1-1-1981

Graduate Catalog 1981-1983

Winona State University

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one way street
1981-83 Academic Calendar

FALL QUARTER — 1981 (IFO/MEA — 55 DUTY DAYS)

Last day to complete application for Fall Quarter, Tuesday .................................................. September 1, 1981
Last day for former students to file intent to return, Tuesday ..................................................... September 1, 1981
New faculty meeting and orientation, Tuesday ................................................................. September 8, 1981
General faculty meeting, Tuesday ..................................................................................... September 8, 1981
Mass Registration, Tuesday (evening) and Wednesday ..................................................... September 8, 9, 1981
Evening classes begin, Wednesday ..................................................................................... September 9, 1981
Day classes begin, Thursday ..................................................................................................... September 10, 1981
Evening Class Registration — Evening Graduate and Undergraduate Students only —
   Monday, Tuesday, Wednesday, Thursday ........................................................................ September 14, 15, 16, 17, 1981
Class schedule change (Drop-Add), Wednesday and Thursday ..................................... September 16, 17, 1981
* Last day to apply for graduation Fall Quarter, Friday ..................................................... September 25, 1981
* Last day to notify Office of Graduate Studies of intent to take
   written comprehensive examinations, Friday .......................................................................... October 9, 1981
Mid-Term Day, Thursday ....................................................................................................... October 15, 1981
MEA Representative Assembly, Holiday, Friday ................................................................ October 16, 1981
Winter Quarter Pre-registration —
   Monday, Tuesday, Wednesday, Thursday ........................................................................ October 26, 27, 28, 29, 1981
* Written comprehensive examinations (8–12 noon), Saturday ........................................... October 31, 1981
Last day to drop classes, Friday ............................................................................................. November 6, 1981
Veteran’s Day, Holiday, Monday ........................................................................................... November 9, 1981
Winter Quarter Pre-registration Fee Payment, Tuesday and Wednesday ........................ November 10, 11, 1981
Final Examinations, Friday, Monday, Tuesday ...................................................................... November 20, 23, 24, 1981
Grading Day, Wednesday ...................................................................................................... November 25, 1981
Quarter/Thanksgiving Break begins, Wednesday, 4:30 p.m. ........................................... November 25, 1981
   (Note: November 27, 1981 — Holiday all units instead of Explorer’s Day)

*NOTE: Pertains to Graduate Students ONLY.

Last day to complete application for Winter Quarter, Monday                      November 23, 1981
Last day for former students to file intent to return, Monday                   November 23, 1981
Mass Registration, Monday (evening)                                            November 30, 1981
Evening classes begin, Monday at 8:00 p.m.                                    November 30, 1981
Day classes begin, Tuesday                                                    December 1, 1981
Evening Class Registration – Evening Graduate and Undergraduate Students only December 7, 8, 9, 10, 1981
  Monday, Tuesday, Wednesday, Thursday                                           
Class schedule change (Drop-Add), Monday                                      December 7, 1981
* Last day to apply for graduation Winter Quarter, Friday                        December 18, 1981
Christmas/New Year break begins, Friday, 10:00 p.m.                            December 18, 1981
  (Saturday classes will meet on Saturday).                                      December 19, 1981
* Last day to notify Office of Graduate Studies of intent to take                January 4, 1982
  written comprehensive examinations, Monday                                    January 4, 1982
Classes reconvene, Monday                                                       January 4, 1982
Mid-Term Day, Friday                                                           January 15, 1982
**Written comprehensive examinations (8–12 noon), Saturday                     January 23, 1982
Spring Quarter Pre-registration                                               February 1, 2, 3, 4, 1982
  Monday, Tuesday, Wednesday, Thursday                                           
Last day to drop classes, Wednesday                                            February 10, 1982
Washington, Lincoln Birthday, Holiday, Monday                                  February 15, 1982
Spring Quarter Pre-registration Fee Payment, Wednesday and Thursday             February 17, 18, 1982
Final Examinations, Wednesday, Thursday, Friday                                February 24, 25, 26, 1982
Grading Day, Monday                                                            March 1, 1982
Spring Break begins, Monday, 4:30 p.m.                                         March 1, 1982

SPRING QUARTER – 1982 (IFO/MEA 58 DUTY DAYS)

Last day to complete application for Spring Quarter, Monday                   March 1, 1982
Last day for former students to file intent to return, Monday                   March 1, 1982
Mass Registration, Monday (evening)                                            March 8, 1982
Evening Classes begin, Monday at 8:00 p.m.                                    March 8, 1982
Day classes begin, Tuesday                                                    March 9, 1982
Last day to make application for Student Teaching                               March 12, 1982
  All Quarters, 1982 – 1983, Friday                                             March 12, 1982
Last day to apply for graduation Spring Quarter, Graduate and Undergraduate, Friday March 12, 1982
Evening Class Registration – Evening Graduate and Undergraduate Students only March 15, 16, 17, 18, 1982
  Monday, Tuesday, Wednesday, Thursday                                           
Class schedule change (Drop-Add), Monday                                       March 15, 1982
* Last day to notify Office of Graduate Studies of intent to take                March 19, 1982
  written comprehensive examinations, Friday                                    March 19, 1982
IFO/MEA Delegate Assembly, Friday (no classes)                                 March 26, 1982
Holidays (no classes), Friday and Monday                                       April 9, 12, 1982
Mid-Term Day, Monday                                                           April 9, 1982
* Written comprehensive examinations (8–12 noon), Saturday                    April 24, 1982
Fall Quarter Pre-registration                                                April 26, 27, 28, 29, 1982
  Monday, Tuesday, Wednesday, Thursday                                           
Last day to drop classes, Wednesday                                            May 12, 1982
Final Examinations, Wednesday, Thursday, Friday                                May 26, 27, 28, 1982
Grading Day, Saturday                                                          May 29, 1982
Commencement, Saturday, 10:00 a.m.                                            May 29, 1982

*NOTE: Pertains to Graduate Students ONLY.
FIRST SUMMER SESSION – 1982

* Last day to apply for graduation First Summer Session, Friday ............................................. May 7, 1982
* Last day to notify Office of Graduate Studies of intent to take
  written comprehensive examinations, Friday ................................................................. May 28, 1982
Last day to complete application for First Summer Session, Monday .................................. June 7, 1982
Last day for former students to file intent to return, Monday ............................................. June 7, 1982
Mass Registration, Monday ................................................................................................. June 14, 1982
Classes begin, Monday ....................................................................................................... June 14, 1982
Class schedule change (Drop-Add), Thursday ..................................................................... June 17, 1982
* Written comprehensive examinations (8–12 noon), Saturday ............................................ June 19, 1982
Mid-Term Day, Wednesday .................................................................................................. June 30, 1982
Independence Day, Holiday, Monday .................................................................................. July 5, 1982
Last day to drop classes, Thursday .................................................................................... July 8, 1982
Final examinations, Friday ................................................................................................... July 16, 1982

SECOND SUMMER SESSION – 1982

* Last day to apply for graduation Second Summer Session, Friday ........................................ June 18, 1982
* Last day to notify Office of Graduate Studies of intent to take
  written comprehensive examinations, Thursday .............................................................. July 1, 1982
Last day to complete application for Second Summer Session, Monday .............................. July 12, 1982
Last day for former students to file intent to return, Monday .............................................. July 12, 1982
Mass Registration, Monday ............................................................................................... July 19, 1982
Classes begin, Monday ........................................................................................................ July 19, 1982
Class schedule change (Drop-Add), Thursday .................................................................... July 22, 1982
* Written comprehensive examinations (8–12 noon), Saturday ............................................. July 24, 1982
Mid-Term Day, Wednesday .................................................................................................. August 4, 1982
Last day to drop classes, Thursday ..................................................................................... August 12, 1982
Final examinations, Friday .................................................................................................... August 20, 1982

*NOTE: Pertains to Graduate Students ONLY.

The University calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, acts of God, civil disorder, and war. In the event of such occurrences, the University will attempt to accommodate its students. It does not, however, guarantee that courses of instruction, extra curricular activities or other University programs or events will be completed or re-scheduled. Refunds will be made to eligible students in accordance with State University Board policy.
1982 - 83

FALL QUARTER — 1982 — (IFO/MEA — 55 DUTY DAYS)

- Last day to complete application for Fall Quarter, Tuesday: August 31, 1982
- Last day for former students to file intent to return, Tuesday: August 31, 1982
- New faculty meeting and orientation, Tuesday: September 7, 1982
- General faculty meeting, Tuesday: September 7, 1982
- Mass Registration, Tuesday (evening) and Wednesday: September 7, 8, 1982
- Evening classes begin, Wednesday: September 8, 1982
- Day classes begin, Thursday: September 9, 1982
- Evening Class Registration — Evening Graduate and Undergraduate Students only —
  - Monday, Tuesday, Wednesday, Thursday: September 13, 14, 15, 16, 1982
- Class schedule change (Drop-Add), Wednesday and Thursday: September 15, 16, 1982
- * Last day to apply for graduation Fall Quarter, Friday: September 24, 1982
- * Last day to notify Office of Graduate Studies of intent to take
  - written comprehensive examinations, Friday: October 8, 1982
  - Mid-Term Day, Thursday: October 14, 1982
  - MEA Representative Assembly, Holiday, Friday: October 22, 1982
- Winter Quarter Pre-registration
  - Monday, Tuesday, Wednesday, Thursday: October 25, 26, 27, 28, 1982
- * Written comprehensive examinations (8—12 noon), Saturday: October 30, 1982
- Last day to drop classes, Friday: November 5, 1982
- Veteran’s Day, Holiday, Monday: November 8, 1982
- Winter Quarter Pre-registration Fee Payment, Tuesday and Wednesday: November 9, 10, 1982
- Final Examinations, Friday, Monday, Tuesday: November 19, 22, 23, 1982
- Grading Day, Wednesday: November 24, 1982
- Quarter/Thanksgiving Break begins, Wednesday, 4:30 p.m.: November 24, 1982

(Note: November 26, 1982 — Holiday all units instead of Explorer’s Day)

*NOTE: Pertains to Graduate Students ONLY.
10/ ACADEMIC CALENDAR


Last day to complete application for Winter Quarter, Monday .......................................................... November 22, 1982
Last day for former students to file intent to return, Monday ......................................................... November 22, 1982
Mass Registration, Monday (evening) ................................................................................................. November 29, 1982
Evening classes begin, Monday at 8:00 p.m. .................................................................................. November 29, 1982
Day classes begin, Tuesday .............................................................................................................. November 30, 1982
Evening Class Registration — Evening Graduate and Undergraduate Students only —
   Monday, Tuesday, Wednesday, Thursday .................................................................................... December 6, 7, 8, 9, 1982
Class schedule change (Drop-Add), Monday .................................................................................. December 6, 1982
* Last day to apply for graduation Winter Quarter, Friday ............................................................... December 17, 1982
Christmas/New Year break begins, Friday, 10:00 p.m. .................................................................. December 17, 1982
(Saturday classes will meet on Saturday).
* Last day to notify Office of Graduate Studies of intent to take
   written comprehensive examinations, Monday .............................................................................. January 3, 1983
Classes reconvene, Monday ............................................................................................................. January 3, 1983
Mid-Term Day, Friday ....................................................................................................................... January 3, 1983
* Written comprehensive examinations (8–12 noon), Saturday ..................................................... January 22, 1983

Spring Quarter Pre-registration
   Monday, Tuesday, Wednesday, Thursday .................................................................................... January 31, February 1, 2, 3, 1983
Last day to drop classes, Wednesday ............................................................................................... February 9, 1983
Washington, Lincoln Birthday, Holiday, Monday ............................................................................. February 21, 1983
Spring Quarter Pre-registration Fee Payment, Wednesday and Thursday ........................................ February 16, 17, 1983
Final Examinations, Wednesday, Thursday, Friday .......................................................................... February 23, 24, 25, 1983
Grading Day, Monday ....................................................................................................................... February 28, 1983
Spring Break begins, Monday, 4:30 p.m. .......................................................................................... February 28, 1983

SPRING QUARTER — 1983 (IFO/MEA – 58 DUTY DAYS)

Last day to complete application for Spring Quarter, Monday ........................................................... February 28, 1983
Last day for former students to file intent to return, Monday ............................................................. February 28, 1983
Mass Registration, Monday (evening) ............................................................................................... March 7, 1983
Evening Classes begin, Monday at 8:00 p.m. .................................................................................. March 7, 1983
Day classes begin, Tuesday .............................................................................................................. March 8, 1983
Last day to make application for Student Teaching
   All Quarters, 1983–1984, Friday .................................................................................................... March 11, 1983
Last day to apply for graduation Spring Quarter, Graduate and Undergraduate, Friday ................. March 11, 1983
Evening Class Registration — Evening Graduate and Undergraduate Students only
   Monday, Tuesday, Wednesday, Thursday ..................................................................................... March 14, 15, 16, 17, 1983
Class schedule change (Drop-Add), Monday ................................................................................... March 14, 1983
* Last day to notify Office of Graduate Studies of intent to take
   written comprehensive examinations, Friday .................................................................................. March 18, 1983
IFO/MEA Delegate Assembly, Friday (no classes) .......................................................................... March 25, 1983
Holidays (no classes), Friday and Monday .......................................................................................... April 1, 4, 1983
Mid-Term Day, Monday .................................................................................................................... April 18, 1983
* Written comprehensive examinations (8–12 noon), Saturday ..................................................... April 23, 1983

Fall Quarter Pre-registration
   Monday, Tuesday, Wednesday, Thursday ...................................................................................... April 25, 26, 27, 28, 1983
Last day to drop classes, Wednesday ............................................................................................... May 11, 1983
Final Examinations, Wednesday, Thursday, Friday .......................................................................... May 25, 26, 27, 1983
Grading Day, Saturday ...................................................................................................................... May 28, 1983
Commencement, Saturday, 10:00 a.m. ............................................................................................. May 28, 1983

*NOTE: Pertains to Graduate Students ONLY.
**FIRST SUMMER SESSION — 1983**

- Last day to apply for graduation First Summer Session, Friday .......................................................... May 6, 1983
- Last day to notify Office of Graduate Studies of intent to take written comprehensive examinations, Friday .......................................................... May 27, 1983
- Last day to complete application for First Summer Session, Monday ...................................................... June 6, 1983
- Last day for former students to file intent to return, Monday ................................................................. June 6, 1983
- Mass Registration, Monday ......................................................................................................................... June 13, 1983
- Classes begin, Monday ................................................................................................................................. June 13, 1983
- Class schedule change (Drop-Add), Thursday ............................................................................................ June 16, 1983
- Written comprehensive examinations (8–12 noon), Saturday ..................................................................... June 18, 1983
- Mid-Term Day, Wednesday, June 29, 1982 .................................................................................................... July 4, 1983
- Last day to drop classes, Thursday .............................................................................................................. July 15, 1983

**SECOND SUMMER SESSION — 1983**

- Last day to apply for graduation second Summer Session, Friday ............................................................... June 17, 1983
- Last day to notify Office of Graduate Studies of intent to take written comprehensive examinations, Thursday .......................................................... June 30, 1983
- Last day to complete application for Second Summer Session, Monday ................................................... July 11, 1983
- Last day for former students to file intent to return, Monday ..................................................................... July 11, 1983
- Mass Registration, Monday ......................................................................................................................... July 18, 1983
- Classes begin, Monday ................................................................................................................................. July 18, 1983
- Class schedule change (Drop-Add), Thursday ............................................................................................ July 21, 1983
- Written comprehensive examinations (8–12 noon), Saturday ..................................................................... July 23, 1983
- Mid-Term Day, Wednesday ......................................................................................................................... August 3, 1983
- Last day to drop classes, Thursday .............................................................................................................. August 11, 1983
- Final Examinations, Friday .......................................................................................................................... August 19, 1983

**NOTE: Pertains to Graduate Students ONLY.**

The University calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, acts of God, civil disorder, and war. In the event of such occurrences, the University will attempt to accommodate its students. It does not, however, guarantee that courses of instruction, extra curricular activities or other University programs or events will be completed or re-scheduled. Refunds will be made to eligible students in accordance with State University Board policy.
General Information

MISSION STATEMENT

The mission of Winona State University is to provide citizens of Minnesota regardless of sex, age, race, religious affiliation or handicap, and particularly those of its southeastern area, with accessible, moderate cost, quality undergraduate and graduate programs to meet demonstrated needs in the liberal arts, fine arts, sciences, and selected vocations including business, teacher education and nursing. To achieve this mission and to make such additional contributions to the cultural and community activities of its service region and to research as its expertise and resources permit, the University is committed to cooperate with other institutions of post-secondary education.

ACCREDITATION AND MEMBERSHIP

Winona State University is accredited for undergraduate and graduate programs by the North Central Association of Colleges and Secondary Schools. Its program in Education is additionally accredited by the National Council for the Accreditation of Teacher Education for the preparation of elementary and secondary teachers, elementary principals and guidance counselors.

Winona State University is a member of the American Association of Colleges for Teacher Education, the American Council on Education, and the Midwest Association of Graduate Schools.

THE UNIVERSITY — FACILITIES AND LOCATION

Winona State University is one of the seven state-funded, coeducational universities which make up the Minnesota State University System. The principal purpose of the University is to open opportunities for its students to develop their abilities and to become constructive members of society. A variety of programs are offered by a well-trained faculty on a physical plant in an environment which stimulates sound educational endeavors.

The 4,500 students at Winona State University are instructed by a faculty of nearly 240 who, with the administration, are responsible for the development of the 27 academic departments and the continuous evaluation and revision of their programs and courses to meet the needs of a changing society.

As a further contribution to its principal purpose, the University sponsors programs of co-curricular and extra-curricular activities such as lectures, concerts and plays which serve to reinforce the more formal educational process. The University has also joined its sister institutions in Winona, the College of Saint Teresa and Saint Mary’s College, in the Tri-College/University Cooperative Program to enrich the educational and cultural opportunities for the students of all three through a sharing of their programs and other activities.

The physical plant of Winona State University affords its students ample and varied facilities for its educational purposes on a compact and attractive campus — a campus that combines traditional charm with modern convenience. Although Winona State is one of the nation’s oldest universities west of the Mississippi River, the majority of its campus buildings have been constructed since 1960. Minne Hall, the newest building, was completed in 1973 and houses classrooms and the offices of the departments of English and of the social sciences. Watkins Hall is the home of the art and industrial education faculty offices, classrooms and studios. Gild-
emeister Hall is a general classroom building which contains the offices of the education-related departments and the department of Mathematics & Computer Science. Pasteur Hall includes the offices, classrooms and laboratories for the departments of science. Somsen Hall houses classrooms and offices for the business departments and the department of foreign languages and has most of the administrative offices and a 900-seat auditorium. The Performing Arts Center has classrooms, studios and offices for the communications and theatre arts department and the department of music, together with several outstanding facilities for the presentation of musical, dramatic and other public performances. The Phelps-Howell building contains the television studios, nursing department and several service and administrative facilities. Memorial Hall is one of the finest physical education buildings in Minnesota. It houses the offices and classrooms of the department of health, physical education and recreation and has a swimming pool, six full-sized gymnasiums, indoor track and tennis facilities, handball/racquetball courts, a weight training room, an athletic training room and a physiology of exercise laboratory. This building is the center for the 16 men's and women's teams which represent the University in intercollegiate athletics and for a comprehensive program of intramural athletics. Highlighting the educational facilities at Winona State is the Maxwell Library, which contains over 170,000 bound volumes and 472,000 units of microform from all fields of study, public documents and periodicals. The department of Military Science and the Health Service is located in the Maxwell Library building.

In addition to its modern academic facilities, the University also has excellent facilities for student living and activities. The six residence halls can accommodate 1,200 students; all but one (which was recently remodeled) were constructed within the last 15 years. Kryzsko Commons and University Center, whose final phase was completed in 1975, has lounges, dining and snack facilities, student organization offices, conference rooms and the offices of the Vice President for Student Affairs and his associates.

The location of the University in Winona, Minnesota, a city of about 27,000 situated on the west bank of the Mississippi River, is not only physically attractive but makes an important contribution to its educational purposes. The campus is a few blocks from the city’s center, convenient for shopping and recreation and for the use of community resources as a part of academic programs. The accessibility of Winona by highway, rail (Amtrak) and air to the metropolitan centers of the upper midwest, particularly the Twin Cities, serves the same purposes. As a supplement and enrichment for the educational offerings, students and faculty may readily design field trips, attend concerts and lectures, visit museums and galleries or seek internships or practicums in the numerous business firms and government agencies in these centers.

**Areas of Concentration in:**
- Art
- Business Education
- English
- History
- Industrial Education
- Mathematics & Computer Science
- Physical Education

**FOUR-YEAR**

**Bachelor of Arts**
- Art
- Biology
- Communication
- Economics
- English
- Geography
- German
- History
- Individualized Study
- Mass Communications
- Mathematics
- Music
- Political Science
- Psychology
- Social Science
- Sociology
- Spanish
- Theatre Arts

**Bachelor of Science**
- Accounting
- Art (Teaching)
- Biology
- Business Administration
- Business Education
- Chemistry
- Communication (Teaching)
- Computer Science
- Criminal Justice
- Earth Science (Teaching)
- Elementary Education
- English (Teaching)
- General Science (Teaching)
- Geology
- Industrial (Teaching)
- Industry
- Life Science (Teaching)
- Mathematics (Teaching)
- Medical Technology
- Music (Teaching)
- Nursing

**DEGREES AND PROGRAMS**

**GRADUATE**

**Specialist Degree**
- Elementary School Administration
- Secondary School Administration
- General School Administration

**Sixth Year Certification Program**
- Elementary School Administration
- Secondary School Administration
- General School Administration

**Master of Arts in English**

**Master of Business Administration**

**Master of Science**
- Counselor Education
- Elementary School Administration
- Secondary School Administration
- Teaching in the Elementary School
- Developmental Reading
### 14/GENERAL INFORMATION

- Paralegal
- Physical Education (Teaching)
- Physical Science (Teaching)
- Physical Therapy
- Physics
- Public Administration
- Recreational and Leisure Studies
- School and Community Health Education (Teaching & Non-teaching)
- Social Science (Teaching)
- Social Work
- Speech Pathology
- Theatre Arts (Teaching)
- Vocational Education (Teaching)

**TWO-YEAR**

- Associate in Arts
  - Criminal Justice
  - General Education

- Medical Assistant
- Medical Technician
- Pre-Agriculture Education
- Veterinary Medical Technician

- **Associate in Science**
  - Executive Secretarial

**ONE-YEAR**

- Special Licensure Programs (Graduate and Undergraduate)
  - Coaching
  - Driver Education
  - Early Childhood
  - Learning Disabilities
  - Reading (Graduate only)
  - Supervisory & Consultative Personnel
  - Health Coordinator

- **Supervisory & Consultative Physical Education including Athletics** (Graduate only)
- **Teaching Mentally Retarded**

**PRE-PROFESSIONAL**

- Pre-Agriculture
- Pre-Dental Hygiene
- Pre-Dentistry
- Pre-Engineering (General and Chemical)
- Pre-Fishery and Wildlife Management
- Pre-Forestry
- Pre-Law
- Pre-Medicine
- Pre-Mortuary Science
- Pre-Optometry
- Pre-Pharmacy
- Pre-Podiatry
- Pre-Veterinary Medicine

### Enrollment Statistics 1980 Fall Quarter

#### ON-CAMPUS

**UNDERGRADUATE STUDENTS**

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<tr>
<th></th>
<th>MEN</th>
<th>WOMEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-Time</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.S. Elementary Education</td>
<td>30</td>
<td>343</td>
<td>373</td>
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<tr>
<td>B.S. Secondary Education</td>
<td>168</td>
<td>128</td>
<td>296</td>
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<tr>
<td>B.S. Non-Teaching</td>
<td>752</td>
<td>1188</td>
<td>1940</td>
</tr>
<tr>
<td>Bachelor of Arts</td>
<td>268</td>
<td>246</td>
<td>514</td>
</tr>
<tr>
<td>Others, including Undecided &amp; Special</td>
<td>534</td>
<td>608</td>
<td>1142</td>
</tr>
<tr>
<td><strong>Total Full-Time</strong></td>
<td>1615</td>
<td>2287</td>
<td>3902</td>
</tr>
<tr>
<td><strong>Total Part-Time</strong></td>
<td>137</td>
<td>226</td>
<td>363</td>
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**TOTAL UNDERGRADUATES**

<table>
<thead>
<tr>
<th></th>
<th>MEN</th>
<th>WOMEN</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
<td><strong>GRADUATE STUDENTS</strong></td>
<td>120</td>
<td>117</td>
<td>237</td>
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</table>

**TOTAL ON-CAMPUS**

<table>
<thead>
<tr>
<th></th>
<th>MEN</th>
<th>WOMEN</th>
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<tbody>
<tr>
<td><strong>TOTAL OFF-CAMPUS</strong></td>
<td>310</td>
<td>543</td>
<td>853</td>
</tr>
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</table>

**GRAND TOTAL**

<table>
<thead>
<tr>
<th></th>
<th>MEN</th>
<th>WOMEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>2182</td>
<td>3173</td>
<td>5355</td>
</tr>
</tbody>
</table>
Student Information

Becoming an educated person is largely achieved through academic pursuits. The nurture of group relations is also of prime importance in realizing one's full potential. At Winona State University, the students hold positions of responsibility which involve them in the planning and governance of co-curricular aspects of student life. In the university residence halls, students are relied upon to develop and sustain self-government; in campus-wide organizations, students participate with the administration in the discussion and resolution of current issues.

Approximately fifty student clubs, sororities, and fraternities represent a wide variety of interests. Two are honorary fraternities, six are Greek letter chapters, two are service clubs, six are religious organizations, eleven are special interest clubs; the remaining organizations represent departmental clubs, intramural sports, student government, and political action.

Student publications are The Winonan (university newspaper), and Satori (literary magazine) and Zeigeist (philosophy) magazine.

Student directed or produced media include the university radio station, KQAL, and a weekly color television program on WECC, Channel 12.

COUNSELING CENTER

The Counseling Center is located in 132 Gildemeister Hall. Counseling services are available without charge to all regularly enrolled students to help them search for answers, recognize abilities and interests, and to aid in the adjustment to university life. Students may confer with a counselor about any problem—personal, academic, or vocational.

All staff members are professional counselors who have experience in counseling with college students. A testing service is available to assess interests, abilities, and personality traits. All information exchanged during the counseling process is viewed as confidential and is used exclusively for the benefit of the student. The only exceptions are in the unlikely event that there is clear and imminent danger to an individual or the information is subpoenaed in court. No counseling records are kept in the general student file.

THE LEARNING CENTER

The Learning Center, which includes study skills lab, is located in 124 Gildemeister. The Learning Center is designed as a place where any WSU student may come for assistance in reading efficiency, math, writing and/or study skills. Such areas as time organization, effective study, Listening and notetaking, reference skills and preparing for and taking examinations are discussed. You may register for the class Ed. 115 "Improving Reading and Study Skills," or make an appointment to work on an individual basis. Tutoring in particular subject areas can also be arranged through the Learning Center.

STUDENT HEALTH SERVICE

Mandatory pre-enrollment Medical Examination: A medical examination form is mailed to all new students as soon as their applications for admission have been approved. Entering students schedule a medical examination through their own physicians and submit the completed medical examination form supplied by the university in time for clearance by the health office before they register. The physical examination shall be completed within six months prior to registration and shall include a report on Mantoux test reading and certification of up-to-date immunization. The medical examination is not required for graduate stu-
16/STUDENT INFORMATION

Facilities: The Health Service is located in the west wing of Maxwell Library. A full-time physician, four part-time physicians, two full-time nurses and a laboratory technologist staff this facility which provides for the type of preventive and curative needs met in general medical practice. Most of the service provided during regular office hours is completely covered by the student health fee. (There is a $1.00 charge for antibiotics and a $2.00 charge for some laboratory tests). Emergency care is available evenings and weekends at the community hospital, but at the student's own expense. A student health insurance plan, underwritten by Rushmore Mutual Life Insurance Company, is also available. The university contracts with a local orthopedic surgeon for medical services to athletes.

WINONA STATE UNIVERSITY NURSERY SCHOOL

Winona State has two programs for young children. A nursery school for three to five-year olds is available on Monday, Wednesday, and Friday from 9:00 to 11:00 a.m. On Tuesdays and Thursdays from 9:00 to 10:30 parents come with their infants and toddlers for a program of shared activities. The purpose of these programs is to provide quality preschool experiences for young children, to allow parents of preschoolers to take morning classes, and to provide students in early childhood education with a laboratory setting where they can observe children and participate in a structured program.

ON-CAMPUS HOUSING SERVICES

RESIDENCE HALL FACILITIES

Six residence halls, accommodating approximately 1400 students and staffed by three full-time directors, provide an excellent atmosphere to get the most out of university life. Twenty-five trained resident assistants are hired as floor leaders to assist residence hall students. The directors and resident assistants provide academic and personal counseling services on an informal basis. The entire staff supports the academic mission of the university by creating a friendly living environment. Residential living at Winona State University is a positive involvement in higher education.

RESERVING A ROOM

You may request room and food service on an application-contract which is mailed to all applicants by the Admissions Office. The date the Housing Office receives your completed contract and $50.00 reservation/damage deposit will establish your priority for receiving a room assignment. Rooms are allotted on the "first come-first served" method. You will be notified before March 1 about space available and asked for an advance payment to guarantee your reservation. Fall quarter room and roommate assignments are mailed to you between July 5th and July 15th. The Housing Office attempts to honor all roommate and special consideration requests noted on the contract.

CANCELLATIONS

Cancellations must be in writing and postmarked July 15 or before for fall quarter, two weeks prior to winter quarter, spring quarter, and summer sessions to insure refund of the advance payment.

DINING SERVICE

Occupants of the residence halls board at the cafeteria in the university center. Students living off campus may purchase quarterly contracts to eat all meals on campus. Guests, visitors, and faculty are invited to use the dining facilities on a cash basis.

RESIDENCE HALL LIVING

Programmed activities are an important part of residence hall living. Each building provides public lounges, study areas, snack kitchens and utility rooms. The university furnishes desk, bed, mattress with pad, you furnish a pillow, sheets, pillowcases, blankets, and towels. A local laundry will provide linen service for a quarterly fee. A refrigerator rental is available on campus through the Business Office.

OFF-CAMPUS HOUSING

A limited list of off-campus rooms and apartments for students is available in the Housing Office, 132 Kryzsko Commons. It is necessary for you to visit the campus to select housing personally. Office hours on weekdays are 8:00 a.m. to 4:00 p.m.

These listings are compiled from information provided to Winona State University by individual landlords. The university makes no representation as to the kind, quality or quantity of facilities available from the landlords listed above, nor does the university have any control over changes in the information. The cost and availability of space is subject to change at the discretion of the landlords.

"Winona State University does not assume any liability arising from the relationship between the student and the landlords on these listings. All questions about accommodations should be addressed directly to the landlords."

While the university does not own or operate married housing facilities at the present time, listings of accommodations are available at the Housing Office. The Thurley Homes, a development jointly owned by the city and the federal government, provides partially furnished apartments for a limited number of married students. Application must be made in person on weekdays (not Saturdays) to the Thurley Homes, Tenant Selector, 165 East 4th Street, Winona, MN 55987.

Students living off campus may utilize the university dining facilities as indicated under Dining Services.

CAREER PLANNING AND PLACEMENT SERVICE

Seniors seeking positions in business, industry, government, non-profit organizations, and education, who wish assistance in securing employment upon graduation, should register with the Winona State University Placement Office early during their senior year. W.S.U. undergraduate or graduate students will receive personalized assistance in preparing for and conducting
a job search.
Underclasspersons desiring career information are also welcome to use the resources of the Placement Office. Office hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday, during the academic year and 7:30 a.m. to 4:00 p.m., June through August.

STUDENT ACTIVITIES

The focal point of student activities is Kryzsko Commons (Student Union), a complex with dining facilities such as a snack bar, patio, private dining rooms, alumni lounge, and main dining room for residence hall students; conference rooms for informal gatherings of students and faculty; a six-lane bowling alley; a pocket billiards and ping-pong area; student lounges; television-viewing center; the campus bookstore; a mini-theatre; and staff offices.

The director of Kryzsko Commons and the director of housing, together with the appropriate student committees, coordinate the social, cultural and recreational program. Activities include movies, dances, guest speakers, concerts, intramural sports, river excursions, banquets, art and craft exhibits, and other special events.

With a university I.D., ski equipment and bicycles may be rented for a nominal fee.

INTERNATIONAL STUDENT ADVISING

The international student office located in 128 Kryzsko Commons provides assistance and personal academic counseling to students from countries other than the United States. The director of international students is available for information and advice regarding immigration matters, discrimination concerns, laws, travel, employment, and other questions of students who are not familiar with the campus community and American way of life.

There is no intensive English program for international students on campus. However, the English Department offers a special course, "English for Non-Native Speakers," which is REQUIRED of all international students as preparation for English 110 and 115.

OSLO EXCHANGE PROGRAM

This is the twentieth continuous year of an exchange of students between Winona State University and the Oslo Offentlige Laererskole (Teacher's College) in Norway. Twenty-six Winona State students and twenty-four Norwegian students, in addition to several staff members, have participated in the exchange. One or more students are selected each year to participate in the program. Application forms and more information about the program can be obtained in the Education Department Office. Gilde meister 152.
Financial Information

All financial information below is subject to change by action of the Minnesota State University Board.

A non-refundable fee of $10.00 is required with the Application for Admission. Persons who have been admitted to Winona State University and have paid the $10.00 fee will not be subject to this fee for subsequent enrollments.

TUITION

ON-CAMPUS AND EXTENSION COURSES:
The following figures are expenses for all quarters and summer sessions.

<table>
<thead>
<tr>
<th></th>
<th>1981-82</th>
<th>1982-83</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regular Year</td>
<td>Tuition Per Credit Hour</td>
</tr>
<tr>
<td></td>
<td>6/11/82-5/31/83</td>
<td></td>
</tr>
<tr>
<td>Undergraduate — on-campus and extension courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident</td>
<td>$13.65</td>
<td>$15.00</td>
</tr>
<tr>
<td>Non-Resident</td>
<td>$27.15</td>
<td>$29.95</td>
</tr>
<tr>
<td>Graduate — on campus course;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resident</td>
<td>$17.45</td>
<td>$19.20</td>
</tr>
<tr>
<td>Non-Resident</td>
<td>$35.10</td>
<td>$38.60</td>
</tr>
<tr>
<td>Graduate — extension courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular academic year, resident and non-resident</td>
<td>$29.50</td>
<td>$32.45</td>
</tr>
</tbody>
</table>

SUMMER SESSION—GRADUATE EXTENSION COURSES:

<table>
<thead>
<tr>
<th></th>
<th>Summer 1981</th>
<th>Summer 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td>$15.60</td>
<td>$19.20</td>
</tr>
<tr>
<td>Non-Resident</td>
<td>$31.35</td>
<td>$38.60</td>
</tr>
</tbody>
</table>
FEES

ACTIVITY FEE
Maximum activity fee .......................................................... $53 per quarter or $26.50 per summer session
Students enrolled in regular on-campus offerings ........................................ $4.25 per credit hour
Students enrolled in External Studies Program ........................................... $2.20 per credit hour
Nursing students taking all of their courses in Rochester ........................... $2.20 per credit hour
Students enrolled in program scheduled for entire quarter or session at a location 50 miles or more from Winona $2.20 per credit hour
Students enrolled at off-campus locations in extension courses, continuing education unit courses or workshops ........................................ no fee
Senior citizens over the age of 62 enrolled on a space available basis ........ no fee
The fee structure listed is subject to change.

INSURANCE
Health Insurance is available to all full-time students. The cost is approximately $30.50 per quarter for single coverage and $295.00 for family coverage for Medical and Hospitalization Insurance. This coverage is available for all full-time students who do not have their own coverage. The insurance is available for full-time summer session students. Payment must be made during registration periods. Further details are available in the counseling center.

CLASS FEES
Bowling is $7.00 per quarter and golf $10.00 per quarter in addition to the regular tuition.

INCIDENTIAL FEES
You will find several smaller fees which arise with special class enrollment and other curriculum projects. A charge of $5.00 per credit hour is made for the privilege of Credit by Examination.

LATE REGISTRATION FEE
Payment in full, all for tuition, fees and residence hall must be made during the regularly scheduled registration period. Any payment accepted after such registration period will be assessed a late fee of $5.00 for the first day payment is late and an additional $2.00 for each succeeding instructional day. Payments of tuition and fees will not be accepted beyond the periods on the following schedule:

Regular Quarter — Ten class days
Summer Session — Four class days
Extension — No later than second class meeting

REFUND POLICY
Students who withdraw from the university should obtain Application for Refund forms from the Office of Registrar.
Except for provisions contained elsewhere in this system policy, refunds of tuition will be made only to students who withdraw from the university. No refunds are made on individual credit drops. Students who withdraw from the university shall receive tuition refunds according to the following schedule:

REGULAR SCHOOL YEAR:
1st through 5th instructional day ......................................................... 80%
6th through 10th instructional day ...................................................... 60%
11th through 15th instructional day .................................................... 40%
16th through 20th instructional day ................................................... 20%
After 20th instructional day ............................................................... None

EXTENSION, EVENING AND SATURDAY CLASSES:
Before 2nd class meeting ................................................................. 80%
Before 3rd class meeting ................................................................. 60%
Before 4th class meeting ................................................................. 40%
Before 5th class meeting ................................................................. 20%
5th meeting and after ........................................................................ None
20/FINANCIAL INFORMATION

SUMMER SESSION
1st through 5th instructional day .......................................................... 60%
6th through 10th instructional day .......................................................... 20%
After 10th instructional day ................................................................. None

If your course schedule is reduced for the convenience of the university, the tuition shall be adjusted without penalty. Refunds on activity and student union and health service fees will be on the same basis as tuition. As for textbooks and materials, refunds are not made. Used books may be sold at the university Bookstore during the last week of each quarter or session.

The university also enforces "drop-add" fees. Students who change a part of their program after classes have started, will be required to pay a $2.00 fee per program change when classes are added. The "drop-add" clause is intended only for students who must correct errors in their program.

You are expected to pay all accounts to the university when they are due. The university is authorized to withhold the issuance of diplomas and official transcripts or credits and to deny you further registration until all monies due the university have been paid.

ROOM AND BOARD

Payment for Residence Hall and meal services are made in advance on a quarterly basis or by semi-quarterly installments. All rates are subject to change by the State University Board. The following costs include meals and a phone in each room.

<table>
<thead>
<tr>
<th>single occupancy</th>
<th>normal occupancy-double room</th>
<th>guest rate (per night)</th>
<th>room deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Cost per Qtr.</td>
<td>$491.00</td>
<td>$441.00</td>
<td>$5.00-$7.00</td>
</tr>
</tbody>
</table>

ESTIMATED TOTAL MINIMUM EXPENSES FOR UNDERGRADUATE STUDENTS

<table>
<thead>
<tr>
<th></th>
<th>1981-82 Resident Per Quarter</th>
<th>1981-82 Non-Resident Per Quarter</th>
<th>1982-83 Resident Per Quarter</th>
<th>1982-83 Non-Resident Per Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition (16 quarter hours)</td>
<td>$218.40</td>
<td>$434.40</td>
<td>$240.00</td>
<td>$447.60</td>
</tr>
<tr>
<td>Activity, Student Union, and Health Service Fee</td>
<td>53.00</td>
<td>53.00</td>
<td>53.00</td>
<td>53.00</td>
</tr>
<tr>
<td>Residence Halls - Board and Room</td>
<td>441.00</td>
<td>441.00</td>
<td>441.00</td>
<td>441.00</td>
</tr>
<tr>
<td>Medical and Hospital Insurance (optional)</td>
<td>30.50</td>
<td>30.50</td>
<td>30.50</td>
<td>30.50</td>
</tr>
<tr>
<td>Total Average Student</td>
<td>$742.90</td>
<td>$958.90</td>
<td>$764.50</td>
<td>$1002.10</td>
</tr>
</tbody>
</table>

Textbooks will average about $70.00 per quarter. Tuition and fees are to be paid in advance for the quarter on the regularly scheduled registration days.

RESIDENT STATUS

As a state supported institution, Winona State University has a primary function of making higher education available to residents of the state of Minnesota. For that reason a higher tuition rate is charged if you are a resident of another state or nation.

Regulations and criteria regarding the determination of resident status can be obtained through the Admissions Office, 129 Phelps Hall. Any student having been initially classified a nonresident and having decided that residency has been achieved, may initiate action to effect a change by filing with the Admission Office a "State of Residence" form.
FINANCIAL INFORMATION/ 21

WISCONSIN/NORTH DAKOTA/SOUTH DAKOTA TUITION RECIPROCITY

Any undergraduate or graduate Wisconsin/North Dakota/South Dakota student who submits the "Student Application for Resident Fee Status" form will be subject to the tuition rate charged to Minnesota residents. Application forms are available in the Office of Admissions, and all Wisconsin, North Dakota and South Dakota high schools. Approval is granted for one year, and students must submit renewal forms at the start of each academic year.

STUDENT FINANCIAL AID

The office of the Director of Student Financial Aid counsels you concerning long term and short term plans for financing your education. Entering freshmen and transfer students may address inquiries about loans, scholarships, grants and part-time employment to the Director of Financial Aid, Winona State University, Somsen 106, Winona, Minnesota 55987.

In general, university-administered aid is awarded after eligibility from the standpoint of need has been established through the American College Testing Program, an impartial agency. To be considered for aid, you must be enrolled or accepted for admission and must maintain good standing in the university.

Usually awards are made for one academic year and disbursed in equal installments at the beginning of each quarter.

APPLICATION PROCEDURE

Application for financial aid should be requested at the time you apply for admission. Awards are made after the university has issued a letter of admission. Application consists of completing the Family Financial Statement.

Family Financial Statement: Entering freshmen obtain this form from a high school counselor; transfer students request this form from the Director of Financial Aid, Winona State University.

The instructions which accompany this form should receive careful attention. Upon completing the form, attach check or money order in the correct amount and mail it to ACT, Iowa City, Iowa 52240. This agency will furnish the university with an analysis and estimate of need.

The filing deadline for the State Scholarship and Grant Program is March 1. The priority date for aid awarded by Winona State University is March 1.

EMPLOYMENT

Federal Work-Study Program: Students who demonstrate need may work a maximum of twenty hours per week during the regular school year and/or forty hours per week during vacation periods. Most employment is on campus, but students can work in off-campus, non-profit organizations or agencies.

State Work-Study Program: Minnesota residents who are full-time students are eligible to apply for this part-time employment on campus or in off-campus, non-profit organizations.

Miscellaneous Part-Time Work: The Financial Aid Office cooperates with the Minnesota Department of Employment Services in securing part-time student employment. A counselor is available to assist you.

SCHOLARSHIPS

Scholarships are awarded in recognition of superior achievement and potential; the amount of each award is determined on the basis of the recipient’s total resources.

Endowed Scholarships and Donors:

Ella Tucker, by Lucinda Tucker; Harriet R. Choate; Wenonah Chapter D.A.R. Laird, by Frances Laird Bell and Maude Laird Prentiss; W. W. Norton, Beulah Norton, by Mrs. Emma B. Norton; Louise Sutherland Kindergarten Award, Florence Loring Richards; World War I, by Residents of the women’s residence halls, 1917–1919; Seventieth Year, by 1,100 alumni and friends of the university.

L. L. Brown; Stephen H. Somsen; Alice H. Mead; Josephine Flagg, by Eda D. Flagg; Theda Gildemeister; Etta Hudson Howell; Wenonah Chapter D.A.R. Mabel Marvin, Centennial, by faculty members, former scholarship holders, and other friends of the university; Phillip F. Loughrey Memorial, by Peter F. Loughrey in memory of his son; Charles and Ellora Allis; Glen E. Galligan Professional Development Award, by Mrs. Glen E. Galligan and family; Jestus Nursing Scholarship, by Jesse Jestus.

Annual Scholarships: The following roster of annual and recurring scholarships indicates the extent of the support which the university receives from the wider community:

Pink Lady, by the Winona Community Memorial Hospital Auxiliary; Winona County Medical Association and its Auxiliary; Delta Kappa Gamma, International Honorary Fraternity of Women Educators; Winona Business and Professional Women’s Club.


