHNOLOGY—Ts'ai Lun club.
PHILOSOPHY FORUM.
PHYSICAL EDUCATION—Phi Epsilon, for women.
Student Organizations

PRE-MEDICAL—Students planning to continue studies in medicine or dentistry.

PSYCHOLOGY CLUB.

PUBLICATIONS—Brown and Gold, yearbook; Calliope, biennial literary magazine; Herald, weekly newspaper.

R.O.T.C.—Pershing Rifles, national chapter for drill team. Torch and Blade, local branch of General ROTC fraternity.

RESIDENCE HALLS ASSOCIATION—Council for 11 residence halls.

SKI CLUB.

SOCIAL WORK CLUB.

SWIMMING—Water Sprites, for both men and women.

THEATRE—Western Players.

WESTERN WIVES—For wives of WMU students.

W.I.D.R.—Inter-Residence hall radio station, operated by the Residence Halls Association, with studios in the University Student Center.

WOMEN LIVING OFF CAMPUS—Omega Chi Gamma.

YOUNG DEMOCRATS.

YOUNG REPUBLICANS.

SERVICE ORGANIZATIONS

ALPHA PHI OMEGA—National service fraternity in the fellowship of the Scout oath, to promote service to students, community and nation.

CIRCLE K—Sponsored by the Kiwanis club.

HONOR SOCIETIES

ARISTA—For senior women.

EPSILON PI TAU—International honorary in industrial education.

HESPERUS—For senior men.


KAPPA RHO SIGMA—Mathematics and science.

PHI MU ALPHA SINFONIA—National music fraternity for men.

PI GAMMA MU—National fraternity in social studies.

PI OMEGA PI—National fraternity in business education.

SIGMA ALPHA IOTA—National fraternity for women in music.


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.
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 SIGMA ALPHA—National. Beta Psi chapter.
DELTA SIGMA THETA—National.
DELTA ZETA—National. Gamma Pi chapter.
SIGMA KAPPA—National. Gamma Beta chapter.
THETA UPSILON—National. Nu Alpha chapter.

Religious Organizations

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 SIGMA ALPHA—National. Beta Psi chapter.
DELTA SIGMA THETA—National.
DELTA ZETA—National. Gamma Pi chapter.
SIGMA KAPPA—National. Gamma Beta chapter.
THETA UPSILON—National. Nu Alpha chapter.

Religious Organizations

BAPTIST STUDENT FELLOWSHIP.
CAMPUS CHRISTIAN FELLOWSHIP—Baptist, Congregational, Disciples of Christ, Presbyterian.
CANTERBURY CLUB—Episcopal.
CHRISTIAN SCIENCE ORGANIZATION.
CONGREGATIONAL STUDENT FELLOWSHIP.
DISCIPLE STUDENT FELLOWSHIP—Central and Kalamazoo Christian Churches.
EASTERN ORTHODOX FELLOWSHIP.
EVANGELICAL AND UNITED BRETHREN.
GAMMA DELTA—Zion Lutheran, Synodical conference.
GENEVA CLUB—Reformed and Christian Reformed.
HILLEL—Jewish.
INTER-VARSITY CHRISTIAN FELLOWSHIP.
KAPPA PHI—Methodist women.
LUTHERAN STUDENT ASSOCIATION—National Lutheran Council.
NEWMAN CLUB—Roman Catholic.
PRESBYTERIAN STUDENT FELLOWSHIP.
SIGMA THETA EPSILON—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 midwestern 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 53 times and have finished in the second division only 18 times. Teams have won championships 15 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, volleyball, 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.
Miscellaneous Information

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 stu-
dent 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 140 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 take 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.

DWIGHT B. WALDO LIBRARY—With the beginning of the 1958 Summer Session, Western Michigan University students will be able to use the new Dwight B. Waldo Library, a $1,500,000 structure just completed
on the west campus. Also housed in the building are the department of librarianship and the audio-visual center.

The collection of the main library includes about 125,000 volumes. Currently the library receives 1,200 periodicals, of which nearly 600 are bound for permanent retention.

Because of the split campuses, the main library also conducts a Library Annex in the School of Business building on the east campus, formerly the main library building. Here needed reference and other materials for east campus students are housed. (The Annex will not operate during the 1958 Summer Session because of construction work in the building.)

A Music Library is maintained on the second floor of Harper Maybee music hall. A branch of the main library, this unit has about 2,250 volumes devoted to music, 26 periodicals and more than 2,500 phonograph records. Music listening rooms are a part of this library.

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 desirable 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 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 renumeration for their work. They are responsible for naming other staff members and carrying the project to completion. Offices are maintained in the Walwood Union, 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 Walwood Union and the paper is printed in the university 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.
Miscellaneous Information

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 102.1 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 27,000 individuals. An additional 56,000 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.

New alumni clubs are being established, and old clubs are being activated throughout Michigan and neighboring states.

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 service 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 of Placement and Alumni Relations 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.
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 should be made to the school by writing Michigan Veterans Vocational School, Pine Lake, Doster, Mich.

ADMINISTRATION

Lloyd G. Chapman, M.A.
B.A., Hope; M.A., Michigan
Director

Wayne Beery, M.A.
B.A., Western Michigan University; M.A., Michigan
Assistant Director

Jeptha F. Turnage
Business Manager

Ann W. Dobbyn, R.N.
R.N., Harper Hospital School of Nursing, Wayne; Public Health Assistant Director

INSTRUCTORS

William A. Alber
Business Machine Repair

James Y. Buchanan
Upholstering

Kenneth Buelow, B.S., Michigan State
Counselor — Recreation Director

Lloyd Decker, M.A.
Architectural and Machine Drafting
B.A., Stout State; M.A., Michigan

Harold Andersen
Watch Repair

Claude A. Harrington
Radio and Television

Robert Heydenberk, M.A.
Wood-Working
B.S., M.A., Western Michigan University

Jacob Kandell
Typewriter Repair

Lloyd I. Meadows, M.A.
Business Education
B.S., M.A., Western Michigan University

Kenneth Reemtsen
Appliance and Radio Repair

Raymond Selkirk
Machine Shop

Clarence Sundquist, B.S.
Printing
B.S., Central Michigan
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