Award for Creativity in Writing for the Theatre: Sylvia S. Bremer, Prize, by Adolph Bremer.

Nursing Scholarships: Nursing scholarships are available to applicants of exceptional financial need who require such assistance to pursue a full-time course of study. An applicant must be accepted as a full-time student in the Nursing Program.

President’s Honor Scholarship: Approximately 100 students receive the President’s Honor Scholarship each year. Students must rank in the upper 20% of their high-school graduating class and have one of the following test scores to be considered for the scholarship: ACT, PSAT, or SAT.

Fine Arts Scholarship: Scholarships based on talent are available through the Art, Music, and Communication Theatre Arts
Departments. Students should contact the Dean of Arts, Humanities, and Social Sciences.

Minority Scholarship: Scholarships are available to qualified minority students. For information contact the Winona State University Minority Student Advisor.

Athletic Scholarship: The Warrior Club, the official athletic booster organization for Winona State University, provides limited athletic scholarships for men and women in all intercollegiate sports. For information, contact the appropriate Varsity Coach.

GRANTS

Minnesota State Grant-in-Aid and Scholarship Program: Available to qualified Minnesota residents on the basis of financial need. Application and information may be obtained from a high school counselor, or from the Student Financial Aid Office. The filing deadline is March 1.

Minnesota Part-Time Student Grant: Available to qualified Minnesota residents attending on less than a full-time basis.

Supplemental Educational Opportunity Grant: A Federal Grant available to undergraduate students with exceptional financial need. It requires matching by other types of aid such as loans or work-study program. (Pell Grant).

Basic Educational Opportunity Grant: A federal grant program that provides gift assistance to Undergraduate students based on their financial need to attend college.

LOANS

National Direct Student Loan: A low interest loan available to students demonstrating financial need. Repayment does not begin until six months after leaving school. Partial cancellation of the loan is provided for teaching in certain areas or certain subject matters.

Guaranteed Student Loan: A loan that is available to students accepted for enrollment or enrolled on at least a half-time basis. Demonstrated financial need is not required. Repayment at 7%—9% interest begins 6—12 months after you cease to be enrolled as at least a half-time student. Dependent Undergraduates may borrow a maximum of $2500, independent Undergraduates up to $3000 and graduate students $5000 per year. Applications are available in the Financial Aid Office.

Emergency Loans: Short term loans are available for emergency expenses. Applications and information are available in the Financial Aid Office.

ASSISTANSHIPS

Graduate assistanships are available to highly qualified graduate students in several departments. Applicants should submit requests for assistanships to the appropriate department chairperson, or to the Dean of Graduate Studies.

Anyone who has been appointed to a graduate assistanship prior to the first day of classes shall be granted resident tuition status for the period of time of the appointment.

Army R.O.T.C.: Participation in the on-campus Advanced Army R.O.T.C. Program at Winona State University provides the following financial assistance:

a. Basic Entitlement: Approximately $2500 for all advanced course students earned through participation in the R.O.T.C. Program during a two-year period. Computation is based upon $100 per month x 10 months x 2 years = $2000. In addition, approximately $500 is received during attendance at Advanced R.O.T.C. Summer Camp.

b. Scholarships: Students may apply for 4, 3, 2, and 1 year full-tuition Army R.O.T.C. scholarships. In addition, scholarship students receive a $100 per month allowance during each month of the scholarship. University students not currently enrolled in Military Science may apply for 3 and 2 year scholarships.

c. Simultaneous Membership program (SMP): Students enrolled in the Advanced Army R.O.T.C. Program may simultaneously served as a member of a U.S. Army Reserve Unit or Army National Guard Unit and receive pay from both programs. Between $4400 and $5400 is available through participation in this program.

For further information, consult the Military Science Department advisor.
Academic Information

Winona State grants the Bachelor of Science and Bachelor of Arts degrees, the culmination of its four-year program. Though the majority are enrolled in these programs, the university also has a substantial enrollment in the graduate program, the two-year curriculums which may fulfill the requirements for the Associate in Arts and Associate in Science degrees, and pre-professional sequences.

APPLICATION

You may apply for admission to any quarter during the academic year. The official deadline for admission is one week before the first day of registration for that quarter. At that time, all admissions material must have been submitted.

A $10.00 non-refundable application fee must accompany all new applications.

The ACT, SAT, or PSAT is an admission requirement for all freshmen. A desirable high school preparation should include: English, three to four units, one of which may be speech; mathematics, two units; social studies, two units; science, two units.

Entering students are required to obtain a medical examination from their own physician. Forms for this purpose will be supplied by the university.

In cases where unusual circumstances exist, you may request a review of an application for admission.

ADMISSION REQUIREMENTS

Winona State University requires students applying for admission to meet certain entrance requirements. No person will be denied admission on the grounds of race, color, sex, or national origin.

Freshmen Students: All students who rank at the 50th percentile of their high school graduating class or achieve an acceptable score on one of the college entrance examinations are eligible for admission. A composite score of 16 on the ACT, a combined verbal-mathematical score of 70 on the PSAT or a combined verbal-mathematical score of 700 on the SAT are acceptable levels. Students who rank between the 33rd and 49th percentile of their graduating class or achieve a composite score of 13 on the ACT, a combined verbal-mathematical score of 60 on the PSAT, or a combined verbal-mathematical score of 600 on the SAT are admitted on a provisional basis, with the recommendation to carry no more than 12 credits during the first quarter. Students who rank below the 33rd percentile of their graduating class and score below minimum requirements on the ACT, PSAT, or SAT must attend an open Summer Session.

Students who have not graduated from high school will be considered for admission if they have been awarded a High School Equivalency certificate based on the successful completion of the GED test, and if they achieve an acceptable score on one of the college entrance examinations.

Early Admission: A currently enrolled high school student who has demonstrated unusually high ability and/or achievement and who is recommended by a high school counselor or principal may be considered as an applicant. Students must have completed the 11th year before being eligible for consideration.

International Student Admission: All international students are required to submit a TOEFL score of 500 or more to comply with college regulations. The university requires that international students enroll in a Winona State University English course specifically designed for their special needs after their initial enrollment here.

In addition to official academic credentials, international students must present proof of financial responsibility for the full course of study. Specific financial support
forms for this purpose will be supplied by the university. The university requires that all financial obligations including tuition, fees, room and board be paid at the time of registration.

The Admissions Office emphasizes that the financial support statement is of extreme importance because very little financial aid exists for foreign students and immigration regulations prohibit employment outside the campus community. In view of the increasing cost of education and unstable conditions around the world, Winona State is unable to assume responsibility for emergency situations which arise while a foreign student is in attendance at the university.

International students must apply well in advance of the time they wish to enroll. This is necessary due to the complexity of the admission process and allows for the proper planning of mandatory orientation program for international students.

International students interested in further information about the university should direct their initial inquiries to the Director of International Students, Kryzsko Commons, Winona State University, Winona, Minnesota 55987.

Transfer Students: The policy for admission of transfer students will be based on the retention standards of Winona State University. Students should be academically eligible to return to their former school. A transfer student who has attempted from 1-16 quarter hours of credit may be admitted if the grade point average at the last school attended is not less than 1.50, between 17-43 credits the GPA must be 1.75, and for 44 credits and above the GPA must be 2.00.

Students who have earned credits in other colleges, including Minnesota State Universities, which are members of the North Central Association of Colleges and Schools or corresponding regional accrediting association, receive credit to the extent that courses pursued can be applied to the curriculum selected. Transfer students admitted to Winona State University will receive credit for courses taken at accredited institutions in which the grades A, B, C, D, P or their equivalents were attained. Transfer students who are on probation or have been suspended should refer to the section in the catalog on “Retention and Scholarship Standards.”

Only those courses and credits taken at Winona State University will count for the computation of grade point averages and for probationary decision after enrolling at Winona State University. An official transcript, including a statement of honorable dismissal is required from each college attended. Applicants should request the registrar of each college attended to send an official transcript directly to the Office of Admissions, Winona State University. A student failing to comply with this requirement and inadvertently admitted to the university, is subject to suspension.

As a general rule, the A.A. degree (90 quarter hours credit minimum) with 60-68 credits in Liberal Studies from a community or junior college in a transfer curriculum will waive the general education requirement at Winona State University provided that they have a broad distribution of credits in the humanities, natural sciences, and social sciences and provided that they have met the skills area requirements in composition, speech and mathematics. Exceptions to this rule are handled individually. Students seeking a B.S. Education degree must meet the teacher education entrance requirements.

Credits earned at a community or junior college may be accepted in transfer to a maximum of 96 quarter hours, to apply toward the 192 credits required for a degree. Community or junior college credits earned in a course by a student who already has a total of 96 quarter hours earned at a community or junior college will not be counted toward the 192 required credits, but it will not be necessary to take the corresponding required course. Transferred credits must average at least C in quality.

Returning Students: All Winona State students who do not attend WSU for one quarter or more (summer excluded) will be classified as a returning student. You will also be classified as returning if you leave WSU and attend any college or university for two terms or less (quarters or semesters) on a part-time basis. A returning student who has attended another college or university for more than two terms on a part-time basis will be considered a returning transfer student and must apply as a transfer student. Official transcripts will be required for all college/university attendance.

A returning student who has been academically suspended should refer to the section in the catalog on “Retention and Scholarship Standards” for readmission guidelines.

A returning student must complete the Intent to Return Form available in the Admissions Office. The Registrar’s Office will update the student’s record and the Admissions Office will then evaluate the record for possible readmission.

Undergraduate Specials: All students taking undergraduate courses for enrichment, transferring to another school, general interest, or who have no intentions of earning a degree will be classified as undergraduate specials. Students in this category must (1) file an Undergraduate Special Enrollment Form, (2) submit a $10.00 non-refundable application fee (if they have never attended Winona State University and paid the fee previously), (3) submit transcripts of previous college work or Statement of Good Standing — for those who wish to transfer credits to their “home” university or college.

Post-Baccalaureate Students: Students holding a baccalaureate degree and taking additional undergraduate courses to satisfy a second major, minor, or certificate will be classified as post-baccalaureate students. Students in this category must: 1) file a Post-Baccalaureate Application Form in the Admissions Office; 2) submit a $10.00 non-refundable application fee (if they have never attended WSU and paid the fee previously), and 3) submit transcripts of previous college work and proof of baccalaureate degree.

Admission to Summer Session: Admission to a summer session may be “open” to all students including freshmen, transfer, and special students who do not qualify for admission during the academic year. This includes students who have been suspended for low scholarship. All students must follow the normal procedures for admission.

These students must attend both summer sessions, will be limited to a maximum of 5 credits per summer session, and should plan to make extensive use of the Learning Center. Students must successfully complete
at least 8 credits during the summer with a grade point average of 2.00. Students who fail to meet these standards will be denied further admission to the university. This will apply only to those who do not meet other admission requirements.

Vocational-Technical School Students: Students interested in transferring credits from vocational-technical schools should contact the Admissions Office.

Credits may be applied to a Vocational Education major, Business Education-Office Administration major, Individualized Study major (Technical Option), or as general electives. Generally the maximum credits accepted from a vocational-technical school are 24-48 for a completed program.

Students entering WSU from a Vocational-Technical School will be considered transfer students. These students will be required to submit an official transcript from the vocational school indicating their graduation date. A high school transcript and admission test scores are also required.

Correspondence Coursework: Winona State University does not offer correspondence coursework. The university will accept a maximum of 15 quarter hours of correspondence work toward a degree.

Credit or Advanced Placement by Examination: The departments of Biology, Chemistry, English, Mathematics and Physics offer advanced placement to qualified students who achieve satisfactory scores on C.E.E.B., Advanced Placement Tests, or other tests. For specific details, consult the chairpersons of the departments.

Students who successfully complete the general examination of the College Level Examination Program (CLEP) may be granted advanced standing of up to 32 hours of credit. Credit is granted in history-social sciences, natural sciences, mathematics, and the humanities. The departments of Business Administration—Economics, English, Sociology, and Mathematics will also accept credit for successful completion of CLEP subject examinations.

Procedures for Admission:
Freshman:
1. Complete an application form.
2. Return completed application with $10.00 non-refundable fee.
3. Request that your official high school transcript be forwarded to the office of Admissions; the transcript should include your high school rank and admission test score.

An alternate application procedure for freshmen is ACT-APP. Freshmen who take the ACT and achieve appropriate scores and indicate WSU as one of their choices will not be required to complete an application form or send a high school transcript. After receiving your ACT test scores, the university will advise you of your admissions status and request the $10.00 application fee.

Transfer:
1. Transfer application forms are available upon request from the Admissions Office.
2. A $10.00 non-refundable application fee must accompany all new applications.
3. Transfer applicants must submit official transcripts from all colleges or universities attended.

Send all materials and inquiries to:

Director of Admissions
Winona State University
Winona, Minnesota 55987

For further information:
Call: (507) 456-2065 collect.
Office Hours:
Monday through Friday, 8:00 a.m. to 4:30 p.m.
June through August: 7:30 a.m. to 4:00 p.m.

ADMISSION OF VETERANS

Winona State University is on the list of institutions approved by the State Approving Agency for Veterans Training. Eligibility certificates should be presented at the time of enrollment to the Veterans Assistance Office.

Procedures:
1. Application for veterans benefits can be submitted through the county Veterans Service Office or through Winona State University. Students must have a certified copy of their DD-214 and marriage and birth certificates to submit with the application.
2. Students who have received a Certificate of Eligibility for Winona State University should submit both copies at time of application for admission.
3. Following your admission to the university, present your DD-214 to the Veterans Office. Your enrollment will then be certified. Enrollment for full-time students is normally for the academic year. Summer sessions and/or workshops are separate enrollment periods. Date of enrollment is based on the school calendar, workshop dates, or contract periods. *Note: A mixture of graduate and undergraduate credits will be allowed only under special arrangements.
4. Report each change in academic load to the Veterans Assistance Office.
5. Payments of benefits: Allowances are paid on a monthly basis conditional on satisfactory progress in approved course and conduct. Payments to veterans are released on the basis of the enrollment certification furnished by the school. When you complete, drop out, or interrupt your course of training notify the Registrar’s Office and the Veterans Assistance Office.
6. Re-enrollment. This may be accomplished without a new certificate of eligibility. Notify the Office of Admissions Veterans Assistance Office, show credit hour load, and give your correct address.
7. Change of education program or place of training: Complete and mail form 22-1995 to the Veterans Administration, St. Paul. New certificates are required in any transfer to another school.
8. **Academic Load**

<table>
<thead>
<tr>
<th>Training Time</th>
<th>Undergraduate Quarter Hr. Cr.</th>
<th>Graduate Quarter Hr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>3/4</td>
<td>9, 10, 11</td>
<td>7, 8</td>
</tr>
<tr>
<td>Half</td>
<td>6, 7, 8</td>
<td>6</td>
</tr>
<tr>
<td>Less than half</td>
<td>1 to 5 incl.</td>
<td>1 to 5 incl.</td>
</tr>
</tbody>
</table>

9. **Tutorial assistance**: This program provides special help to overcome a marked deficiency in a subject required for the satisfactory pursuit of an educational objective.

10. **Credit for military schools**: Service schools and training will be evaluated according to the recommendations of the American Council on Education, Guide to the Evaluation of Educational Experience in the Armed Services when an official DD-214 has been presented to the Office of Admissions. A maximum of 15 quarter hours of USAFI credits may be accepted and applied toward a degree. Credit will be granted to persons holding CCAF transcripts.

11. **Veterans from other than Minnesota**: Anyone who has served in the Armed Forces of the United States of America for a period in excess of 190 days for purposes other than training, and who has been released from such service within 2 years of date of registration, providing legal residence was not claimed in any other state or the District of Columbia, may obtain Minnesota resident tuition rates by completing the Statement of Residence form and submitting a copy of Form DD-214 to the Office of Admissions. A maximum of 15 quarter hours of USAFI credits may be accepted and applied toward a degree. Credit will be granted to persons holding CCAF transcripts.

12. **Waiver of physical education activity requirements**: Veterans who have been on active duty for more than one year, and who are pursuing non-teaching degrees, can waive this requirement by providing the Admissions Office with an official copy of their DD-214.

13. **Veterans are eligible to apply for enrollment in the Advanced ROTC Program.** Participation in Army ROTC and receipt of financial assistance from that program does not affect assistance received under the veterans benefit program. For further information, consult the Military Science Department advisor.

**DECLARATION AND CHANGES OF PROGRAM**

Upon declaration or change of program, you must follow the program requirements as listed in the catalog then in effect, with the only exception being changes in university policy; however, those requirements must be completed within seven years after the change is made. If they are not, you must complete the requirements listed in the current catalog. To declare or change a program, you must complete the appropriate form in the Registrar's Office, Somsen 228.

**QUARTERLY ACADEMIC LIMITATIONS AND CREDIT OVERLOADS**

The unit of work in the university is measured and expressed in quarter hour credits. Each credit requires one 50-minute class period per week for 10 weeks. The majority of courses are credited with 3 or 4 quarter hours.

In order to complete requirements for a degree in the usual four years (12 quarters) you must earn an average of 16 credits per quarter. No undergraduate student is permitted to enroll for more than 20 credits without approval from the appropriate dean. Graduating seniors and students with a cumulative 3.00 G.P.A. will be considered for an overload of 21 or 22 credits (23 or 24 credits may be considered if you obtain a written recommendation from your advisor stating the necessity for the overload.) No graduate student is permitted to enroll for more than 12 credits without approval from the graduate dean. The university may restrict the number of credits for which you enroll in cases where previous low scholarship, out-of-school obligations, or similar factors might interfere with satisfactory performance of your obligations. The university may restrict you from registering if you fail to follow proper registration procedures.

**CREDIT BY EXAMINATION**

Credit by departmental examination may be granted, without formal enrollment in a course, if you can satisfy the requirements of the course by a written or oral examination. The intent of this policy is to make it possible, without enrolling in the course, for a student who has completed equivalent study at a non-accredited school or who can present evidence of independent study and related work experience to establish credit. You must be fully matriculated with an established Grade Point Average at Winona State University, in good standing, and enrolled at the university during the quarter in which a "credit by examination" is taken. You may not use this process to improve a grade.

**GRADUATION REQUIREMENTS**

The requirements for graduation from Winona State University with a Bachelor of Arts or Bachelor of Science teaching or non-teaching degree: 192 quarter hours of credit; overall C average; 45 quarter hours in residence during the junior and senior years combined (residence credit is defined as any credit offered by Winona State University and credit earned by any Winona State University student under the Minnesota State University Common Market Program); enrolled during the quarter of graduation; general education requirements completed (see section on General Education Program for Undergraduate Students); and completion of C average in one major and one minor or one broad major of 65 or more credits in length *(only one option or one concentration may be selected in fulfilling the major or minor requirements within a
given department. A minimum of 12 credits of non-duplicative coursework will be required in major/minor or double major combinations completed within the same department.

The major and minor grade point averages do not include additional requirements. Bachelor of Science candidates, teaching only, must complete the professional education sequence, including student teaching, and must be eligible for teacher certification in Minnesota. Students who change from one curriculum to another within the university must meet the requirement for the newly chosen curriculum even though the total number of credits earned exceeds the total minimum for graduation.

You have the final responsibility for selecting and registering for courses that will meet curriculum requirements. By mid-quarter of the term you plan to receive a degree, you must file a formal application for graduation with the Registrar’s Office. Three weeks prior to graduation, a list of candidates will be posted on the Registrar’s Office bulletin board on the second floor of Somsen Hall. You should check this list to ensure that you have been approved for graduation; a candidate whose name does not appear must notify the Registrar immediately. Students graduating at the end of spring quarter are required to attend the commencement exercise.

B.S. DEGREE AND/OR TEACHER CERTIFICATION REQUIREMENTS FOR B.A. GRADUATES

The holder of a Bachelor’s degree not in teacher education either from this university or another accredited institution, may qualify for teacher certification by completing the Professional Education Sequence, including student teaching in the major field, and one of the B.S. teaching majors with a “C” average (G.P.A. of 2.0) in the major. A student requesting certification in a minor must also have a “C” average in the minor and must apply for and be accepted in a program of teacher education. Students must have a “C” average in the Professional Education Sequence before being allowed to student teach. These certification requirements also qualify a B.A. graduate of this university for the B.S. degree if the major requires no minor, or if requirements for a minor; are also completed. A graduate of another institution qualifies for the B.S. degree by meeting the residence requirement of 45 quarter hours as well as the above.

An applicant for a teacher’s certificate must have courses that include the equivalent of two quarter hours in the effects of narcotics on the human system and the appropriate courses to complete the Human Relations Components.

For additional information on teacher certification, see the Registrar, Somsen 228.

QUALITY OF WORK

Your work in any course will be evaluated in accordance with the following system of letter grades: A means Excellent, B, Very Good; C, Average; D, Passing; E, Failing; NC, No Credit; I, Incomplete; plus W, Withdraw; P, Pass; and V, Audit.

The mark of “Incomplete” is reserved for special cases where you, for reasons beyond your control, have been unable to finish some important assignment in the course by the end of the quarter, though you are passing in all other aspects. The grade for the Incomplete must be received by the Registrar by Mid-Term Day next quarter of your enrollment. If it is not removed within the specified time, the grade automatically becomes an E.

When you repeat a course, only the last grade received and credits earned will count. If you withdraw while repeating a class, (W), the original grade remains in your record and G.P.A. It is the students responsibility to notify the Registrars Office of a “repeat” class by completing the necessary paperwork (repeat form or card). The Registrars Office does not accept responsibility for incorrect credit totals or grade point averages which are due to “repeat” courses for which the proper paperwork has not been filled.

PASS-NO CREDIT COURSES

The Winona State “pass-no credit” program enables you to enroll in unfamiliar or difficult academic subjects without fear of jeopardizing your grade point average. The program is intended to introduce you to the life-long context of education in which learning does not include the traditional “reward or penalty” of a grade.

Although the courses in this program upon satisfactory completion, grant credit which applies toward graduation the credit does not affect the grade point average. Completion of such a course is entered P (pass) or NC (no credit) on your permanent record. However, P is interpreted as equivalent to A, B, C and D.

Departments designate which courses they require or permit to be taken on the “pass-no credit” basis. Major, minor, or professional courses are generally not included, but exceptions may be made upon approval by the Departmental chairperson. When you select a major or minor after taking a course in that department on a “pass-no credit” basis the department may permit the course to count.

You may not take more than six (6) P/NC credits per quarter exclusive of student teaching and internships. The six credits include both optional P/NC classes and classes in which P/NC grading is mandatory. In addition, your total number of credits for graduation may not include more than forty-eight (48) “P” credits. Optional P/NC courses, mandatory P/NC courses, student teaching and/or internships are all counted in the forty-eight credit limitation. You must decide whether or not to take a given course which is offered on an optional P/NC basis prior to enrolling as changes after enrollment will not be permitted.

If you receive an NC and wish to repeat the course, you must do so on a regular grade and honor point basis, not on the “pass-no credit” basis.
GRADUATION WITH HONORS

GRADE POINT AVERAGE AND GRADUATION WITH HONORS

Each quarter hour of credit attempted receives honor points according to the following: each A credit - 4 honor points; each B credit - 3 honor points; each C credit - 2 honor points; each D credit - 1 honor point; each E - 0 honor points. The grade point average is computed by dividing the total number of honor points by the total number of credits attempted. The frequently referred to C average is a 2.00 grade point average.

A graduating student with an overall grade point average of at least 3.25-3.49 is graduated Cum Laude. A student with an average of 3.50-3.74 is graduated Magna Cum Laude. A student with an average of 3.75-4.00 is graduated Summa Cum Laude. All courses from all institutions are used in the computation for honors. However, to be considered for honors, your WSU GPA must be 3.25.

To be eligible for graduation with honors, you must have completed 45 quarter hours in residence during your junior and senior years combined.

Anyone with a previously earned bachelor's degree is ineligible for honors as these awards apply only to students earning their first four-year degree.

AUDITED COURSES

You may audit courses if you so desire. This procedure permits you to attend classes but not receive credit. Courses pursued on an audit basis must be declared and processed prior to completing your registration. Regular tuition charges apply. Students may not use “audit” credits to satisfy graduation, certification, or licensure requirements.

RETENTION AND SCHOLASTIC STANDARDS

SCHOLASTIC STANDARDS

A student must have a cumulative minimum grade point average of 1.50 for the first 16 credits attempted; 1.75 for the first 43 credits attempted; and 2.00 thereafter to remain in good academic standing. This grade point average is in reference to all course work taken at Winona State University.

PROBATION AND SUSPENSION

A student who does not meet the required cumulative grade point average or does not demonstrate satisfactory progress will be automatically placed on probation. Additionally, any student who has repeated six or more courses and is on probation may be suspended. (Courses listed in the catalog with the notation “may be repeated” can be taken for additional credits the stipulated number of times without penalty).

After one quarter of probation, a student who still does not meet the requirements may be suspended from the university by the Vice President for Academic Affairs. For Transfer Students: Only those courses and credits taken at Winona State University will count for the computation of grade point averages and for probationary decisions. Exception: New entering freshmen will be allowed to complete three quarters, exclusive of summer session at the university before being subject to academic suspension.

READMISSION AFTER SUSPENSION

Suspended students may seek readmission after satisfying one of the following conditions:

1. Remain out of the university for at least one quarter, then file an intent-to-return form in the Admissions Office. Suspended students who are readmitted after one quarter of suspension will be given a maximum of two additional quarters, exclusive of summer sessions, to meet minimum university standards.

2. Appeal their suspension to the Committee on Appeals and Suspension. The Appeal and Suspension Committee will meet once each quarter on mass registration day. Appointments for appeals must be made prior to that day in the Office of the Vice President for Academic Affairs. Only with extenuating circumstances will appeals be heard the day following mass registration. The Committee, with the approval of the Vice President for Academic Affairs may allow a student to remain in atten-

dance at the university under clearly stated conditions.

3. Attend summer sessions at Winona State University, enrolling in and successfully completing 8 credits with a minimum grade point average of 2.00 or better. Students will be limited to a maximum of 5 credits per summer session and should plan to make extensive use of the Learning Center.

All readmitted students will be reviewed after two quarters, exclusive of summer sessions. Failure to maintain a minimum grade point average of 2.00 will result in a second suspension.

Students suspended for a second time must remain out of the university for one full academic year. Students suspended for three or more times must remain out of the university for two full academic years.

WITHDRAWAL FROM THE UNIVERSITY AND CLASS

If you withdraw either from a class or from the university you are required to report to the Office of the Registrar to complete the appropriate forms. Withdrawals must be processed at least ten class days preceding final examinations of each quarter. If you process the withdrawal by the deadline date you will receive a mark of withdrawal (W) on your transcript. Withdrawals will not be authorized during the period of ten class days immediately preceding final examinations.

The original grade remains on the record and in the scholastic ratio if you withdraw (W) from a class you are repeating.

If you drop a course or withdraw from the university without giving official notification you will be given a grade of E.

If you withdraw from the university during any quarter you should discharge all business obligations and notify the Office of the Registrar.
CREDIT TRANSFERS AND TRANSCRIPT

Academic courses, undergraduate and graduate, completed at Winona State University are accepted at universities and other colleges where they are applicable to the curriculum chosen and meet the prescribed scholastic standards.

Transcripts are issued by the Registrar's Office only upon your written request, since student records are confidential in nature. Partial transcripts are not issued. Each transcript must include your complete record. As the university cannot certify credit earned at other institutions, copies of such transcripts will not be issued. All Winona State University transcript requests will be issued free of charge.

POLICY CHANGES

Throughout the academic year, administrative and committee actions will change policies that affect you. It is your responsibility to comply with the changes as they are enumerated in the university newspaper, the Winonan, or are posted on the Office of the Registrar bulletin board, second floor of Somsen Hall.

INTERNSHIP PROGRAM

Internship programs are available in all departments by arrangement with the department chairperson. Some departments, such as Business Administration and Political Science, offer internship experiences with credit and, in some instances, with remuneration. See internship reference under course descriptions for specific limitations.

TRI-COLLEGE/UNIVERSITY PROGRAM

A cooperative program is available with the College of Saint Teresa and Saint Mary's College whereby full-time, undergraduate Winona State University students may take a class at one of the two colleges and pay tuition for the credits at Winona State University. Students participating in the program are required to take a minimum of 9 credits at WSU the quarter they enroll in the Tri-College Program.

A Winona State University student interested in obtaining further information about the program should contact the Registrar's Office, Somsen 228, where academic calendars, class schedules and catalogs are available. If you decide to take a course at a participating college, a permit requiring the approval of the students advisor and the approval of the Registrar's Office must be obtained. The permit is then presented to the Registrar of the college where you wish to take a course, and the approved permit is returned to the home institution during their registration.

Students must register for CST and SMC courses during WSU's Pre-registration, Mass registration or Drop/Add day only.

MINNESOTA STATE UNIVERSITY COMMON MARKET PROGRAM

Under the Student Exchange Program, a Winona State University student may attend other Minnesota State Universities, one institution for one quarter or three different institutions for a total of three quarters, taking advantage of curriculum and program specialties and the different intellectual and social climates. Credit earned under the program is considered "resident credit" at the home university.

When application is made, you list the courses you wish to take, usually with several alternate choices. The Common Market Director at the receiving institution notifies you whether or not the request can be met and reserves the class cards for the available courses. On the application form, you indicate your choice of housing, which is referred to the Housing Office at the receiving university. Assistance also will be given to transfer or obtain financial aids. Fees are uniform throughout the six State Universities.

You are eligible to participate in the Common Market Program if you have attended your home institution for at least three quarters and earned at least a 2.0 average. Catalogs, class schedules, and application forms are available in the Registrar's Office, Somsen 228.

REGIONAL CAMPUS

EXTENSION

Winona State University offers a wide range of off-campus learning experiences for the residents of Southeastern Minnesota in addition to its traditional on-campus program. The EXTENSION program offers credit courses from university departments throughout the year in many regional communities. These courses may be undergraduate or graduate classes for degree oriented people and/or for expanding one's personal growth. Credit offerings may also be developed which provide specialized learning experiences to industries, agencies, and interested groups. Instruction for Extension courses includes regularly scheduled evening and daytime classes taught by university faculty; specially scheduled workshops and seminars; plus programmed classes available on video and audio tape. Admission to WSU is not required prior to enrolling in an Extension class.

For more information contact:
Regional Campus, Somsen Hall
Room 112, Winona State University
Winona, MN 55987. (507) 457-2068.
or from Rochester call 285-0111.

CONTINUING EDUCATION

Continuing education provides non-credit and CEU offerings fulfill specialized learning needs identified by professionals, organizations and communities. The CEU provides a standard measure for non-credit learning (1 CEU = 10 contact class hours) and is used for record keeping but is not equated to academic degree credit. The CEU is recorded on a transcript and can serve as verification for continuing education activities.

CEU • 10 contact class hours
Instruction for CEU activities may be by Winona State University faculty, community resource persons or visiting experts.

For more detailed information about CEU offerings or to discuss how Winona State may provide learning resources to your organization, contact the Regional Campus, 112 Somsen Hall, Winona State University, Winona, MN 55987. (507) 4572068.

EXTERNAL STUDIES PROGRAM
In order to serve the educational needs of all age groups within its service area, WSU established the External Studies Program for adult baccalaureate or AA non-teaching degree students. Regional learning centers have been established throughout southeastern Minnesota where classes and advising services are made available.

This unique and innovative program also provides an assessment and review of prior learning acquired through informal education or life/work experience. Credits earned are validated by WSU and apply towards the student's degree program.

Interested persons should contact the Regional Campus, Somsen 112, Winona State University, for registration details.

NON-MATRICULATED UNDERGRADUATE STUDENT
The non-matriculated undergraduate student program provides the means for non-degree-seeking adults to take undergraduate Winona State University classes on campus without going through the formal admission procedure. Qualifications are high school graduation and/or 5 years of work experience. A maximum of 8 credits may be taken per quarter and 16 credits may be transferred to a degree program.

This program opens the doors of the university to persons in the community desiring courses for general interest or personal enrichment. For more information, contact the Regional Campus, 112 Somsen, Winona State University.

SUMMER SCHOOL AND EVENING CLASS
In addition to the academic year, two five-week sessions are offered each summer. You may complete a full quarter of course work by attending both sessions. Special workshops carrying appropriate credit are also offered during the summer.

Evening classes are scheduled on campus during the academic year. These classes are open to full-time and part-time students and are part of the regular campus program.
GRADUATE INFORMATION

GENERAL INFORMATION

Winona State University offers the Specialist degree, and the Sixth Year Certificate, in Educational Administration; the Master of Science and the Master of Arts (in English) degrees; and the Master of Business Administration.

A Fifth-Year Program for teachers is also available.

Students wishing to apply for acceptance into a department offering a graduate degree must make application through the Graduate Office, 228 Somsen Hall, WSU. The Dean of Graduate Studies, whose charge it is to administer and to enforce all university graduate standards, reviews each application and forwards one set of the application materials of qualified students to the relevant department.

Admission to Graduate Study does not automatically ensure acceptance to a particular department’s graduate program, however, since each department administers its own program.

Graduate students are each individually responsible for knowing and for complying with the regulations for admissions, registration, admission to candidacy for advanced degrees, completion to all requirements, application for graduation, and all other pertinent requirements.

The Graduate Office is open weekdays except holidays. Saturday conferences are available by appointment.

MASTER OF SCIENCE

ADMISSION REQUIREMENTS

1. Each student must submit a completed Application for Admission to Graduate Study form (available at the Office of Graduate Studies) and two official transcripts of all previous undergraduate and graduate credits one month prior to initial registration for graduate courses.

2. Transcripts must show that the student has received a Bachelor's degree from a college or university accredited by N.C.A.T.E., by the appropriate regional accrediting agency or by the reporting state university of the state in which the college or university is located. The Dean of Graduate Studies may admit on probation a student with a Bachelor's degree from a non-accredited college or university.

3. Transcripts must show that the student has received a Bachelor’s degree from a college or university accredited by N.C.A.T.E., by the appropriate regional accrediting agency or by the reporting state university of the state in which the college or university is located. The Dean of Graduate Studies may admit on probation a student with a Bachelor's degree from a non-accredited college or university.

4. The student must complete the Graduate Record Examination Aptitude Test and file the scores with the Office of Graduate Studies at the time of application for admission, otherwise the admission will be probationary. The GRE scores must be filed within six (6) calendar months.

5. Some coursework must be taken within two (2) years after admission to graduate studies or the admission will be invalid and must be renewed.

ADVISEMENT

As soon as possible after admission, the student must read the departmental regulations and must request the chairperson of his/her major department to appoint an advisor, who will determine whether there are deficiencies to be removed.

REMOVAL OF DEFICIENCIES

The student must have an undergraduate major or a minimum of thirty-six (36) undergraduate quarter hours of credit in the field of specialization for the Master’s degree (except in Educational Administration and School Counseling). A deficiency should be made up as soon as possible. The credits earned for removing deficiencies will not be
ADMISSION TO CANDIDACY

After the completion of nine (9) graduate credits, with a grade point ratio of not less than 3.0, the student in consultation with the advisor must submit a completed application form for admission to candidacy for an advanced degree (Forms are available in the Office of Graduate Studies.) The application must include a proposed program of course work, must indicate whether a thesis plan has been selected and must be approved by the advisor, the chairperson of the major department and the Dean of Graduate Studies. Any later changes in this program must be requested on the appropriate form and approved by the advisor, the department chairperson and the Dean of Graduate Studies.

COMPLETION OF GENERAL REQUIREMENTS FOR THE DEGREE MASTER OF SCIENCE

The student must complete the following general degree requirements:

1. The student must have all deficiencies removed.
2. The student must have the scores for the Graduate Record Examination Aptitude Test on file in the Office of Graduate Studies.
3. The student must successfully complete nine (9) credits in professional education of which at least six (6) shall be from List 1 below and three (3) may be from List 1 or 2 (please note prerequisites for courses listed), or with approval of the graduate advisor, department chairperson and graduate dean, the student may be allowed an alternative to the Education requirements.

List 1

- Education 429G Teaching of Reading (Secondary)
- Education 475G The Exceptional Child
- Education 477G Education of the Gifted
- Education 488G Individualizing Instruction
- Education 502 Secondary School Curriculum
- Education 505 Principles of Secondary Education
- Education 522 Historical Foundations of Education
- Education 523 Philosophy of Education
- Education 538 School and Community Relations for Teachers
- Education 540 Current Educational Issues
- Education 571 Supervision of Student Teaching
- Educational Administration 503 The Junior High School and Middle School
- Education Administration 510 School Law
- Educational Administration 526 Statistical Methods and Measurements in Education
- Educational Administration 570 Research and Writing
- Counselor Education 522 Human Relations

List 2

- Business Education & Office Administration 511 Trends in Accounting and Data Processing
- Economics 531 Economics for Teachers
- Educational Administration 504 Curriculum Development & Administration
- Educational Administration 527 School Business Management
- Educational Administration 528 Personnel Administration in Education
- Educational Administration 578 Supervision of Instruction
- Educational Administration 580 Foundations of Educational Administration
- Educational Administration 583 School Finance
- Counselor Education 515 Child Development
- Counselor Education 525 Adolescent Development
- Counselor Education 500 Individual Problem in Counselor Education
- Counselor Education 507 Introduction to Counseling
- Counselor Education 560 Group Process and Dynamics
- Counselor Education 565 Personality Structure

English 400G Teaching Literature to Young Adults
English 411G Teaching Language and Composition
Health, Physical Education and Recreation 506 Chemical Dependency Education

4. The student must complete a minimum of twenty-four (24) graduate quarter credits in the field of specialization (except in elementary teaching, elementary and secondary administration, elementary and secondary counseling) with a minimum grade point ratio of 3.0 on courses taken at Winona State University. No course will be counted if the grade is below C. (These standards are minimal; departments may require higher standards). Forty percent (40%) of the credits required for the Master's degree should normally be in courses numbered at the 500 level.

5. If the student has elected a plan which requires a thesis or research paper, this thesis or research paper must have been completed and approved by the advisor not later than one calendar month prior to graduation and three (3) unbound copies of the thesis or research paper must be available to the oral examination committee. After this committee has approved the thesis or research paper, all copies must be delivered to the university library for binding and distribution.

6. Each candidate for the Master's degree with thesis or research paper must pass a final oral examination by a committee of three graduate faculty members at least two weeks before graduation. The advisor will be the chairperson of this committee. The Office of Graduate Studies will post the place and date of this examination at least three (3) days in advance. Candidates for the Master's degree without thesis may also be required by their major department to pass a final oral examination.

All candidates for the Master's degree must pass a final written examination to be prepared by the major department and administered by the Office of Graduate Studies on the dates indicated in the Academic Calendar for
1981-83.

7. Each candidate for the Master's degree must submit the Office of Graduate Studies a statement signed by the advisor or by the chairperson of the major department certifying that the student has completed all departmental requirements for the Master's degree. The requirements listed above in 1 through 6 are general, all-university regulations. Students should consult their advisors to determine whether there are also special departmental requirements.

MASTER OF ARTS IN ENGLISH

ADMISSION REQUIREMENTS
1. An undergraduate major in English equivalent to that required by Winona State University. Deficiencies may be removed after admission to graduate study.
2. A 3.0 (B) average in undergraduate English courses.
3. Take the Graduate Record Examination Aptitude Test. Although the Graduate Record Examination Advanced Test, Literature in English, is not normally required, the department may require the student to take it if his/her undergraduate major was not English or if the undergraduate grade point ratio was below 3.0. Such cases will be decided on an individual basis by the departmental graduate studies committee.

COMPLETION OF REQUIREMENTS OF THE DEGREE MASTER OF ARTS IN ENGLISH
1. Forty-five (45) quarter graduate credits, of which at least thirty (30) should be in English (both plans).
2. The specific requirements of Plan A or Plan B as described in the "Requirements for the Master of Arts in English," available from the Department of English.

MASTER OF BUSINESS ADMINISTRATION

ADMISSION REQUIREMENTS
(Completion of the following requirements will admit students to graduate study and to candidacy for the M.B.A. degree).
1. Completion of the application for admission form, including a one-page statement of interest and objectives in pursuing the M.B.A. degree. This form is available from the M.B.A. Advisor, Winona State University, and must be returned to him/her together with two official transcripts of all previous undergraduate and graduate credits.
2. Transcripts must show that the student has received a bachelor's degree from an accredited college or university, with a satisfactory undergraduate grade point average. A student with a baccalaureate degree from a non-accredited college or university may be provisionally admitted.
3. The student must achieve an acceptable score on the Graduate Management Admissions Test (GMAT). For further information on the GMAT, write or call the M.B.A. Advisor, Winona State University, (phone 457-2053 in Winona, 285-0111 in Rochester).
4. The student must demonstrate competency in special areas listed below by successful completion of coursework at Winona State University or elsewhere, by examination or, in a few instances, by appropriate and documented experience. The competencies and their Winona State University course equivalents are:
   - Accounting: Financial Accounting I, II; BA 240241
   - Business Law: Business Law; BA 310
   - Computer Basic Computer Applications, Programming; BA 312
   - Economics: Principles of Economics I, II; EC 201-202
   - Finance: Fundamentals of Business Finance; BA 360
   - Management: Business Organization & Management; BA 370

TRANSFER CREDIT
Fifteen (15) graduate quarter credits may be accepted in transfer from any accredited graduate institution upon presentation of two official transcripts from that institution and subject to the approval first of the M.B.A. Advisor and the chairperson of the Department of Business Administration and Economics and then of the Dean of Graduate Studies. Subject to the same approvals, an additional nine (9) graduate quarter credits may be accepted in transfer from the University of Minnesota, Universities of the State University System of Minnesota, or from the University of Wisconsin-La Crosse. Transfer courses are acceptable for all of the competencies listed in number 4 above.
COMPLETION OF REQUIREMENTS
FOR THE DEGREE MASTER OF
BUSINESS ADMINISTRATION
The student must have completed the
following requirements:
1. All deficiencies must have been re­
moved and all prerequisites must be
completed.
2. An acceptable score on the Graduate
Management Admissions Test must have
been achieved and on file with the
M.B.A. Advisor and the Office of Grad­
uate Studies.
3. Within seven (7) years of initial enroll­
ment, the student must have successfully
completed the required core courses,
deficiencies of four (4) credits of electives with a
minimum grade point average of at least 3.0; no courses may be counted if
the grade is below a C.

SPECIALIST DEGREE IN
EDUCATIONAL ADMINISTRATION
The Specialist Degree in Educational
Administration is designed for those who
wish to achieve, by a planned program of
graduate studies, a proficiency beyond the
Master's degree level in elementary, second­
ary or general school administration. The
program is available to students with or with­
out the Master's degree.

Completion of the program will enable
the qualified student to meet the require­
ments of the Minnesota State Department
for the Entrance License in Educational Ad­
ministration. The Entrance License, however,
will not be granted to recipients of the de­
gree until they have provided evidence of
three years of successful teaching experience,
for elementary principals, experience must be
at the elementary level and for secondary
principals it must be at the secondary level.

Admission requirements for advanced
graduate study for the Specialist degree pro­
gram in Educational Administration or the
Sixth Year Certificate Program in Educa­
tional Administration.
1. A student with an earned Master's
degree will be admitted to advanced
graduate study if he/she has a minimum
grade point ratio of 3.25 on a 4-point
scale or has a minimum score of 900
on the Graduate Record Examination Ap­
titude Test.
2. A student with a Bachelor's degree from
an accredited college or university but
without an earned Master's degree, will
be admitted to advanced graduate
study if he/she has a minimum overall
grade point ratio of 2.50 on a 4-point
scale or a minimum score of 900 on
the Graduate Record Examination Ap­
titude Test.
Admission to the Specialist degree pro­
gram will be granted when the student has
been admitted to advanced graduate study and has:
1. Earned a minimum of nine (9) quarter
hours of graduate credit at Winona
State University in the Department of Educa­
tional Administration and maintained an overall grade point ratio of
3.0.
2. Received the approval of the Depart­
ment Graduate Admissions Committee.
The Committee may require a personal
interview and/or qualifying exami­
nation.
Admission to candidacy for the Special­
ist degree in Educational Administration
will be granted after the student has been
admitted to the Specialist degree program
and has filed a program of studies which has
been approved by the Department of Educa­
tional Administration and the Dean of Grad­
uate Studies.
The Specialist degree in Educational
Administration will be awarded when the
student has:
1. Completed at least ninety-three (93)
quarterm hours of graduate credit beyond
the Bachelor's degree. At least one
quarterm of full-time study is required
(nine quarterm hours of residence credit).
2. Completed all course work leading to
the degree and maintained a 3.0 grade
point ratio. No grade lower than a C is
counted for graduate credit. Only
grades earned at Winona State Univer­
sity will be counted in determining the
grade point ratio.
3. Completed all degree requirements
within eight (8) years of admission to
the Specialist degree program.
4. Submitted four (4) copies of an approv­
ed field of study to the Office of Grad­
uate Studies. (Prior to undertaking the
study, the student must have secured
approval of his/her proposal).
5. Passed a final oral examination on the
field study and a written comprehensive
examination.
(Sixth Year Certification Program in Educa­
tional Administration for possible changes
and/or additions to the degree requirements).

SIXTH YEAR CERTIFICATION
PROGRAM IN EDUCATIONAL
ADMINISTRATION
The Sixth Year Certification Program
in Educational Administration is designed
for those who wish to achieve, by a planned
program of graduate studies, proficiency be­
ond the Master's degree level in adminis­
tration. Students must have earned a master's
degree before undertaking the program.
Completion of the program will enable
qualified students to meet the require­
ments of the Minnesota State Department of Edu­
cation for the Entrance License in Educa­
tional Administration.
The Entrance License will not be
granted, however, until the student has pro­
vided evidence of three years of successful
Teaching experience; for elementary prin­
cipals, experience must be at the elementary
level, and for secondary principals it must be at the secondary level.

Admission Requirements for Advance
Graduate Study — A student with an earned
Master's degree will be admitted to advanced
graduate study if he/she has a minimum
grade point average of 3.0 on a 4-point
scale or has a minimum score of 900 on the
Graduate Record Examination Aptitude Test. Applicants not meeting either of the
qualifications may be admitted on proba­
tion. The probation will be removed if the
student achieves a grade point average of
3.0 upon the completion of 12 quarter cre­
dit hours of courses in the Department of Educa­
tional Administration.

Admission to the Sixth Year Certifica­
tion Program will be granted when the stu­
dent has been admitted to advanced graduate
study and has:

1. Earned a minimum of nine (9) quarter hours of graduate credit at Winona State University in the Department of Educational Administration and maintained an overall grade point average of 3.0.
2. Received the approval of the Department Graduate Admissions Committee. The Committee may require a personal interview and/or a qualifying examination.

Admission to Candidacy for the Sixth Year Certificate in Educational Administration will be granted after the student has been admitted to the Sixth Year program and has filed a program of studies which has been approved by the Department of Educational Administration and the Dean of Graduate Studies.

The Sixth Year Certificate in Educational Administration will be awarded when the student has:

1. Completed an approved program, of at least forty-five (45) quarter hours of graduate credit beyond the Master’s degree.
2. Satisfactorily completed all course work leading to the certificate and maintained a grade point ratio of 3.0. No grade lower than a C is counted for graduate credit. Only grades earned at Winona State University will be counted in determining the grade point ratio.
3. Completed all program requirements within eight (8) years of admission to the Sixth Year Certification Program in Educational Administration. (Please consult the Department of Educational Administration for possible changes and/or additions to degree requirements).

GRADUATE INFORMATION/ 35

GRADUATE SPECIAL STUDENTS

A student who has completed a baccalaureate degree, and who wishes to enroll in graduate courses but does not intend to pursue a graduate degree at Winona State University may register as a Graduate Special Student without being admitted to graduate study and will receive graduate credit for all graduate courses satisfactorily completed. A Graduate Special Student who later wishes to enter a graduate degree program at Winona State University must meet all requirements for admission to graduate study. A maximum of nine (9) credits earned as a Graduate Special Student may be transferred to the degree program if the major department approves.

UNDERGRADUATE STUDENTS

Undergraduate students who have twelve quarter hours or less to complete all requirements for a baccalaureate degree may request permission to take courses for graduate credit to complete a regular course load (20 credits) during the quarter of graduation. They may not, however, enroll in courses at the 500 level.

GENERAL REGULATIONS

The following regulations are applicable to all graduate programs unless otherwise stated.

GRADUATION

Applications for graduation must be submitted at least two calendar months prior to graduation. Students who graduate spring quarter must participate in commencement exercises unless excused by the Dean of Graduate Studies on presentation of proof that attendance at commencement will cause undue hardship.

TRANSFER CREDIT

Fifteen (15) hours of transfer credit may be accepted from any accredited graduate institution upon presentation of two official transcripts from that institution and subject to the approval first of the advisor and chairperson of the student’s major department and then of the Dean of Graduate Studies. These transfer credits must have been earned within the seven year time limit and will not be posted on Winona State University transcripts until they have been approved as part of the student’s advanced degree program and recorded on the application for candidacy for an advanced degree. Only grades of A and B will be accepted for transfer and may not be used for computation of the required grade point ratio. Graduate credit earned through correspondence study will not be accepted.

After student has applied for admission to candidacy for an advanced degree, he/she should not enroll at another college or university without the approval of the advisor and the Dean of Graduate Studies if expecting to transfer these credits for fulfilling graduate degree requirements at Winona State University. Failure to obtain this approval could result in taking courses which will not be acceptable.

COURSE CREDIT

Courses offered for graduate credit during the regular school day carry the amount of credit listed in this catalog. Courses 500 and above are for graduate credit only and no undergraduate may enroll in them. Courses numbered 400G are for either graduate or undergraduate credit. Graduate students registered in G-numbered courses will be required to do additional work to meet course requirements. All courses will be graded A, B, C, D, E unless indicated otherwise in the specific course description.

Graduate credit will not be given for courses in the 400G level to students who have already received credit for an equivalent undergraduate course.

INCOMPLETES

All incompletes for course work undertaken must be removed before a graduate de-
36/GRADUATE INFORMATION

gree is granted. All incompletes must be removed within one calendar year from the end of the quarter in which they were incurred or they will revert to E.

WITHDRAWALS
Students withdrawing from the university during any quarter should discharge all business obligations and notify the Graduate Dean, the Academic Vice President and the Registrar in writing to cancel their registration. Transcripts will not be issued for students who withdraw without fulfilling financial and other obligations to the university.

TIME LIMITATION
All degree requirements (including credits to be earned, and final examinations and theses or research papers where required, etc.) must be completed within seven (7) years of initial graduate enrollment, except for Specialist degree and Sixth Year Certification programs in Educational Administration where the limitation is eight years after admission to the program. Under exceptional circumstances the Graduate Dean, upon receipt of a petition setting forth the pertinent facts, may grant a one-year extension of time in individual cases.

INDEPENDENT STUDY COURSES/ARRANGED CLASSES
Arrangements for independent study courses must be made with the instructor concerned and approved by the chairperson of the department concerned and by the area dean and the Dean of Graduate Studies.

Requests for a regular course to be given by arrangement on an individual basis to complete a graduate program should be submitted to the major advisor for special consideration. The application must be approved by the instructor of the arranged class the department chairperson, the area dean and the Dean of Graduate Studies.

Application forms for independent study and arranged classes may be obtained in the Office of Graduate Studies. Please refer to the quarterly registration schedules to determine the deadline for submission of these application forms.

PASS/NO CREDIT COURSES
A student may be allowed to count pass/no credit courses on the Master of Science degree and the Specialist degree: 8 credits of P/NC on the Master of Science degree in all departments, except in the departments of Counselor Education and Education the limit is 12 credits of P/NC on the sixth year and Specialist degree.

Pass/No Credit grading means at least B quality.

QUARTERLY ACADEMIC LIMITATIONS AND CREDIT OVERLOADS
No graduate student is permitted to enroll for more than 12 credits per academic quarter or 8 credits per summer session without approval from the graduate dean.
General Education Requirements
for Undergraduate Students

(EFFECTIVE FOR ALL NEW STUDENTS STARTING FALL QUARTER 1981)

The General Education Program is designed to widen your intellectual horizons by introducing you to new subjects by expanding your knowledge and understanding of old subjects and by helping you discover fields of learning in which you have special interests and aptitudes.

The following General Education requirements are applicable to all degree programs. However, transfer students who have completed the general education requirements (including at least 68 general education quarter hours) for a lower division transfer program (usually designated Associate in Arts) at a community or junior college and transfer students from accredited four year colleges and universities who have completed the general education requirements at their former institution (including at least 68 quarter hours) will normally have the general education requirements at W.S.U. waived.

REQUIRED GENERAL EDUCATION COURSES — 68 QUARTER HOURS MINIMUM

I. Basic Skills

A. Written Communication .......................... 8 Quarter Hours Minimum
    English 110 .................................. 4 Quarter Hours
    English 115 .................................. 4 Quarter Hours

    These courses should be completed during the first year of enrollment. Students who score below 30 on the verbal scale of the PSAT, below 13 on the English scale of the ACT or below a comparable score on another appropriate test will be required to complete English 108, 4 credits, prior to enrolling in English 110.

B. Oral Communication ............................ 0-4 Quarter Hours
    CTA 118 ........................................ 4 Quarter Hours
    or
    satisfactory completion of a special examination which includes the presentation of a 7-10 minute speech.

C. Mathematics .................................... 0-4 Quarter Hours
    Math 113 ...................................... 4 Quarter Hours
    or
    intermediate algebra or its equivalent (two years of high school algebra) completed in high school with a "C" average or better or satisfactorily completing a written examination. (Contact the Department of Mathematics & Computer Science, G311.)
II. Humanities .................................................. 12 Quarter Hours Minimum

Courses may be selected from an approved list of courses for group II which deal with the understanding of the great ideas and works of mankind through philosophy, literature (including non-English literature) history, the theatre, art or music. Courses from at least two departments must be included.

III. Natural Sciences ........................................ 12 Quarter Hours Minimum

Courses may be selected from an approved list of courses for Group III which stress basic knowledge of natural (including mathematics) science and the scientific method. At least one laboratory course and courses from at least two departments must be included.

IV. Social Sciences .......................................... 12 Quarter Hours Minimum

Social science addresses the study of a person as an individual and as a member of a group and includes approved courses for group IV in geography, economics, political science, psychology, sociology and from other departments. Courses from at least two departments must be included.

V. Different Culture ......................................... 8 Quarter Hours minimum

Courses must be selected to constitute a coherent cluster of studies concerning one or more aspects of the way of life (e.g., political system, philosophy, social structure, economic system or language) of an identifiable group whose race is not caucasian or whose native language is not English. All eight credits must be from one culture. Course clusters must be selected from a list approved from group V.

VI. Contemporary Living .................................... 8 Quarter Hours Minimum

A. Physical education activities .......................... 2 Quarter Hours Minimum, 4 Quarter Hours Maximum.
Activities must be selected from a list of approved courses for group VI-A designed to develop knowledge, skills and attitudes which will enhance a lifetime of physical fitness.

B. Other courses in contemporary living ............... 4 Quarter Hours Minimum
Courses must be selected from an approved list for group VI-B which deal primarily with requirements of modern living including an understanding of basic technology, recreational opportunities, health maintenance principles, business, etc.

Students may not use the same course to meet both the major and the general education requirements, however, courses listed as "additional requirements" outside the major department may be used toward meeting the general education requirements. No course may be used to satisfy more than one general education requirement.

APPROVED LISTING OF COURSES

The following courses which are listed by area and department have been designated as appropriate for general education credit. You are expected to check all course descriptions carefully to determine prerequisites.

NOTE: *Indicates course may be used in one of several categories.

II. Humanities (12 credits)

Art – 109, 221, 222, 223
CTA – 230, 232
English – 121, 122, 123, 131, 132
Foreign Language – 200, 250 plus (French, German, or Spanish) 110*, 111*, 112*, 213*, 214*
History – 120, 121, 122, 123*, 165*, 225, 230, 231, 232, 233*, 240, 241, 310*
Honors – 201, 251
Humanities – 140
III. Natural Sciences (12 credits)

Biology — 104*, 117, 118, 201, 203, 207, 208, 210, 211, 233, 269
Chemistry — 100, 108, 208, 209, 212, 213
Geology — 101, 102, 116, 117, 200, 220, 221, 230
Honors — 203, 253
Mathematics — 130, 208, 210, 215, 216, 220, 221, 225, 226, 227
Physics — 115, 184, 201, 221, 305

IV. Social Sciences (12 credits)

Economics — 102, 201, 202, 203
Geography — 110, 211, 212, 213
Honors — 202, 252
Political Science — 103, 123*, 124*, 125*, 126*, 220
Psychology — 210
Sociology — 150, 205, 212, 216

V. Different Culture (8 credits)

A. African
   Geography — 224
   History — 170
   Political Science — 126*

B. American Indian
   English — 151
   History — 310*

C. Far Eastern
   History — 123*
   Philosophy — 110*, 161
   Political Science — 125*

D. French
   French — 110*, 111*, 112*, 213*, 214*

E. German
   Foreign Language — 250*
   German — 110*, 111*, 112*, 213*, 214*

F. Greek and Roman
   English — 223
   Philosophy — 210*

G. Latin American
   Geography — 225
   History — 165*, 233*
   Political Science — 124*
   Spanish — 110*, 111*, 112*, 213*, 214*

H. Middle East
   Geography — 233
   Political Science — 123*

VI. Contemporary Living (8 credits)

A. Physical Education Activities (2-4 credits)
B. Other courses in Contemporary Living (4-6 credits)
   Art — 110, 114, 118, 215, 225
   Biology — 104 *
   Business Administration — 110, 201, 202, 203
   Business Education and Office Administration — 106, 201, 202, 215
   Education — 210
   HPER — 111, 204, 205, 206, 214, 239
   Industrial Education — 131, 151, 160, 166, 180
   Mass Communications — 213
   Physics — 200
   Photography — 150, 151

RETURNING STUDENTS

At the beginning of Fall Quarter 1986, anyone still on the old General Education program will be converted automatically to the new program, regardless of any credit earned under the old program.
### GENERAL EDUCATION

#### I. BASIC SKILLS

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Title</th>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>English</td>
<td>108*</td>
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<tr>
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<tr>
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<td>115</td>
<td>4</td>
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</table>

*Required of students who have a low English admission score.

B. Oral Communication (0-4 crs.)

<table>
<thead>
<tr>
<th>CTA</th>
<th>118</th>
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<tbody>
<tr>
<td>or EXAM</td>
<td>0-4</td>
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C. Mathematics (0-4 crs.)

<table>
<thead>
<tr>
<th>Math</th>
<th>113 or high school equiv. (&quot;C&quot; grade or better)</th>
<th>0-4</th>
</tr>
</thead>
</table>

#### II. Humanities (12 crs.) Two depts. req.

#### III. Natural Sciences (12 crs.) Two departments required and one Lab course required.

#### IV. Social Science (12 crs.) Two departments required.

#### V. A Different Culture (8 crs.) (e.g.) African, Asian, Latin Amer., French, German. (All courses from one area).

#### VI. Contemporary Living (8 crs.)

- A. Physical Education Act. (2-4 crs.)
- B. Contemporary Living (4-6 crs.)

(B.T. Req.) HPER 204 3

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### GENERAL ELECTIVES

#### GENERAL ELECTIVES

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<th>Dept. Title</th>
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### MAJOR COURSES

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### MINOR COURSES

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### PROFESSIONAL EDUCATION

<table>
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<tr>
<th>Dept. Title</th>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

- Ed. (BII) Gr. & Dev. 200 2
- Ed. (BII) Psy. of Lrng. 201 3
- Ed. (BII) Obs. & Part. 202 2
- Ed. (BII) Eval. & Guid. 306 3
- AV. (BIII) AV Comm. 304 3
- Ed. (BIV) Stud. Tchg. 407 3
- Ed. Exceptional Child 475 3
Bachelors and Masters Degree Programs

INTRODUCTION

The following section of the catalog lists the undergraduate and graduate programs offered by the university's academic departments. Included are undergraduate majors and minors, undergraduate program options, graduate programs and related information about each department.

Departments are listed in alphabetical order. Each department begins its section with its name, a list of faculty and a statement of its purpose. This list of faculty, beginning with the department chairperson, contains both undergraduate and graduate faculty.

Course Listings. In its course listings a department gives each course's number, title, credit value and description.

A course's number indicates the level at which the course should be taken. Generally, freshmen take 100 level courses, sophomores 200, juniors 300, and seniors 400. You are required to limit your course selection to courses not more than one level above your class standing. All 400 level courses designated as G courses may be taken for credit by both undergraduate and graduate students, while 500 and 600 level courses are for graduate students only.

A course description includes one or more of the following:

1. A brief description of the subject matter to be covered.
2. Prerequisites. Generally a prerequisite is either a course that must have been completed previously or a notice that the instructor's consent is required prior to enrolling in the course.
3. Frequency of offering. Descriptions of courses open to undergraduate students show how often that course is offered—quarterly, twice yearly, yearly, etc.
4. Pass/No Credit Status. If a course is offered on a pass/no credit basis, its pass/no credit status will be noted in its description or will be given in the pass/no credit policy preceding a department's course listings. You are advised to read this policy before enrolling in a course on a pass/no credit basis. Pass/no credit information applies only to undergraduate students; no course may be taken for graduate credit on a pass/no credit basis.
ART

Watkins Hall Room 204 / 457-2133
Sternal (Chairperson), McKenzie, Schlawin, Schmidlapp, *Vint

The Department of Art offers two undergraduate programs. The B.A. program is primarily studio-oriented and leads to a Bachelor of Arts degree in Art. The B.S. program leads to a Bachelor of Science degree in Art and eligibility for teacher certification in Minnesota.

All courses and plans of study within the department are directed toward providing opportunities for students to identify their individual potentials for study and performance in the visual arts and the means for achieving their selected goals. Courses are numbered and offered in sequence by way of providing the most economical use of time and most effective foundation for pursuit of advanced work.

All art majors are expected to participate in a senior art exhibition of their work or submit a senior portfolio.

B. A. MAJOR
65 Q.H.

(Minor not required)

REQUIRED COURSES (36 Q.H.)
Note: Majors must complete a three-course sequence in two studio areas or a six-course sequence in one area.

118 Drawing I (4)
218 Drawing II (4)
114 Design I (4)
309 Design II (4)
228 Sculpture I (4)
217 Painting I (4)
221 Art History I (4)
222 Art History II (4)
223 Art History III (4)

ELECTIVES (29 Q.H.)
Electives may be chosen from any courses in Art except 300, 410, 411, and 412 providing prerequisites are met.

399 Internship
Work-related experience in museum, U.S. wildlife refuge, public relations or with various commercial or studio situations may also be used as an elective.

B.S. MAJOR
65 Q.H. (TEACHING)

REQUIRED COURSES (56 Q.H.)
Note: Majors are to complete a three-course sequence in two studio areas.

110 Calligraphy (2)
118 Drawing I (4)
114 Design I (4)
218 Drawing II (4)
309 Design II (4)
228 Sculpture I (4)
217 Painting I (4)
220 Ceramics I (4)
225 Fibers I (4)
Art History:
221 Art History I (4)
222 Art History II (4)
223 Art History III (4)
Art Education:
300 Elementary (4)
410 Secondary (3)
411 Curriculum & Instruction (3)

ELECTIVES (9 Q.H.)
Any course at the 200, 300 or 400 level providing prerequisites are met.

B.A. MINOR
36 Q.H.

REQUIRED COURSES (28 Q.H.)

118 Drawing I (4)
114 Design I (4)
218 Drawing II (4)
309 Design II (4)
221 Art History I (4)
222 Art History II (4)
223 Art History III (4)

ELECTIVES (8 Q.H.)
Choose two elective courses totaling 8 credits.

MASTER OF SCIENCE

PREREQUISITES

An undergraduate major in art equivalent to the major in Art in Winona State University.

Courses not included in the previous undergraduate degree program submitted by the student must be considered as deficiencies to be made up in the W.S.U. Art Department.

When demand is adequate, the Department of Art offers 500-level graduate courses in studio areas, art history, and art education for students interested in seeking a Master's degree.

GENERAL REQUIREMENTS (33-39 Q.H.)

Art Education Sequence (12-15 hours must be selected from the following list)
Art 402G Psychology of Art and Art Education (3)
Art 410G Secondary Art Education (if not met at the undergraduate level) (3)
Art 411G Curriculum & Instruction in Art Education (if not met at the undergraduate level) (3)
Art 412G Multimedia Crafts (3)
Art 500 Current Trends in Art Education (3)
Art 503 Implementing Visual Arts Learning in the Elementary Classroom (3)

Studio Sequence (12-15 hours must be selected from the following list)
Art 501 Ceramics IV (3)
Art 513 Advanced Water Media (3)
Art 514 Contemporary Design (3)
Art 515 Advanced Painting (3)
Art 516 The Design Process (3)
Art 517 Jewelry IV (3)
Art 550 Special Problems (3)
Choice of: a) creative studio problem; b) creative art education problem; c) specialized art history problem
Special Problems course may be repeated up to a total of six credits

Professional Education Requirements (9)

WITH THESIS (45 Q.H.)
Art 599 Thesis (3-6)
Art Electives (0-9)
COURSE LISTINGS

Pass/No Credit option on all 100-level Art courses except for majors and minors. All prerequisites must be met before enrolling in a particular course.

Art History Courses may be taken by non-majors and minors without prerequisites.

109 Introduction to Art - 4 Q.H.
A survey of movements and styles of art of past and present civilization. Developing students' ability to understand the visual arts through lectures, slides, films, etc. Offered quarterly. P/NC Option.

110 Calligraphy - 2 Q.H.
The history of lettering and the rendering of a one-stroke alphabet. May be repeated up to 6 credits. Offered quarterly.

114 Design I - 4 Q.H.
Work with fundamental design principles in the art process. Problems in two-dimensional experimentation and abstract compositions using a variety of materials. Offered quarterly. P/NC Option.

118 Drawing I - 4 Q.H.
Introduction to perception and delineation of forms and volumes with emphasis on figure and still-life drawing. Offered quarterly. P/NC Option.

212 Water Media I - 4 Q.H.
An introduction to painting with watercolor and other water soluble materials; used singly or in combination. Offered yearly. P/NC Option.

213 Water Media II - 4 Q.H.
A continuation of experimentation with water soluble media with emphasis on personal development. Prerequisite: Water Media I. Offered yearly. P/NC Option.

215 Crafts - 3 Q.H.
The application of design theory to the crafts of various media: textiles, wood, metal, etc.

Prerequisite: Design I. May be repeated up to 6 credits. Offered quarterly.

217 Painting I - 4 Q.H.
An introduction to painting with the exploration of oil and acrylic media and the concepts of color, form and space. Offered twice yearly. P/NC Option.

218 Drawing II - 4 Q.H.
A continued experience in figure drawing with emphasis upon thematic problems in a variety of media. Prerequisite: Drawing I. Offered yearly.

220 Ceramics I - 4 Q.H.
An introduction to ceramics through the use of the potter's wheel and hand-building techniques. Films and slides will be used to give a brief historical development of ceramics. Offered quarterly. P/NC Option.

221 Art History I - 4 Q.H.

222 Art History II - 4 Q.H.
Art History of the Gothic, Renaissance, Baroque, and Rococo periods. A study of major developments in western civilization through painting, sculpture, and architecture during these times. Prerequisites: 221 recommended. Offered yearly.

223 Art History III - 4 Q.H.
Art History of the Neo-Classical, Romantic, Realistic, Impressionistic, Post-Impressionistic, and Modern periods. A study of post-revolutionary European and American cultures through an examination of Painting, Sculpture, Architecture, Film, and Design. Prerequisites: 222 recommended. Offered yearly.

225 Fibers I - 4 Q.H.
Introduction to the off-loom constructions with emphasis upon the students' artistic expression; feltmaking, basic weaving, crocheting, coiling. Offered yearly. P/NC Option.

228 Sculpture I - 4 Q.H.
Initial experiences in three-dimensional work. Emphasis will be placed on the problems in carving; modeling and mold making, and a brief exposure to the history and development of sculpture through slides and films. Offered twice yearly. P/NC Option.

230 Screen Painting I - 4 Q.H.
Beginning Serigraphy (Silk Screen) Printmaking. One or two color screen printing, four techniques including photo screen printing. Prerequisites: Drawing I, Design I and permission of instructor.

300 Elementary Art Education - 4 Q.H.
Survey of concepts, processes, philosophy appropriate to visual arts learning in the elementary classroom. For prospective teachers. (Not recommended for freshmen). Offered quarterly.

309 Design II - 4 Q.H.
A sequence of experiences, working with materials; involving two-dimensional relationships based on form modification, color concepts, visual kinetics, modular arrangements. Prerequisite: Design I. Offered twice yearly.

311 Commercial Art I - 4 Q.H.
Basic commercial art studio skills, vocabulary and theory will be taught. A broad array of rendering assignments are integrated with teaching vocabulary and layout, production art, lettering, and illustration concepts. Prerequisites: Drawing I and Design I. Offered yearly.

312 Commercial Art II - 4 Q.H.
Commercial Art II continues into portfolio projects, the basic exercises in Commercial Art I. Prerequisite: Commercial Art I. Offered yearly.

317 Painting II - 4 Q.H.
A continuation of the development of painting as a means of personal expression using oils, acrylics, encaustics, lacquers, or other painting media. Prerequisites: Drawing I and Painting I. Offered twice yearly. P/NC Option.

318 Drawing III - 4 Q.H.
An advanced course in figure drawing designed to fulfill the need for personalized, artistic expression. Prerequisites: Drawing I and Drawing II. Repeatable up to 12 credits. Offered yearly.

320 Ceramics II - 4 Q.H.
A continuation of work in clay with the introduction of glaze theory and kiln firing. Slides will be used as a means to introduce new or combinations of techniques. Prerequisite: Ceramics I. Offered yearly.
325 Fibers II - 4 Q.H.
Handweaving on the four harness loom with emphasis on the woven design, artistic expression, and fabric structures. Offered yearly.

328 Sculpture II - 4 Q.H.
Various welding techniques, basic non-ferrous metal casting and exploration of advanced carving techniques. Slides and films will be used to expose students to new forms of sculpture. Prerequisite: Sculpture I. Offered yearly.

330 Screen Printing II - 4 Q.H.
Color Serigraphy (Screen Printing) will increase the number of colors the student deals with in the printing process, and builds on the ability of the student to color register and print clean consistent prints in one and two colors which has been accomplished in Screen Printing I. Prerequisite: Screen Printing I. Offered yearly.

399 Internship - 16 credits per quarter to total 24. P/NC
400G Interior Design - 3 Q.H.
Analysis and planning of the total residential environment - recent and historical. Students work with drawing and layout. Offered yearly.

402G The Psychology of Art and Art Education - 3 Q.H.
An examination of theories of perception and the creative process as they relate to art production and the learning process in art. Prerequisite: minimum Jr./Sr. standing. Offered alternate years.

410G Secondary Art Education - 3 Q.H.
Problems in the teaching of art in secondary education. Required prior to student teaching for B.S. majors and minors only. Prerequisites: All 200 and 300 courses. Offered yearly.

411G Curriculum and Instruction in Art Education - 3 Q.H.
An examination of exemplary curricula and materials in secondary art education. Prerequisites: Art 300 and 410. Offered yearly.

412G Multi-Media Crafts for the Elementary Classroom - 3 Q.H.
Laboratory experience focusing on free stitchery, paper, and printing processes. Prerequisite: Art 300 advised. Offered twice yearly.

413 Commercial Art III - 4 Q.H.
This course finalizes portfolio projects for Commercial Art students. Prerequisite: Commercial Art II. Offered yearly.

417 Painting III - 4 Q.H.
Further exploration of painting media is encouraged. Airbrush equipment plus areas for stretcherless and three-dimensional canvases are available. Prerequisite: Painting II. May be repeated up to 12 credits. Offered yearly.

420 Ceramics III - 4 Q.H.
Advanced work in ceramics with opportunity to experiment with glaze and clay body formulation. Students will present reports on selected topics. Prerequisite: Ceramics II. May be repeated up to 12 credits. Offered yearly.

425 Fibers III - 4 Q.H.
Individual interpretations in the choice of media and techniques with emphasis upon the advancement of artistic expression. Prerequisites: Fibers I and II. Offered yearly.

428 Sculpture III - 4 Q.H.
Continued work in sculpture with various media and equipment available to the student. Slides will be used as a means for students to evaluate and then critique assorted sculptural work. Prerequisite: Sculpture II. May be repeated up to 12 credits. Offered yearly.

432 Lithography - 4 Q.H.
One color, stone Lithography printing. We will prepare the Bavarian limestones, draw and paint on them with Tusche, and print them on the litho press. Prerequisites: Drawing II and instructor's permission. Offered yearly.

436 Independent Study - 2-6 Q.H.
To be arranged with instructor in studio, art history, or art education. Repeatable to 12 credits. Prerequisite: junior standing or departmental approval. Offered yearly.

438G 20th Century Art History - 4 Q.H.
20th Century Art History from Cubism to the present with emphasis on the major movements in art in Europe and America. Prerequisite: Art History III or permission of instructor. Offered yearly.

444 Senior Art Seminar - 2 Q.H.
A team teaching approach to a thorough examination of the directions and implications of contemporary art forms. Student exhibition will culminate this course. Open only to graduating seniors. Offered yearly.

448G Gothic Architecture & Sculpture of France and England - 3 Q.H.
Early Gothic led by Bernard of Clairvaux and Abbott Suger of St. Denis; High Gothic as exemplified by the cathedrals of Chartres, Amiens, and Salisbury; Late Gothic (flamboyant) of St. Maclou, and English “perpendicular” style of Gloucester Cathedral and Westminster Abbey. Prerequisites: Art 221, 222, 223. Offered yearly.

451G Masterpieces of Titian, Rembrandt, and Rubens - 3 Q.H.
Study of the work and development of Late Renaissance master, Titian, and the Baroque and Reformation styles of Rembrandt and Rubens. Prerequisites: Art 221, 222, 223. Offered yearly.

452 A Survey of Women Artists: 12th Century through 20th Century - 4 Q.H.
A lecture/discussion course surveying the history of women artists from 12th Century to the present; their lives in social, cultural settings-European and American; the nature of their work and its relationship to the major trends of their respective times. Offered yearly.

COURSES FOR GRADUATE STUDENTS ONLY

500 Current Trends in Art Education - 3 Q.H.
Review of current trends in art programs, examination and study of state, city, and county art guides adopted in the past 5 years. New developments in art education, review of current periodical articles concerned with experimental programs.

501 Ceramics IV - 3 Q.H.
Hand-built and wheel-thrown ceramics with an emphasis on design, creative expression, use of materials and equipment. Various firing procedures. Prerequisite: minimum of 3 undergraduate credits in ceramics.
46/ART – BIOLOGY

503 Implementing Visual Arts Learning in the Elementary Classroom – 3 Q.H.
Objectives, strategies for increasing perceptual awareness in art production/appreciation. Prerequisite: Art 300.

504 History of Art of the Americas – 4 Q.H.
The development of American Art forms from the colonial period in North and South America through World War II. The transition from early European influence brought to the colonies to the beginning of an American school of expression.

505 Oriental Art History – 3 Q.H.
Consideration of the aspects of Chinese and Japanese art from the early dynasties of China to the 18th Century in both Japan and China.

513 Advanced Water Media – 3 Q.H.
Students with basic knowledge of watercolor sumi ink, casein, gouache, and tempera techniques are aided in developing a personal expression.

514 Contemporary Design – 3 Q.H.
Analytical study of design in relationship to the work of contemporary designers. Special emphasis is placed on Art Nouveau, Art Deco and the Bauhaus. Laboratory experience.

515 Advanced Painting – 3 Q.H.
Continued experimentation with painting media as a means of developing a personal statement. Prerequisite: minimum of 3 Q.H. of painting.

516 The Design Process: Its Cultural Base – 3 Q.H.
A lecture/laboratory exploration of the designing process as it has functioned in the major cultures of the world from the classical period of Greek and Roman art to the present time.

517 Jewelry IV – 3 Q.H.
A course designed to meet the needs of the jewelry designer, craftsman and the prospective teacher of jewelry making at the secondary level. Independently designed experiences in forging, fusing, casting, enameling, stone setting, lapidary and research and the contemporary jewelry design.

550 Special Problems in Art – 3 Q.H.
Independent study in the solution of a problem related to the individual student’s field of special interest. Problems course may be repeated up to a total of six credit hours.

Biology

Pasteur Hall Room 215 / 457-2095

The department offers courses intended to provide: majors and minors with a broad background in biology applicable to their teaching or to graduate work; Nursing, Medical Technology, and Physical Therapy majors with the fundamentals of biology required in their programs; and students majoring in other areas with a knowledge of their own structure and function and of the world of living things. Opportunity for directed research projects is offered for qualified students.

General Education requirements in the Natural Science Area are waived for all majors administered by the Biology Department.

All Biology Majors expecting to attend graduate school should take one year of calculus.

B. A. MAJOR
GENERAL BIOLOGY
66 Q. H.
(Minor not required)

REQUIRED COURSES (28 Q.H.)
207 Botany (4)
208 Botany (4)
210 Zoology (4)
211 Zoology (4)
310 Genetics (4)
350 Plant Taxonomy (4)
301 or 302 or 320 or 360 Biology (4)

ELECTIVES (24 Q.H.)
Electives must include courses as specified in the following three groups.

Group A – minimum of two courses:
206, 290, 305, 323, 324, 370, 380, 445, 460, 470, Biochemistry 400 or 401.

Group B – minimum of one course:
204, 301, 302, 312, 320, 360, 420.

Group C – minimum of two courses:
205, 314, 330, 331, 340.

REQUIRED CHEMISTRY COURSES
(14 Q. H.)
212 General Inorganic Chemistry I (5)
213 General Inorganic Chemistry II (5)
340 Organic Chemistry Survey (4)

Note: 350 and 351 Organic Chemistry may be substituted for 340 Organic Chemistry Survey.

B. S. MAJOR
LIFE SCIENCE
95 Q. H. (TEACHING)

No minor required.

201 Anatomy and 202 Physiology may be substituted for 210 Zoology, which may be waived for Phy. Ed. majors and minors. Freshmen should take Botany (207, 208) sequence or the Zoology (210, 211) sequence and Chemistry 212, 213.

Students who intend to pursue a degree or degrees beyond the Baccalaureate Degree should take Biology 290 Comparative Anatomy, 310 Genetics, Biology 323 & 324 General Physiology, Biology 370 Embryology, and Chemistry 400, 401 Biochemistry.

Freshmen should consult with an advisor in the Biology Department at their earliest convenience.

REQUIRED COURSES (24 Q.H.)
207 Botany (4)
208 Botany (4)
210 Zoology (4)
211 Zoology (4)
350 Plant Taxonomy (4)
301 or 302 or 320 or 360 Biology (4)
ELECTIVES (19 Q.H.)
Electives must include courses as specified in the following groups.
Group A - minimum of two courses:
Biology 206, 290, 305, 310, 323, 324, 325, 370, 380, 385; Biochemistry 400 and 401.
Group B - minimum of one course:
Biology 204, 301, 302, 312, 320, 360, 420.
Group C - minimum of two courses:
Biology 205, 314, 330, 331, 340.

REQUIRED CHEMISTRY COURSES (18 Q.H.)
212 General Inorganic Chemistry (5)
213 General Inorganic Chemistry (5)
340 Organic Chemistry Survey (4)
311 Teaching of Science in the Secondary Schools (4)

REQUIRED PHYSICS COURSES (12 Q.H.)
201 General Physics I (4)
202 General Physics II (4)
203 General Physics III (4)

The following requirements may be counted in General Education:

REQUIRED MATHEMATICS COURSES (8 Q.H.)
215 College Algebra (4)
216 Trigonometry (4)

REQUIRED EARTH SCIENCE COURSES (10 Q.H.)
116 Physical Geology (5)
117 Historical Geology (5)

PHILOSOPHY OF SCIENCE OR PHILOSOPHY OF TECHNOLOGY (4)

B.S. MAJOR

REQUIRED CORE COURSES (28 Q.H.)
207 Botany (4)
208 Botany (4)
210 Zoology (4)
211 Zoology (4)
310 Genetics (4)
350 Plant Taxonomy (4)
301 or 302 or 320 or 360 Biology (4)

OPTION I – BOTANY
(103-108 Q.H.)
(Minor not required)

REQUIRED CORE COURSES
(SEE ABOVE)

REQUIRED COURSES (75-80 Q.H.)
204 Conservation of the Environment (4)
312 General Ecology (4)
314 Plant Physiology (4)
331 Plant Morphology (4)
Two of the following four courses:
301 Vertebrate Fauna (4)
302 Invertebrate Fauna (4)
320 Ornithology (4)
360 Entomology (4)

Required Chemistry Courses (24 Q.H.)
212, 213 General Inorganic Chemistry (10)
340 Organic Chemistry Survey (4)
400, 401 Biochemistry (10)

Required Physics Courses (12 Q.H.)
201, 202, 203 General Physics (12)

Required Mathematics Courses (9-12 Q.H.)
208 Fundamentals of Statistics (4)
215 College Algebra (4)
216 Trigonometry (4)
(College Algebra & Trigonometry 220 (5) may be substituted for Math 215 and 216)

ELECTIVES (7-8 Q.H.)
Minimum of two courses selected from:
301 Vertebrate Fauna (4)
302 Invertebrate Fauna (4)
320 Ornithology (4)
360 Entomology (4)

OPTION II – ZOOLOGY
(110-114 Q.H.)
(Minor not required)

REQUIRED CORE COURSES
(SEE ABOVE) (28 Q.H.)

REQUIRED COURSES (68-72 Q.H.)
204 Conservation of the Environment (4)
312 General Ecology (4)
420 Limnology (4)

Two of the following six biology courses (in addition to the Core requirement) (7-8 Q.H.)
205 Bacteriology (4)
301 Vertebrate Fauna (4)
302 Invertebrate Fauna (4)
320 Ornithology (4)
360 Entomology (4)
340 Aquatic Flowering Plants (3)

ELECTIVES (6-8 Q.H.)
Minimum of two courses selected from:
340 Aquatic Flowering Plants (3)
380 Organic Evolution (3)
205 Bacteriology (4)
420 Limnology (4)

OPTION III – ENVIRONMENTAL SCIENCE (108-112)
(Minor not required)

REQUIRED CORE COURSES
(SEE ABOVE) (28 Q.H.)

REQUIRED COURSES (63-66 Q.H.)
204 Conservation of the Environment (4)
290 Comparative Anatomy (5)
312 General Ecology (4)
305 Comparative Physiology (4)
370 Embryology (5)

Two of the following four courses:
301 Vertebrate Fauna (4)
302 Invertebrate Fauna (4)
320 Ornithology (4)
360 Entomology (4)

Required Chemistry Courses (24 Q.H.)
212, 213 General Inorganic Chemistry (10)
340 Organic Chemistry Survey (4)
400, 401 Biochemistry (10)

Required Physics Courses (12 Q.H.)
201, 202, 203 General Physics (12)

Required Mathematics Courses (9-12 Q.H.)
208 Fundamentals of Statistics (4)
215 College Algebra (4)
216 Trigonometry (4)
(College Algebra & Trigonometry 220 (5) may be substituted for Math 215 and 216)
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Required Chemistry Courses (19 Q.H.)
212, 213, General Inorganic Chemistry (10)
340 Organic Chemistry Survey (4)
425 Analytical Chemistry (5)
214 Inorganic Chemistry (5)

Required Geology Course (5 Q.H.)
116 Physical Geology (5)

Required Physics Courses (12 Q.H.)
201, 202, 203 General Physics (12)

Required Mathematics Courses (9-12 Q.H.)
208 Fundamentals of Statistics (4)
215 College Algebra (4)
216 Trigonometry (4)
(College Algebra and Trig 220 (5) may be substituted for Math 215 and 216).

ELECTIVES (12 Q.H.)
Any Biology courses that are not used to satisfy required course credits; or any courses from the following:
English 439 Technical Writing (4)
Geography 349 Maps & Air Photos (4)
Geography 417 World Resources (4)
Geography 455 Remote Sensing (4)
Geology 230 Meteorology (4)
Geology 300 Descriptive Oceanography (4)
Geology 325 Geology and Land Use Planning (4)
Chemistry 400 Biochemistry (5)
Chemistry 401 Biochemistry (5)

General Education and Elective Credits should be fulfilled in areas of study represented by, but not restricted to such courses as unused options above, and as CTA 118, State and Local Government 221, American National Government 220, Municipal Administration 329, Politics of Ecology 340, Economic Geography 211, Ethics 313, Philosophy of Technology 370, Introduction to Computer Science 212 and Computer Programming 213.

B.A. MINOR (49-50 Q.H.)

REQUIRED COURSES (23-24 Q.H.)
Note: 201 Anatomy and 202 Physiology may be substituted for 210 Zoology.
207 Botany (4)
208 Botany (4)
210 Zoology (4)
211 Zoology (4)
350 Plant Taxonomy (4)
301 or 302 or 320 or 360 Biology (4)

ELECTIVES (12 Q.H.)
Electives must include at least one course from each of the following three groups:

Group A—Biology 206, 290, 305, 310, 323, 324, 370, 380, 385; Biochemistry 400 or 401.
Group B—Biology 204, 301, 302, 312, 320, 360, 420.
Group C—Biology 205, 314, 330, 331, 340.

REQUIRED CHEMISTRY COURSES (14 Q.H.)
Note: 350 and 351 Organic Chemistry may be substituted for 340 Organic Chemistry Survey.
208, 209 General Chemistry (10) OR
212, 213 General Inorganic Chemistry (10)
340 Organic Chemistry Survey (4)

MASTER OF SCIENCE

PREREQUISITES
Undergraduate major in Biology

REQUIREMENTS (30 HOURS)
Biology Electives (21)
Electives, with the consent of the advisor (9)

WITH THESIS: (45 HOURS)
Additional Biology and/or science and/or math electives, and thesis (1-6 credits) (15)

WITHOUT THESIS: (51 HOURS)
Additional Biology and/or science and/or math electives (21)

COURSE LISTINGS
Any undergraduate course, other than 117 and 118, may be taken on pass/no credit basis except:

a. Biology majors and minors may not take courses required for the major or minor on a pass/no credit basis.
b. Biology 400, Individual Problems in Biology may not be taken on a pass/no credit basis.
c. Biology courses may not be taken on a P/NC basis for graduate credit.

104 Conservation of the Environment — 4 Q.H.
Problems in the wise use of renewable resources (air, water, soil, forest, wildlife). Lecture and field trips. No prerequisites. Offered quarterly.

117 Human Biology — 4 Q.H.
An introductory study of the structure, function, development and heredity of man. Lecture only. No prerequisite. Not open to students who have taken Botany, Zoology or Anatomy. Offered quarterly.

118 General Biology — 4 Q.H.
A generalized approach to the study of living things with emphasis on scientific method, biological principles, and survey of living things (exclusive of man) as related to everyday life. Lecture and laboratory. No prerequisite. Not open to students who have taken Botany or Zoology. Offered quarterly.

201 Gross Anatomy — 5 Q.H.
A study of the microscopic and macroscopic structure of the human body. Students dissect a cat as an example of mammalian anatomy. Demonstrations on a human cadaver relate cat and human anatomy. Designed especially for students in the allied medical professions. This course should be of interest to others desiring a rigorous background in Human Anatomy. Lecture and Laboratory. Offered quarterly. Prerequisite: 210 recommended.

202 Human Physiology — 5 Q.H.
Study of functions of various parts of the human body. Meets the needs of those students specializing in Physical Education. Prerequisite: Anatomy 201 or Zoology 210. Lecture and Laboratory. Offered yearly.

203 Nature Study — 4 Q.H.
A study of local animals and plants with emphasis on how to start collections of insects, bird skins, flowers and leaves. Picture identification of common local plants and animals. Lecture, laboratory and field trips. Offered yearly.
204 Conservation of the Environment — 4 Q.H.
Problems in the wise use of renewable resources (air, water, soil, forest, wildlife). Lecture and field trips. Prerequisite: one of Biology 118, 208, 221. Offered yearly.

205 Bacteriology — 4 Q.H.
A study of representative types of bacteria, methods of culturing, control and economic importance of bacteria. Prerequisite: Botany 208 or Zoology 211 and 2 quarters of Chemistry. Lecture and laboratory. Offered yearly.

206 Normal Nutrition — 4 Q.H.
Basic principles of nutrition and the application to needs of individuals at different age levels. Prerequisites: Chemistry 212, 213; Anatomy 201; and Physiology 322 or concurrent enrollment. Offered yearly.

207 Botany I — 4 Q.H.
A study of the structure, function and development of vascular plants and emphasizing the flowering plants. Lecture and laboratory. No prerequisite. Offered twice yearly.

208 Botany II — 4 Q.H.
A taxonomic survey of the plant kingdom. Lecture and laboratory. Prerequisite: Botany 207. Offered twice yearly.

210 Zoology I — 4 Q.H.
Introduction to the study of animal life. Emphasis on structure, function, and embryology of vertebrates. Lecture and laboratory. Offered twice yearly.

211 Zoology II — 4 Q.H.
Survey of the animal kingdom. Emphasis on structure, function, evolution, and ecology of the major groups of animals. Lecture and laboratory. Prerequisite: Zoology 210. Offered twice yearly.

215 Local Insects — 2 Q.H.
A study of local insects for the elementary major or non-biology major or minor. Lecture, laboratory and field trips. Offered yearly.

216 Local Flora — 2 Q.H.
A study of the local flowering plants for the elementary major or non-biology major or minor. Lecture, laboratory and field trips. Offered yearly.

217 Trees and Shrubs — 2 Q.H.
A study of local trees and shrubs for the elementary education major or non-biology major. Lecture, laboratory and field work. Offered yearly.

218 Local Aquatic Animals — 2 Q.H.
A study of local aquatic animals for the elementary major or non-biology major. Lecture and laboratory. Offered yearly.

219 Local Birds — 2 Q.H.
An introduction to the methods and knowledge necessary to identify birds in the field and how to attract them. Lecture, laboratory and field trips. Offered yearly.

220 Medical Terminology I: Anatomical — 2 Q.H.
Introduction to basic anatomical terminology stressing language mechanics, pronunciation and correct spelling. Not recommended for students with previous preparation in human anatomy. Offered quarterly. Grade only. Tape course.

221 Medical Terminology II: Cardiovascular — 2 Q.H.
Introduction to the basic medical terminology as applied to the cardiovascular system and associated disease states. Topics include: congenital defects, metabolic disturbances, arthritis, neoplastic disturbances and diagnostic procedures. Open to students majoring in the allied medical sciences. Offered quarterly. Grade only. Prerequisite: Bio 201. Tape course.

222 Medical Terminology III: Gastroenterology — 2 Q.H.
Introduction to the basic medical terminology of the digestive system and associated disease states. Topics include: congenital defects of the esophagus and stomach, disorders of the small intestine, neoplastic processes, infections and parasites and corrective procedures. Open to students majoring in allied medical sciences. Offered quarterly. Grade only. Prerequisite: Bio 201. Tape course.

223 Medical Terminology IV: Respiratory — 2 Q.H.
Introduction to the basic medical terminology as applied to the respiratory system and associated disease states. Topics include: The upper respiratory system, newborn abnormalities, pulmonary infections, neoplastic processes, thoracic surgery and diagnostic procedures. Open to students majoring in allied medical sciences. Offered quarterly. Grade only. Prerequisite: Bio 201. Tape course.

224 Medical Terminology V: Orthopedics — 2 Q.H.
Introduction to the basic medical terminology as applied to orthopedic disorders and corrective procedures. Topics include: congenital defects, metabolic disturbances, arthritis, neoplastic disturbances and diagnostic procedures. Open to students majoring in the allied medical sciences. Offered quarterly. Grade only. Prerequisite: Bio 201. Tape course.

233 General Human Anatomy — 5 Q.H.
A study of the human body with an emphasis on the skeletal and muscular system. Designed especially for physical education majors and minors. A cat is dissected by students to serve as an example of mammalian anatomy. Demonstrations on a human cadaver relate human and cat anatomy. Open only to PE students. Offered yearly.

269 Human Reproduction — 3 Q.H.
The biology of human reproduction. Topics include the anatomy, physiology, biochemistry, normal and abnormal functions of all aspects of reproduction. No prerequisites: Lecture-discussion-demonstration. Offered yearly.

290 Comparative Anatomy — 5 Q.H.
Study of selected vertebrates with emphasis on the ways in which the anatomy of the more advanced forms represents modifications of structure present in lower forms. Lecture and laboratory. Prerequisite: Zoology 210. Offered yearly.

301 Vertebrate Fauna of North America — 4 Q.H.
The classification, identification, and natural history of North American vertebrate animals exclusive of birds. Lecture, laboratory and field trips. Prerequisite: Zoology 211. Offered yearly.
302 Invertebrate Fauna of North America — 4 Q.H.
The classification, identification and natural history of the fresh-water and terrestrial invertebrates of North America exclusive of insects. Emphasis is placed on those found in the upper midwestern states, laboratory and field trips. Prerequisite: Zoology 211. Offered yearly.

304 Conservation Workshop — 3 Q.H.
Conservation of the natural resources (soil, water, forests and other vegetation, wildlife, scenery, and minerals) taught at White-water State Park in the summer. Prerequisite: consent of the instructors. Not acceptable for elective credit in Biology majors or minors. Offered summer only.

305 Comparative Physiology — 4 Q.H.
An introduction to the study of physiological adaptations throughout the animal kingdom. Lecture and laboratory. Prerequisites: Zoology 210 or Biology 202, a minimum of two quarters of inorganic chemistry and one quarter of organic chemistry. Offered every other year.

310 Genetics — 4 Q.H.
A survey of the principles of Mendelian, molecular, cytological, population and human genetics. Lecture and laboratory. Prerequisite: Botany 208 or Zoology 211. Offered yearly.

312 General Ecology — 4 Q.H.
Relationships of animals and plants to their environments. Lecture, laboratory and field trips. Prerequisites: Zoology 211, Botany 208, and Conservation 204 or consent of instructor. Offered yearly.

314 Plant Physiology — 4 Q.H.
Principles of absorption, conduction, transpiration, photosynthesis, respiration, growth and reproduction in plants. Prerequisites: Botany 207, 208, Organic Chemistry 340 or 350, 351. Lecture and laboratory. Offered yearly.

320 Ornithology — 4 Q.H.
Structure, classification, behavior, distribution and identification of birds. Lecture, laboratory and field work. Prerequisite: Zoology 211. Offered yearly.

323 General Physiology — 5 Q.H.
First of two-quarter sequence. Lectures, demonstrations and laboratory are designed to provide the basis of understanding general physiological mechanisms and the functional organization of physiological systems. Topics are translocation of materials, muscle, nervous, cardiovascular, respiratory and excretory systems. Meets needs of nursing, paramedical and biology majors. Prerequisites: Anatomy 201 or equivalent; Chemistry 208 and 209 or 212 and 213. Offered fall quarter.

324 General Physiology — 5 Q.H.
A continuation of Biology 323. Lecture and laboratory topics include acid-base balance, hematology, gastro-intestinal physiology, intermediary metabolism, basic endocrinology and sexual reproduction. Lecture and laboratory. Prerequisites: Biology 201 and 323, Chemistry 208 and 209 or 212, 213. Offered yearly.

330 Plant Morphology I — 4 Q.H.
An evolutionary survey of the plant kingdom emphasizing the phylogenetic facets of the morphology, taxonomy, cytology and life histories of the plants. Lecture and laboratory. Prerequisite: Botany 208. Offered every other year.

331 Plant Morphology II — 4 Q.H.
Development and morphology of the vascular plants in reference to phylogenetic considerations. Lecture and laboratory. Prerequisite: Botany 208. Offered yearly.

333 Medical Laboratory Techniques — 2 Q.H.
Selected students will participate in the every day operation of a hospital medical laboratory. Students must see Dr. Dwight Anderson 4 weeks prior to registration. May be repeated for credit. Offered quarterly. P/NC only.

340 Aquatic Flowering Plants — 3 Q.H.
The classification and study of the higher flowering plants of aquatic and marsh habitats. Prerequisite: Botany 207 and 208. Lecture and field work. Offered every other summer.

350 Plant Taxonomy — 4 Q.H.
An introduction to the development and classification of flowering plants with special emphasis on local flora. Individual collections are made. Prerequisites: Botany 207 and 208. Lecture, laboratory and field trips. Offered yearly.

360 Entomology — 4 Q.H.
Morphology, classification, life histories, distributions, and economic importance of insects. Individual collections are made. Lecture, laboratory. Prerequisite: Zoology 211. Offered yearly.

370 Embryology — 5 Q.H.
Patterns of development of vertebrate embryos and the causative factors involved. Laboratory work includes study of developmental stages of frog and chick embryos. Lecture and laboratory. Prerequisite: Zoology 211. Offered yearly.

380 Organic Evolution — 3 Q.H.
The history of the development of life on earth and theories pertaining to process of evolution. Lecture and laboratory. Prerequisite: Zoology 211, 290 and 310, or consent of instructor. Junior or Senior standing. Offered yearly.

400 Individual Problems in Biology — 1-4 Q.H.
An opportunity for the qualified advanced undergraduate student to work independently. Prerequisite: consent of instructor. May be repeated to a total of 4 credits. Written report required. Offered quarterly.

405 Seminar in Biology — 1-4 Q.H.
An analysis of topics and problems in biology. The subject matter will be arranged by the department prior to the quarter offered. Prerequisite: consent of the instructor. May be repeated to a total of 4 credits dependent upon the subject matter. Offered when feasible.

420G Limnology — 4 Q.H.
Analysis of the geological, physical, chemical and biological aspects of inland waters. Lecture, laboratory and field work. Prerequisites: Botany 208, Zoology 211, Conservation 204, and two quarters of chemistry or consent of instructor. Offered yearly.

442 Philosophy of Science — 4 Q.H.
A treatment primarily concerned with methodological topics and meaning in modern science, including illustrations drawn from the formal and empirical sciences. Lecture. Prerequisites: Senior standing. A laboratory science. (Open to students in the physical, biological and social sciences and teacher education.) Offered every two years.
**BIOLOGY – BUSINESS ADMINISTRATION/ECONOMICS/ 51**

**445G Immunology — 4 Q.H.**  

**450 Medical Technology I — 12 Q.H.**  
Laboratory Medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator and staff of the affiliated hospital. Prerequisite: Medical Technology majors with senior standing. Offered yearly. Grade only.

**451 Medical Technology II — 12 Q.H.**  
Laboratory Medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator and staff of the affiliated hospital. Prerequisite: Medical major with senior standing. Offered yearly. Grade only.

**452 Medical Technology III — 12 Q.H.**  
Laboratory Medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator and staff of the affiliated hospital. Prerequisite: Medical Technology majors with senior standing. Offered yearly. Grade only.

**453 Medical Technology IV — 6 Q.H.**  
Laboratory Medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator and staff of the affiliated hospital. Prerequisite: Medical Technology major with senior standing. Offered yearly. Grade only.

**454 Medical Technology V — 6 Q.H.**  
Laboratory Medicine. Courses and content to be determined by the Director of Laboratories, Educational Coordinator and staff of the affiliated hospital. Prerequisite: Medical Technology major with senior standing. Offered yearly. Grade only.

**455G General Parasitology — 4 Q.H.**  
An introduction to the study of parasites of man and his domestic animals and the etiology of associated pathologic states. Prerequisites: Zoology 210, 211 and at least one quarter of biochemistry. Lecture and laboratory. Offered yearly.

**470G Histology — 4 Q.H.**  
A microscopic study of animal cells, tissues, and organs and correlating structure and function. Emphasis is placed on the mammal. Consideration is given to various micro-techniques and histochemistry and the analysis of electronmicrographs. Lecture and laboratory. Prerequisites: Zoology 210 or Biology 201, Chemistry 212 and 213. Offered yearly.

**COURSES FOR GRADUATE STUDENTS ONLY**

**500 Problems in Biology — 1-5 Q.H.**  
This course is designed to give graduate students the opportunity to study biological subjects of special interest to them. Prerequisite: consent of advisor. May be repeated with consent of advisor up to 5 credits.

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**Business Administration and Economics**

Somsen Hall 324 / 457-2036  

The basic purposes of the department are to prepare students for upper level careers in business and government service, and to provide essential undergraduate preparation for postgraduate work in accounting, business, economics, data processing, law, political economy and other fields. Through formal courses and informal educational experiences you are encouraged to develop the skills and perspective necessary for intelligent analysis of the problems of managers of business and government institutions, and in addition, to their traditional responsibility for meeting our mounting problems of environmental pollution, racial imbalance, urban blight and human resource development.

**B.A. MAJOR**

**ECONOMICS**

**60 Q.H.**  
*(Minor required)*

**REQUIRED COURSES (39 Q.H.)**

- 201, 202, 203 Principles of Economics, I, II, III (12)
- 207, 335 Statistics for Business and Economics, I, II (8)
- 302 Intermediate Micro Economics (4)
- 303 Intermediate Macro Economics (4)
- 304 Money and Banking (4)
- 312 Business Computer Application and Programming (4)

- 499 Seminar in Economics (may be repeated for an additional 3 hours of elective credits) (3)

**ELECTIVES (21 Q.H.)**

Additional Economics Courses at the 300 level or above. Selected courses from other departments may be substituted with the written approval of the Head of the Department of Business Administration and Economics based on the special needs of the individual student. Calculus is recommended as a substitute.

**B.A. MAJOR**

**ACCOUNTING**

**115 Q.H.**

*(Minor not required)*

**REQUIRED ACCOUNTING COURSES (36 Q.H.)**

- 201, 202 Principles of Accounting I, II (8)
- 301, 302, 303 Intermediate Accounting I, II, III (12)
- 407 Intro to Taxation (4)
- 411 Auditing I (4)
- 440 Cost Accounting I (4)
- 442 Advanced Accounting I (4)
REQUIRED BUSINESS ADMINISTRATION & ECONOMICS COURSES (48 Q.H.)

- 201, 202, 203 Principles of Economics I, II, III (12)
- 207, 335 Statistics for Business & Economics I, II (8)
- 310, 311 Business Law I, II (8)
- 312, 313 Business Computers I, II (8)
- 315 Marketing (4)
- 360 Business Finance (4)
- 370 Business Organization & Management (4) OR
- 375 Management of Human Resources (4)

ELECTIVES IN ACCOUNTING (12 Q.H.)

- 345 Government Accounting (4)
- 350 Accounting Systems (4)
- 409 Advanced Taxation (4)
- 413 Auditing II (4)
- 441 Cost Accounting II (4)
- 443 Advanced Accounting II (4)
- 446 Accounting Theory (4)

ELECTIVES IN BUSINESS ADMINISTRATION & ECONOMICS (12 Q.H.)

- Any 12 credits in Business Administration and/or Economics, numbered 300 and above (including additional accounting courses) and approved courses from other departments.

ADDITIONAL REQUIREMENTS (7 Q.H.)

- Math 222 Introductory Calculus (4)
- BEOA 332 Business Report Writing (3)

B.S. MAJOR

BUSINESS ADMINISTRATION

96 Q.H.

(Minor not required)

REQUIRED CORE COURSES (64 Q.H.)

- 201, 202, 203 Principles of Economics I, II, III (12)
- 207, 335 Statistics for Business & Economics I, II (8)
- 201, 202 Principles of Accounting I, II (8)
- 203 Managerial Accounting (4)
- 310, 311 Business Law I, II (8)
- 312 Business Computer Application and Programming (4)
- 315 Principles of Marketing (4)
- 320 Business & Gov’t Relations (4)
- 360 Fundamentals of Business Finance (4)
- 370 Business Organization and Management (4)
- 375 Management of Human Resources (4)

ELECTIVES

The student must select A, B, C or D 
for 32 hours of electives. Certain approved courses transferred from junior colleges may be substituted as electives under the 300 level. Selected courses in the Department of Business Education and Office Administration, up to a maximum of 8 credits, may apply as business electives. A list of approved courses is available in the department office. If fewer than 8 credits from the department of BEOA are applied toward the degree, selected courses from other departments may be substituted with the written approval of the Head of the Department of Business Administration and Economics based on the special needs of the individual student. Business Administration 110 is strongly recommended as an elective for students who are uncertain about the nature and potential of studies in Business and Economics.

OPTION A — PERSONNEL AND INDUSTRIAL RELATIONS

32 Q.H.

Thirty-two credits of personnel and industrial relations and related courses, at least 24 of which are numbered 300 or above. At least 20 credits must be taken from the following list of courses offered by the Business Administration and Economics department.

- BA 399 Internship Problem in Personnel (4)
- BA 419 Management Systems (4)
- BA 456 Labor Law and Legislation (4)
- BA 461 Personnel Compensation (4)
- BA 465 Collective Bargaining (4)
- BA 467 Personnel Staffing and Evaluation (4)
- BA 470 Theories of Management (4)
- BA 475 Problems in the Management of Human Resources (4)
- BA 480 Independent Studies in Business (1-6)
- BA 481 Independent Readings in Management (1-4)
- BA 482 Independent Readings in Human Resources (1-4)
- BA 483 Independent Readings in Labor Relations (1-4)
- BA 490 Organization and Leadership Dynamics (4)
- Econ 355 International Labor Relations (4)
- Econ 420 Labor Relations and Economics (4)

Related courses in other departments may be taken. A list of acceptable courses is available in the department office for personnel majors.

OPTION B — MARKETING

32 Q.H.

Thirty-two credits of marketing and related courses.

REQUIRED COURSES (20 Q.H.)

- 317 Analysis of Consumer Behavior in Marketing (4)
- 318 Management of Promotion (4)
- 330 Production Management (4)
- 418 Marketing Research (4)
- 428 Marketing Management (4)

OTHER BUSINESS ADMINISTRATION, ECONOMICS, OR APPROVED OUTSIDE ELECTIVES (12 Q.H.)

Recommended courses include: BA 423 Int. Mktng., EC 304 Money and Banking, and EC 425 Managerial Economics. For those considering graduate school any time in the future, Economics 302, 303, and Math 222 and Economics 425 are strongly recommended, as these are prerequisite courses in many graduate programs. A Small Business Consulting Project is also strongly recommended.
OPTION C - GENERAL ADMINISTRATION (32 Q.H.)

Thirty-two credits of electives in Business Administration, Economics, or other Approved Courses, at least 24 of which must be numbered 300 or above. Economics 302, 303, Math 222 and Business 330 are strongly recommended for those considering graduate school any time in the future, as these are required prerequisite courses for most graduate programs. A Small Business Consulting Project and an internship is also strongly recommended.

OPTION D - PUBLIC ADMINISTRATION (32 Q.H.)

REQUIRED COURSES (20 Q.H.)

PolSci 221 State & Local Government (4)
PolSci 228 Public Administration (4)
Econ 400 Public Finance (4)
Choose two of the following three courses:
PolSci 420 Administrative Law (4)
PolSci 324 Urban Planning (4)
PolSci 329 Municipal Administration (4)

ELECTIVES IN POLITICAL SCIENCE

(Any 8 credits from the following list)
PolSci 320 Constitutional Law (4)
PolSci 332 Political Parties and Interest Groups (4)
PolSci 324 Urban Planning (4)
PolSci 329 Municipal Administration (4)
PolSci 340 Politics of Ecology (4)
PolSci 420 Approaches and Methods in PolSci (4)
PolSci 426 Public Budgeting (4)
PolSci 401 and 499 when applicable
Other courses with consent of Head of Political Science Department.

ELECTIVES IN BUSINESS ADMINISTRATION/ECONOMICS-

(4 Q.H.)

Any 4 credits in Business Administration and/or Economics from courses numbered 300 or above. Bus. Adm. 345 Government Accounting Recommended.

B.S. MAJOR PARALEGAL

(Minor not required)
(see Department of History listings)

B.A. MINOR ECONOMICS

32 Q.H.

REQUIRED COURSES (24 Q.H.)

201, 202, 203 Principles of Economics I, II, III (12)
302 Intermediate Price and Income Theory (4)
303 Intermediate Macro Economics Analysis (4)
304 Money and Banking (4)

ELECTIVES (8 Q.H.)

300 and 400 level courses in Economics (8)

B.S. MINOR BUSINESS ADMINISTRATION

36 Q.H.

REQUIRED BUSINESS COURSES (20 Q.H.)

201, 202 Principles of Accounting I, II, III (8)
203 Managerial Accounting (4)
310 Business Law I (4)
370 Business Organization and Management (4)

REQUIRED ECONOMICS COURSES

(12 Q. H.)

201, 202, 203 Principles of Economics I, II, III (12)

ELECTIVES (4 Q.H.)

Students may select business electives totaling 4 credits. 110 Intro to Business, 315 Marketing, 360 Business Finance, 312 Computers, and 207 Statistics are strongly recommended.

MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration (M.B.A.) is a professional degree which has become an important factor in many hiring and promotion decisions for business, government, and other organizations. Winona State University's M.B.A. is designed as a general management degree, developing competence for managerial and administrative positions in either the public or private sector. Students who enter the program should already possess substantial knowledge of management and administration as taught in undergraduate schools of business, or should acquire that mastery by completing prerequisites to the M.B.A. courses. The M.B.A. curriculum will include work in the essential tools of management, mastery of the functional areas of business and management (accounting, finance, marketing, organization and production); and practice in managerial policy and decision-making. The program also allows for specialization or breadth by offering electives which may be selected by the student subject to the approval of an advisor.

In addition to prerequisites and other requirements contained in the Graduate Information section in this catalog, all core courses and 12 elective credits must be completed.

REQUIRED COURSES (35 Q.H.)

BA 463G Financial Management (4)
BA 501 Research Methodology (3)
BA 510 Management Law (3)
BA 531 Production Management and Inventory Control (3)
BA 535 Accounting for Management (3)
BA 542 Marketing Analysis (3)
BA 545 Human Resource Development and Administration (3)
BA 565 Small Business Administration Consulting Projects (3)
BA 595 Business Policies (3)
EC 425G Managerial Economics (4)
EC 503 Macroeconomic Theory and Forecasting (3)
ELECTIVES (12 Q.H.)

All graduate courses ("G" courses and 500 level) from the Department of Business Administration and Economics qualify as electives. Selected courses from other departments may be taken if approved in advance by the M.B.A. advisor.

COURSE LISTINGS

Any course not required for a major, minor, option, or any of the concentrations, may be taken by undergraduates on a pass-no credit basis by permission of the instructor.

101 Nature and Functions of Law - 4 Q.H.
A study of law as a part of liberal education. Included are historical background, court systems and jurisdiction; criminal and civil actions; common law and statutory law. Not to be included as an elective toward a major or minor in business. Alternate years.

110 Introduction to Business - 4 Q.H.
Develops broad, beginning understanding of business institutions, functions, practices and problems. Provides survey of basic national institution for non-majors. Not open to those having 15 or more credits in business. Quarterly.

112 An Introduction to Computer Science - 1 Q.H.
This course is designed for individuals who would like to know something about the computer. Course consists of video tapes and involves self-instruction at the students' own pace. Quarterly. P/NC only.

201 Principles of Accounting I - 4 Q.H. (Formerly 240)
Theory of double entry accounting including journalizing, ledger posting and preparation of financial statements for service and merchandising businesses organized as sole proprietorships, partnerships, or corporations. Quarterly.

202 Principles of Accounting II - 4 Q.H. (Formerly 241)
A continuation of 201 which shows the study of assets and liabilities, financial statement analysis, the statement of changes in financial position tax considerations, and long-term debt. Prerequisite: 201 Quarterly.

203 Managerial Accounting - 4 Q.H. (Formerly 242)
Branch and departmental accounting; process, job order; standard costing; budgetary control; income tax problems; statement analysis. Includes a computer simulation of the accounting of a manufacturing concern. Prerequisite: 202. Twice yearly.

207 Statistics for Business and Economics I - 4 Q.H.
Elementary business statistics including descriptive measures, elementary probability, sampling of distributions, and statistical inference. Prerequisite: Math 113 or equivalent. Twice yearly.

301 Intermediate Accounting I - 4 Q.H. (Formerly 340)

302 Intermediate Accounting II - 4 Q.H. (Formerly 341)
Development of accounting principles and procedures related to liabilities, noncurrent assets, and owner's equity. Prerequisite: 301. Yearly.

303 Intermediate Accounting II - 4 Q.H. (Formerly 342)
Development of accounting principles and procedures related to revenue recognition, and special areas, including current value accounting. Prerequisite: 302. Yearly.

310 Business Law I - 4 Q.H.
Legal background, contracts, agency, bailments, sales and commercial paper. Twice yearly.

311 Business Law II - 4 Q.H.
Partnerships, corporations, bankruptcy, secured transactions, real and personal property, trusts and estates, torts and consumer protection. Prerequisite: Business 310 or consent of instructor. Twice yearly.

312 Business Computer Applications and Programming I - 4 Q.H.
A study of computer hardware and software concepts using an appropriate language such as FORTRAN. The student will flowchart, code, compile, test and debug selected business problems. Twice yearly.

313 Business Computer Applications and Programming II - 4 Q.H.
Included are disk and tape file organization. The student will document, compile, test and debug business application problems using COBOL language. Prerequisite Business 312. Twice yearly.

315 Principles of Marketing - 4 Q.H.
A beginning course in marketing which stresses the marketing function's contribution to the business firm. Topics include buyer behavior, products, channels of distribution, promotion, pricing and social issues in marketing. Prerequisite: Econ 201. Quarterly.

317 Analysis of Consumer Behavior for Marketing - 4 Q.H.
An application of the behavioral sciences to marketing. Topics include motivation, perception, learning, personality, communication, cultural values and norms, social class, and consumer decision-making models. Prerequisites. Business 315. Yearly.

318 Management of Promotion - 4 Q.H.
The nature, scope, and contributions of advertising, personal selling, public relations, and sales promotion in serving as a communications link between the business firm and its target market. Prerequisite: Business 315 & 317. Twice yearly.

319 Marketing Systems and Channels - 4 Q.H.
The political, social and economic relationships among the various institutions that comprise marketing channels with a focus on available means for securing effective management in the distribution of goods and services. Prerequisite: BA 315. Grade only. Offered yearly.

322 Retailing - 4 Q.H.
An examination of the functions, institutions, and managerial practices encompassing the field of retailing. Emphasis is placed on retail management and its role in the channel of distribution. Prerequisite: BA 315. Offered yearly.

323 Purchasing - 4 Q.H.
A study of purchasing management. Includes objectives, procedures, organization, ordering techniques, inventory control, vendor selection, price, equipment procurement,
An analysis of current topics issues relevant to the milieu of Business and Economics. The subject matter to be offered each quarter will be announced in advance by the department. May be repeated as topics change. Quarterly.

330 Production Management - 4 Q.H.
An analytical approach to planning, operation, and control or production processes; plant location and plant layout; inventory and quality control; production and project planning and control. Prerequisite: Business 207. Yearly.

335 Statistics for Business and Economics II - 4 Q.H.
A continuation of Business 207 including Chi-Square Tests, regression and correlation analysis, and analysis of variance. Prerequisite: Business 207 or consent of instructor. Twice yearly.

345 Governmental Accounting - 4 Q.H.
Analysis of accounting systems and problems in federal and state local units of government. Prerequisite: 202. Offered as needed.

350 Accounting Systems - 4 Q.H.
A study of the principles underlying the design and installation of accounting systems, survey of methods of processing data, with an emphasis on internal control. Prerequisite: 302, 312 or consent of instructor. Yearly.

360 Fundamentals of Business Finance - 4 Q.H.
A course dealing with financial management problems of the business enterprise. Emphasis on problems of capital budgeting and current asset management. Prerequisites: Econ 201, 202 and Business 201, 202 and 207. Quarterly.

370 Business Organization and Management - 4 Q.H.
Analysis of the classic functions performed by managers of all organizations, and how current managerial problems relate to them. Quarterly.

375 Management of Human Resources - 4 Q.H.
Problems involved in developing an organization's human resources so that benefits to both the individual and the organization are maximized. Study of the responsibilities of personnel workers in industry. Quarterly.

380 International Labor Relations - 4 Q.H.
A study of foreign labor movements and analysis of current and historical problems confronting labor movements. Prerequisites: Econ 201, 202; BA 375. Yearly.

398 Internship - 1-12 Q.H.
Credits will not be counted in Business Administration major, but as general elective credits. Prerequisite: Core courses completed. Quarterly. P/NC only.

399 Internship Problem - 4 Q.H.
Prerequisite: 398. Quarterly. Grade only.

404 Job Search Seminar - 1 Q.H.
Strategies for career investigation and job search campaign. Special attention provided to areas of employment opportunity. Employment literature will be reviewed. Open to all majors with junior or senior status. P/NC only. Not to be included as an elective toward a major or minor in business. Winter Quarter.

407G Introduction to Taxation - 4 Q.H.
A study of the history of taxation, tax bases, tax rates, tax law formation, modification, research, planning and appeal. Introduces the personal income tax, partnership, corporations, trusts, estates and transfer taxes. This course is recommended for non-accounting majors. Prerequisite: 202, EC 203. Offered yearly.

409G Advanced Taxation - 4 Q.H.
A study of the tax laws in effect during the course and operational techniques for filing including more complex research and planning techniques in federal and state taxes. Prerequisite: 407G. Offered yearly.

411G Auditing I - 4 Q.H.
The public accounting profession and its requirements, internal control, verification of accounts, auditors' reports. A review of the auditing process and an analysis of the generally accepted auditing standards. Prerequisites: 303, 313, 440. Yearly.

413 Auditing II - 4 Q.H.
Practical application of auditing procedures to the use of comprehensive practice set worked by students. Indepth analysis of auditing procedures as applied in specific areas. Prerequisite: 411. Offered as needed.

417G Investments - 4 Q.H.
Investment policies affecting the private and institutional investor. Includes stocks, bonds, mutual funds, commodities, real estate, trading methods, and federal and state regulation. Prerequisite: EC 201, 202, BA 201, 360, or consent of instructor. Yearly.

418G Marketing Research - 4 Q.H.
Emphasis is placed on research design and implementation, compilation, and interpretation of data used to aid marketing decision-making, and developing research ability by having the student design and execute a marketing related project. Prerequisite: Business 315 and 335. Yearly.

419G Management Systems - 4 Q.H.
Stresses the use of the systems approach to management and the use of quantitative decision-making techniques such as models and simulations. Prerequisite: Business 335 and 370. Offered as needed.

420G Insurance - 4 Q.H.
An introductory study of automobile, crime, fire, health, liability, life, and transportation insurance with emphasis on the economics significance of the various types of insurance contracts. Prerequisite: Business 310. Yearly.

423 International Marketing - 4 Q.H.
A study of the economic, political, cultural, and business environments affecting the international marketing operations of the firm. Market selection decision, entry and operating deciding, marketing mix decisions, and organizational structures are examined. Prerequisites: 315, 318, senior standing. Offered as needed.

425G Tax Planning - 4 Q.H.
This survey course provides an overview of the tax laws and their inter-relationships in a way that has proven interesting, enlightening, and profitable to taxpayers, managers, tax planners, and defenders. Prerequisites: BA 407 or consent of instructor.
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428 Marketing Management – 4 Q.H.
An advanced problem method course dealing with specialized marketing functions and policies. Topics include product line planning, operating diagnosis and control, competitive strategy, quantitative marketing, and the marketing environment. Case analyses are used to promote effective learning. Prerequisites: Business 315, 317 or 418, 318, 207, Econ 202. Yearly.

429 Small Business Consulting – 4 Q.H.
A practical, problem-solving course where students are divided into teams and act as consultants to a small business. Students present their written findings to the entrepreneur and officers of the U. S. Small Business Administration. Senior standing is a prerequisite. Grade only. Quarterly.

440G Cost Accounting I – 4 Q.H.
Cost accounting fundamentals including long-term planning, control, cost allocation, quantitative analysis and behavioral considerations in systems design. Prerequisites: 202, 335, EC 203. Offered yearly.

441G Cost Accounting II – 4 Q.H.
In-depth study of cost accounting problems including inter-company strategies for planning, behavioral accounting research and Cost Accounting Standards Board promulgations. Prerequisite: 440. Offered yearly.

442G Advanced Accounting I – 4 Q.H.
Partnerships, consignments, consolidations, bankruptcy, foreign operations, trusts and estates. Prerequisites: 303, 311. Offered yearly.

443 Advanced Accounting II – 4 Q.H.
International accounting, internal operational auditing, management advisory services and operational accounting research. Prerequisite: 407, 411 and 440. Offered as needed.

446 Accounting Theory – 4 Q.H.
A study of the foundations, statements, analyses, and evolution of the various accounting theories including those by the AICPA, AAA, NAA, and other organizations. A review of the research studies and search for accounting principles and postulates that has occurred in the current century. Offered as needed. Prerequisite: 303.

456G Labor Law and Legislation – 4 Q.H.
Examination of the legal framework of labor relations including common law, administration, and judicial interpretations of statutory law and equity applications. Prerequisite: 310. Offered as needed.

461G Personnel Compensation – 4 Q.H.
Issues, theories, and policies in the areas of wage and salary administration and employee compensation. Prerequisites: Economics 203 and Business 375 or consent of instructor. Yearly.

463G Financial Management – 4 Q.H.
Case and text studies affecting the financial policies and position of the business unit. Analysis of financial problems, determination of alternatives, evaluation of alternatives and managerial decision-making. Prerequisite: Business 360. Offered as needed.

465G Collective Bargaining – 4 Q.H.
How practical differences between labor and management over wages, hours, and working conditions — in both private and public employment — are resolved by negotiation and administration of labor agreements. Prerequisite: Econ 203 and BA 375. Recommended but not required, EC 420. Yearly.

470G Theories of Management – 4 Q.H.
Study of various modern theories of management and organization. Application of these theories to actual management situations is also examined. Offered as needed.

475G Problems in Management of Human Resources – 4 Q.H.
Controversial, practical situations involving people at work are examined with an eye to giving greater insight into the complexities of working effectively with human resources. Prerequisite: Business 375 or consent of instructor. Yearly.

480G Independent Studies in Business – 1-6 Q.H.
Offers the advanced student an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: consent of instructor. Total credits may not exceed 12. Quarterly.

481 Independent Readings in Management – 1-4 Q.H.
To provide more background in management, two books of the student’s choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is Maxwell Library. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each book with each other. Prerequisite: upper division status or consent of instructor. Offered quarterly. Limit of 12 credits of independent study per program.

482 Independent Readings in Human Resources – 1-4 Q.H.
To provide more background in Human Resources, two books of the student’s choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is Maxwell Library. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each book with each other. Prerequisite: upper division status or consent of instructor. Offered quarterly. Limit of 12 credits of independent study per program.

483 Independent Readings in Labor Relations – 1-4 Q.H.
To provide more background in Labor Relations, two books of the student’s choice (with concurrence of faculty advisor) are read for each credit desired. Primary source is Maxwell Library. Chapter summaries and evaluations are requested for each book as well as an integrative report, comparing and contrasting each book with each other. Prerequisite: upper division status or consent of instructor. Offered quarterly. Limit of 12 credits of independent study per program.

490G Organization and Leadership Dynamics – 4 Q.H.
Examination of different types of leadership skills used to resolve organizational problems and to achieve the goals of the organization. The behavioral sciences are stressed, with emphasis on leadership and motivation theories. Prerequisite: BA 370, BA 375, or consent of instructor. Alternate years.
498G Business Policies — 4 Q.H.
An advanced, integrative course for last quarter business administration majors. Use cases to stress interrelationships of all functional areas, organization life stages, strategy development and policy formation. Offered as needed. Prerequisite: completion of core requirements, or consent of instructor.

COURSES FOR GRADUATE STUDENTS ONLY

501 Research Methodology — 3 Q.H.
A study of research methods, including both subjective & objective information, with the goal of optimal decision-making. Prerequisites: BA 207 and 312. Grade only. Offered alternate years.

510 Management Law — 3 Q.H.
Consideration of the nature of the partnership & corporation, the development of the law concerning the rights and powers of managers and the limits of their discretion and their duties and responsibilities to their organizations, to creditors, to the state and the public. Also includes judicial remedies & procedures available to creditors & shareholders to enforce their rights. Prerequisite: BA 310. Offered alternate years. Grade only.

521 Industrial Marketing — 4 Q.H.
A study of marketing decisions and practices as found in industry. Prerequisite: BA 315.

525 Administrative Decision-Making — 3 Q.H.
Survey of quantitative decision-making methods. Linear programming, breakeven analysis, simulation, PERT, cost analysis, marginal analysis and forecasting. College algebra is recommended as background for this course.

526 Management Administration — 4 Q.H.
Study of basic ideas, concepts, and values of management, supplemented with analysis of important problems.

530 Business Management Decision-Making — 4 Q.H.
An interdepartmental seminar in which business cases are analyzed from the financial, personnel, marketing and production aspects just as top management would in a business.

531 Production Management & Inventory Control — 3 Q.H.
Topics in production and inventory planning and control with an emphasis on modern computer methods including material requirements planning, capacity planning, priority control, and forecasting. Prerequisites: BA 207 and 370. Grade only. Offered alternate years.

535 Accounting for Management — 3 Q.H.
This course is designed to help the business manager to be aware of the accounting alternatives available to him/her for: planning, forecasting, directing, controlling, import taxes, and auditor selection. A survey of the variety of skills and organizations providing accounting services to managers will also be presented. Prerequisites: BA 201 and 202. Grade only. Offered alternate years.

540 Accounting for Management and Control — 4 Q.H.
The study of how accounting information and mathematical techniques are used for decision-making related to planning and control. Prerequisite: 202.

542 Marketing Analysis — 3 Q.H.
To update the discussion of marketing problems, practices and principles, to deepen the discussion of marketing topics of increased importance, such as product concept development and testing, product positioning, marketing control, and new marketing philosophies, to provide an opportunity to apply marketing thinking to real marketing situations through cases. Prerequisite: BA 315. Grade only. Offered alternate years.

545 Human Resource Development & Administration — 3 Q.H.
Procedures used in managing the human resources in an organization so that the benefits to the organization and individual are maximized. Prerequisite: BA 370. Grade only. Offered alternate years.

565 Small Business Consulting — 3 Q.H.
Student teams counsel small business firms and help them improve profits or reduce losses. Course is offered under the auspices of the Small Business Administration. Prerequisites: 463G, 531, 535, 542, 545. Grade only. Offered alternate years.

570 Problems in Business — 4 Q.H.
This course gives the graduate student the opportunity to continue the study of selected topics in business or economics which have been introduced in other courses. Prerequisite: consent of instructor.

590 Seminar in Business — 4 Q.H.
The study and analysis of current practices and major problems of business through the use of the case method and the techniques of role playing.

595 Business Policies — 3 Q.H.
To integrate the major functional areas in business in an overall prospective representing the role of the manager at top management levels. Emphasis is placed on problems requiring effective action through leadership, organization, planning or control. This is basically an advanced course study of administration and administrators, organization objectives and need for policies, plans, and procedures designed to reach them, unusual operational and organizational problems in any functional area. Prerequisites: 463G, 531, 535, 542, 545. Grade only. Offered alternate years.

599 Research or Thesis in Business — 3-6 Q.H.
The report must show evidence of ability to carry on independent study and to employ scientific methods and procedures in the solution of an approved topic in the area of business or economics.
ECONOMICS COURSES

102 Introduction to Economics — 4 Q.H.
Basic facts, concepts, institutions, and theories which are most essential to an understanding of the United States economy. Includes a unit on cooperatives. Students planning to take Economics 201, 202, and 203 should not take this course. Offered quarterly.

201 Principles of Economics I — 4 Q.H.
Micro-economics. The private enterprise system, demand and supply and market interaction; business costs and prices, forms of competition; the mixed economy. Includes a unit on cooperatives. No prerequisite. Quarterly.

202 Principles of Economics II — 4 Q.H.
Macro-economics. National income analysis; aggregate demand and supply; money, banking; business cycles, monetary and fiscal policy. No prerequisite. Quarterly.

203 Principles of Economics III — 4 Q.H.
Economic growth; unions; poverty and insecurity; public spending and taxation; international trade and trade restrictions; gold and the balance of payments; comparative systems. Prerequisites: Econ 201, 202. Quarterly.

300 Current Economic Issues — 1-6 Q.H.
Analysis of current economic issues and problems. Techniques and models appropriate to problem situations will be presented. Yearly.

302 Intermediate Micro-Economic Analysis — 4 Q.H.
A theoretical approach to consumer demand, decision-making in the pricing and employment of resources under the major market classification, and the distribution of resources and production. Prerequisite: Econ 201. Twice yearly.

303 Intermediate Macro-Economic Analysis — 4 Q.H.
National income accounting and measurement, theory of the determination of national economic activity; consumption; investment; government spending; discretionary and automatic fiscal and monetary policies. Prerequisite: Econ 202. Twice yearly.

304 Money and Banking — 4 Q.H.
History and theory of banking and currency; source of bank funds and their utilization, and problems of the bank’s loaning power and reserve; monetary policy. Prerequisite: BA 207, Economics 202. Offered twice yearly.

320 Business-Government Relations — 4 Q.H.
Government regulation of business including anti-trust legislation, consumer and investor protection and public enterprise. Prerequisites: Econ 203, 304, or Business 311 or consent of instructor. Twice yearly.

400G Public Finance — 4 Q.H.
The application of economic principles to taxation, public expenditures, borrowing, and administration of public funds. Prerequisite: Econ 201, 202. Yearly.

404G International Trade — 4 Q.H.
A practical and theoretical approach to international trade. Principles of trade and theory of monetary flows; tariffs and quotas, gold flows, and contemporary international marketing agreements. Prerequisite: Ec 203. Yearly.

410G Regional Economics — 4 Q.H.
Included in the course are central tenets of location theory, input output analysis, regional structure and regional trade theory. Course is designed for those interested in regional planning and economics careers. Prerequisites: Econ 201, 202, 203 and 302. Offered alternate years.

415G Economic Development — 4 Q.H.
Economic problems of less developed and developing countries. Alternative growth theories and applications. Evaluation of current growth levels among nations. Prerequisite: EC 203. Yearly.

420G Labor Economics — 4 Q.H.
Economic theory relating to labor markets. Wage theory, bargaining models and contemporary labor issues considered. Prerequisites: EC 203 and BA 375 or consent of instructor. Offered yearly.

425G Managerial Economics — 4 Q.H.
Application of economic theory and related decision-making methods to problems faced by business firms. Prerequisite: Econ 302 or consent of instructor. Yearly.

430 Economic Problems of Agriculture — 4 Q.H.
Current and continuing problems of economic structure in agriculture, policy applications and production. Agricultural marketing, credit and the role played by world food and fiber demand will be analyzed. Prerequisite: Econ 203. Grade only. Offered yearly.

435G Evolution of Economic Thought — 4 Q.H.
Analysis of economic concepts and doctrines against a background of evolving urban-industrial society. Development of classical and neo-classical economic thought. Prerequisite: Econ 302 or 303 or consent of instructor. Alternate years.

499 Seminar in Economics — 3 Q.H.
Advanced analysis of economic method and problems. Specific focus of course is arranged by the instructor. May be taken twice. Prerequisites: Economics 302 and 303 or consent of instructor. Yearly.

COURSES FOR GRADUATE STUDENTS ONLY

502 Economic Theory of the Firm — 4 Q.H.
A study of the application of micro economic concepts, such as supply and demand, money, interest capital and competitive situations, to specific problems of business firms.

503 Macroeconomic Theory and Forecasting — 3 Q.H.
The purpose of this course is to present the major elements in the macro-economic system, and the statistical tools necessary to prepare economic and business forecasts. The student will be required to integrate the tools with the theory, and prepare a statistical forecast of an economic or business variable. Prerequisite: BA 207 and Econ 202. Grade only. Offered alternate years.

532 Economic Systems — 3 Q.H.
Origin and development of economic systems. Organization of production and distribution of output and income under conditions of competition, mixed capitalism and centrally planned economics.
Business Education and Office Administration

Somsen Hall Room 301 / 457-2030
Hopf (Chairperson), *Eiken, Gorman.

The department provides instruction in practical business and educational preparation of business teachers, office managers, stenographers, executive secretaries, and supervisors. The vocational curricula, supported by a background of general business and general education courses, is designed to meet the educational needs of graduates in a rapidly changing, mechanized and complex society.

In addition to a Master of Science in Education and a Bachelor of Science for business teachers and office administrators, a 2-year executive secretarial program and a one-year secretarial program are offered. Transfer from a short-term program to a two-year or four-year degree program in Business Education and Office Administration can be easily accomplished.

B.S. MAJOR
90 Q.H.

REQUIRED BUSINESS EDUCATION COURSES (20 Q.H.)
202 Intermediate Typewriting (3)
320 Business Data Processing (4)
332 Business Report Writing (3) OR
333 Business Correspondence (3)
334 Business Organization & Office Management (4)
340 Word Processing Today/Tomorrow (3)
435 Information Systems Management (3)

REQUIRED ECONOMICS COURSES
(BQ.H.)
201, 202 Principles of Economics I, II (8)

REQUIRED BUSINESS ADMINISTRATION COURSES (20 Q.H.)
201, 202, 203 Accounting I, II, III (12)
310 Business Law I (4)
315 Marketing (4)

ELECTIVES (2 Q.H.)

OPTION REQUIREMENTS (40 Q.H.)

Students may choose one of four options for completion of the major — Option A-Secretarial; Option B-Accounting; Option C-Basic Business; Option D-Office Administration (Non-teaching).

OPTION A — SECRETARIAL
(TEACHING)

REQUIRED BUSINESS EDUCATION COURSES (24 Q.H.)
Students who have not completed beginning typewriting and shorthand courses should enroll in the beginning courses, not the intermediate course, as shown in the following requirements.
203 Advanced Typewriting (3)
206 Integrated Office Practice (3)
210 Business Machines (2)
223 Intermediate Gregg Shorthand (4)
224 Advanced Gregg Shorthand (4)
234 Shorthand Transcription (2)
235 Intro to Word Processing & Transcription (3)
335 Records Management & Filing (3)

ELECTIVES (5 Q.H.)

ADDITIONAL REQUIREMENTS (11 Q.H.)
398 AVT Internship (3)
401 Teaching of Accounting (2)
402 Teaching of Basic Business (2)
403 Teaching of Typewriting & Office Machines (2)
404 Teaching of Shorthand & Office Practice (2)
60/BUSINESS EDUCATION & OFFICE ADMINISTRATION

OPTION B - ACCOUNTING
(TEACHING)

REQUIRED BUSINESS ADMINISTRATION COURSES (20 Q.H.)
301, 302 Intermediate Accounting I, II (8)
407 Income Tax Accounting (4)
312 Business Computer Applications & Programming I (4)
313 Business Computer Applications & Programming II (4)

REQUIRED BUSINESS EDUCATION COURSES (5 Q.H.)
203 Advanced Typewriting (3)
210 Business Machines (2)

ELECTIVES (6 Q.H.)

ADDITIONAL REQUIREMENTS (9 Q.H.)
398 AVT Internship (3)
401 Teaching of Accounting (2)
402 Teaching of Basic Business (2)
403 Teaching of Typewriting & Office Machines (2)

OPTION C - BASIC BUSINESS
(TEACHING)

REQUIRED BUSINESS COURSES (17 Q.H)
110 Introduction to Business (4)
210 Business Machines (2)
215 Personal Finance (4)
311 Business Law II (4)
433 Office Management II (3)

REQUIRED ECONOMICS COURSES (16 Q.H.)
203 Principles of Economics II (4)
302 Intermediate Price & Income Theory (4)
303 Intermediate Macro Economic Analysis (4)
304 Money and Banking (4)

ELECTIVES (3 Q.H.)

ADDITIONAL REQUIREMENTS (4 Q.H.)
401 Teaching of Accounting (2)
402 Teaching of Basic Business (2)

OPTION D - OFFICE ADMINISTRATION

REQUIRED BUSINESS EDUCATION COURSES (27-31 Q.H.)
203 Advanced Typewriting (3)
206 Integrated Office Practice (3)
210 Business Machines (2)
235 Intro to Word Processing & Transcription (3)
335 Records Management & Filing (3)
350 Women and Men in Business: Career Equity (3)
360 Interpersonal Business Relations (3)
399 Internship (On-the-job work experience) (4-8)
433 Office Management II (3)

REQUIRED BUSINESS ADMINISTRATION COURSES (4 Q.H.)
110 Introduction to Business (4)
315 Marketing (4)
375 Management of Human Resources (4)

ELECTIVES (3 Q.H.)

ADDITIONAL REQUIREMENTS (7 Q.H.)
398 AVT Internship (3)
401 Teaching of Accounting (2)
403 Teaching of Typewriting & Office Machines (2)

B.S. MINOR
Note: The State of Minnesota does not offer teacher certification in business education minors.

BASIC BUSINESS
38 Q.H. (TEACHING)

REQUIRED BUSINESS EDUCATION COURSES (12 Q.H.)
202 Intermediate Typewriting (3)
334 Business Organization & Office Management (4)
402 Teaching of Basic Business (2)
435 Information Systems Management (3)

REQUIRED ECONOMICS COURSES (12 Q.H.)
Note: Economics 201 and 202 are required for admission to upper division courses in Business.
201 Principles of Economics I (4)
202 Principles of Economics II (4)
304 Money and Banking (4)

ELECTIVES (2 Q.H.)

REQUIRED BUSINESS ADMINISTRATION COURSES (16 Q.H.)
110 Introduction to Business (4)
201, 202, 203, Accounting I, II, III (12)
MASTER OF SCIENCE REQUIREMENTS

The M.S. Degree with a field of concentration in Business Education and Office Administration requires that the candidates complete the following areas of concentration: Professional Education (9)

WITH THESIS: (45 Q.H.)

*Business Education and Office Administration (including thesis) (36)

WITHOUT THESIS: (51 Q.H.)

*Business Education and Office Administration (36)

ELECTIVES (6 Q.H.)

SPECIAL DEPARTMENTAL REQUIREMENTS

Certain courses in Business Education and Office Administration which must be pursued are listed in the Department Guidelines which are available in the Department Chairperson's Office.

Up to 12 quarter hours of Business Administration, Economics, and closely related courses may be taken as part of the 36 hours required for the degree. The 12 hours above must be approved in advance by the graduate advisor of the student.

*The graduate student should secure a copy of the revised Department of Business Education and Office Administration guidelines for more detailed information on the major. These guidelines can be secured from the Department Chairperson's Office.

VOCATIONAL-TECHNICAL INSTITUTE TRANSFER POLICY

Students who have completed a one- or two-year business program at a vocational school may apply for a transfer of 30-45 business credits. The student's transcript will be evaluated individually by a member of the Department of Business Education and Office Administration to verify the transferable credits. These 30-45 credits will be held as credits in trust until the student has completed a minimum of 48 quarter hours of credit with a 2.00 GPA or above, and has been approved by the Department of Business Education and Office Administration. This transfer policy applies only to students majoring in business education.

COURSE LISTINGS

No courses in the department are open to declared majors and minors on a Pass/No Credit basis except 106, 398, and 399. Courses offered on a Pass/No Credit basis are designated in the course description. Any graduate course offered on a P/NC basis is designated in the course description.

105 Secretarial Accounting - 3 Q.H. Primarily for secretarial students: the record-keeping aspect of business normally performed by secretaries in a variety of offices. Offered yearly. P/NC Option.

106 Speedwriting - 2 Q.H. An alphabetic shorthand system for personal use in notetaking and improvement of study skills. An individualized instructional course utilizing cassette tapes and programmed texts. Offered yearly. P/NC only.

201 Beginning Typewriting - 3 Q.H. Keyboard mastery; technique development, letter forms, tabulations, manuscripts, development of speed and control on sustained timings. Instruction is individualized. Offered quarterly. P/NC Option.

202 Intermediate Typewriting - 3 Q.H. Continuation of 201, further skill development; problem solving and production. Instruction is individualized. Prerequisite: Beginning Typewriting or test of proficiency. Offered quarterly. P/NC Option.

203 Advanced Typewriting - 3 Q.H. Advanced production problems, further speed control and technique development. Instruction is individualized. Prerequisite: Intermediate Typewriting or test of proficiency. Offered yearly. P/NC Option.

205 Health/Recreation Office Management - 3 Q.H. To provide students with sufficient background in accounting, office management, records management and financial budgeting for their future role as health and recreation managers. Offered yearly.

206 Integrated Office Practice - 3 Q.H. The study of secretarial and administrative procedures and methods for carrying out the administrative support function. Application and integration of basic skills through simulations in such areas as communication services, processing information, telephonics, receptionist duties, and conference arrangements. Prerequisite: typing proficiency. Offered yearly. P/NC Option.

210 Business Machines - 2 Q.H. Development of proficiency on ten-key adding machines and electronic calculators by individualized instruction. Offered quarterly. P/NC Option.

215 Personal Finance - 4 Q.H. For all students. Consumer units include personal budgets, savings plans, insurance, real estate, interest, pensions, and estate planning. Offered yearly. P/NC Option.

221 Gregg Shorthand (Beginning) - 4 Q.H. Study of principles, basic vocabularies, brief forms, and phrasing; elementary dictation; pretranscription training; development of speed and sustained writing ability. Offered yearly. P/NC Option.

222, 223 Intermediate Gregg Shorthand I, II - Each 4 Q.H. Further development of techniques, speed building; and transcription ability on a time, production output basis. Prerequisite: 221 or equivalent. Offered yearly. P/NC Option.

224 Advanced Gregg Shorthand - 4 Q.H. Development of speed and sustained writing ability on business letters, reports, and literary material. Prerequisite: One year of shorthand and typewriting or test of proficiency. Offered yearly. P/NC Option.

234 Shorthand Transcription - 2 Q.H. Transcription of business, letters and manuscripts; transcription problems, office procedures. Course is taken in conjunction with Gregg Shorthand 224. Offered yearly. P/NC Option.
235 Introduction to Word Processing and Transcription — 3 Q.H.
To develop proficiency in processing business papers and documents from rough drafts, hand-written copy, and machine dictation into proper typewritten form. Development of proficiency on a Memory Typewriter. Prerequisite: 203 or equivalent. Offered yearly. P/NC Option.

300 Secretarial Work Experience — 2-8 Q.H.
For the student who desires actual work experience. Each student performs stenographic and clerical duties. Offered on demand. P/NC Option.

320 Business Data Processing — 4 Q.H.
Proficiency on keypunch machine; introduction to BASIC, FORTRAN and COBOL languages, use of terminals as well as mini-and micro-computers. Offered yearly. P/NC Option.

332 Business Report Writing — 3 Q.H.
Principles and practices for effective written reports in organizational communication. Emphasis on a functional writing style applied to routine, periodic, and analytical reports. Deals with planning, organizing, editing, displaying, and interpreting quantitative data as well as non-quantitative information. Offered yearly. P/NC Option.

333 Business Correspondence — 3 Q.H.
The application of a functional writing style to producing effective business letters and memos. Includes claim, adjustment, credit, refusal, and collections correspondence. Special emphasis on writing a successful application letter and resume. Offered yearly. P/NC Option.

334 Business Organization & Office Management — 4 Q.H.
Organizing and planning administration office services; space management; furniture and equipment; communication services; information processing; supervision and staffing. Offered yearly. P/NC Option.

335 Records Management and Filing — 3 Q.H.
Knowledge and application of the principles of filing methods, the principles of records management and control, and an acquaintanceship with innovations in equipment. Offered yearly. P/NC Option.

336 Office Occupations Seminar — 1 Q.H.
A series of seminars to include such topics as time management, office layout, office interpersonal relations, legal aspects, active listening, and applied problem solving. Offered yearly. P/NC Option.

340 Word Processing Today/Tomorrow — 3 Q.H.
Development of proficiency on Memory display word processing equipment; principles of organizing and improving word-processing installation — input/output, equipment, personnel, analysis; supervising a word-processing center. Prerequisite: BEOA 202 or equivalent.

350 Women & Men in Business: Career Equity — 3 Q.H.
Study of the stereotypical values, attitudes, and beliefs affecting managerial decisions and how organizations use human resources. Focuses on an examination of research findings on the employment characteristics of men and women, role options, new work patterns, male-female employment trends, sex-based conflicts, androgynous leadership styles, and discriminatory employment practices. Strategies for equality of opportunity. Offered yearly. P/NC Option.

360 Interpersonal Business Relations — 3 Q.H.
Recognizing, confronting and coping with interpersonal problems specific to the business/office environment. Focus is on analysis and strategies for managing productive relationships at work. Includes behavioral dimensions of leadership styles, power and authority, feedback skills, effective discipline, conflict resolution, nondefensive communications, and relating to minority groups. TA utilized as conceptual framework and analytical tool. Offered yearly. P/NC Option.

398 AVT Internship — 3 Q.H.
Methods, materials, and organization of individualized instruction; provides teaching experiences in a Center equipped with audiovisual-tutorial instruction. May be repeated for 6 Q.H. of credit. Offered yearly. P/NC Option.

401 Teaching of Accounting — 2 Q.H.
Aims, objectives, tests and measurements, methods and materials used in teaching accounting. Offered alternate years.

402 Teaching of Basic Business — 2 Q.H.
Aims, objectives, tests and measurements, methods and materials used in teaching general business. Offered alternate years.

403 Teaching of Typewriting and Office Machines — 2 Q.H.
Procedures and techniques; diagnostic and remedial practices, psychology of learning; improved procedures for developing skills. Offered alternate years.

404 Teaching of Shorthand and Office Practice — 2 Q.H.
Procedures and techniques; improved procedures and pre-transcription training and development of transcription skill. Offered alternate years.

433 Office Management II — 3 Q.H.
Principles of office management for providing administrative support services in organizations. Office administration policies and procedures applied to such areas as leadership dynamics, employee motivation, team building, office personnel problems, performance appraisal, delegation, and administrative systems analysis. Emphasis on the affective dimensions of administrative support services. Offered every two years. P/NC Option.

435G Information Systems Management — 3 Q.H.
Basic concepts for the effective management of the information function in an organization. Provides background and perspective for the design, implementation, and control of information system. Deals with information both as a process of transforming data into information and as a facilitator for the performance of the basic function of management. Non-technical emphasis. Offered yearly. P/NC Option.

442G Word Processing: Materials & Methods — 3 Q.H.
Research and materials for developing composition, verbal communications, dictation skills, grammatical knowledge, and transcription skills; curriculum and methods of teaching word processing; competency-based materials and articulation. Offered yearly. P/NC Option.
BUSINESS EDUCATION & OFFICE ADMINISTRATION, CHEMISTRY/ 63

470G Seminar in Business Education - 1-3 Q.H.
Specific subject matter is arranged by the department. May be repeated when offered with different subject matter content and title. Enrollment to be approved by the department staff. Offered yearly. P/NC Option.

480 Independent Studies in Business - 1-6 Q.H.
Reading and/or research in relevant areas of student's special interest. Prerequisite: Consent of instructor. May be repeated to a total of 6 Q.H. Offered quarterly.

COURSES FOR GRADUATE STUDENTS ONLY

510 Trends in Office Education - 3 Q.H.
Current philosophy, content, and innovations in office machines and office practice, analysis of classroom problems, methods, and materials.

511 Trends in Accounting and Data Processing - 3 Q.H.
Seminar analysis and evaluation of current trends in philosophy, content, methods, and curricular practices; applications to classroom problems.

512 Trends in Basic Business - 2-3 Q.H.
Critical study and evaluation of current trends in philosophy, content, and curricular practices; applications to classroom problems and materials.

513 Tests and Measurements in Business Education - 3 Q.H.
Specialized testing techniques used in vocational and business education subjects. Problem solving procedures, terminology and statistical techniques.

515 Administration and Supervision of Business Education - 3 Q.H.
Problems of supervisor, department head, or teacher with administrative responsibility; local, state and federal programs; financial support; public relations and publicity; etc.

517 Curriculum Construction in Business Education - 3 Q.H.
Evaluation and development of instructional materials; study of appropriate curricula for business education in secondary schools, technical institutes and the junior college.

518 Current Problems in Research in Business Education Seminar - 3 Q.H.
Survey of fields, trends, and publications; scope and limitations of research; techniques; types of research.

550 Trends in Shorthand and Typewriting - 3 Q.H.
For experienced teachers of shorthand and typewriting; recent research and literature in the field; materials and methods of instruction.

551 Improved Teaching Techniques in Business Education - 3 Q.H.
For experienced teachers of bookkeeping and basic business subjects. A study of recent research and literature in the field; materials and methods of instruction.

580 Individual Problems in Business Education - 1-4 Q.H.
Individual research problems in Business Education. One to four hours.

599 Research or Thesis in Business - 3-6 Q.H.

Chemistry

Pasteur Hall Room 312 / 457-2101

The B.S. Physical Science Major is offered for students wishing to teach chemistry (or chemistry and physics or physical science). The major meets Minnesota requirements but students preparing for certification in other states should consult with Dr. Foss or Dr. Fick to learn any necessary modification.

The department also offers two bachelor of science majors to prepare students to enter business, industry, professional schools and graduate schools in chemistry. In these programs, you have ample opportunity for part-time employment in work related to chemistry either in the department or in local industry. You are encouraged to become involved in research being carried on by members of the department in crystallography by x-ray diffraction techniques, biochemistry of seed germination, synthesis and study of pyrroles, porphyrins and metalloporphyrins and analytical work for local industries.

The department also encourages students majoring in other fields to increase their understanding of science and to meet part of the General Education requirements by electing Chemistry 100, 108, 208 or 212.

B.S. MAJOR

PHYSICAL SCIENCE
92 Q.H. (TEACHING)
(No Minor Required)

REQUIRED CHEMISTRY COURSES (20 Q.H.)
212, 213, 214 General Inorganic Chemistry (15)
350 Organic Chemistry (5) OR
340 Organic Chemistry Survey (4) PLUS
360 Chemical Literature (1)

REQUIRED PHYSICS COURSES (20 Q.H.)
201, 202, 203 General Physics (12) OR
221, 222, 223 College Physics (15)

ELECTIVES IN PHYSICS (5-8)

ELECTIVES IN CHEMISTRY OR PHYSICS (13 Q.H.)
Chemistry 215 or 400, 450, 351, 360, 361, 412, 425, 465
Physics 326, 328, 330, 332, 340, 341, 345, 350, 360, 370

REQUIRED MATHEMATICS COURSES (13 Q.H.)
Note: College Algebra and Trigonometry 220 may be substituted for 215, 216, or
these courses may be omitted if the student has otherwise met the prerequisite for 225.  
215 College Algebra (4)  
216 Trigonometry (4)  
225 Analytic Geometry & Calculus I (5) 

REQUIRED PHYSICAL SCIENCE COURSE  
(4 Q.H.) 
311 Teaching Science in the Secondary School (4) 

ADDITIONAL REQUIREMENTS (MAY BE COUNTED IN GENERAL EDUCATION)  
(22 Q.H.)  
Biology  
207, 208 Botany (8) OR  
210, 211 Zoology (8)  
Geology  
116 Physical Geology (5)  
117 Historical Geology (5)  
Philosophy of Science or Philosophy of Technology (4) 

WISCONSIN CERTIFICATION REQUIREMENTS FOR CHEMISTRY CONCENTRATION (33 Q.H.) 
(Select credits under “Required Courses” and “Electives” to give a concentration of 33 Q.H. of Chemistry).  
Other Requirements for Wisconsin Certification 
Biology 104 or 204 (4)  
Earth Science (4 or more Q.H.)  
Biological Science (4 or more Q.H.) 

B.S. MAJOR 
CHEMISTRY OPTION A  
102 Q.H.  
(Minor Required) 

REQUIRED COURSES (62 Q.H.)  
Note: Students should begin the math and chemistry sequences at the same time.  
212, 213, 214 General Inorganic Chemistry (15)  
350, 351, 352 Organic Chemistry (15)  
360, 361, 362 Chemical Literature (3)  
412, 413, 414, 415, 416 Physical Chemistry I, II, III, and Lab (13)  
425, 426 Analytical Chemistry (10)  
450 Advanced Inorganic Chemistry (5)  
475 Seminar in Chemistry (1) 

ELECTIVES (2 Q.H.)  
Electives in Chemistry to total 2 credits. 

ADDITIONAL REQUIREMENTS (38 Q.H.)  
Note: College Algebra and Trigonometry 220 may be substituted for 215, 216, or, these courses may be omitted if the student has otherwise met the prerequisite for 225.  
215, 216 College Algebra and Trigonometry (8)  
221, 222, 223 College Physics I, II, III (15)  
225, 226, 227 Calculus I, II, III (15) 

B.S. MAJOR 
CHEMISTRY OPTION B  
110 Q.H.  
(No minor required) 

Note: Suggested electives 232, 312 Math (Computer courses), biology, geology and German courses. 

REQUIRED COURSES (65 Q.H.)  
Same as B.S. major (Option A) plus: 430 Individual Problems in Chemistry (3)  

ELECTIVES (7 Q.H.)  
Electives in Chemistry to total 7 credits. 

ADDITIONAL REQUIREMENTS (38 Q.H.)  
Same as B.S. major (Option A) 

B.S. MINOR 
OPTION A  
34-35 Q.H. 

REQUIRED COURSES (34-35 Q.H.)  
Note: 340 Organic Chemistry Survey (4) may be substituted for 350.  
212, 213, 214 General Inorganic Chemistry (15)  
350, 351 Organic Chemistry (9-10)  
400, 401 Biochemistry (10) 

ADDITIONAL REQUIREMENTS  
None, however, it is recommended that the student elect at least one mathematics course. 

COURSE LISTINGS  
Undergraduate students may elect any chemistry course on a pass/no credit basis except that students majoring or minoring in chemistry may not count P/NC courses toward the chemistry major or minor. 

100 Chemistry Appreciation — 4 Q.H.  
Selected chemistry concepts presented as lecture-demonstrations for students who wish to gain an appreciation of the chemical world. Meets General Education requirements; not intended as preparation for other chemistry courses. Does not preclude taking any other chemistry courses for credit. No laboratory. No prerequisite. Not open to students with credit in higher numbered chemistry courses. Offered quarterly. 

108 Atoms, Molecules and Chemical Change — Introductory General Chemistry — 4 Q.H.  
Intended to introduce the students to chemistry. One two-hour laboratory period per week. For both general education and as a first course in chemistry for students who
have not had high school chemistry and wish to prepare for entrance into other sequences of chemistry courses. Students completing this course may later elect Chemistry 212 for credit, or with permission of the department they may go directly into Chemistry 213. No prerequisite: Offered quarterly.

200 Chemical Calculations I — 1 Q.H.
Designed for students with weak backgrounds in the mathematical applications used in general chemistry, and for students desiring a primer or review of these applications. It may be taken before, or concurrently with general chemistry. No prerequisite. Offered by arrangement, using A-V instruction.

201 Chemical Calculations II — 1 Q.H.
The course is designed for students with weak backgrounds in the mathematics used in Chemistry 213. To be taken concurrently with Chemistry 213. No prerequisite. Offered yearly.

204 Unified Science I — 4 Q.H.
(See Physical Science listings following chemistry listing for course description).

208, 209 General, Organic and Biochemistry I and II — Each 5 Q.H.
An introductory sequence in the principles of chemistry and the molecular basis for life; descriptive, theoretical and laboratory topics. 208 covers basic principles of inorganic and physical chemistry. 209 deals with organic and biochemistry. Four lecture and two laboratory hours per week. Recommended for pre-nursing, pre-agriculture, pre-forestry and pre-fishery and wildlife students. Chemistry 209 cannot substitute for Chemistry 213. This sequence should not be elected by students expecting to take Chemistry 340, 350, or 400. Offered yearly.

212, 213 General Inorganic Chemistry I and II — Each 5 Q.H.
A study in depth of the principles of chemistry including atomic structure, the chemical bond, solutions, kinetics, equilibrium and electrochemistry. Laboratory work includes basic qualitative and quantitative analysis. Chemistry 213 includes a short unit on organic chemistry. Prerequisite: high school intermediate algebra or concurrent registration in Mathematics 113 or in a higher-numbered mathematics course. Offered yearly.

214 General Inorganic Chemistry III — 5 Q.H.

215 Elementary Biochemistry — 3 or 5 Q.H.
An introduction to the fundamentals of both organic and biochemistry. The course emphasis is on structure, composition and function of carbohydrates, lipids, proteins and nucleic acids. The material is designed to be taken by students in nursing and other paramedical programs. This course should not be elected by those who have taken or will take Chem 340, 350 or 400. Prerequisite: Chem 213. Offered yearly. 5 Q.H. with lab, 3 Q.H. without lab.

311 Teaching of the Sciences in the Secondary Schools — 4 Q.H.
(See Physical Science listings following chemistry listings for course description.)

320 Environmental Chemical Analysis — 5 Q.H.
Introduction to the principles and practice of environmental chemical analysis. Intended for those whose field requires greater knowledge and experience in chemical analysis than is provided in general chemistry. Prerequisite: One year of chemistry. Offered every three years.

340 Organic Chemistry Survey — 4 Q.H.
A brief survey of the chemistry of organic compounds with emphasis on occurrence, synthesis, structure, properties, principles and mechanisms of reaction and important uses. Prerequisites: Chemistry 212 and 213. Not open to students who expect to take Chemistry 350. Offered yearly.

350, 351, 352 Organic Chemistry — Each 5 Q.H.
A thorough study of the chemistry of organic compounds, with emphasis on structure, properties, synthesis, purification, principles and mechanisms of reactions, instrumental methods, compound identification, and important biological and economic applications. Prerequisites: for 350, Chemistry 212 and 213; for 351, Chemistry 340 or 350; for 352, Chemistry 351. Offered yearly.

354 Characterization of Organic Compounds — 2 Q.H.
Laboratory methods of identification of organic compounds, including the separation of mixtures. Instrumental methods and functional group reactions will be employed. Prerequisite: Chemistry 351. Offered every four years.

360, 361, 362 Chemical Literature — Each 1 Q.H.
Finding chemical information in the library. The use of chemical reference works, monographs, reviews, abstracts, abstract indexes and periodical literature. Prerequisite: for 360, credit or concurrent registration in Chemistry 340 or 350; for 361, Chemistry 360; for 362, Chemistry 361. Offered every two years.

399 Chemistry Internship — 1-8 Q.H.
Supervised industrial, business, or government experience designed by the WSU chemistry faculty advisor, the work supervisor and the student. Open only to the chemistry major or minor whose GPA in science and mathematics is 2.5 or better and who receives departmental approval. P/NC but up to 4 Q.H. may be taken for letter grade. Prerequisite: Chemistry 425. Offered quarterly.

400G, 401G Biochemistry — Each 5 Q.H.
Introduction to the chemistry of living organisms; emphasis on the structure and function of proteins, carbohydrates, lipids, and nucleic acids; the chemistry of metabolic processes in the living cell. Three lecture and four laboratory hours per week. Prerequisite: Chemistry 340 or 350. Offered yearly.

405G Food and Chemistry — 4 Q.H.
A study of the use of common foods, their preparation and preservation as a means of illustrating basic concepts in chemistry, physics and biochemistry. This introductory discussion of food science is also open to non-teachers. Prerequisite: one year of natural science. Offered irregularly. P/NC Option for undergraduates.

408G, 409G Chemistry for Teachers in the Elementary School — Each 1-4 Q.H.
An introductory sequence in chemistry for elementary teachers. Methods and concepts applicable to all sciences taught in a frame-
work of chemical phenomena, facts, laws, principles, and theories. Not open to majors and minors in any of the sciences. No prerequisite. Offered summer, irregularly.

410G Polymer Chemistry – 3 Q.H.
Chemistry of synthetic polymerization processes, and of monomers employed for addition and condensation polymers. Principal industrial applications of thermoplastic and thermosetting resins. Structure-property relationships of natural and synthetic polymers. Prerequisite: Chemistry 351. Offered every three years.

412G Physical Chemistry I – 3 Q.H.
Thermodynamics, one component systems, chemical potential and activity, two component systems, chemical equilibria. Prerequisites: One year each of college chemistry and physics, and credit or concurrent enrollment in 225 Calculus. Offered every two years.

413G Physical Chemistry II – 3 Q.H.
Thermodynamics of electrochemical cells, irreversible processes in solution, kinetic theory and chemical kinetics, spectroscopy. Prerequisite: Chemistry 412. Offered every two years.

414G Physical Chemistry Laboratory – 2 Q.H.
Experiments accompanying Physical Chemistry 413. Laboratory work may be taken concurrently with 413 or following successful completion of the course. Offered every two years.

415G Physical Chemistry III – 3 Q.H.
Quantum chemistry, molecular structure, statistical mechanics, symmetry, crystallography. Prerequisite: Chemistry 413. Offered every two years.

416G Physical Chemistry Laboratory – 2 Q.H.
Experiments accompanying Physical Chemistry 415. Laboratory work may be taken concurrently with 415 or following successful completion of the course. Offered every two years.

420G Topics in Industrial Chemistry – 3 Q.H.
Applications of chemistry in industry. The chemistry and technology of selected industrial processes with emphasis on industrial organic chemistry. Prerequisite: Chemistry 340, or 350. Offered every four years.

425G, 426G Analytical Chemistry – Each 5 Q.H.
A sequence of courses stressing modern analytical chemistry. A study of the theory and practice of the quantitative examination of chemical systems. Chemistry 425 covers volumetric and fundamental visible spectroscopic methods. Chemistry 426 covers the instrumental methods of: UV-vis, emission, and AA spectroscopy, electrical methods, and gas and liquid chromatography. Prerequisite: one year of Chemistry. 425 offered yearly; 426 offered every two years.

427G Topics in Instrumental Chemistry – 1-3 Q.H.
Selected topics from the principles and application of the instrumental methods of: IR, UV-vis and AA spectroscopy; NMR and mass spectrometry; gas and liquid chromatography. Prerequisite: organic and analytical chemistry and consent of instructor. Offered yearly by arrangement, using A-V instruction.

430 Individual Problems in Chemistry – 1-4 Q.H.
An opportunity for the qualified advanced undergraduate to work independently. Topics may include research, development of special skills, selected readings, etc. Time arranged. Prerequisite: 15 quarter hours in chemistry or consent of instructor. May not be taken for more than 4 credits per quarter; may be repeated to a total of 16 credits. Offered quarterly.

438G Medicinal Chemistry – 3 Q.H.
An introductory course describing selected topics in the chemistry of synthetic and naturally-occurring organic medicinals. Chemical structure and its relationship to biological activity. Lecture and problem-solving discussions. Prerequisite: 340 or 350 organic chemistry, or chemistry 215 and consent of instructor. Offered every three years.

440G Chemistry of Heterocyclic Compounds – 3 Q.H.
A systematic approach to the nomenclature, properties, synthesis and reactions of heterocyclic compounds. Strong emphasis on reaction mechanisms. Special topics and reports. Lecture course. Prerequisite: Chemistry 340 or 350. Offered every four years.

444G Organic Reactions and Synthesis – 2-4 Q.H.
Individual problems in preparative organic chemistry. Reactions and multistep synthesis using new as well as classical reagents and reactions, purification techniques and analysis by spectroscopic methods. A laboratory course with one lecture period per week. Prerequisite: Chemistry 340 or 350. May be repeated to a total of 4 quarter hours. Offered every four years.

447G Advanced Organic Chemistry – 3 Q.H.
A study of organic reaction mechanisms. The correlated acidity, basicity and general reactivity of organic compounds. Application of chemical kinetics, thermodynamics, stereochemical concepts and the use of isotopes. Lecture course. Prerequisite: Chemistry 351. Offered every four years.

450G Advanced Inorganic Chemistry – 5 Q.H.
Descriptive and theoretical approaches to inorganic reactions and structures with emphasis on structural concepts. Laboratory work includes the preparation of various inorganic compounds and use of modern instruments in characterizing these compounds. Prerequisite: Three quarters of chemistry. Offered every two years.

465G History of Chemistry – 2 Q.H.
A Chemistry course emphasizing the fascinating interplay of ideas during the development of the chemical body of knowledge from alchemy to the present day. Prerequisite: one quarter of organic chemistry. Offered every two years.

475G Seminar in Chemistry – 1 Q.H.
Group discussions and papers presented in the field of chemistry. Prerequisite: 30 quarter hours of chemistry. Offered yearly.

COURSES FOR GRADUATE STUDENTS ONLY

510 Individual Problems in Chemistry – 1-4 Q.H.
An opportunity for the qualified graduate student to work independently. Topics may include research, development of special skills, selected readings, etc. Time arranged. Prerequisite: 15 hours in chemistry and con-
Communication and Theatre Arts

Performing Arts Center Room 215/457-2121

Communication is conversation, debate, discussion, persuasion, and public address. It is the interpretation of prose, poetry, and dramatic literature. It is theatre — acting, directing, and exploring physical theatre and dramatic, radio, and television production. It is preparing for performance in theatre, radio, and television through participation in forensics and theatre activities.

Communication is the study of language and the analysis and improvement of speech — and it is the preparation of teachers, directors, performers, producers, clinicians, and technicians to work in these fields.

Students majoring in Communication and Theatre Arts are required to have a quarterly conference with their department advisor prior to registration.

You are urged to consult the department regarding new and supplemental offerings and certification requirements that became effective after January 1, 1981.

B.A. MAJOR
SPEECH THEATRE ARTS CONCENTRATION
56 Q.H.

Same as B.S. degree except substitute 315 Acting for 420 Teachers' Problems in Speech. Delete 450 and take 230 or 407.

B.A. MAJOR
PUBLIC ADDRESS CONCENTRATION
56 Q.H.

Same as B.S. degree except delete 410 and take 20 hours of electives. Electives may be taken from all remaining CTA courses. Omit CTA 420.

B.A. MAJOR
THEATRE ARTS CONCENTRATION
56 Q.H.

Same as B.S. degree except delete 450 and 420 and take either 407 and 408 or 424 and 416.

B.S. MAJOR
SPEECH-THEATRE ARTS CONCENTRATION
56 Q.H. (TEACHING)

REQUIRED COURSES (40 Q.H.)
101 MCOM — Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
220 Public Speaking (4)
223 Oral Interpretation (4)
320 Argumentation and Debate (4)
410 Play Production (4)
68/COMMUNICATION & THEATRE ARTS

415 Directing I (4)
432 History and Criticism of American Public Address (4)
450 Approaches to Speech Correction (4)
Two courses from the following to a minimum of 4 Q.H.:
004 Theatre Activities (1-2 Q.H.)
250 Speech Activities (1-2 Q.H.)
490 Independent Studies in Speech (1-8 Q.H.)

ELECTIVES (12 Q.H.)
Electives may be taken from all remaining CTA courses to a total of 12 credits.

ADDITIONAL REQUIREMENTS (4 Q.H.)
420 Teachers’ Problems in Speech (4)

B.S. MAJOR
PUBLIC ADDRESS CONCENTRATION
56 Q.H. (TEACHING)

REQUIRED COURSES (40 Q.H.)
101 MCOM — Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
220 Public Speaking (4)
223 Oral Interpretation (4)
250 Speech Activities (4)
319 Discussion and Small Group Dynamics (4)
320 Argumentation and Debate (4)
410 Play Production (4)
415 Directing I (4)
450 Approaches to Speech Correction (4)

ELECTIVES (12 Q.H.)
Electives may be taken from all remaining CTA courses to a total of 12 credits.

ADDITIONAL REQUIREMENTS (4 Q.H.)
420 Teachers’ Problems in Speech (4)

MINNESOTA LICENSURE
(Courses to be taken at WSU)
EDU 210 Citizen Roles in Public and Private Education (4)
PSY 301 Principles and Applications of Learning (3)
HPER 204 Personal and Community Health (3)
HPER 320 Health Education in the Elementary School (2)
HPER 241 Standard First Aid OR Red Cross First Aid Certificate

B.A. MINOR
COMMUNICATION THEORY
24 Q.H.

REQUIRED COURSES (12 Q.H.)
319 Discussion and Small Group Dynamics (4)
321 Communication Theory (4)
Select one: CTA 223, 320, or 333 (4)

ELECTIVES (12 Q.H.)
Select electives from CTA 220, 226, 320, 329 and 333.
B.A. MINOR
SPEECH-THEATRE ARTS
CONCENTRATION
32 Q.H.

REQUIRED COURSES (16 Q.H.)
101 MCOM—Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
220 Public Speaking (4)
223 Oral Interpretation (4)

ELECTIVES (16 Q.H.)
Students must take at least two courses from 300 level and at least one course from 400 level.

B.A. MINOR
PUBLIC ADDRESS
CONCENTRATION
32 Q.H.

Same as minor combination degree except 8 hours must be chosen from CTA 319, 320, 329, 432, 450.

B.A. MINOR
THEATRE ARTS
CONCENTRATION
32 Q.H.

REQUIRED COURSES (16 Q.H.)
101 MCOM—Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
223 Oral Interpretation (4)
320 Argumentation and Debate (4)
410 Play Production (4)
415 Directing I (4)
432 History and Criticism of American Public Address (4)
004, 250, 490 (for a minimum of 2 credits)

ELECTIVES (16 Q.H.)
Students must take at least 8 hours from CTA 240, 255, 258, 315, 346, 407, 408, 410, 415.

B.S. MINOR
SPEECH-THEATRE ARTS
CONCENTRATION
42 Q.H. (TEACHING)

REQUIRED COURSES (34 Q.H.)
101 MCOM—Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
220 Public Speaking (4)
223 Oral Interpretation (4)
320 Argumentation and Debate (4)
410 Play Production (4)
415 Directing I (4)
432 History and Criticism of American Public Address (4)
004, 250, 490 (for a minimum of 2 credits)

ELECTIVES (4 Q.H.)
Electives may be taken from all remaining CTA courses to a total of 8 credits.

ADDITIONAL REQUIREMENTS (4 Q.H.)
420 Teachers’ Problems in Speech (4)

B.S. MINOR
PUBLIC ADDRESS
CONCENTRATION
38-40 Q.H. (TEACHING)

REQUIRED COURSES (26-28 Q.H.)
101 MCOM—Fundamentals of Broadcasting (4)
118 Introduction to Speech Communication (4)
223 Oral Interpretation (4)
230 Introduction to Theatre (4)
410 Play Production (4)
415 Directing I (4)

ELECTIVES (8 Q.H.)
Electives may be taken from all remaining CTA courses to a total of 8 credits.

ADDITIONAL REQUIREMENTS (4 Q.H.)
420 Teachers’ Problems in Speech (4)

COURSE LISTINGS

All courses may be taken on a pass/no credit basis except 118 and 490. Speech courses taken for a major or minor must be on a grade basis.

Note: Participation in at least one speech activity is required of all Speech majors and minors.

CTA 118 (Introduction to Speech Communication) or consent of instructor is a prerequisite for CTA 220, 223, 226, 229, 250, 251, 319, 320, 329, 333.

Courses offered yearly may not be taken "by arrangement."

004 Theatre Activities — 1-2 Q.H.
Active participation in a major theatre production, as actor or as a technician. Fall, Winter, Spring. Credit to be arranged. Course may be repeated to 8 Q.H. Offered quarterly. P/NC Option.

118 Introduction to Speech Communication — 4 Q.H.
Designed to improve everyday speech and to lay a foundation for advanced speech work. Offered quarterly.
215 Creative Dramatics for Children — 4 Q.H.
To help the elementary and the junior high school teacher vitalize literature through dramatic activity. Opportunity to practice techniques with children. Offered yearly. P/NC Option.

220 Public Speaking — 4 Q.H.
Selection and organization of materials and delivery of common types of speeches. Offered yearly. P/NC Option.

223 Oral Interpretation I — 4 Q.H.
Studied through the preparation of stories, poetry and scenes from plays for platform reading. Offered quarterly. P/NC Option.

224 Oral Interpretation II — 4 Q.H.
Critical analysis of the dynamics of oral expression in terms of theory, history, and practice. Prerequisite: 223. Offered yearly. P/NC Option.

226 Intrapersonal Speech Communication — 4 Q.H.
An exploration and examination of mental communication, listening, future language evolution, memory, language of the mind, experiments in thought transmission and other internal language processes of the conscious and subconscious mind. Prerequisite: 118. Offered yearly.

229 Persuasive Communication — 4 Q.H.
An integrated course designed to introduce the student to the theory and practice of persuasion. Source, message, receiver and environmental factors will be studied and their effect on the persuasion process analyzed. Preparation and delivery of a persuasive speech will also be required. Offered yearly. P/NC Option.

230 Introduction to the Theatre — 4 Q.H.
A general course designed for the student majoring in a related department who wishes to become familiar with co-curricular work in theatre. Offered yearly. P/NC Option.

232 Survey of Dramatic Literature — 4 Q.H.
Survey of the works of major Western playwrights. Emphasizes the pertinence of classical scripts to contemporary society. Offered yearly. P/NC Option.

240, 241, 242 Stagecraft I, II, III — Each 2 Q.H.

250 Speech Activities — Forensics — 2 Q.H.
A concentrated laboratory course in a specific area of speech, closely coordinated with the current speech projects. CTA 250 and Mass Comm 250 may be taken/repeated for a combined total of 8 Q.H. Offered quarterly. P/NC Option.

255 Stage Make-Up — 2 Q.H.
The theory and practice of stage make-up in the educational theatre. Offered yearly. P/NC Option.

258 Stage Movement — 4 Q.H.
Styles and forms of period movement and their media of expression in relation to needs of the theatre. Offered yearly. P/NC Option.

315 Acting — 4 Q.H.

319 Discussion and Small Group Dynamics — 4 Q.H.
Use of discussion, participation and leadership to study interaction patterns and networks, while gaining practical and theoretical perspectives of small group theory. Offered yearly. P/NC Option.

320 Argumentation and Debate — 4 Q.H.
The study of the principles and practice of argumentation and debate and the place of both in modern society. Offered yearly. P/NC Option.

321 Communication Theory — 4 Q.H.
A study of human communications through verbal and nonverbal signals, codes and networks encompassing an exploration and examination of information theory, syntactics, pragmatics and semantics as they relate to public speaking. Offered yearly. P/NC Option.

329 Advanced Interpersonal Speech Communication — 4 Q.H.
This course is designed to promote more effective use of communication activities for all majors. Individual projects would stress interpersonal speech used in the diverse vocational fields of those taking the course. Prerequisite: 118. Offered yearly. P/NC Option.

333 Organizational Communication and the Interview — 4 Q.H.
Designed particularly for communications majors, prospective teachers and those planning a business career to facilitate understanding and promote better communication in the areas of business and organizational communication, conference speaking and the interview. Offered every two years.

340 Scenic Design — 4 Q.H.
Principles and practice of designing scenery for the theatre. Prerequisites: 240 and 241, or consent of instructor. Offered every two years. P/NC Option.

407G History of the Theatre I — 4 Q.H.
Studies in theatre history from ancient times to the 17th century. Offered on demand. P/NC Option.

408G History of the Theatre II — 4 Q.H.
Studies in theatre history from the 17th century to the present. Offered on demand. P/NC Option.

410 Play Production — 4 Q.H.
A study of the procedure and planning involved in the presentation of a stage play from audience analysis through play selection, casting, design, direction, business management, through performance and post-performance analysis and critique. Offered yearly. P/NC Option.

415 Directing I — 4 Q.H.
Study of problems in play selection, casting, and rehearsals. Prerequisite: 223 or 315. Offered yearly. P/NC Option.

416 Directing II — 4 Q.H.
Directing for the non-proscenium stage with emphasis on open stage: thrust stage, arena stage, outdoor theatre, and other contemporary/creative forms. Prerequisite: 415 or consent of instructor. Offered on demand. P/NC Option.
420 Teachers' Problems in Speech — 4 O.H.
Aimed to help the prospective teacher explore the problems common to the classroom presentation of his subject, as well as those found in co-curricular speech activities and to offer some solutions. Offered every two years. P/NC Option.

424 Modern Drama — 4 O.H.
(See English for description.)

425G Advanced Directing — 4 O.H.
The internship approach with full student responsibility for the direction of plays. Prerequisites: 415 and consent of instructor. Offered every two years. P/NC Option.

432G History and Criticism of American Public Address — 4 O.H.
A study of the history of public speaking in America from 1600 to the present. Prerequisite: 220. Offered yearly. P/NC Option.

447G Studies in Ancient Rhetoric — 4 O.H.
Seminar studies of development, changes, refinements in the heritage of rhetoric. Pericles to Seneca. Prerequisite: 220. Offered on demand. P/NC Option.

450G Approaches to Speech Correction — 4 O.H.
To acquaint the student with facts and skills necessary for the recognition and handling of common speech disorders. Offered yearly. P/NC Option.

490G Independent Studies in CTA — 1-8 O.H.
A course designed to offer the advanced student an opportunity to study independently in a Speech area of special interest to him. May be repeated to a total of 8 quarter hours. Consent of instructor. Offered quarterly.

COURSE FOR GRADUATE STUDENTS ONLY

500 Problems in Speech — 3 O.H.
Individual research in an area of special concern to the graduate student. Guided investigation of problems confronting teachers in the area, culminating in a written report of the findings.

511 Advanced Play Production — 3 O.H.
Analysis of advanced technical problems. Lectures, readings, discussions, and independent research. Prerequisite: 410 or equivalent.

515 Advanced Acting — 3 O.H.
Evaluation of theories, study of techniques and advanced practice. Prerequisite: 315 or equivalent.

523 Advanced Oral Interpretation — 3 O.H.
Study of modern theories and practice in the interpretative readings of prose, poetry, drama. Laboratory experience in selection, analysis and performance at the graduate level. Prerequisite: 223 or equivalent.

526 Utilization of Radio and Television in Education — 3 O.H.
A course designed to help the teacher on all levels use radio and television more effectively in the classroom. Readings, lectures, reports, independent study.

530 Advanced Debate and Discussion — 3 O.H.
Advanced study of principles and current practice in argumentation, persuasion, and group dynamics. Prerequisite: 320 or equivalent.

540 Seminar in Speech — 3 O.H.
Conferences, symposia, independent study in studio, platform speaking, or theatre. Prerequisite: Consent of the instructor.
Admission Requirements: In applying for admission, the student must follow this sequence:

1. Apply for admission to graduate study with the Graduate Office.
2. When accepted for graduate study, applicants will receive an application for admission to the Counselor Education Department. This application will require a written statement from the student explaining the basis for his/her decision to enter this field. It also will request the names of three (3) persons who will write recommendations for the applicant.
3. Prospective candidates are required to take C.E. 507 Intro to Counseling and C.E. 565 Personality Structure before completing the admission requirements. This will provide an opportunity for the applicant to become acquainted with the program and the field of counseling. If this is not possible, the applicant may make a written request for a personal interview with the staff.
4. Applications for admission to Counselor Education will be processed four (4) times a year. To be considered for admission, applicants must have fulfilled the above requirements prior to the admission date. All materials such as transcripts and recommendations must be received before an application can be processed. When admitted to a degree program, each student will be assigned an advisor.
5. Admission deadline dates are mid-term day fall, winter, spring and first summer session.
6. Applicants will be notified in writing about the department's decision.

When admitted, the candidate will be given a “Student Guide” which will offer him/her guidance throughout the program.

Graduation Requirements:
1. In addition to successfully completing the required course work, the candidate must complete final written comprehensive examinations near the end of his/her program.
2. A master's paper must also be completed before graduation.

(3) As an alternative to a master's paper, a candidate may elect the thesis plan which is a more extensive project requiring the use of scientific methods and procedures. The thesis must be approved by the candidate's advisor and an oral examination committee.

NOTE: Students must complete a minimum of nine (9) credits of their electives in specialized counseling areas such as chemical dependency, sexuality, marriage, family, death and grief counseling and/or specific therapies such as Adlerian, Transactional Analysis, Gestalt, Reality Therapy and Behavioral Therapy. (9)

ELECTIVES (15-17)

II. COMMUNITY COUNSELING PROGRAM (54 Q.H.)

REQUIRED COURSES (37-39 Q.H.)
- CE 507 Introduction to Counseling (3)
- CE 520 Stress Management (3)
- CE 522 Human Relations (3)
- CE 555 Internship in Counseling (6)
- CE 560 Group Process and Dynamics (3)
- CE 564 Statistics, Tests and Measurements (3)
- CE 566 Counseling Procedures (3)

ELECTIVES (9-11 Q.H.)
Electives may be arranged in special interest areas such as special education, educational administration, chemical dependency, marriage and family, sexuality, child abuse, and death and grief counseling.

III. ELEMENTARY SCHOOL COUNSELING PROGRAM (60 Q.H.)

REQUIRED COURSES (49-51 Q.H.)
- CE 507 Introduction to Counseling (3)
- CE 513 Learning Disorders (3)
- CE 515 Child Development (3)
- CE 522 Human Relations (3)
- CE 545 Career Development (3)
- CE 555 Internship in Counseling (6)
- CE 560 Group Process and Dynamics (3)
- CE 564 Statistics, Tests and Measurements (3)
- CE 565 Personality Structure (3)
- CE 566 Counseling Procedures (3)
- CE 569 Group Counseling Practicum (3)
- CE 570 Psychological Education (3)
- CE 581 Consultation Procedures (3)
- CE 582 Organization and Administration of Counseling Services (3)
- CE 598 Program Synthesis (1-3)

ELECTIVES (9-11 Q.H.)

IV. SECONDARY SCHOOL
COUNSELING PROGRAM
(60 Q.H.)

REQUIRED COURSES (46-48 Q.H.)
CE 507 Introduction to Counseling (3)
CE 522 Human Relations (3)
CE 525 Adolescent Psychology (3)
CE 545 Career Development (3)
CE 555 Internship in Counseling (6)
CE 560 Group Process and Dynamics (3)
CE 564 Statistics, Tests and Measurements (3)
CE 565 Personality Structure (3)
CE 566 Counseling Procedures (3)
CE 568 Individual Counseling Practicum (3)
CE 569 Group Counseling Practicum (3)
CE 570 Psychological Education (3)
CE 581 Organization and Administration of Counseling Services (3)
CE 598 Program Synthesis (1-3)

ELECTIVES (12-14 Q.H.)
Electives may be arranged in special interest areas such as special education, educational administration, chemical dependency, marriage and family, sexuality, child abuse, and death and grief counseling.

V. INTERDISCIPLINARY
PROGRAM (51 Q.H.)

REQUIRED COURSES (23 Q.H.)
Sociology
SOC 405G Models of Intervention (4)
SOC 435G Family Roles and Relationships (4)

Psychology
PSY 416G Personal Adjustment (3)
PSY 420G Abnormal Psychology (3)

Counselor Education
CE 564 Statistics, Tests and Measurements (3)
CE 565 Personality Structure (3)
CE 566 Counseling Procedures (3)

ELECTIVES (28 Q.H.)
Major area of concentration 9-12 hours. Minor area of concentration 6-8 hours.

COURSE LISTINGS

500 Individual Problems in Counseling -1-4 Q.H.
Opportunity for the qualified graduate student to work independently. Topics may include research, development of special projects, field experiences, selected readings, etc. Departmental permission required.

507 Introduction to Counseling — 3 Q.H.
Consultation procedures, human relationships, testing programs, counseling procedures, developmental guidance and career programs.

513 Learning Disorders — 3 Q.H.
Neurological, motor, emotional, cognitive and perceptual dysfunctions related to learning difficulties found in the elementary school.

515 Child Development — 3 Q.H.
Growth, development, and personality adjustment of the child in the home, school, and community, including function, structure and implementation of developmental guidance units at the elementary school level. Offered yearly.

520 Stress Management — 3 Q.H.
Important issues and techniques related to the identification and management of personal stress. Class members will develop and monitor a personal stress management program for their own lives.

522 Human Relations — 3 Q.H.
Growth, discovery of one’s impact on others, improved self-esteem and appreciation of human differences. Listening, non-verbal communication, giving and receiving feedback, conflict resolution, dehumanizing aspects of prejudice, labeling, manipulating and rejecting.

525 Adolescent Development — 3 Q.H.
Perspectives on adolescent development, with emphasis on the normal psychological growth of young people. Applications to counseling and working with adolescents in a variety of settings.

535 Adult Development — 3 Q.H.
Major theories, issues, and trends in the field of adult development, life stages and lifelong adaptation to change. P/NC Option.

540 Non-Verbal Communication — 3 Q.H.
Kinesics, proxemics, and paralanguage as they contribute to learning about one’s self and others; messages and nuances of gestures, facial expressions, body language and territoriality.

545 Career Development — 3 Q.H.
Career development concepts, theory, and practice. Career development materials and counseling skills will be addressed, with a view toward application in a variety of settings. P/NC Option.

550 Parent-Child Communication — 3 Q.H.
Parent-child communication and conflict resolution, to help parents develop specific communication and problem-solving skills while dealing with basic concerns such as discipline and family rules. Offered every two years.

555 Internship — 1-16 Q.H.
To provide practical experience in counseling-related activities. Credit arranged. Internship materials may be picked up in the Counselor Education office. Offered yearly.

560 Group Process and Dynamics — 3 Q.H.
Dynamics of group process in group guidance, group counseling and the classroom. Each student will participate as a group facilitator.

561 Transactional Analysis — 3 Q.H.
Personality theory and psychology of human relationships developing an understanding of ego states and interpersonal transactions with applications for the helping professions. Offered yearly.

563 Chemical Dependency Counseling — 3 Q.H.
Designed as an introduction for people who want to develop skills for counseling with alcoholics and other drug-dependent people and working with the affected family members. Prerequisite: 566 or consent of the instructor. P/NC Option.
564 Statistics, Tests, and Measurements — 3 Q.H.
Practical experience in standardized psychological testing: evaluation, selection, administration, interpretation and use of tests and the effective communication of test results to counselees and when appropriate to parents or other professionals. Using instruments in personality and attitude assessment, intelligence, achievement, aptitude and career and life planning.

565 Personality Structure — 3 Q.H.
The descriptive, explanatory and predictive attributes of personality theories. Major theoretical families — Psychoanalytic, Behavioristic, and Phenomenological. Prerequisites: or concurrently, CE 507 and CE 522.

566 Counseling Procedures — 3 Q.H.
Exploration of a wide variety of counseling techniques and theories including experimentation in simulated situations to identify an effective personal style of counseling. Prerequisite: CE 565.

568 Counseling Practicum — 3 Q.H.
Development of a personal counseling style which is effective for the client and rewarding for the counselor. Prerequisites: CE 566 and the permission of the staff.

569 Group Counseling Practicum — 3 Q.H.
Development of a group facilitation style which is effective for clients and rewarding for counselors. Course provides an opportunity to apply principles learned in CE 560. Prerequisites: CE 560 and CE 566.

570 Psychological Education — 3 Q.H.
Major theories and educational programs based on cognitive-developmental inquiry. Applications of psychological education by counselors and teachers in schools, colleges and agencies.

580 Values Clarification — 3 Q.H.
Decision-making processes and the analysis of personal values and valuing systems as well as societal valuing systems.

581 Consultation Procedures — 3 Q.H.
Consultation theories, techniques, and processes for counselors working in school and community settings. Prerequisite: CE 507.

582 Organization and Administration Counseling Services and Career Programs — 1-3 Q.H.
Theory, consultation procedures, organization, administration (staffing and budgeting) of counseling services, and career information programs. Recommended late in the candidate's program.

595 Seminar — 1-4 Q.H.
Subject matter arranged by the department. Enrollment must be approved by the department staff. Course may be repeated when offered with different subject matter content and title.

598 Program Synthesis — 1-3 Q.H.
Part I: Writing techniques and research skills necessary for completion of Master's paper. To be taken midway through a candidate's program.

Part II: An update and synthesis of recent literature and counseling innovations with knowledge and understandings acquired in the program. To be taken at the end of a candidate's program.

599 Independent Research — 3-6 Q.H.
Master's thesis must show evidence of the candidate's ability to carry on independent study and to employ scientific methods and procedures in the solution of a problem in the students' field of concentration.

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Education

Gildemeister Hall Room 152 / 457-2075


The department aims to develop in prospective teachers a comprehensive, sound and workable philosophy of education, including knowledge of the nature and problems of the individual learner, understanding of the opportunities, objectives, and responsibilities of the school in a democratic society; proficiency in the art and science of teaching effectively and interestingly, and ability to work effectively with others in promoting continual improvement of the schools.

TEACHER EDUCATION PROGRAM

Students preparing to teach in the elementary schools must complete the elementary major and a minor as described in the following pages.

Students enrolled in the secondary school curriculum are required to complete a teaching major in addition to the 68 quarter hours in General Education and the Common Professional Sequence. Majors and minors are listed under respective departments.

Student teaching on the secondary level is required in all major fields. If a minor is required for graduation, the Director of Student Teaching will determine whether or not student teaching in the minor field is to be required.

PROFESSIONAL EDUCATION SEQUENCE —

The courses in the Common Professional Sequence are those courses which give students in the Bachelor of Science curriculum, elementary or secondary, a basic background in professional education. Several courses are offered as part of a block in which students register simultaneously in any one quarter. Students qualifying for the
Bachelor of Science degree must complete the entire sequence which follows:

**SEQUENCE REQUIREMENTS**
**44 Q.H.**

**PREREQUISITES**
Completion of English 110, English 115, and CTA 118 with a grade of "C" in each course.

**Block I**
The following is the first course in the Education Sequence (Prerequisite to Block II).

Ed. 190 Sociological and Psychological Perspectives of Education (4)

**Block II**
The following are prerequisite to all other courses in the Education Sequence and offered as a block of 10 credits.

Ed. 200 Child Growth and Development (2)
Ed. 201 Psychology of Learning (3)
Ed. 202 Educational Aid Experience (2)
Ed. 306 Evaluation (3)

**Block III**
Ed. 304 Instructional Media Technology (3)
Ed. 475 Education of Exceptional Children and Youth (3)

**Block IV**
Student Teaching (16)

**Block V**
Ed. 407 Curriculum and Philosophy (3)
Students must also complete Health 204, and Sociology 400.

**B.S. MAJOR**

**ELEMENTARY EDUCATION**
**46 Q.H.**

**NOTE:** Ed. 328, 329, 330, 333, 334, 335 require completion of Ed. 190, 200, 201, 202 and 306.

**Math**
110 Mathematics for Elementary Teachers (4)

**History**
215 Minnesota History (4)
Ed. 221 Children’s Literature (4)

**P.E.**
275 Physical Education for Elementary Teachers (3)

**Art**
300 Elementary Art Education (4)

**Music**
320 Music for Elementary Teachers (4)

**Health**
320 Health Education in the Elementary School (3)

Ed. 328 Teaching of Reading I (4)
Ed. 329 Teaching of Reading II (4)
Ed. 330 Teaching of Language Arts in the Elementary Grades (2)
Ed. 333 Teaching of Social Studies in the Elementary School (3)
Ed. 334 Teaching Math in the Elementary School (3)
Ed. 335 Teaching of Science & Environmental Education Methods & Materials (4)

**Note:** Students who complete the elementary curriculum are prepared to teach in all elementary grades. They will be licensed for teaching in grades 1-6 inclusive in all schools having 6-3-3 type of organization and in grades 1-8 inclusive in schools with an 8-4 organization.

Each elementary major will complete the 68 quarter hours of General Education, the professional sequence and the Elementary Education sequence listed above.

**MINORS FOR ELEMENTARY MAJORS**
Elementary Education majors may select from the following minors:

**Art**
**Early Childhood Education**
**Educable Mental Retardation**
**Foreign Languages**
**Health**
**Language Arts**
**Mathematics**
**Music**
**Physical Education**
**Science**
**Social Studies**
**Special Learning Disabilities**
(For minors not listed in the Department of Education, please see appropriate departments).

**SPECIAL EDUCATION**

**ADMISSION TO PRACTICUM COURSES**
Students wishing to register in the practicum courses in either Educable Mentally Retarded, or Learning Disabled programs must apply for admission to those courses at least two quarters in advance. Applications are available in the Department of Education Office. This requirement applies to admission to summer session practicums as well as to those in the academic year.

**TEACHING EDUCABLE MENTALLY RETARDED MINOR 30-32 Q.H.**
The following courses (30-32 credits) are required for EMR State Licensure and Winona State University undergraduate EMR Licensure minor. All candidates for Educable Mental Retardation Licensure must be Elementary Education majors. Licensure is for Grades K-12.

**FOUNDATIONAL KNOWLEDGES**

Ed. 204 Introduction to Special Education (1)
Ed. 475 Education of Exceptional Children and Youth (3) (Prerequisites: Block II or graduate standing)
Psy. 414 Psychology of Mental Retardation (4) (Prerequisites: Psy. 210, Block II, or graduate standing)

**PROCEDURAL KNOWLEDGES**

Ed. 430 Ed. of the M.R. in the Elem. School (3) (Ed. 455 must be taken concurrently; Prerequisites: 410, 414, 427, 475)
Ed. 455 Lab Experience in Special Ed. (Elem) (2)
Ed. 459 Ed. of the M.R. in the Sec. School (3) (Ed. 462 must be taken concurrently; Prerequisite: 430, 455)
Ed. 462 Lab Experience in Special Ed. (Sec.) (2)
EDUCATION

Ed. 463 Student Teaching in Special Education (8) (Prerequisites: 430, 455, 459, 462)

Discretionary Requirements (1-4 Credits)

Ed. 490 Individual Problems in Teaching Mentally Retarded Students (Persons unable to apply knowledge to effect change in mentally retarded students' behavior will be required to remediate deficiencies at the discretion of the 430, 459, 492 instructor)

Ed. 492 Practicum: Trainable Mentally Retarded/Custodial Mentally Retarded (3)

SPECIAL LEARNING DISABILITIES MINOR 39-42 Q.H.

The following courses (39-42 credits) are required for S.L.D. State Licensure and Winona State University undergraduate S.L.D. Licensure minor. Candidates for S.L.D. Licensure must be elementary or secondary education majors. Licensure is for grades K-12 for both elementary and secondary majors. Secondary education majors must complete an additional 13 credits (see below). Note: Students must complete student teaching before enrolling in the L.D. Practicum.

FOUNDATIONAL UNDERSTANDINGS (24 CREDITS)

Ed. 427 Remedial Reading Methods (3) (Prerequisite: Block VI)
Ed. 434 Remedial Math Methods (3) (Prerequisite: Ed. 334 or Math 320)
Ed. 475 Education of Exceptional Children and Youth (3) (Prerequisite: Block II)
Ed. 476 Childhood Language Development (3) (Prerequisite: Block II)
Ed. 478 Behavioral Change Processes in the Classroom (3) (Prerequisite: Block II)

Ed. 479 Education of Emotionally Disturbed and Socially Maladjusted Children and Youth (3) (Prerequisite: Block II)

Ed. 481 Measurement and Learning Difficulties of Children and Youth (3) (Prerequisite: Block II)
Ed. 488 Individualizing Instruction (3) (Prerequisite: Block II)
Ed. 489 Administrative Principles & Procedures in Special Education (3) (Prerequisite: Block II)

PROCEDURAL KNOWLEDGES (12 CREDITS)

Ed. 470 Diagnosis and Remediation of Learning Disabilities I (3) (Ed. 473 must be taken concurrently; Prerequisites: 427, 476 and 481)
Ed. 471 Diagnosis and Remediation of Learning Disabilities II (3) (Ed. 474 must be taken concurrently; Prerequisites: 434, 478 and student teaching)
Ed. 473 Practicum: Diagnosis and Remediation of Learning Disabilities I (3)
Ed. 474 Practicum: Diagnosis and Remediation of Learning Disabilities II (3)

DISCRETIONARY REQUIREMENTS (1-4 CREDITS)

Ed. 490 Individual Problems in Remedia-

tion of Learning Disabilities (1-4) (Persons unable to apply knowledge to effect desired change in LD students' behavior will be required to remediate deficiencies at the discretion of the 473, 474 instructors)

Additional Requirements for SLD Licensure for Secondary Education Majors (Block II is prerequisite to all SLD Licensure courses for secondary education majors)

Ed. 328 Teaching of Reading I (4)
Ed. 329 Teaching of Reading II (4)
Ed. 330 Teaching of Language Arts in Elementary Grades (2)
Ed. 333 Teaching Social Studies in the Elementary School (3)
Ed. 334 Teaching Mathematics in the Elementary School (3)

EARLY CHILDHOOD EDUCATION MINOR 40 Q.H.

(Needed for Primary and Nursery School Licensure) Block II is prerequisite to all ECE coursework.

Ed. 411 Kindergarten Education (4)
Ed. 412 Infancy and Early Childhood (3)
Ed. 413 Primary Education (4)
Ed. 416 Nursery School Education (4)
Ed. 418 Nursery School Education Practicum (2)

Ed. 420 Day Care Practicum (2)
Ed. 422 Home School Relations (3)
Ed. 424 Organization and Administration of Early Childhood Education (3)
Ed. 461 Student Teaching-Kindergarten (8)
Ed. 467 Nursery School Student Teaching (4)
Ed. 478 Behavioral Change Processes in the Classroom (3)

LANGUAGE ARTS MINOR (MINOR OPTION FOR ELEMENTARY MAJORS - 37-38 Q.H.)

Note: WSU minor not for licensure.

Ed. 427 Remedial Reading (3)
Ed. 476 Childhood and Language Development (3)
Eng. 210 Advanced Composition (4)
CTA 319 Discussion and Small Group Dynamics (4)
CTA 450 Introduction to Speech Correction (4)
CTA 215 Creative Dramatics (4)
CTA 223 Oral Interpretation (4)

Select two from the following: (8 credits)

Eng. 411 Teaching Language and Composition (4)
Eng. 418 Language and Style (4)
Eng. 420 Varieties of English (4)

Select one of the following: (4 credits)

Eng. 121 Major British and American Fiction (4)
SOcial Studies Minor

(Minor Options for Elementary Majors - 40 Q.H.)

Note: WSU minor - not for licensure.

Econ 102 Introduction to Economics (4)
Geog. 110 World Regional Geography (4)
Geog. 212 Physical Geography (4)
Soc. 150 Human Society (4)
Psy. 210 General Psychology (4)

Select any two:
Hist. 120 Western Civilization to 1500 (4)
Hist. 121 Western Civilization to 1850 (4)
Hist. 122 Western Civilization to Present (4)
Hist. 230 American History: to 1828 (4)
Hist. 231 American History: 1828 to 1900 (4)
Hist. 232 American History: 1900 to Present (4)

Select one:
Pol. Sci. 103 Intro. to Political Science (4)
Pol. Sci. 220 American National Government (4)
Pol. Sci. 221 State & Local Government (4)

Electives (8 Q.H.)
Choose from Economics, Geography, History, Political Science, Psychology, Sociology.

Broad Science Minor

(Minor Option for Elementary Majors - 55-56 Q.H.)

Required Biology Courses
207 Botany (4)
208 Botany (4)
210 Zoology I (4)
211 Zoology II (4)

Required Geology Courses
116 Physical Geology (5)
Choose one from the following:
117 Historical Geology (5)
220 Astronomy (4)

230 Meteorology (4)
300 Descriptive Oceanography (4)

Required Chemistry Courses
212 General Inorganic Chemistry (5)
213 General Inorganic Chemistry (5)

Required Physics Courses
201 General Physics I (4)
202 General Physics II (4)
OR
203 General Physics III (4)

Required Math Courses
215 College Algebra (4)
216 Trigonometry (4)

Other Required Courses
Bio. 442 Philosophy of Science (4)
OR
Phil. 270 Philosophy of Technology (4)

Admission to Teacher Education

If you wish to prepare for teaching, apply for admission to a program of teacher education during your first professional course which is Education 190. This normally takes place during the third quarter of the freshman year or during the sophomore year. Prerequisites for Ed. 190 are English 110 & 115, and CTA 118, or special permission from the Education Department Chairperson.

At the time application is made to the Department of Education, make out a plan for completing your program of study including a professional quarter for student teaching. To be accepted the application must be signed by your advisor and the head of the Department of Education.

Criteria considered for acceptance include a cumulative grade point average of C (2.00) or better, at least a C in both English 110 and 115, completion of CTA 118, completion of a writing and speaking proficiency test, completion of suggested immunizations and a recommendation from the Health Service, and standards of personality and character acceptable to the teaching profession.

If you have not been accepted for a
program of teacher education, you are not permitted to continue in the education sequence.

STUDENT TEACHING REQUIREMENTS

Student teaching is a requirement for the completion of any one of the teacher education curriculums and is usually done during your senior year. One full quarter of full day teaching is required in an area public school designated by the university or elsewhere in Minnesota through the Common Market. The period of student teaching will equal the number of weeks in the university quarter during which you will receive credit. You likely will not begin and end your assignment the same day as classes begin or end for the equivalent quarter. Fall quarter assignments usually begin with workshop and opening of schools in systems where students are assigned.

Planning for this student teaching quarter must be started during your sophomore year so that all requirements may be fulfilled. You should not plan to enroll for additional courses during the quarter of student teaching.

Student teaching on the secondary level is required in all major fields. If a minor is required for graduation, the Director of Student Teaching will determine whether or not student teaching in the minor field is to be required.

STUDENT TEACHING APPLICATION

Application for student teaching is made to the Director of Student Teaching by March for all quarters of the succeeding year (see calendar). If you are not enrolled during the Spring Quarter, to make application for student teaching for the succeeding year, you must submit your application before the end of the second week of the quarter preceding the quarter you plan to student teach. Applications are available in the Department of Education Office.

ADMISSION TO STUDENT TEACHING

Admission to student teaching is not automatic. It is contingent upon qualifications which respect the rights of pupils to have good teachers. To be eligible for a student teaching assignment, you must meet the following requirements: a cumulative grade point average of 2.00 in all completed course work and in each major field, in each minor field and a grade of "C" or better in each course in the common professional sequence; admission to Teacher Education; satisfactory development of personal qualities; communication skills, and general physical and emotional health. You should have completed the professional sequence with the exception of Ed. 407, which may be taken after student teaching. Elementary majors will have successfully completed Ed. 328, 329, 330, 334, and 335. Secondary majors will have successfully completed the methods course in their major and any other pre-student teaching requirement identified by their major department. The university reserves the right to consider as part of the admission, those personal qualities, general health and scholastic achievement, or such other standards that may be appropriate.

MINNESOTA LICENSURE

A license to teach in the public schools of Minnesota may be issued to an applicant holding a Bachelor's degree in teacher education programs from a Minnesota State University. Licenses are issued by the Board of Teaching/State Department of Education. Application for the license must be made during the last quarter of attendance. Apply at the Office of the Registrar. Persons whose Bachelor's degree is not in teacher education are asked to check Teacher Licensure requirements. See section on "Teaching Licensure" under "Academic Information."

Education 190 and Sociology 400 are required to meet the State licensure standards for Human Relations.

Minnesota Teacher Licensure requirements state that any secondary school teacher licensure to teach with a minor in science, mathematics, social science, health, physical education, English or speech, or foreign language shall within seven years af-
Winona State University, through the Department of Education, offers the Master of Science degree in the following areas:

1. **Master of Science in Elementary Education (Plan A)**
2. **Master of Science in Education, Mental Retardation Licensure (Plan B)**
3. **Master of Science in Education, Learning Disabilities Licensure (Plan C)**
4. **Master of Science in Education, (Remedial and Developmental Reading Concentration) (Plan D)**
5. **Master of Science in Education, Supervisory/Consultant Concentration (Plan E)**
6. **Master of Science in Elementary Education, Early Childhood Education Licensure (Plan F)**

Winona State University through the Department of Education, also offers non-degree licensure programs without the Master's Degree in the following areas:

1. Mental Retardation Licensure
2. Learning Disabilities Licensure
3. Remedial Reading Licensure, Elementary Level
4. Remedial Reading Licensure, Secondary Level
5. Developmental Reading Licensure, Secondary Level
6. Early Childhood Education Licensure

**NOTE**: Persons pursuing these programs must follow the admissions procedure application to the M.S. degree.

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### DEGREE PROGRAMS WITH THESIS OR RESEARCH OPTION

#### REQUIREMENTS

1. **Admittance**
   - a. File application for admission to graduate study in the Office of Graduate Studies one month prior to registration. The application must be supported by two official copies of all transcripts sent directly from other institutions attended. After the application for admission to graduate study has been approved, the student is free to enroll in course work. See calendar and schedule.
   - b. File application for admission to Education Department Master's program. An advisor will be appointed by the department in accordance with departmental policy. The advisor will review pertinent transcripts and determine whether there are any deficiencies which must be removed.

   **NOTE**: A letter of acceptance into a graduate program from the education department does not constitute acceptance by the Dean of Graduate Studies.

   - c. File an application with the Education Department for admittance to the particular licensure program (LD, MR, Reading, etc.)
   - d. File application for admission to candidacy for the Master's degree after the completion of nine credits and before completion of sixteen credits. Forms are available in the Office of Graduate Studies. Deficiencies, if any, must be removed before the student is admitted to a Master's degree program.
   - e. Take the Graduate Record Aptitude Test prior to the completion of sixteen quarter hours of credit. Registration packets are available in the Office of Graduate Studies.

   **NOTE**: Persons pursuing these programs must follow the admissions procedure application to the M.S. degree.

   - a. Applications: File in the order listed.
      1. Graduate study application — Graduate Office
      2. Education Department Master's Program application — Education Office
      3. Licensure Program Application — Advisor is appointed.
      4. With advisor, file WSU Master's candidacy program — Graduate Office (After 9 and before 16 credits are completed)
      5. Graduate Record Aptitude Test Results — Graduate Office (Before 16 credits are completed)

2. **Coursework**
   - Candidates must complete all coursework required for the degree (48 credits minimum). All coursework must be approved by advisor and Graduate Office.

3. **Graduate Writing Requirement**
   - a. **Thesis Option Only**: A research based thesis approved by the advisor, which demonstrates ability to use scientific methods and procedures is required.
      - The thesis constitutes 6 credits of graduate work. Three credits are counted in lieu of Ed. 518 and three credits are counted as electives.
      - An oral examination of the thesis is required.
   - b. **Research Paper Option Only**: A graduate level paper, approved by the advisor in accordance with published departmental guidelines is required. Guidelines pamphlet is available in the education office.
      - No course credit is provided.
      - No oral examination is required.

4. **Comprehensive Examination**
   - A final written examination compiled by the advisor is required. The examination is based upon the candidates coursework.

5. **Academic Average**
   - Candidates must maintain a B average. No course will be counted for graduate credit if the earned grade is below C.

6. **Timeline to be followed**
   - a. Applications: File in the order listed.
      1. Graduate study application — Graduate Office
      2. Education Department Master's Program application — Education Office
      3. Licensure Program Application — Advisor is appointed.
      4. With advisor, file WSU Master's candidacy program — Graduate Office (After 9 and before 16 credits are completed)
      5. Graduate Record Aptitude Test Results — Graduate Office (Before 16 credits are completed)
   - b. Completion of thesis or research paper one quarter in advance of graduation — Register for Research Project 599 during a regular registration period (Thesis option only).
   - c. The comprehensive examination based upon coursework must be arranged with advisor when the candidate registers for final quarter of coursework.
   - d. Complete oral examination of thesis one quarter in advance of graduation. (Thesis option only).
   - e. File application for graduation at least two calendar months, prior
to graduation in the Office of Graduate Studies.

f. Students under all plans take part in commencement exercises in accordance with current policy. Caps, gowns and hoods are obtainable in the University Bookstore one month prior to commencement exercises.

REQUIREMENTS:
PLAN A

M.S. ELEMENTARY EDUCATION 48 Q.H.

PROFESSIONAL EDUCATION (27 Q.H.)
Ed. 481G Measurement and Learning Difficulties of Children and Youth (3)
Ed. 500 Elementary School Curriculum (3)
Ed. 517 Elementary School and Classroom Organizational Patterns (3)
Ed. 518 Field Experience in Elementary Classroom Procedures (3) (Not required when writing thesis)
Ed. 522 Historical Foundations of Education (3)

OR
Ed. 523 Philosophy of Education (3)
Ed. Ad. 570 Research and Writing (3)
Select three from the following courses.
Ed. 511 Advanced Methods in Elementary Reading (3)
Ed. 512 Advanced Methods in Elementary Language Arts (3)
Ed. 513 Advanced Methods in Elementary Social Studies (3)
Ed. 514 Advanced Methods in Elementary Science (3)
Ed. 515 Advanced Methods in Elementary Mathematics (3)

ELECTIVES (21 Q.H.)

REQUIREMENTS:
PLAN B

M.S. IN EDUCATION
EDUCABLE MENTAL RETARDATION CONCENTRATION 51-54 Q.H.

Admission to Practicum Courses: Students wishing to register in the practicum courses in the EMR program must apply for admission to those courses at least two quarters in advance. Applications are available in the Department of Education Office. This requirement applies to admission to summer session practicums as well as to those in the academic year.

PROFESSIONAL EDUCATION (21 Q.H.)
Ed. 481G Measurement and Learning Difficulties of Children and Youth (3)
Ed. 500 Elementary School Curriculum (3)
Ed. 517 Elementary School and Classroom Organizational Patterns (3)
Ed. 522 Historical Foundations of Education (3)
OR
Ed. 523 Philosophy of Education (3)
Ed. Ad. 570 Research and Writing (3)
Select two from the following four courses.
Ed. 512 Advanced Methods in Elementary Reading (3)
Ed. 513 Advanced Methods in Elementary Language Arts (3)
Ed. 514 Advanced Methods in Elementary Social Studies (3)
Ed. 515 Advanced Methods in Elementary Science (3)

SPECIALIZED COURSES (30-33 Q.H.)
Psy. 414G Psychology of Mental Retardation (4)
Ed. 475G Education of Exceptional Children and Youth (3)

REQUIREMENTS:
PLAN C

M.S. IN EDUCATION
LEARNING DISABILITIES CONCENTRATION 51 Q.H.

Admission to Practicum Courses: Students wishing to register in the practicum
courses in the L.D. program and must apply for admission to those courses at least two quarters in advance. Applications are available in the Department of Education Office. This requirement applies to admission to summer session practicums as well as to those in the academic year.

Note: To become certified in L.D. the candidate must have a valid elementary or secondary school teaching certificate.

**PROFESSIONAL EDUCATION (15 Q.H.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Ed. 481G</td>
<td>Measurement and Learning Difficulties of Children and Youth (3)</td>
</tr>
<tr>
<td>Ed. 500</td>
<td>Elementary School Curriculum (3)</td>
</tr>
<tr>
<td>Ed. 522</td>
<td>Historical Foundations of Education (3)</td>
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<td>OR</td>
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<tr>
<td>Ed. 523</td>
<td>Philosophy of Education (3)</td>
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<tr>
<td>Ed.Ad. 570</td>
<td>Research and Writing (3)</td>
</tr>
</tbody>
</table>

Select one of the following three courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Ed. 512</td>
<td>Advanced Methods in Elementary Language Arts (3)</td>
</tr>
<tr>
<td>Ed. 513</td>
<td>Advanced Methods in Elementary Social Studies (3)</td>
</tr>
<tr>
<td>Ed. 514</td>
<td>Advanced Methods in Elementary Science (3)</td>
</tr>
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</table>

**SPECIALIZED COURSES 36 (Q.H.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed. 427G</td>
<td>Remedial Reading Methods (3) (Elementary Majors only)</td>
</tr>
<tr>
<td>Ed. 563</td>
<td>Basic Concepts of Remedial Reading (3) (Secondary Majors only) Must enroll in 511 as a prerequisite to 563.</td>
</tr>
<tr>
<td>Ed. 434G</td>
<td>Remedial Math. Methods (3)</td>
</tr>
<tr>
<td>Ed. 475G</td>
<td>Education of Exceptional Children and Youth (3)</td>
</tr>
<tr>
<td>Ed. 476G</td>
<td>Childhood Language Development (3)</td>
</tr>
<tr>
<td>Ed. 478G</td>
<td>Behavioral Change Processes in the Classroom (3)</td>
</tr>
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<td>Ed. 479G</td>
<td>Education of Emotionally Disturbed and Socially Maladjusted Children and Youth (3)</td>
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<tr>
<td>Ed. 488G</td>
<td>Individualizing Instruction (3)</td>
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<tr>
<td>Ed. 489G</td>
<td>Administrative Principles and Procedures in Special Education (3)</td>
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<tr>
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<tbody>
<tr>
<td>Ed. 530</td>
<td>Diagnosis and Remediation of Learning Disabilities (3) (Ed. 531 must be taken concurrently; Prerequisites: 475G, 476G, 479G, 481G, 427G OR 563)</td>
</tr>
<tr>
<td>Ed. 531</td>
<td>Practicum: Diagnosis and Remediation of Learning Disabilities I (3)</td>
</tr>
<tr>
<td>Ed. 532</td>
<td>Diagnosis and Remediation of Learning Disabilities II(3) (Ed. 533 must be taken concurrently; Prerequisites: 434G, 478G, 530 and 531)</td>
</tr>
<tr>
<td>Ed. 533</td>
<td>Practicum: Diagnosis and Remediation of Learning Disabilities II (3)</td>
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**DISCRETIONARY REQUIREMENT**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Ed. 490G</td>
<td>Individual Problems in Remediation of Learning Disabilities (1-4) (Persons unable to apply knowledge to effect desired change in L.D. students’ behavior will be required to remediate deficiencies at the discretion of the 531, 533 instructors.)</td>
</tr>
</tbody>
</table>

**REQUIREMENTS: PLAN D**

**M.S. IN EDUCATION REMEDIAL AND DEVELOPMENTAL READING CONCENTRATION 48 Q.H.**

To be licensed at the elementary level (K-6), the applicant must have an elementary teacher’s license, based on a bachelor’s degree and have had two years of successful teaching experience.

To be licensed at the secondary level (grade 7 through adult), the applicant must have a secondary teacher’s license, based on a bachelor’s degree and have had two years of successful teaching experience.

**PROFESSIONAL COURSES**

**Elementary (18 Q.H.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Ed. 500</td>
<td>Elementary School Curriculum (3)</td>
</tr>
<tr>
<td>Ed. 517</td>
<td>Elementary School and Classroom Organizational Patterns (3)</td>
</tr>
<tr>
<td>Ed. 522</td>
<td>Historical Foundations of Education (3) or Ed. 523 Philosophy of Education (3)</td>
</tr>
<tr>
<td>Ed.Ad. 570</td>
<td>Research and Writing (3)</td>
</tr>
</tbody>
</table>

Select two from the following four courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>Ed. 512</td>
<td>Advanced Methods in Elementary Language Arts (3)</td>
</tr>
<tr>
<td>Ed. 513</td>
<td>Advanced Methods in Elementary Social Studies (3)</td>
</tr>
<tr>
<td>Ed. 514</td>
<td>Advanced Methods in Elementary Science (3)</td>
</tr>
<tr>
<td>Ed. 515</td>
<td>Advanced Methods in Elementary Mathematics (3)</td>
</tr>
</tbody>
</table>

**Secondary (19 Q.H.)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>Ed. 502</td>
<td>Secondary School Curriculum (3)</td>
</tr>
<tr>
<td>Ed.Ad. 503</td>
<td>The Junior High School and Middle School (3) or Ed. 505 Principles of Secondary Education (3)</td>
</tr>
<tr>
<td>Ed. 522</td>
<td>Historical Foundations of Education (3) or Ed. 523 Philosophy of Education (3)</td>
</tr>
<tr>
<td>Ed.Ad. 570</td>
<td>Research and Writing (3)</td>
</tr>
<tr>
<td>Eng. 400G</td>
<td>Teaching Literature to Young Adults (4)</td>
</tr>
<tr>
<td>Ed. 508</td>
<td>Critical Teaching Skills Lab (3)</td>
</tr>
</tbody>
</table>

**SPECIALIZED COURSES**

**Elementary (21 Q.H.)**

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>Ed. 511</td>
<td>Advanced Methods in Reading (3). A prerequisite to Education 563 Basic Concepts in Remedial Reading</td>
</tr>
<tr>
<td>Ed. 563</td>
<td>Basic Concepts in Remedial Reading (3). (Prerequisite: Ed. 511)</td>
</tr>
<tr>
<td>Ed. 564</td>
<td>Tests and Measurements in Remedial Reading (3). (Prerequisite: A grade of B or better in Ed. 563)</td>
</tr>
</tbody>
</table>
Ed. 565 Remedial Reading Methods and Media (3) (Prerequisite: Same as Ed. 564)

Ed. 566 Remedial Reading Practicum (Elementary) (8) (Prerequisite: Ed. 564 and Ed. 565)

One (1) of the following:

Ed. 475G Education of Exceptional Children and Youth (3)

Ed. 476G Childhood Language Development (3)

Ed. 478G Behavioral Change Processes in the Classroom (3)

Secondary (24 Q.H.)

Ed. 511 Advanced Methods in Reading (3) Methods in Reading is a prerequisite to Education 563

Basic Concepts in Remedial Reading and Education 429G

Teaching of Reading (Secondary)

Ed. 429G Teaching of Reading (Secondary) (3)

Ed. 563 Basic Concepts in Remedial Reading (3) (Prerequisite: Ed. 511)

Ed. 564 Tests and Measurements in Remedial Reading (3) (Prerequisite: A grade of B or better in Ed. 563)

Ed. 565 Remedial Reading Methods and Media (3) (Prerequisite: same as for Ed. 564)

Ed. 566 Reading Practicum (Secondary) (8) (Prerequisite: Ed. 564 & Ed. 565)

One (1) of the following:

Ed. 475G Education of Exceptional Children and Youth or Ed. 478G Behavioral Change Processes in the Classroom (3)

ELECTIVES

Elementary (9 Q.H.)

Secondary (5 Q.H.)

Note: The above program will qualify an elementary candidate to be licensed as an Elementary Remedial Reading Teacher.

The above program will qualify a secondary candidate to be licensed as a Secondary and Adult Remedial Reading Teacher and as a Secondary Teacher of Developmental Reading.

REQUIREMENTS:

PLAN E

M.S. IN ELEMENTARY EDUCATION

READING SUPERVISORY OR CONSULTANT CONCENTRATION

58 Q.H.

To be licensed the applicant must have completed three (3) years of successful teaching in an elementary school and/or junior high school. One (1) of the three years must have been in a developmental reading program and one (1) year must have been as a remedial reading teacher. (One (1) year of L.D. teaching experience or a remedial reading practicum experience will substitute for the remedial reading experience.)

PROFESSIONAL COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>Ed. 500</td>
<td>Elementary School Curriculum (3)</td>
</tr>
<tr>
<td>Ed. 502</td>
<td>Secondary School Curriculum (3) or Ed. Ad. 504 Curriculum Development and Administration (3)</td>
</tr>
<tr>
<td>Ed. 517</td>
<td>Elementary School and Classroom Organizational Patterns (3)</td>
</tr>
<tr>
<td>Ed. 522</td>
<td>Historical Foundations of Education (3) or Ed. 523 Philosophy of Education (3)</td>
</tr>
<tr>
<td>Ed. Ad.570</td>
<td>Research and Writing (3)</td>
</tr>
<tr>
<td>Ed. Ad.578</td>
<td>Supervision of Instruction (3)</td>
</tr>
</tbody>
</table>

Choose two from the following four courses:

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<tr>
<td>Ed. 514</td>
<td>Advanced Methods in Elementary Science (3)</td>
</tr>
<tr>
<td>Ed. 515</td>
<td>Advanced Methods in Elementary Mathematics (3)</td>
</tr>
</tbody>
</table>

Choose one from the following three courses:

<table>
<thead>
<tr>
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<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed. Ad. 503</td>
<td>The Junior High School and Middle School (3)</td>
</tr>
<tr>
<td>Ed. Ad. 520</td>
<td>Administration of the Secondary School (3)</td>
</tr>
<tr>
<td>Ed. Ad. 524</td>
<td>Administration of the Elementary School (3)</td>
</tr>
</tbody>
</table>

SPECIALIZED COURSES

Choose one from one of the following three courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>Ed. 475G</td>
<td>Education of Exceptional Children and Youth (3)</td>
</tr>
<tr>
<td>Ed. 476G</td>
<td>Childhood Language Development (3)</td>
</tr>
<tr>
<td>Ed. 478G</td>
<td>Behavioral Change Processes in the Classroom (3)</td>
</tr>
</tbody>
</table>

REQUIREMENTS:

PLAN F

M.S. ELEMENTARY EDUCATION

EARLY CHILDHOOD CONCENTRATION

58 Q.H.

PROFESSIONAL EDUCATION (18 Q.H.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed. 500</td>
<td>Elementary School Curriculum (3)</td>
</tr>
</tbody>
</table>
Ed. 522  Historical Foundations of Education (3)

OR

Ed. 523  Philosophy of Education (3)
Ed. Ad. 570  Research and Writing (3)

Select one of the following three courses:

Ed. 511  Advanced Methods in Reading
Ed. 512  Advanced Methods in Elementary Language Arts (3)
Ed. 513  Advanced Methods in Elementary Social Studies (3)

Elect two 500 level courses

SPECIALIZED COURSES (40 Q.H.)

Ed. 411G  Kindergarten Education (4)
Ed. 413G  Primary Education Methods and Curriculum (4)
Ed. 416G  Nursery School Education (4)
Ed. 418G  Nursery School Education Practicum (2)
Ed. 420G  Day Care Practicum (2)
Ed. 422G  Home School Relations (3)
Ed. 424G  Organization and Administration of Early Childhood Education (3)
Ed. 461G  Kindergarten Student Teaching (8)
Ed. 467G  Nursery School Student Teaching (4)
Ed. 478G  Behavioral Change Processes in the Classroom (3)

Note: In addition, students will take a graduate level course in child development to be recommended by an advisor.

ADVANCED PROGRAMS FOR LICENSURE

REMEDIAL READING LICENSURE, ELEMENTARY LEVEL

Note: Persons applying for these programs follow the admissions procedure applicable to the M.S. degree.

Special Requirements:
1. An elementary teacher's license based on a bachelor's degree.
2. Two years of successful teaching experience before license can be issued.

SPECIALIZED COURSES

Ed. 511  Advanced Methods in Reading (3)
Ed. 512  Advanced Methods in Elementary Language Arts (3)
Ed. 513  Advanced Methods in Elementary Social Studies (3)

Ed. 511  Advanced Methods in Reading (3)
Education 511 Advanced Methods in Reading Ed. 563 Basic Concepts of Remedial Reading (3) Secondary Majors only (Prerequisite: Ed. 511) a prerequisite to Education 563 Basic Concepts in Remedial Reading and Education 429G Teaching of Reading (Secondary).

Note: Elementary licensed remedial teachers can also be licensed as a secondary remedial reading teacher taking Ed. 566 Remedial Reading Practicum (Secondary) and Ed. 429G Teaching of Reading (Secondary).

REMEDIAL READING LICENSURE, SECONDARY LEVEL

Special Requirements:
1. A secondary teacher's license based on a bachelor's degree.
2. Two years of successful teaching experience.

SPECIALIZED COURSES

Ed. 511  Advanced Methods in Reading (3); Education 511 Advanced Methods in Reading Ed. 563 Basic Concepts of Remedial Reading (3) Secondary Majors only (Prerequisite: Ed. 511) a prerequisite to Education 563 Basic Concepts in Remedial Reading and Education 429G Teaching of Reading (Secondary).

Ed. 563  Basic Concepts in Remedial Reading (3) (Prerequisite: Ed. 511)
Ed. 564  Tests and Measurements in Remedial Reading (3) (Prerequisite: a grade of B or better in Ed. 563)
Ed. 565  Remedial Reading Materials, Methods, Media, and Approaches (3) (Prerequisite: same as for Ed. 564)
Ed. 566  Remedial Reading Practicum (Elementary) (6) (Prerequisites: Ed. 564 and Ed. 565)

Choose one from the following three courses:

Ed. 475G  Education of Exceptional Children and Youth (3)
Ed. 476G  Childhood Language Development (3)
Ed. 478G  Behavioral Change Processes in the Classroom (3)

Note: See requirements for Developmental Reading Licensure, Secondary level, for additional license.

DEVELOPMENTAL READING LICENSURE, SECONDARY LEVEL

SPECIAL REQUIREMENTS:
1. A secondary teacher's license, based on a bachelor's degree.
2. No teaching experience requirements.
3. Successful completion of the Remedial Reading course requirements for secondary licensure.
4. English 400G Teaching Literature to Young Adults, (4)

LEARNING DISABILITIES LICENSURE

PREREQUISITE COURSES

Ed. 427G  Remedial Reading Methods (3) (Elementary Majors only)
Ed. 563  Basic Concepts of Remedial Reading (3) (Secondary Majors only) (Prerequisite: Ed. 511)
Ed. 434G  Remedial Math. Methods (3)
Ed. 475G  Education of Exceptional Children and Youth (3)

SPECIALIZED COURSES

Ed. 476G  Childhood Language Development (3)
Ed. 478G  Behavioral Change Processes in the Classroom (3)

Ed. 564  Tests and Measurements in Remedial Reading (3) (Prerequisite: a grade of B or better in Ed. 563)
Ed. 565  Remedial Reading Materials, Methods, Media, and Approaches (3) (Prerequisite: same as for Ed. 564)
Ed. 429G  Teaching of Reading (Secondary) (3)
Ed. 466  Remedial Reading Practicum (Secondary) (6) (Prerequisite: Ed. 429G, Ed. 564, and Ed. 565)

EDUCATION/ 83
### Education of Emotionally Disturbed and Socially Maladjusted Children and Youth (3)

- **Ed. 479G**
- **Ed. 481G** Measurement and Learning Difficulties of Children and Youth (3)
- **Ed. 488G** Individualizing Instruction (3)
- **Ed. 489G** Administration Principles and Procedures in Special Education (3)

### Diagnosis and Remediation of Learning Disabilities I (3)

- **Ed. 530**
- **Practicum: Diagnosis and Remediation of Learning Disabilities I (3)**
- **Ed. 531** Practicum: Diagnosis and Remediation of Learning Disabilities II (3)

### Diagnosis and Remediation of Learning Disabilities II (3)

- **Ed. 532**
- **Ed. 533** Practicum: Diagnosis and Remediation of Learning Disabilities II (3)

### Discretionary Requirements (1-4 Q.H.)

- **Ed. 490** Individual Problems in Remediation of Learning Disabilities (1-4) (Optional requirements at discretion of 532, 533 instructor.)

### Emotionally Disturbed Licensure

This program qualifies the graduate to teach seriously emotionally disturbed students. The program is a cooperative licensure effort between WSU and the University of Minnesota. Students wishing to enroll in the program must see the Education Department advisor for details.

### Teaching Educable Mentally Retarded Licensure

Students may now take a licensure program in the Teaching of the Educable Mentally Retarded. Elementary majors may use the courses required for licensure as a minor.

### Early Childhood Education Licensure

- **Ed. 410G** Kindergarten Education (4)
- **Ed. 412G** Primary Education Methods and Curriculum (4)
- **Ed. 416G** Nursery School Education (4)
- **Ed. 418G** Nursery School Education Practicum (2)
- **Ed. 420G** Day Care Practicum (2)
- **Ed. 422G** Home School Relations (3)
- **Ed. 460G** Elementary Student Teaching (3)
- **Ed. 461G** Kindergarten Student Teaching (8)
- **Ed. 467G** Nursery School Student Teaching (4)

### Early Childhood/Handicapped Licensure

The licensure program meets the requirements for the State of Wisconsin licensure in Early Childhood Education for exceptional needs children. Details of this program may be obtained from the Education Department advisor. Persons desiring to teach early childhood/handicapped children in Minnesota, see Education Department advisor for details.

### B.S. Early Childhood Education Prekindergarten Licensure

(This program designed for persons who have completed a B.S. degree or a B.A. degree at the secondary level)

- **Ed. 410G** Kindergarten Education (4)
- **Ed. 412G** Primary Education Methods and Curriculum (4)
- **Ed. 416G** Nursery School Education (4)
- **Ed. 418G** Nursery School Education Practicum (2)
- **Ed. 420G** Day Care Practicum (2)
- **Ed. 422G** Home School Relations (3)
- **Ed. 424G** Organization & Administration of Early Childhood Education (3)
- **Ed. 475G** Education of Exceptional Children & Youth (3)
- **Ed. 476G** Childhood Language Development (3)
- **Ed. 478G** Behavioral Change Processes in the Classroom (3)

**Note:** An additional Early Childhood course recommended by the advisor.
COURSE LISTING

Courses offered on a pass/no credit basis are designated in the course description.

100 Introduction to Agricultural Education - 1 Q.H.
Orientation to employment and service in agricultural education and an overview of the program of agricultural education in Minnesota.

115 Improving Reading and Study Skills - 2 Q.H.
To assist students who may have problems with reading skills and to help them develop efficient habits of study to compete effectively in college level courses. Offered quarterly. P/NC Only.

150 Introductory Field Experience - 2 Q.H.
A general elective aide experience at a selected school level for either an introductory experience in the classroom or an additional aide experience. May be repeated once for two credits. Offered quarterly. P/NC Only.

NOTE: Persons enrolling in Ed. 150 must make schedule arrangements with the Field Experience Coordinator in the Education Department at least two weeks prior to the start of the quarter.

190 Sociological and Psychological Perspectives of Education - 4 Q.H.
Introduction to education as a profession. Provides exposure to commonly encountered interpersonal classroom problems. Skill development in communications, group interaction, interpersonal, and problem solving. (This course is a prerequisite to other Education courses). Prerequisites: completion of English 110, English 115, and CTA 118, with a grade of C. Offered quarterly. P/NC Option.

200 Child Growth and Development - Part of Block II - 2 Q.H.
Factors of growth, development of language, nature of personality development and psychomotor skills. Offered quarterly.

201 Psychology of Learning - Part of Block II - 3 Q.H.
Nature of intelligence, motivation, retention, as they relate to the teaching-learning process. Offered quarterly.

202 Educational Aide Experience - Part of Block II - 2 Q.H.
An extended period of actual classroom participation as an educational aide. Offered quarterly. P/NC Only.

NOTE: Persons enrolling in Ed. 202 must make schedule arrangements with the Field Experience Coordinator in the Education Department at least two weeks prior to the start of the quarter.

204 Introduction to Special Education - 1 Q.H.
Orientation to the field of mental retardation including history, classifications, etiology, and school and community resources. A programmed format is used. Offered quarterly.

210 Citizen's Roles in Public and Private Education - 4 Q.H.
Trends, issues, problems and practices in contemporary education to enable knowledgeable participation in educational systems as parents, taxpayers, voters and decision-makers. Offered yearly. P/NC Option.

221 Children's Literature - 4 Q.H.
Literature for children of the kindergarten, primary, and intermediate grades, with principles of selection and adaptation. Oral interpretation of children's poetry and storytelling. Offered quarterly.

304 Instructional Media Technology - 3 Q.H.
A basic requirement in Teacher Education. Emphasis on audiovisual methods in teaching. Offered quarterly.

306 Evaluation - Part of Block II - 3 Q.H.
Behavioral objectives, basic statistics, writing test items, standardized testing, marks, and grading. Offered quarterly.

328 Teaching of Reading I - Part of Block VI - 4 Q.H.
Reading readiness and decoding. Junior or Senior status required. Offered quarterly.

329 Teaching of Reading II - Part of Block VI - 4 Q.H.
Reading study skills and comprehension. Junior or Senior status required. Offered quarterly.

330 Teaching of Language Arts in Elementary Grades - Part of Block VI - 2 Q.H.
All aspects of encoding-Junior or Senior status required. Offered quarterly.

331 Teaching of Social Studies in Secondary Schools - 4 Q.H.
Materials and methods of teaching in geography, history, and civics, including the newest textbooks, maps, pictures, and other visuals. Offered yearly.

333 Teaching Social Studies in the Elementary Schools - 3 Q.H.
Development of teaching competencies in the areas of small group instruction, guiding student inquiry and conducting inductive-discovery lessons. Completion of Block II is required. Offered quarterly.

334 Teaching Mathematics in the Elementary School - 3 Q.H.
Development of teaching competencies in assessing student needs in math, presentation of math concepts and skills, and the selection and use of a variety of current math teaching materials. Prerequisite: Block II. Offered quarterly.

335 Teaching of Science and Environmental Studies in the Elementary School - 4 Q.H.
Study and guided application of current materials and methods designed for science and environmental education. Theoretical background and practical skills necessary for teaching both process and content curriculums are developed through individual and group work as well as simulated experiences. Prerequisite: Block II. Offered quarterly.

407 Curriculum and Philosophy - 3 Q.H.
Educational and personal goals, philosophies and value systems as related to curriculum; school organizational patterns; law as it affects the teacher. Prerequisite: Block II. Offered quarterly.
411G Kindergarten Education - 4 Q.H.  
Introduction to philosophies, goals, teaching strategies, and content of kindergarten programs. Offered yearly.

412 Infancy and Early Childhood - 3 Q.H.  
Traces the physical, emotional, social and cognitive development of children from conception through age six. Offered yearly.

413G Primary Education - 4 Q.H.  
Curriculum and teaching in the primary grades, relating philosophy to content, materials, guidance and teaching. Offered yearly.

414G Introduction to the Young Exceptional Child - 4 Q.H.  
A discussion of the etiology of handicapping conditions found in preschool populations, the rationale for early intervention, and a history of services provided to preschool children. Prerequisites: Ed. 190, 200, 201, 202, 306, and 475. Offered yearly.

415G Identification and Diagnosis of Young Exceptional Children - 4 Q.H.  
A survey of the instruments available to identify and diagnose children with handicaps and the current issues surrounding such identification and diagnosis. Prerequisite: Ed. 414G. Offered yearly.

416G Nursery School Education - 4 Q.H.  
An examination of preschool curriculum models. Emphasis is on planning activities which will meet the young child's physical, emotional, and intellectual needs in a nursery school or day care setting. Must be taken in conjunction with Ed. 418G. Offered yearly.

418G Nursery School Education Practicum - 2 Q.H.  
Supervised observation and participation in classroom activities related to nursery school programs. Offered yearly. Taken with 416G. P/NC Only, for undergraduates.

419G Instructional Strategies for Teaching Young Exceptional Children - 4 Q.H.  
Strategies to implement appropriate programs for young children who are handicapped. Prerequisite: Ed. 415. Offered yearly.

420G Day Care Practicum - 2 Q.H.  
Supervised observations and participation in education and related activities of day care programs. Prerequisite: Ed. 416. Offered yearly. P/NC Only, for undergraduates.

422G Home School Relations - 3 Q.H.  
Strategies utilized in increasing the learning potential of the home and techniques for enlisting parents as a vital teaching and guidance force in the child's early years. Offered yearly.

424G Organization and Administration of Early Childhood Education - 3 Q.H.  
Local and state laws governing various types of early childhood programs including (1) financial aspects, buildings, (2) personnel and administrative matters pertaining to the establishment of nursery schools, day care centers, etc. Offered yearly.

425G Strategies for Working with Families of Young Exceptional Children - 4 Q.H.  
Techniques and strategies to facilitate families becoming teachers, planners, and advocates in the education of their young exceptional children. Prerequisite: Ed. 414G. Offered yearly.

426G Practicum with Young Exceptional Children - 8 Q.H.  
Supervised observation and participation in a program for young exceptional children. Taken in conjunction with Ed. 428G. Prerequisites: Ed. 414G, 415G, 419G, and 425G. Offered yearly.

427G Remedial Reading - 3 Q.H.  
Survey course in the diagnosis, prognosis, and remediation of reading difficulties. Prerequisites: Education 328 and 329 or 563. Offered yearly.

428G Practicum Seminar: Working with Young Exceptional Children - 4 Q.H.  

429G Teaching of Reading (Secondary) - 3 Q.H.  
Philosophy and trends in reading instruction at the junior high and senior high levels. Offered yearly.

430G Education of the Mentally Retarded in the Elementary School - 3 Q.H.  
Curriculum content, materials and instructional methods designed to meet the needs of the mentally retarded in the elementary setting. (455G must be taken concurrently for P/NC Only) Offered yearly.

433G Materials and Methods in Environmental Education - 3 Q.H.  
Curriculum materials relating to the broad topic of man's impact upon his environment, group work, field trips, consultants and lectures. Offered on demand.

434G Remedial Mathematics Methods - 3 Q.H.  
Diagnostic and remediation techniques to facilitate student acquisition of basic mathematics skills. Prerequisite: Ed. 334 or equivalent. Offered yearly.

450 The Teaching, Discipline and the Law - 4 Q.H.  
The first half of the course will be concerned with classroom management and approaches to discipline in the schools. The second half will be concerned with school laws pertaining to students and teachers. Prerequisite: Block II. Offered yearly.

455G Practicum Experience in Special Education - 2 Q.H.  
Supervised observation and participation in the classroom and related activities for retarded children. 430G must be taken concurrently. Offered yearly. P/NC Only, for undergraduates.

459G Education of the Mentally Retarded in the Secondary School - 3 Q.H.  
Materials and methods to meet the needs of the mentally retarded in the secondary setting. Philosophy, administration, vocational and personal guidance, parent consultation and work programs. 462G must be taken concurrently. Offered yearly.

460 Student Teaching-Elementary School - 16 Q.H.  
Teaching in the senior year by students in the elementary curriculum. One full quarter (16 hours) of student teaching on a full day basis in an elementary school. Offered quarterly. P/NC Only.
461G Student Teaching-Kindergarten — 8 Q.H.
Responsibilities for planning and conducting kindergarten activities under supervision. Offered quarterly. P/NC Only.

462G Practicum Experience in Special Education — Secondary — 2 Q.H.
Supervised observation and participation in the classroom and related vocational and recreational activities for retarded children in a secondary school setting. Ed. 459 must be taken concurrently. Offered yearly. P/NC Only.

463G Student Teaching-Special Education — 8 Q.H.
Supervised teaching in classes for educable children. Offered quarterly. P/NC Only.

464G Student Teaching-Junior High School — 16 Q.H.
Teaching in the junior or senior year by students in the secondary curriculum. One full quarter (16 hours) of student teaching on a full day basis or in a junior high school. Offered quarterly. P/NC Only.

465G Student Teaching-Senior High School — 16 Q.H.
Teaching in the senior year by students in the secondary curriculum. One full quarter (16 hours) of student teaching on a full day basis in a senior high school. Offered quarterly. P/NC Only.

467G Student Teaching in the Nursery School — 4 Q.H.
Supervised teaching in a nursery school program. Students enroll in the 4 credit nursery school experience. P/NC Only.

469G Psychology and Philosophy of Jean Piaget — 3 Q.H.
Piaget's theory of cognitive development including philosophic, psychological, and educational implications. Offered yearly.

470G & 473G Diagnosis and Remediation of Learning Disabilities I Practicum — 3 Q.H.
Demonstrations and evaluation of techniques for diagnosis and remediation of learning disabilities. Prerequisites: 427, 475, 476, and 481. Offered yearly.

471G & 474G Diagnosis and Remediation of Learning Disabilities II Practicum — 3 Q.H.
Each
Demonstrations and evaluation of techniques for diagnosis and remediation of learning disabilities. Prerequisites: 434, 478 and 479. Offered yearly.

475G Education of Exceptional Children and Youth — 3 Q.H.
Overview of information needed to help teachers and related professions understand children of all degrees of exceptionality, with emphasis on what the regular classroom teacher can do for the exceptional child. Offered quarterly.

476G Childhood and Language Development — 3 Q.H.
Theories of and recent findings in childhood language development and functions of language. A study of language disorders, assessment and methods in special education as it relates to language development. Offered yearly.

477G Education of the Gifted — 3 Q.H.
Study of the gifted learner and methods and strategies that the classroom teacher can employ. Offered on demand.

478G Behavioral Change Processes in the Classroom — 3 Q.H.
Psychological principles governing behavior acquisition, maintenance, and change with an emphasis on modification and contracting. Offered yearly.

479G Education of Emotionally Disturbed and Socially Maladjusted Children — 3 Q.H.
Characteristics of disturbed and maladjusted children and youth and the implications of these characteristics for educational objectives, curriculum, and methods. Offered yearly.

481G Measurement and Learning Difficulties of Children and Youth — 3 Q.H.
The classroom teacher's role and limitations in the identification, referral, and remediation of learning difficulties. Offered yearly.

482G Mainstreaming Learning Disabilities — 3 Q.H.
Procedures for modification of the regular classroom curriculum to meet the individual needs of students with special learning problems at early childhood, elementary, secondary, or post-secondary levels. Prerequisites: 200, 201, 202, 306, and Methods Course in Major. Offered yearly.

486G Practicum in the Gifted — 4 Q.H.
Practical experience in applying concepts and strategies to teaching gifted elementary pupils. Prerequisite: 477G. Offered on demand.

488G Individualizing Instruction — 3 Q.H.
Approaches to individualizing instruction and techniques required in designed effective instruction. Offered yearly.

490G Individual Problems in Education — 1-4 Q.H.
Opportunity for the qualified advanced undergraduate and graduate student to work independently. Topic may include research, development of special projects, selected readings, etc. Time arranged. Prerequisites: Consent of major advisor; completion of the Common Professional Sequence, and for Elementary majors, completion of the elementary education sequence. May be repeated to a total of 4 credits. Offered quarterly. P/NC Only for undergraduates.

492G Practicum Trainable Mentally Retarded/Custodial Mentally Retarded — 3 Q.H.
Practicum for students in the Educable Mentally Retarded program who wish to have a trainable mentally retarded background and to get experience working with custodial mentally retarded students. Prerequisites: Ed. 455, Ed. 462. Offered yearly. P/NC only for undergraduates.
COURSES FOR GRADUATE STUDENTS ONLY

500 Elementary School Curriculum — 3 Q.H.
Theory and philosophy underlying the modern elementary curriculum, goals and learning outcomes; curriculum construction, instructional materials, trends and challenges.

502 Secondary School Curriculum — 3 Q.H.
Social, political and economic influences upon the high school curriculum. Each area in the curriculum is examined in terms of problems and trends in content and teaching practices and technology.

505 Principles of Secondary Education — 3 Q.H.
To define, clarify, and organize a variety of guiding principles and to develop sound concepts of teaching in the Secondary School.

508 Critical Teaching Skills Lab — 3 Q.H.
A laboratory approach to self analysis and growth in selected teaching skills through actual micro-teaching and reteaching with video tape recording replay.

511 Advanced Methods in Reading — 3 Q.H.
Foundations and/or review of current trends and research in the field of developmental reading at the Elementary and Secondary levels. (Ed. 511 is a prerequisite to Ed. 563 and Ed. 429G, if 429G is taken as a required graduate course for a reading program.)

513 Advanced Methods in Elementary Social Studies — 3 Q.H.
Current trends and contemporary research related to objectives, methods, and curriculum in the social studies.

514 Advanced Methods in Elementary Science — 3 Q.H.
An opportunity to gain familiarity with the philosophical bases, the curriculum content and materials of instruction generated by major contemporary research.

515 Advanced Methods in Elementary Mathematics — 3 Q.H.
Philosophical, psychological and mathematical foundations of current mathematics curricula. Special emphasis upon the inquiry approach and the use of math labs.

517 Elementary School and Classroom Organizational Pattern — 3 Q.H.
Trends in classroom organizational patterns will be investigated. Outside sources and visits will be arranged.

518 Field Experience in Elementary Classroom Procedures — 3 Q.H.
A culminating experience designed to encourage a student to apply principles and procedures learned during his graduate program. Students should take the course during the latter part of their program.

522 Historical Foundations of Education — 3 Q.H.
Study of development of thought and practice in education to the present time, great movements and individual leaders in education.

523 Philosophy of Education — 3 Q.H.
A study of philosophies of education and their influence on American education.

530-531 Diagnosis and Remediation of Learning and Disabilities I and Practicum — 3 Q.H. Each
Demonstration and evaluation of techniques for diagnosis and remediation of learning disabilities. Prerequisites: 427G, or 563 and 475G, 476G, 481G.

532-533 Diagnosis and Remediation of Learning Disabilities II and Practicum — 3 Q.H. Each

538 School and Community Relations for Schools — 3 Q.H.
Practices and procedures to be used in developing mutual understanding between patrons and professionals in local schools.

540 Current Educational Issues — 3 Q.H.
Study of the recognized current issues and trends in education.

545 Problems in Child Development — 3 Q.H.
Application of the biological and behavioral sciences to the varied aspects of child growth. Factors promoting or retarding the development of vitality, personality, intelligence, vocabulary and moral standards.

563 Basic Concepts in Remedial Reading — 3 Q.H.
A survey course designed to introduce the experienced teacher to the nature and causes of reading disabilities. A foundation is established for diagnosis, prognosis, and therapy. (Ed. 511 Advanced Methods in Reading is a prerequisite).

564 Tests and Measurements in Remedial Reading — 3 Q.H.
Principles and techniques of identifying legitimate remedial reading cases, etiological diagnosis and casual factors and the therapeutic diagnosis of casual factors and the therapeutic diagnosis of reading difficulties.

565 Remedial Reading Methods and Media — 3 Q.H.
Principles, techniques, and materials in the correction of reading problems. Prerequisite: 563.

566 Reading Practicum (Elementary or Secondary) — 8 Q.H.
Classroom experience in diagnosing reading difficulties and giving individual and group help to students (Elementary or Secondary) with reading disabilities. Prerequisite: Ed. 563, 564, 565, plus Ed. 429G for Secondary Reading Practicum. (Ed. 511 Advanced Methods in Reading is a prerequisite to Ed. 563 and Ed. 429G, if 429G is taken as a required graduate course for a reading program).

567 Administration and Supervision of Reading Programs — 3 Q.H.
Current theory in the field of reading and the obligations of the administrator and/or supervisor of reading programs.
Educational Administration

Gildemeister Hall Room 135 / 457-2060
*Nasstrom (Chairperson), *Walden. Adjunct Professors: Johnson, Mjolsness, Strand, Weiss.

The department provides programs leading to the degrees of Master of Science and Specialist in Educational Administration, and to the Sixth Year Certificate in Educational Administration. The Specialist Degree or the Sixth Year Certificate may emphasize general administration, elementary administration or secondary administration.

In Minnesota, students who receive a degree or certificate in elementary or secondary administration will be qualified, with the recommendation of the university, to secure an administrative entrance license for the positions of school principal or assistant school principal in areas of their emphasis if they have had three years of teaching experience while holding licenses valid for the position or positions in which the experience was gained. Elementary school principals must have at least three years of teaching experience at the elementary level and secondary school principals must have at least three years of teaching experience at the secondary level. Students who receive a Specialist Degree or Sixth Year Certificate in general administration will be qualified, with the recommendation of the university, to secure an administrative entrance license for the positions of superintendent or assistant superintendent if they have had at least three years of teaching experience at the elementary or secondary level.

Persons wishing licensure in Minnesota must include in their program at least 200 clock hours of field experience, or equivalent. Those individuals seeking principalship positions must secure experience as an administrative aide to the appropriate placement with a licensed educational administrator appropriate for the principalship and for the individual. Those individuals seeking the position of superintendent or assistant superintendent must secure experience in an administrative placement with a licensed educational administrator appropriate for the superintendency and for the individual. The 200 clock hours must be completed within 12 continuous months from the commencement of the field experience. The 200 hours will be satisfied by 9 quarter hours of Ed. Adm. 680 or ED. Adm. 681 completed within a year. The field experience may be waived for persons "who have gained licensure in one administrative area and who have completed 3 years of experience under that administrative license." The field experience may also be waived for individuals who have gained licensure in one administrative area and who have completed 3 years of experience under that administrative license but who wish to qualify for licensure in another administrative area; it is sufficient for these people to complete the required teaching experience and the approved program for that area.

The Master's Degree in Educational Administration satisfies the educational component of the new standards for initial certification of secondary and elementary school administrators in Wisconsin. Such certification permits the holder to serve as a principal or assistant principal in an elementary school (elementary administration), a middle school (elementary or secondary administration), a junior high school (elementary or secondary administration) or a senior high school (secondary administration). The Specialist Degree or Sixth Year Certificate satisfies the educational component of the new standards for initial certification of district administrators in Wisconsin. Such certification permits the holder to serve as a district administrator or an assistant district administrator as well as an elementary school administrator and a secondary school administrator.

Educational requirements of various other states for various positions may be satisfied by certain programs. Those individuals who wish further information should get in touch with the Department. NOTE: In the sections below, "related education courses" include courses in the Departments of Education, Business Education and Office Administration, Industrial Education, Counselor Education, and Health, Physical Education and Recreation. "Cognate courses" include courses in departments other than Educational Administration and other than those described as "related education courses."

568 Field Experiences in Administration and Supervision of Reading Programs - 4 Q.H.
(Phase I - 2 Q.H.)
The student will be required to supervise a remedial reading center under the supervision of a college instructor.
(Phase II - 2 Q.H.)
The student will be required to assume the role of a reading administrator and/or a reading supervisor on an overload basis in a school system. Prerequisites: Remedial Reading Certification and Ed. 567. Offered by arrangement.

571 Supervision of Student Teaching - 3 Q.H.
A critical analysis of the procedures and policies practiced by supervising teachers in working with either elementary or secondary student teachers.

599 Master's Thesis - 6 Q.H.
The report must show evidence of the candidate's ability to carry an independent study and to employ scientific methods and procedures in the solution of a problem in the area of the student's field of concentrations.
Candidates must earn a minimum of ninety-three (93) graduate credits beyond the Bachelor’s Degree which have been approved by their Graduate Committee.

MAJOR FIELD COURSES (48-60 Q.H.)
1. Required of all candidates:
   - Ed.Adm. 504 Curriculum Development and Administration (3)
   - Ed.Adm. 578 Supervision of Instruction (3)
   - Ed.Adm. 580 Foundations of Educational Administrations (3)
   - Ed.Adm. 604 Seminar in Curriculum and Supervision (3)
   - Ed.Adm. 608 Seminar in Problems and Trends of Educational Administration (3)
   - Ed.Adm. 680 Practicum in Educational Administration (3-9) OR
     Ed.Adm. 681 Internship in Educational Administration (3-9)

   NOTE: Ed.Adm. 680 or 681 may be waived if the candidate has had appropriate experience.

2. Required of candidates specializing in Elementary Administration:
   - Ed.Adm. 524 Elementary School Management (3)

3. Required of candidates specializing in Secondary Administration:
   - Ed.Adm. 520 Secondary School Management (3)

4. Required of candidates specializing in General Administration:
   - Ed.Adm. 510 School Law (3)
   - Ed.Adm. 528 Personnel Administration in Education (3)
   - Ed.Adm. 552 Planning of School Facilities (3)
   - Ed.Adm. 583 School Finance (3)

RELATED EDUCATION COURSES (9-18 Q.H.)
   - Graduate level courses

COMPREHENSIVE EXAMINATIONS
   Candidates will be required to pass written comprehensive examinations during the quarter they expect to graduate. The examinations will emphasize the area of specialization.

FIELD STUDY
   Candidates will submit four copies of an approved field study to the Office of Graduate Studies.

ORAL EXAMINATION
   Candidates will present a satisfactory oral defense of their field study to their committee.

SIXTH YEAR CERTIFICATION PROGRAM
   Candidates must earn a minimum of ninety-three (93) credits beyond the Bachelor’s degree, including at least forty-five (45) units beyond the master’s degree.

MAJOR FIELD COURSES (48-60 Q.H.)
1. Required of all candidates:
   - Ed.Adm. 504 Curriculum Development and Administration (3)
   - Ed.Adm. 578 Supervision of Instruction (3)
   - Ed.Adm. 580 Foundations of Educational Administration (3)
   - Ed.Adm. 604 Seminar in Curriculum and Supervision (3)

RESEARCH COURSES (9-15 Q.H.)
   - Required of all candidates:
     - Ed.Adm. 525 Educational Statistics (3)
     - Ed.Adm. 570 Research and Writing (3)
     - Ed.Adm. 608 Seminar in Problems and Trends of Educational Administration (3)
     - Ed.Adm. 680 Practicum in Education Administration (3-9) OR
     - Ed.Adm. 681 Internship in Educational Administration (3-9)

   NOTE: Ed.Adm. 680 and 681 may be waived if the candidate has had appropriate experience.

2. Required of candidates specializing in Elementary Administration:
   - Ed.Adm. 524 Elementary School Management (3)

3. Required of candidates specializing in Secondary Administration:
   - Ed.Adm. 520 Secondary School Management (3)

4. Required of candidates specializing in General Administration:
   - Ed.Adm. 510 School Law (3)
   - Ed.Adm. 528 Personnel Administration in Education (3)
   - Ed.Adm. 552 Planning of School Facilities (3)
   - Ed.Adm. 583 School Finance (3)

RELATED EDUCATION COURSES (9-18 Q.H.)
   - Graduate level courses

COGNATE COURSES (12-21 Q.H.)
   - Graduate level courses
MASTER'S DEGREE PROGRAM

COURSE REQUIREMENTS

1. Candidates must earn a minimum of forty-eight (48) graduate credits approved by their advisor.
2. Candidates must meet the professional education requirements as listed in this bulletin.

MAJOR FIELD COURSES (24-30 O.H.)

1. Required of all candidates:
   - Ed.Adm. 504 Curriculum Development and Administration (3)
   - Ed.Adm. 578 Supervision of Instruction (3)
   - Ed.Adm. 580 Foundations of Educational Administration (3)
2. Required of candidates specializing in Elementary School Administration:
   - Ed.Adm. 524 Elementary School Management (3)
3. Required of candidates specializing in Secondary School Administration:
   - Ed.Adm. 520 Secondary School Management (3)

RESEARCH COURSES (9 O.H.)

Required of all candidates:
- Ed.Adm. 525 Educational Statistics (3)
- Ed.Adm. 526 Educational Measurement & Evaluation (3)
- Ed.Adm. 570 Research and Writing (3)

RELATED EDUCATION COURSES (3-12 Q.H.)

Graduate level courses

COGNATE COURSES (6-12 Q.H.)

Graduate level courses

WRITING REQUIREMENTS

With thesis: Candidates must complete a thesis for six (6) credits, demonstrating their ability to use scientific methods and procedures in the solution of an independent study project in the area of school administration. The six credits will be applied to administration course requirements in Major Field Courses.

Without thesis: Candidates must write one comprehensive paper to show proficiency in research and writing at the graduate level. The topic for this paper must be applicable to educational administration courses listed under Major Field Courses and must be approved by the faculty advisor. Guides for the form and style may be secured from the Department of Educational Administration.

EXAMINATIONS

With thesis: Each candidate must pass a comprehensive written examination and an oral examination on the thesis paper.

Without thesis: Each candidate must pass a comprehensive written examination and may be required to pass a final oral examination.

Note: The student should secure a copy of the Educational Administration Department's guidelines for the Master of Science in Education Degree.

COURSE LISTINGS

COURSES FOR GRADUATE STUDENTS ONLY

Courses offered on a Pass/No Credit basis are indicated in the course description.

525 Educational Statistics — 3 Q.H.
An introduction to statistics with emphasis on the analysis of data as a means of improving decision-making. Fundamentals of descriptive and inferential statistics including hypothesis testing procedures.

526 Educational Measurement and Evaluation — 3 Q.H.
The use of measurement and evaluation in educational decision-making. Emphasis on use and interpretation of tests.

527 School Business Management — 3 Q.H.
Business management activities, including procedures for budgeting and accounting.

528 Personnel Administration in Education — 3 Q.H.
The nature and scope of the personnel function, with special attention to major current issues.

530 Collective Bargaining in Education — 3 Q.H.
The development, environment, structure, process and impact of collective bargaining at K-14 level.

535 Public Relations for Management — 3 Q.H.
Philosophy, techniques and problems of school-community relations.

552 Planning of School Facilities — 3 Q.H.
Procedures for solving facilities problems, with emphasis on techniques for developing and securing technical information.

570 Research and Writing — 3 Q.H.
Form, style and appropriate research procedures in education.

578 Supervision of Instruction — 3 Q.H.
Improvement of the total teaching-learning process with emphasis on organizations, human behavior and instructional leadership.

580 Foundations of Educational Administration — 3 Q.H.
The organization and governance of American education.

583 School Finance — 3 Q.H.
Financing education, including current policies, sources of revenue, and trends in fiscal structure and operation.
92/EDUCATIONAL ADMINISTRATION – ENGLISH

590 Individual Research - 1-4 O.H.
Conducting and reporting research under the supervision of a member of the educational administration staff. Prerequisite: Consent of the student’s advisor.

599 Master’s Thesis - 6 O.H.
Must show candidate’s ability to employ scientific methods and procedures in an independent study in his/her field of concentration.

604 Seminar in Curriculum and Supervision - 3 O.H.
Emphasis on developing a personal philosophy of curriculum and supervision in the total teaching-learning process. Prerequisites: 578 and 504 or equivalent.

608 Seminar in Problems and Trends - 3 O.H.
Within the context of needs of individual students, a review of the practical application of administrative theories.

610 Workshop in School Administration - 3-9 O.H.
Topics vary according to needs of interested administrators and students. P/NC Option.

680 Practicum in Educational Administration - 3-9 O.H.
The student will function in an administrative capacity under an experienced administrator with supervision from the Department of Educational Administration. P/NC Only.

681 Internship in Educational Administration - 3-9 O.H.
The student will function under an experienced administrator in a full-time salaried administrative capacity with the supervision from the Department of Educational Administration. P/NC Only.

699 Specialist Degree in Field Study - 9 O.H.

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**English**

Minne Hall Room 302 / 457-2942
*Nichols (Chairperson)*, *Bennett*, *Cowgill*,
*DeGrazia*, *Dorner*, *Grawe*, *Guthrie*, *Kane*,
*Lund*, *Meeker*, *Miller*, *Nichols*, *Raz*,
*Robinson*

The Department of English is concerned with the English language as art and as communication. At the lower academic levels, courses are designed to help you acquire competence in reading and writing, in thinking critically, and in understanding and responding to aesthetic values. At the upper levels, the emphasis shifts increasingly to British and American literature and to more sophisticated forms of writing.

**B.A. MAJOR**

**72 O.H.**

*(Minor not required)*

Students majoring in English should complete the lower-division requirements in English before registering for courses in the upper-division.

**REQUIRED ENGLISH COURSES (44 O.H.)**

Note: Only one course in the English novel and one course in the American novel may be counted as part of the specified requirements. Other novel courses will be counted as electives.

- 201 Literary Studies: An Introduction (4)

210 Advanced Expository Writing (4) OR
211 Story Writing (4) OR
212 Writing Poetry (4)

223 Classical Mythology (4) OR
224 The Bible as Literature (4)

405 Chaucer (4)

Electives must be taken in courses above the 100 level including at least sixteen hours in courses numbered 300 or above.

(Note: English 250 may be counted only once.)
B.S. MAJOR
72 Q.H. (TEACHING)

(Minor not required)

Students majoring in English should complete the lower-division requirements in English before registering for courses in the upper-division.

REQUIRED ENGLISH COURSES (48 Q.H.)
Note: Only one course in the English novel and one course in the American novel may be counted as part of the specified requirements. Other novel courses will be counted as electives.
201 Literary Studies: An Introduction (4)
210 Advanced Expository Writing I (4)
400 Teaching Literature to Young Adults (4)
405 Chaucer (4)
411 Teaching Language and Composition (4)
414 Shakespeare: Comedies and Histories (4) OR
417 Shakespeare: Tragedies (4)
418 Language and Style (4) OR
420 Varieties of English (4)
447 Modern Literary Criticism (4) OR
448 History of Criticism (4)
330 English Novel I (4) OR
406 Studies in 16th Century Literature (4) OR
407 Studies in 17th Century Literature (4) OR
445 Studies in 18th Century Literature (4)
331 English Novel II (4) OR
435 Literature of the Romantic Era (4) OR
437 Victorian Literature (4)
315 American Novel I (4) OR
351 American Literature I (4) OR
352 American Literature II (4) OR
422 Emerson and Thoreau (4)
316 American Novel II (4) OR
424 Modern Drama (4) OR
425 Modern British and American Prose (4) OR
432 European Masterpieces in Translation (4) OR
450 Modern British and American Poetry (4)

REQUIRED COMMUNICATION AND THEATRE ARTS COURSES (8 Q.H.)
220 Public Speaking (4)
223 Oral Interpretation (4) OR
410 Play Production (4)

ELECTIVES IN ENGLISH (16 Q.H.)
Electives must be taken in courses above the 100 level, including at least eight hours in courses numbered 300 or above. (NOTE: English 250 may be counted only once.)

B.A. MAJOR
WITH EMPHASIS IN WRITING
71-72 Q.H.

Required Writing Courses (31-32 Q.H.)
Eng. 201 Literary Studies: An Introduction (4)
Eng. 210 Advanced Expository Writing (4)
Eng. 211 Story Writing (4) OR
Eng. 212 Writing Poetry (4)
MCOM 215 Beginning Reporting (4)
MCOM 217 Advanced Reporting (4)
MCOM 337 Specialized Reporting (4) OR
BEOA 332 Business Report Writing (3)
Eng. 418 Language and Style (4)
Eng. 439 Technical Writing (4) OR
Eng. 449 Scientific Writing (4)

Other Required English Courses (12 Q.H.)
Eng. 224 The Bible as Literature (4)
Eng. 405 Chaucer (4) OR
Eng. 414 Shakespeare: Comedies and Histories (4) OR
Eng. 417 Shakespeare: Tragedies (4)
Eng. 425 Modern British and American Prose (4) OR
Eng. 450 Modern British and American Poetry (4)

ELECTIVES IN ENGLISH (28 Q.H.)
Electives must be taken above the freshman level and may include only one of the following courses:
Eng. 250 or Humanities 305.

B.S. MAJOR
WITH EMPHASIS IN WRITING
72 Q.H.

REQUIRED WRITING COURSES (24 Q.H.)
Eng. 201 Literary Studies: An Introduction (4)
Eng. 210 Advanced Expository Writing (4)
Eng. 211 Story Writing (4) OR
Eng. 212 Writing Poetry (4)
MCOM 215 Beginning Reporting (4)
Eng. 418 Language and Style (4)
Eng. 439 Technical Writing (4) OR
Eng. 449 Scientific Writing (4)

OTHER REQUIRED ENGLISH COURSES (28 Q.H.)
Eng. 351 American Literature I (4) OR
Eng. 352 American Literature II (4)
Eng. 400 Teaching Literature to Young Adults (4)
Eng. 405 Chaucer (4)
### 94/ENGLISH

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>Eng.</td>
<td>411 Teaching Language and Composition (4)</td>
</tr>
<tr>
<td>Eng.</td>
<td>414 Shakespeare: Comedies and Histories (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>417 Shakespeare: Tragedies (4)</td>
</tr>
<tr>
<td>Eng.</td>
<td>425 Modern British and American Prose (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>450 Modern British and American Poetry (4)</td>
</tr>
<tr>
<td>Eng.</td>
<td>445 Studies in Eighteenth Century Literature (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>435 Literature of the Romantic Era (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>437 Victorian Literature (4)</td>
</tr>
</tbody>
</table>

#### REQUIRED COMMUNICATION AND THEATRE ARTS COURSES (8 Q.H.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTA</td>
<td>220 Public Speaking (4)</td>
</tr>
<tr>
<td>CTA</td>
<td>223 Oral Interpretation (4) OR</td>
</tr>
<tr>
<td>CTA</td>
<td>410 Play Production (4)</td>
</tr>
</tbody>
</table>

#### ELECTIVES IN ENGLISH (12 Q.H.)
Electives must be taken above the freshman level and may include only one of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng.</td>
<td>250 or Humanities 305.</td>
</tr>
</tbody>
</table>

### B.A. MINOR 36 Q.H.

Students minoring in English should complete the lower-division requirements in English before registering for courses in the upper-division.

#### REQUIRED ENGLISH COURSES (20 Q.H.)

**NOTE:** Only one course in the English novel may be counted as part of the specified requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Advanced Expository Writing I (4)</td>
</tr>
<tr>
<td>211</td>
<td>Story Writing (4) OR</td>
</tr>
<tr>
<td>212</td>
<td>Writing Poetry (4)</td>
</tr>
<tr>
<td>414</td>
<td>Shakespeare: Comedies and Histories (4) OR</td>
</tr>
<tr>
<td>417</td>
<td>Shakespeare: Tragedies (4)</td>
</tr>
<tr>
<td>330</td>
<td>English Novel I (4) OR</td>
</tr>
<tr>
<td>406</td>
<td>Studies in 16th Century Literature (4) OR</td>
</tr>
<tr>
<td>407</td>
<td>Studies in 17th Century Literature (5) OR</td>
</tr>
<tr>
<td>445</td>
<td>Studies in 18th Century Literature (4)</td>
</tr>
<tr>
<td>331</td>
<td>English Novel II (4) OR</td>
</tr>
<tr>
<td>435</td>
<td>Literature of the Romantic Era (4) OR</td>
</tr>
<tr>
<td>437</td>
<td>Victorian Literature (4)</td>
</tr>
<tr>
<td>315</td>
<td>American Novel I (4) OR</td>
</tr>
<tr>
<td>351</td>
<td>American Literature I (4) OR</td>
</tr>
<tr>
<td>352</td>
<td>American Literature II (4) OR</td>
</tr>
<tr>
<td>422</td>
<td>Emerson and Thoreau (4)</td>
</tr>
</tbody>
</table>

#### ELECTIVES (8 Q.H.)
Electives must be chosen from English 201, 223, 224 or any course numbered 300 or above.

### MASTER OF SCIENCE

#### PREREQUISITES:
An undergraduate major in English equivalent to that required by Winona State University. (See Department “Requirements for the M.S.” for exceptions.)

#### REQUIREMENTS (26 HOURS)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng.</td>
<td>418 Language and Style (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>420 Varieties of English (4)</td>
</tr>
</tbody>
</table>

#### ELECTIVES (16 Q.H.)
Electives must be chosen from English 201, 223, 224 or any course numbered 300 or above.

### B.S. MINOR 36 Q.H. (TEACHING)

Students minoring in English should complete the lower-division requirements in English before enrolling in courses in the upper-division.

#### REQUIRED ENGLISH COURSES (20 Q.H.)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Advanced Expository Writing I (4)</td>
</tr>
<tr>
<td>400</td>
<td>Teaching Literature to Young Adults (4)</td>
</tr>
<tr>
<td>411</td>
<td>Teaching Language and Composition (4)</td>
</tr>
<tr>
<td>414</td>
<td>Shakespeare: Comedies and Histories (4) OR</td>
</tr>
<tr>
<td>417</td>
<td>Shakespeare: Tragedies (4)</td>
</tr>
<tr>
<td>418</td>
<td>Language and Style (4) OR</td>
</tr>
<tr>
<td>420</td>
<td>Varieties of English (4)</td>
</tr>
</tbody>
</table>

#### ELECTIVES (8 Q.H.)
Electives must be chosen from English 201, 223, 224, or any course numbered 300 or above.

### WITHOUT THESIS (51 HOURS)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng.</td>
<td>406 Studies in 16th Century Literature (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>407 Studies in 17th Century Literature (5) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>445 Studies in 18th Century Literature (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>435 Literature of the Romantic Era (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>437 Victorian Literature (4)</td>
</tr>
<tr>
<td>Eng.</td>
<td>315 American Novel I (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>351 American Literature I (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>352 American Literature II (4) OR</td>
</tr>
<tr>
<td>Eng.</td>
<td>422 Emerson and Thoreau (4)</td>
</tr>
</tbody>
</table>

#### ELECTIVES (8 Q.H.)
Electives must be chosen from English 201, 223, 224, or any course numbered 300 or above.

### MASTER OF ARTS

#### PREREQUISITES:
1. An undergraduate major in English equivalent to that required by Winona State University. (In the event that one or more requirements for the undergraduate English major have not been met prior to admission to Winona State University...)

#### SPECIAL DEPARTMENTAL REQUIREMENTS:
See Department of English “Requirements for the M.S.” for complete details of the program.

The written permission of the Department of English is required before you may apply to take the terminal examination required for the degree.

#### MASTER OF ARTS

#### PREREQUISITES:
1. An undergraduate major in English equivalent to that required by Winona State University. (In the event that one or more requirements for the undergraduate English major have not been met prior to admission to Winona State University...)

#### SPECIAL DEPARTMENTAL REQUIREMENTS:
See Department of English “Requirements for the M.S.” for complete details of the program.

The written permission of the Department of English is required before you may apply to take the terminal examination required for the degree.
University, these may be made up after admission, but you will not be admitted to candidacy for the M.A. degree until all undergraduate requirements have been fulfilled.

2. A "B" average (or 3.00 average figured on a basis of 4.00 for "A") in undergraduate English courses.

3. The Graduate Record Examination Aptitude Test. Although the Graduate Record Examination Advanced Test: Literature in English is not normally required, you may be required to take it if your undergraduate major was not English or if your undergraduate G.P.A. was below 3.00. Cases of these sorts will be decided on an individual basis by the departmental Graduate Studies Committee.

REQUIREMENTS (20 HOURS)
One 500-level seminar in English or American literature (4)
English 447G and 448G* (8)
English 418G and 420G* (8)

*The courses will be waived if you have taken equivalent courses as an undergraduate.

PLAN A - THESIS (45 HOURS)
English Electives (10)
Thesis (maximum) (6)
Non-English Electives (maximum) (9)

PLAN B - NON-THESIS (45 HOURS)
English Electives (16)
Non-English Electives (maximum) (9)
Three "Approved" Papers

SPECIAL DEPARTMENTAL REQUIREMENTS
See Department of English "Requirements for the M.A. in English" for complete details of the program.

The written permission of the Department of English is required before you may apply to take the terminal examination required for the degree.

COURSE LISTINGS

NO courses in the Department except internships are open to declared English majors or minors on a pass/no credit basis. ANY course in the Department except 108, 110 and 115 may be taken on a pass/no credit basis by a student who is not a declared English major or minor.

005 Publications - 1-4 Q.H.
A laboratory course involving projects in college publications or information services. Consent of Head of Department of English required. Must be arranged well in advance of registration period. Course may be repeated for a maximum of eight hours credit. No prerequisites: Offered quarterly.

105 English for Non-Native Speakers - 4 Q.H.
Intensive advanced drill in speaking, reading, and writing English. Designed to prepare the non-native speaker for English 110. Course may be repeated for a maximum of eight hours credit. Offered quarterly.

108 Introduction to College Writing - 4 Q.H.
Intensive writing practice with special focus on the fundamentals of sentence and paragraph structure. Offered quarterly.

110 Freshman Composition I - 4 Q.H.
The fundamentals of narrative, descriptive and expository writing based on reading or personal experience. Systematic work with English grammar, mechanics, and style. Prerequisite for English 115. Offered quarterly.

115 Freshman Composition II - 4 Q.H.
Continuation of 110 with a stress on analytical and persuasive writing, research, and the documentation of supporting evidence. Prerequisite: 110. Offered quarterly.

121 Major British and American Fiction - 4 Q.H.

122 Major British and American Drama - 4 Q.H.
Emphasis on the careful reading of a limited number of landmark British and American plays from Shakespeare to the present and from tragedy to musical comedy. Offered yearly. P/NC Option.

123 Major British and American Poetry - 4 Q.H.
An introductory study of the poetry of a selected number of significant British and American poets. Offered yearly. P/NC Option.

131 Masterpieces of American Literature - 4 Q.H.
An introduction to major works by great American writers, including works of all forms, and of both the pre-Twentieth Century and modern periods. Offered Yearly. P/NC Option.

132 Masterpieces of European Literature in Translation - 4 Q.H.
An introduction to the literature of modern Europe, in translation. Offered yearly. P/NC Option.

151 American Indian Literature - 4 Q.H.
A study of the prose, poetry, ritual, artifacts, and personal narratives of American Indians in a historical and literary context, and the relationship of the literature to cultural forces. Offered yearly. P/NC Option.

201 Literary Studies: An Introduction - 4 Q.H.
An introduction to the advanced study of British and American literature. The course includes an introduction to criticism, to the study of literary history, to prosody and the study of prose styles, and to the use of library material particularly important for the literary student. Prerequisites: 110 and 115. Offered twice yearly.

NOTE: English 110 and 115 are prerequisites for all courses below except English 250 and Humanities 140.

210 Advanced Expository Writing - 4 Q.H.
An advanced course in writing essays, stressing the development of a mature writing style and evaluative abilities. Prerequisites: 110, and 115. Offered yearly. P/NC Option.

211 Story Writing - 4 Q.H.
Study and practice in the techniques and forms of fiction writing. Prerequisites: 110 and 115. Offered yearly.
212 Writing Poetry — 4 Q.H.
This course is designed to help students express themselves in poetry. Emphasis is on the techniques of writing poetry as applicable to poems students themselves write. Prerequisites: 110 and 115. Offered alternate years. P/NC Option.

223 Classical Mythology — 4 Q.H.
The great myths of ancient Greece and Rome as they appear in classical literature. Prerequisites: 110 and 115. Offered yearly. P/NC Option.

224 The Bible as Literature — 4 Q.H.
The King James version of the Bible as a work of literature, and as an influence on British and American writers. Prerequisites: 110 and 115. Offered yearly. P/NC Option.

250 Popular Literature — 4 Q.H.
A study of works that have broad popular appeal. No prerequisites: Offered yearly.

315 American Novel I — 4 Q.H.
The beginnings to the late nineteenth century. Prerequisites: 110 and 115. Offered every two years. P/NC Option.

316 American Novel II — 4 Q.H.
The late nineteenth century to the present. Prerequisites: 110 and 115. Offered every two years. P/NC Option.

330 English Novel I — 4 Q.H.
The development of the English novel from its origins to the end of the eighteenth century. Prerequisites: 110 and 115. Offered every two years. P/NC Option.

331 English Novel II — 4 Q.H.
The development of the English novel from the Romantic period to the end of the nineteenth century. Prerequisites: 110 and 115. Offered every two years. P/NC Option.

351 American Literature I — 4 Q.H.
The beginning to the Civil War. Not a prerequisite for English 352. Prerequisites: 110 and 115. Offered yearly. P/NC Option.

352 American Literature II — 4 Q.H.
The Civil War to modern times. Prerequisites: 110 and 115. Offered yearly. P/NC Option.

399 Internship — 1-16 Q.H.
Supervised, practical experience in a wide variety of fields. Prerequisites: 110 and 115. Offered quarterly. P/NC Only.

400G Teaching Literature to Young Adults — 4 Q.H.
A study of literature appropriate for use in junior and senior high schools, and of effective methods for presenting this literature to secondary school students. Prerequisites: 110 and 115. Offered yearly.

405G Chaucer — 4 Q.H.
The Canterbury Tales. Prerequisites: 110 and 115. Offered yearly.

406G Studies in Sixteenth Century Literature — 4 Q.H.
Non-dramatic literature of the Tudor period. Prerequisites: 110 and 115. Offered every two years.

407G Studies in Seventeenth Century Literature — 4 Q.H.
Non-dramatic literature of the seventeenth century. Prerequisites: 110 and 115. Offered every two years.

411G Teaching Language and Composition — 4 Q.H.
An advanced study of writing aimed at the problem of teaching writing; discussion of methods of making students more aware of the complexity and variability of the English language. Prerequisites: 110 and 115. Offered every two years.

412G Literature of the Upper Midwest — 4 Q.H.
A study of writers from the Minnesota region, with particular attention to the geographical and cultural milieu from which they came. Prerequisites: 110 and 115. Offered every two years.

414G Shakespeare: Comedies and Histories — 4 Q.H.
Prerequisites: 110 and 115. Offered yearly.

417G Shakespeare: Tragedies — 4 Q.H.
Prerequisites: 110 and 115. Offered yearly.

418G Language and Style — 4 Q.H.
The structure of modern English as described by traditional grammarians and contemporary linguists; application of linguistics to the analysis of style. Prerequisites: 110 and 115. Offered every two years.

420G Varieties of English: Historical, Regional, Social — 4 Q.H.
Linguistic variation as exemplified by the history of the English language and by modern American regional and social dialects; the relationship of social forces to language and to dialect differences. Prerequisites: 110 and 115. Offered every two years.

421G Tutoring the Writing Student — 4 Q.H.
Practicum in teaching English grammar and mechanics to freshman composition students. Prerequisites: 110 and 115. Offered yearly.

422G Emerson and Thoreau — 4 Q.H.
The characteristic work of each author studied against the philosophical and literary background of American transcendentalism. Prerequisites: 110 and 115. Offered every two years.

424G Modern Drama — 4 Q.H.
Trends from Ibsen to the most recent playwrights. Elective in Speech Major. Prerequisites: 110 and 115. Offered every two years.

425G Modern British and American Prose — 4 Q.H.
Prerequisites: 110 and 115. Offered every two years.

431G European Masterpieces in Translation: The Beginnings to the Mid-Nineteenth Century — 4 Q.H.
Prerequisites: 110 and 115. Offered every two years.

432G European Masterpieces in Translation: The Late Nineteenth Century to the Present — 4 Q.H.
Prerequisites: 110 and 115. Offered every two years.

435G Literature of the Romantic Era — 4 Q.H.
The Romantic writers and their precursors. Prerequisites: 110 and 115. Offered every two years.

437G Victorian Literature — 4 Q.H.
Major poets, essayists, and critics studied as an expression of the age. Prerequisites: 110 and 115. Offered every two years.

439G Technical Writing — 4 Q.H.
A course in the theory and practice of technical writing. Prerequisites: 110 and 115. Offered every two years.

445G Studies in Eighteenth Century Literature — 4 Q.H.
Prerequisites: 110 and 115. Offered every two years.
447G Modern Literary Criticism:  
Theory and Practice — 4 Q.H.  
A study of modern critical theories and their application in original critical evaluations. Prerequisites: 110 and 115. Offered yearly.  

448G History of Criticism — 4 Q.H.  
The history of literary criticism from ancient times until the end of the nineteenth century as a basis for the formulation of the student's own theory and its application in original critical evaluations. Prerequisites: 110 and 115. Offered yearly.  

449G Scientific Writing — 4 Q.H.  
An introduction to the process of scientific writing and to the assumptions about discovery and understanding that lie behind it. Prerequisites: 110 and 115. Offered every two years.  

450G Modern British and American Poetry — 4 Q.H.  
Prerequisites: 110 and 115. Offered every two years.  

461-2-3 Independent Studies — 1-4 Q.H.  
Independent studies in areas determined by the needs of the individual student. Offered by previous arrangement only. The consent of the instructor is required. Prerequisites: 110 and 115. Offered quarterly.  

HUMANITIES  

140 Approaches to the Film — 4 Q.H.  
A general introduction of the arts of the film, with focus on the non-technical aspects of the art. No prerequisites. (Formerly Humanities 304. Offered yearly.  

305 Film Comedy — 4 Q.H.  
A study of the comic film as a specific type of cinematic literature, examining its history, comic theory, and selected examples of the type, both foreign and domestic. Prerequisites: 110 and 115. Offered yearly.  

COURSES FOR GRADUATE STUDENTS ONLY  

505-506-507 Seminar in English, Literature — 4 Q.H. Each  
Intensive study of one English writer, or of a small group of writers whose works represent a significant movement or aspect of American literature. Specific writer, or writers, announced in class schedule.  

508-509-510 Seminar in American Literature — 4 Q.H. Each  
Intensive study of one American writer, or of a small group of writers whose works represent a significant movement or aspect of American literature. Specific writer, or writers, announced in class schedule.  

590-591-592 Independent Studies — 1-4 Q.H.  
Independent studies in areas determined by the needs of the individual student. (Offered by previous arrangement only. The consent of the instructor is required.)  

599 Thesis — 1-6 Q.H.  

Foreign Languages  

Somsen Hall, Room 301 / 457-2015  
Mazur, (Chairperson), German-French-Polish;  
Steigerwald, German-Spanish-French  
Departmental offerings are designed to develop proficiency in understanding, speaking, reading, and writing a second language, and a concomitant appreciation of a respective culture, so that students who back up other occupational skills with a knowledge of a foreign language may enhance their chances of employment with multi-national concerns, governmental agencies, and humanitarian organizations.  

The following study options are provided:  

a) Complete B.A. major and minor program in German  
b) Spoken Norwegian I  
c) Occasional courses in Polish and Arabic  
d) Elementary French  
e) Elementary and Intermediate Spanish  

NOTE: Under special arrangements, Winona State University students can complete major and minor requirements in Spanish or complete teacher licensure requirements in foreign languages at a local private college. For details, contact the department chairperson.  

Placement and Credit for Previous Language Study  
Students who studied foreign languages in high school are encouraged to enroll in WSU classes that are beyond the beginner's level. Generally, two years of foreign language study in high school corresponds to one year on the college or university level. By earning at least a "B" in either 111, 112, 213 or 214, additional credits can be obtained retroactively ($5 per credit fee) for 110 and sequel courses that were bypassed.  

STUDY ABROAD  

WSU students who wish to immerse themselves in the foreign culture and language of their choice for one, two or three academic quarters, have the following options for credit:  

1) study in Germany, France or Spain — "Common Market" arrangement with St. Cloud State University.  
2) study in Mexico — "Common Market" arrangement with Mankato State University.
B.A. MAJOR
GERMAN
40 Q.H.

REQUIRED COURSES (40 Q.H.)
320 Readings and Syntax (4)
322 German Civilization and Culture (4)
325 German Short Story (4)
332 Conversation and Composition (4)
333 Advanced Conversation and Composition (4)
335 Contemporary Topics in the German Press (4)
370 Lyrics, Ballads, Folk Songs (4)
410 Periods of German Literature I (4)
411 Periods of German Literature II (4)
412 Periods of German Literature III (4)
413 Periods of German Literature IV (4)
414 Periods of German Literature V (4)
450 Individual Author(s) (4)

B.A. MINOR
GERMAN
24 Q.H.

Same as Major except delete 325, 333, 370 and 450.

COURSE LISTINGS

All courses in the department may be taken on a pass/no credit basis. Courses taken by majors or minors in fulfillment of major or minor requirements must be taken on a regular graded basis. Elementary and intermediate sequence courses (110, 111, 112, 213, and 214) do not constitute part of the major or minor—qualified students are encouraged to "test out" of any of these courses and earn Credit By Examination.

ELECTIVE COURSES

Elective Courses—offered in English, no prerequisites
350 Germania, USA

GENERAL

200 Exploratory Foreign Language—2 Q.H.
Presentation of French, German and Spanish alphabets, common expressions, idiomatic phrases, proverbs, geographic and personal names in a comparative way; discussion of grammatical features and cultural aspects so that participants may decide which of the three most commonly taught foreign languages might be best suited for them. Offered yearly. P/NC Option.

FRENCH

110 Elementary French I — 4 Q.H.
Introductory French for students with very little or no prior French training. Instruction in speaking, listening, reading, and writing through classroom drill and language lab work. Prerequisite: None. Offered yearly.

111 Elementary French II — 4 Q.H.
Continuation of 110. Prerequisite: 110 or one year of high school French or equivalent. Offered yearly.

112 Elementary French III — 4 Q.H.
Continuation of 111. Prerequisites: 110 or two years of high school French or equivalent. Offered yearly.

GERMAN

110 Elementary German I — 4 Q.H.
Introductory German for students with very little or no prior German training. Instruction in speaking, listening, reading, and writing through classroom drill and language lab work. Prerequisite: None. Offered yearly.

111 Elementary German II — 4 Q.H.
Continuation of 110. Prerequisite: 110 or one year of high school German or equivalent. Offered yearly.

112 Elementary German III — 4 Q.H.
Continuation of 111. Prerequisite: 111 or two years of high school German or equivalent. Offered yearly.

213 Intermediate German — 4 Q.H.
Intermediate German, with continued development of the four skills, vocabulary building and development of effective reading ability. Prerequisite: 112 or equivalent of three years of high school German. Offered yearly.

214 Intermediate German II — 4 Q.H.
Continuation of 213. Prerequisite: 213 or 4 years of high school German or equivalent. Offered yearly.

250 Origins and Development of German Culture — 4 Q.H.
An overview of German culture from Indo-European beginnings to the present with special emphasis on the advantages and disadvantages of the major periods and movements as they related to developments elsewhere. Offered every other year. P/NC Option.
in East-Central Europe. Prerequisite: none, since the textbooks and the discussions are in English. Offered every two years as an elective.

370 Lyrics, Ballads and Folk Songs — 4 Q.H.
An introduction to German Poetry. Representative examples from various periods, including folk songs, ballads, and church songs are read and discussed as to form and content. Prerequisite: 214 or equivalent. Offered every two years.

410 Periods of German Literature I — 4 Q.H.
German literary epochs from early examples to Classicism/Romanticism will be discussed in connection with representative works against historical and philosophical backgrounds. Prerequisite: 214 or equivalent. Offered every two years.

411 Periods of German Literature II — 4 Q.H.
Continuation of 410 from Classicism/Romanticism to modern times. Prerequisite: 214 or equivalent. Offered every two years.

450 Individual German Author — 4 Q.H.
A course dealing with major individual German authors offering a different author, or small group of authors, each time. May be repeated for credit as long as different authors are covered. A research project on a particular author or on an entire literary movement is required by participating German majors. Prerequisite: 214 or equivalent. Offered every two years.

490 Independent Study — 1-4 Q.H.
Directed independent work on specific topics of interest to the student. Course topic requirements, meeting times and spaces, and number of quarter hours by arrangement with the instructor. Repeatable for credit up to a total of 12 quarter hours. Prerequisite: depends on project attempted. Offered by arrangement.

NORWEGIAN

110 Spoken Norwegian — 2 Q.H.
Introductory reading and speaking practice in the classroom and language lab. Prerequisite: none. Offered on the basis of demand.

SPANISH

110 Elementary Spanish I — 4 Q.H.
Introductory Spanish for students with very little or no prior training in Spanish. Instruction in speaking, listening, reading and writing through classroom drill and language lab work. Prerequisite: none. Offered yearly.

111 Elementary Spanish II — 4 Q.H.
Continuation of 110. Prerequisite: 110 or 1 year of high school Spanish or equivalent. Offered yearly.

112 Elementary Spanish III — 4 Q.H.
Continuation of 111. Prerequisite: 111 or 2 years of high school Spanish or equivalent. Offered yearly.

213 Intermediate Spanish I — 4 Q.H.
Further development of communication skills. Study of grammar essential to skills. Selected readings in Spanish. Prerequisite: 112 or equivalent of three years of high school Spanish. Offered yearly.

214 Intermediate Spanish II — 4 Q.H.
Further development of communication skills. Study of grammar essential to skills. Selected readings in Spanish. Prerequisite: 213 or equivalent of four years of high school Spanish. Offered yearly.
General Science

Sonsen Hall, Room 221 / 457-2160

Especially recommended for junior high school teachers.

B.A. MAJOR
105 Q.H. (TEACHING)

(Minor not required)

REQUIRED MATHEMATICS COURSES
(28 Q.H.)
215 College Algebra (4)
216 Trigonometry (4)
225, 226 Geometry-Calculus I, II (10)

Electives in Math. 200 or above (10)

REQUIRED GEOLOGY AND EARTH SCIENCE COURSES (18 Q.H.)
116 Physical Geology (5)
117 Historical Geology (5)
315 Geomorphology (4)
350 Invertebrate Paleontology (4)

Electives in Geology and Earth Science to a total of 10 credits.

CHOOSE A OR B
A. BIOLOGICAL SCIENCE OPTION (28 Q.H.)

Note: Students in Option A must elect 12 credits of chemistry and/or physics. These courses may also be applied to the Natural Science requirements of General Education.

207, 208 Botony (8)
210, 211 Zoology (8)
301 Invertebrate Zoology (4)
302 Vertebrate Zoology (4)
350 Plant Taxonomy (4)

ELECTIVES (1 Q.H.)
Electives in Biology to a total of 1 credits.

B. PHYSICAL SCIENCE OPTION (26 Q.H.)

Note: Students in Option B must elect 12 credits of biology. These courses may also be applied to the Natural Science requirements of General Education.

201, 202, 203 General Physics (12)
212, 213 General Inorganic Chemistry (10)
340 Organic Chemistry Survey (4)

ELECTIVES (3 Q.H.)
Electives in Physical Science to a total of 3 credits.

ADDITIONAL REQUIREMENTS – OPTION A & B (8 Q.H.)
311 Teaching of Science (4)
320 Teaching of Mathematics (4)

Geography

Minne Hall, Room 328 / 457-2972

*Carlson (Chairperson), Baron, *Hopkins.

The study of Geography affords the student the opportunity to examine the differences and similarities of the various physical and cultural environments in which we live.

Drawing on concepts from both the physical and the social sciences, the geographer prepares himself for work in such fields as education, urban and regional planning, government agencies, conservation, environmental planning, transportation, cartography, international relations, etc.

Through the B.S. Degree Program the Geography Department seeks to prepare students for a teaching career in the elementary and secondary schools. The B.A. Degree Program is designed for those who intend to go on to graduate school, or into non-teaching professions.

B.A. MAJOR
60 Q.H.

REQUIRED COURSES (36 Q.H.)
211 Economic Geography (4)
212 Physical Geography (4)
213 Cultural Geography (4)
349 Maps and Air Photos (4)
418 Geography of Transportation (4)
430 Urban Geography (4)
440 Climatology (4)
450 Cartography (4)
455 Remote Sensing (4)

ELECTIVES (24 Q.H.)

Electives to total 24 Q.H. and must come from Regional Geography, or 300 - or 400-level courses. With departmental approval, courses may be taken in major interest areas outside of Geography.
B.S. MAJOR
SOCIAL SCIENCE
95 Q.H. (TEACHING)

(See Social Science Major)

Effective July 1, 1979 the B.S. Social Science Major (Composite Concentration in the 1976-77 catalog) is the only Social Science major that will meet graduation and/or teaching certification requirements. All previous B.S. Social Science Majors became invalid as of July 1, 1979.

B.A. MINOR
28 Q.H.

REQUIRED COURSES (20 Q.H.)
211 Economic Geography (4)
212 Physical Geography (4)
213 Cultural Geography (4)
349 Maps and Air Photos (4)
430 Urban Geography (4)

ELECTIVES (8 Q.H.)
One course in regional geography (4)
One course in systematic geography (4)

B.S. MINOR

GEOGRAPHY OPTION
43 Q.H. (TEACHING)

Effective July 1, 1979, this B.S. Minor must be in combination with the B.S. Social Science Major (Composite Concentration listed in the 1976-77 catalog) to be valid for graduation and/or teacher certification.

REQUIRED COURSES (23 Q.H.)
201 Principles of Economics I (3)
211 Economic Geography (4)
212 Physical Geography (4)
213 Cultural Geography (4)
315 Historical Geography of North America (4)
320 Geography of the United States (4)

ELECTIVES (16 Q.H.)
One course each in History, Political Science, Sociology or Anthropology, and an advanced regional geography course (16)

REQUIRED EDUCATION COURSES (4 Q.H.)
331 (Education) Teaching Social Science in the Secondary Schools (4)

COURSE LISTINGS

Courses offered on a Pass/No Credit basis are designated in the course description.

110 World Regional Geography — 4 Q.H.
A survey of physical and cultural aspects of world regions including land forms, climate, economic activities, cultural diffusion and attitudes toward land, race, language, values and social structure. Offered quarterly.

211 Economic Geography — 4 Q.H.
A systematic study of the geographic bases of man's economic activities in agriculture, mining, and manufacturing. This course explains, by theory and example, the why, where and how activities are distributed in our economic world. Offered yearly.

212 Physical Geography — 4 Q.H.
An auto-tutorial introduction to the significance and areal distribution of various physical elements of man's environment with emphasis on climate, landforms, glacial work of streams, and glaciation. Offered yearly.

213 Cultural Geography — 4 Q.H.
An introduction to the significance and areal distribution of various cultural elements of man’s environment with emphasis on cultural origins, language, religion and agriculture. Offered yearly.

224 Geography of Africa — 4 Q.H.
Natural setting, distribution of the people, important occupations, and problems of future development of Africa. Offered yearly.

225 Geography of Latin America — 4 Q.H.
A study of the complex cultural, racial, political, demographic, and economic patterns which have developed in Latin America since 1492 within its physical geographic setting. Offered yearly.

233 Geography of the Middle East — 4 Q.H.
Environmental setting, population distribution, important occupations, crossroads, functions, and problems of development. Offered yearly.

315 Historical Geography of North America — 4 Q.H.
The geography of sections of North America at the time of their settlement. Shows the change in significance of geographic elements at different times in our history. Offered yearly.

320 Geography of the United States — 4 Q.H.
Dominant characteristics of the varying regions of the United States. The livelihood activities of the inhabitants of each region. Offered yearly.

323 Geography of the Orient — 4 Q.H.
A study of the physical and cultural features of the Far East. Offered yearly.

326 Geography of Europe — 4 Q.H.
A study of nations, regions, and economies of Europe with special attention to current problem areas. Offered yearly.

332 Geography of Canada — 4 Q.H.
A detailed examination of Canada's geography with special emphasis on developmental problems. Offered yearly.

336 Geography of Australia and the Pacific Islands — 4 Q.H.
The geography of Australia, New Zealand, and the island groups of Polynesia, Micronesia, and Melanesia. Offered alternate Spring Quarters.

349 Maps and Air Photos — 4 Q.H.
A study of the elements of map scale and projection, and the use of air photos in map preparation. Practice in the reading and interpretation of various kinds and series of maps. Offered yearly. P/NC Option.

413G Geography of Developing Nations — 4 Q.H.
An examination of the problems facing developing nations with emphasis on food production, industrial development, population, transportation and communications networks and cultural constraints affecting development. Prerequisite: 213 or consent of instructor. Offered every two years.
417 World Resources – 4 Q.H.
An analysis of man's philosophy, management and policies toward natural resources. Emphasis is on the use of resources through time as affected by attitudes and technological change. Prerequisite: 211. Offered alternate Winter Quarters.

418 Geography of Transportation – 4 Q.H.
A study of transportation, circulation and human efforts to efficiently overcome the friction of distance. Course content includes transportation theory, modes of transportation, network and flow analysis. Offered every two years.

430G Urban Geography – 4 Q.H.
Regional variation in form and degree of urbanization and the relation of cities to the areas they serve. Offered yearly.

431G Non-Metropolitan Urban Geography – 4 Q.H.
An examination of small towns and cities, focusing on commercial activities and industrialization. Changes in agriculture, transportation, migration patterns, aging, services, and the quality of life are considered. Field research included. Prerequisites: 211, 430G, or consent of instructor. Offered every other year.

440G Climatology – 4 Q.H.
The study of the areal distribution of world climate patterns, with special emphasis on climatic elements, factors which control climates, systems of classification, and man's role in changing climate. Prerequisite: 212. Offered yearly.

450 Cartography – 4 Q.H.
Theory and design of map making skills utilizing a variety of techniques in the production and reproduction of qualitative and quantitative maps. Prerequisite: 349. Offered yearly. P/NC Option.

455G Remote Sensing – 4 Q.H.
An examination of various remote sensing techniques including radar, infra-red, high altitude photography and LANDSAT earth satellite imagery, and their application to geographical inquiry in areas such as land use, agriculture, forest and range management and urban studies. Prerequisite: 349 or consent of instructor. Offered every two years.

460 Photogrammetry – 4 Q.H.
Techniques in the preparation and drawing of planimetric and contour maps using stereoplotting equipment. Prerequisites: 349, 450. Offered every two years.

490G Independent Reading in Geography – 1-4 Q.H.
A course designed to aid the student who plans to attend a graduate school or has a special area of interest which he desires to pursue beyond formal course limits. Work will be undertaken with an instructor chosen by the student. Prerequisite: consent of instructor. Offered quarterly by arrangement.

Geology

Pasteur Hall, Room 114B / 457-2094
*Nielsen (Chairperson), *Bayer, *Donovan, Meyers.

The department offers the Bachelor of Science program for prospective teachers of earth science and the Bachelor of Science program for students planning on graduate studies and professional careers in geology. The department aims to provide a sound understanding of the principles and processes of geology. Field excursions as well as practical laboratory experience are an integral part of most courses.

Majors will pursue studies enriched with the closely related disciplines of chemistry, mathematics, and physics. Students preparing for teaching will also take courses in astronomy, meteorology and biology.

B.S. MAJOR
EARTH SCIENCE
94 Q.H. (TEACHING)
(No minor required)

REQUIRED GEOLOGY COURSES (34 Q.H.)
116 Physical Geology (5)
117 Historical Geology (5)
220 Astronomy I (4)
221 Astronomy II (4)
230 Meteorology (4)
250 Mineralogy I (4)
251 Mineralogy II (4)
320 Igneous & Metamorphic Petrology (4)

REQUIRED CHEMISTRY COURSES (10 Q.H.)
212 General Inorganic Chemistry I (5)
213 General Inorganic Chemistry II (5)

REQUIRED PHYSICS COURSES (12 Q.H.)
201 General Physics I (4)
202 General Physics II (4)
203 General Physics III (4)

REQUIRED COURSES
Mathematics (12)
215 College Algebra (4)
216 Trigonometry (4)
208 Fundamentals of Statistics (4) OR
231 Introduction to FORTRAN (4)

BIOLOGY (8)
207 Botany I (4) OR
208 Botany II (4)
210 Zoology I (4) OR
211 Zoology II (4)

Chemistry
311 Teaching of Physical Science in the Secondary Schools (4) AND

Biology
442 Philosophy of Science (4) OR
Philosophy
270 Philosophy of Technology (4)
CERTIFICATION REQUIREMENTS FOR EARTH SCIENCE

Other Requirements
Biology 104 or 204 (4 Q.H.)
Biological Science (4 or more Q.H.)
Chemistry (2 more Q.H.)

B.S. MAJOR GEOLOGY

REQUIRED CORE COURSES (39 Q.H.)
116 Physical Geology (5)
117 Historical Geology (5)
250, 251 Mineralogy I, II (8)
315 Geomorphology (4)
320 Ign. and Met. Petrology (4)
321 Sedimentary Petrology (4)
350 Invertebrate Paleontology (4)
380 Structural Geology (4)
475 Earth Science Seminar (1)

OPTION A (MINOR REQUIRED)
87 Q.H.

REQUIRED CORE COURSES (39 Q.H.)

ELECTIVES (8 Q.H.)
Select from the following list:
200 Oceanography (4)
325 Geology and Land-Use Planning (4)
330 Quaternary and Glacial Geology (4)
370 Photogeology (4)
385 Regional Geology (4)
400 Individual Problems (1-4)
405 Geology of Minnesota (4)
410 Economic Geology (4)
414 Sedimentology (4)
420 Stream and Groundwater Geology (4)
425 Geophysics (4)
480 Geological Field Techniques (4)

ADDITIONAL REQUIREMENTS (40 Q.H.)

NOTE: May be used for minor or general education.
221, 222, 223 General College Physics I, II, III (15)
212, 213 General Inorganic Chemistry (10) (Chem 214 strongly recommended)
225, 226, 227 Analytic Geometry and Calculus I, II, III (15)

OPTION B (NO MINOR REQUIRED)
101-105 Q.H.

REQUIRED GEOLOGY COURSES (51 Q.H.)
Required Core Courses (39)
Geology 414, 415, 425, 480 (16)

ELECTIVES (10 Q.H.)
Select from the listing for Option A

ADDITIONAL REQUIREMENTS (36-40 Q.H.)
212, 213 Chemistry (10) (Chem 214 strongly recommended)
201, 202, 203 Physics (12) OR 221, 222, 223 Physics (15)
225, 226 Mathematics; plus 227 OR 208 OR 231 Mathematics (19-20)

B.S. MINOR GEOLOGY
40-44 Q.H.

REQUIRED COURSES (22 Q.H.)
116 Physical Geology (5)
117 Historical Geology (5)
250, 251 Mineralogy I, II (8)
320 Ign. and Met. Petrology (4)

ELECTIVES (8-12 Q.H.)
Electives are to be chosen from the following to a total of 8-12 quarter hours.
200 Oceanography (4)
315 Geomorphology (4)
321 Sedimentary Petrology (4)
325 Geology and Land-Use Planning (4)
330 Quaternary and Glacial Geology (4)
350 Invertebrate Paleontology (4)
370 Photogeology (4)
380 Structural Geology (4)
385 Regional Geology (4)
400 Individual Problems (1-4)
405 Geology of Minnesota (4)
410 Economic Geology (4)
414 Sedimentology (4)
415 Stratigraphy (4)
420 Stream and Groundwater Geology (4)
425 Geophysics (4)
475 Earth Science Seminar (1)
480 Geological Field Techniques (4)

ADDITIONAL REQUIREMENTS (10 Q.H.)
212, 213 General Inorganic Chemistry (10)

COURSE LISTINGS

All courses in the department may be taken under the pass/no credit option, except for fulfilling major and minor requirements.

101 Introduction to Geology — 4 Q.H.
A basic introduction to the principles of Geology including earth materials, processes and history. Primary for the non-science major desiring a general overview of the science of geology. Lectures and laboratory.

102 Geology of Energy and Mineral Resources — 3 Q.H.
Introduction to the geology of fossil fuels (oil, coal) and mineral resources (metals, nonmetals), including origin, exploration, location and costs. No prerequisite. Offered quarterly.

116 Physical Geology — 5 Q.H.
An examination of the geologic processes at work on and within the earth. Lectures and laboratory. Optional field trip. Offered yearly.

117 Historical Geology — 5 Q.H.
The origin and geologic history of the earth and the forms of life it has supported throughout geologic times. Lectures and laboratory. Field trip. Offered yearly.

200 Descriptive Oceanography — 4 Q.H.
An introduction to the oceans and the marine environment including the ocean floor, marine sediments, seawater, ocean currents, waves and tides, and oceanic resources. Lecture and laboratory. Offered yearly.

220 Astronomy I — 4 Q.H.
History and instruments of Astronomy; the sun and stellar origin, planets of our system, origin of the universe and our solar system. Lectures, laboratory and observation. Offered quarterly. No prerequisite.

221 Astronomy II — 4 Q.H.
Examination of the universe outside of our solar system and what is known about its origin, structure and evolution. Lectures and laboratory. Offered every two years.
230 Meteorology - 4 Q.H.

250 Mineralogy I: Crystallography, Physical, Chemical Mineralogy - 4 Q.H.
An introduction to minerals as naturally occurring inorganic chemical compounds. Crystal morphology, and chemistry, physical and chemical properties of minerals. Theory of optical mineralogy. Lectures and laboratory. Prerequisite: Geology 116. Offered yearly.

251 Mineralogy II: Descriptive, Optical Mineralogy - 4 Q.H.
Classification and description of minerals, with emphasis on the rock-forming minerals. Optical properties of minerals determined by the petrographic microscope. Prerequisite: 250. Offered yearly.

315 Geomorphology - 4 Q.H.
An analysis of the processes of weathering and the development of land-forms through the action of the geologic processes. Lectures and laboratory. Prerequisite: 116 or consent of instructor. Offered yearly.

320 Igneous and Metamorphic Petrology - 4 Q.H.
An introduction to the major types of the earth. Introduction to mineral equilibria, mineralogical phase rule and metamorphic facies. Rock identification by megascopic and petrographic techniques. Lectures and laboratory. Prerequisite: 251. Offered yearly.

321 Sedimentary Petrology - 4 Q.H.
Sedimentary petrology deals with the description and classification of sedimentary rocks in hand specimen and thin section, and the interpretation of the factors which control their origin. Prerequisite: Geology 251. Offered yearly. Grade only.

325 Geology and Land-Use Planning - 4 Q.H.
The study of geologic and hydrologic processes operating in various terrestrial environments including how these processes relate to land use, land-use planning, and geologic hazards. Lecture and laboratory. Prerequisite: 101 or 116 or consent of instructor. Offered yearly.

330 Quaternary and Glacial Geology - 4 Q.H.
A worldwide view of Pleistocene events as recorded in the geologic record. The origin, history, and products of glaciation are emphasized. Lectures and laboratory. Prerequisite: Geology 315. Offered every two years.

350 Invertebrate Paleontology - 4 Q.H.
The classification, morphology, ecology and evolution of the major invertebrate phyla. Lectures and laboratory. Required field trip. Prerequisite: Consent of instructor. Offered yearly.

370 Photogeology - 4 Q.H.
Techniques of using aerial photographs and their interpretation in geologic work. Offered every two years.

380 Structural Geology - 4 Q.H.
The study of primary and secondary features of rocks, mechanics of rock formation and structural techniques. Lectures and laboratory. Prerequisites: Geology 250. Offered yearly.

385 Regional Geology of the United States - 4 Q.H.
A study of the physiographic provinces of the continental United States with emphasis on the geomorphology, structural history, stratigraphy and mineral deposits of each province. Lectures and laboratory. Prerequisites: Geology 250, 320. Offered every two years.

400G Individual Research Problems - 1-4 Q.H.
Independent study of a selected geologic field and/or laboratory problem with subsequent preparation of written report. Oral seminar report. May run two quarters concurrently. May be repeated up to 4 credits. Admission by consent of instructor. Offered yearly.

401G Earth Science Workshop - 3 Q.H.
Designed to acquaint elementary and junior high school teachers with the basic principles of geology and the materials of the earth's crust. Local field trips to collect rocks and fossils. Not open to majors or minors in geology. No prerequisites. Offered summer only.

404G Current Topics in Geology - 1-4 Q.H.
An analysis of current topics and issues relevant to the earth sciences. The subject matter to be offered will be announced in advance by the department. May be repeated as topics change. Offered yearly.

405G The Geology of Minnesota and Adjacent Regions - 4 Q.H.
The geologic history, rock formations, fossils and mineral deposits of Minnesota. Designed for upper division students and returning teachers. Lectures, laboratory and field trips. Prerequisite: Consent of instructor. Offered every two years.

410G Economic Geology - 4 Q.H.
The origin and geological environment of the economic mineral deposits. Lectures and laboratory. Prerequisite: Earth Science 251. Offered every two years.

414G Sedimentology - 4 Q.H.
The origin, description, and analysis of sedimentary rock with emphasis on the physical processes of sedimentation in various natural environments. Includes introduction to sedimentary petrography. Lecture and laboratory. Prerequisites: Geology 320. Offered yearly.

415G Stratigraphy - 4 Q.H.
Stratigraphic nomenclature and correlation. Case histories of depositional environment interpretation from the stratigraphic record. Lectures, laboratory and required field trips. Prerequisite: Geology 321 and 414. Offered yearly.

420G Stream and Groundwater Geology - 4 Q.H.
The study of streams and groundwater with particular emphasis given to their chemistry, mode of transport. Lecture and laboratory. Prerequisite: 114 or 116 or consent of instructor. Offered every two years.

425G Geophysics - 4 Q.H.
Seismology and earth structure, reflection and refraction exploration seismology, gravity, magnetic and electrical exploration techniques. Prerequisites: 320 and 380. Lectures and laboratory. Offered yearly.
475G Earth Science Seminar — 1 Q.H.
Oral presentation of current problems in geology, astronomy and related fields extracted from professional journals and other scientific media. Prerequisite: Consent of instructor. Offered yearly.

480G Geological Field Techniques — 4 Q.H.
The field study of geologic structures and materials. The use of field instruments is emphasized. Prerequisite: Consent of instructor. Offered yearly.

Health, Physical Education and Recreation

Memorial Hall, Room 122 / 457-2901

Health, physical education and recreation are part of a total education. The department provides a variety of experiences in these three areas to help students develop and maintain physical, emotional, social, and recreational efficiency.

B.S. MAJOR
SCHOOL AND COMMUNITY HEALTH EDUCATION
81 Q.H.

(No minor required)

REQUIRED THEORY — PROFESSIONAL COURSES (45 Q.H.)
125 Personal and Community Health for HPER Majors and Minors (5)
127 Current Problems in Health Education (4)
201 Biology — Anatomy (5) OR
323 Biology — General Physiology (5) OR
233 Biology — General Human Anatomy (5)
205 Biology — Bacteriology (4)

ELECTIVES (20 Q.H.)

Biology
201 (if not used for major requirement)
OR 233, 202, 204, 206, 310, 312, 370

Safety Education
360, 361, 406

Political Science
320, 340, 426

Psychology
250, 305, 365, 415, 418, 420

Sociology
212, 216, 350, 401, 410, 412, 450

HPER
205, 206, 320, 422, 431, 490

ADDITIONAL REQUIREMENT
399 Internship Experience (16 Q.H.)

PUBLIC ADMINISTRATION OPTION FOR B.S. MAJOR IN SCHOOL & COMMUNITY HEALTH (24 Q.H.)

REQUIRED COURSES (12 Q.H.)
221 Pol. Sci. — State and Local Government (4)
228 Pol. Sci. — Public Administration (4)
324 Pol. Sci. — Urban Planning (4) OR
329 Pol. Sci. — Municipal Administration (4)

ELECTIVES (any 12 Q.H. from the following)
320 Pol. Sci. — Constitutional Law (4)
322 Pol. Sci. — Political Parties and Interest Groups (4)
324 Pol. Sci. — Urban Planning (4)
329 Pol. Sci. — Municipal Administration (4)
410 Pol. Sci. — Approaches and Methods in Political Science (4)
426 Pol. Sci. — Public Budgeting (4)
106/HEALTH, PHYSICAL EDUCATION AND RECREATION

B.S. MAJOR
SCHOOL AND COMMUNITY
HEALTH EDUCATION
65 Q.H. TEACHING

(No minor required)

*Prerequisites for approval to Student Teach
*HPER 125
*HPER 127
*BIO 201 or 233 or 323
*BIO 205
*HPER 214
*HPER 225 (Must have at least a "C" grade)
*HPER 325
*HPER 354

REQUIRED THEORY - PROFESSIONAL COURSES (45 Q.H.)
125 Personal and Community Health for HPER Majors and Minors (5)
127 Current Problems in Health Education (4)
201 Biology - Anatomy (5) OR
323 General Physiology (5) OR
233 Biology - General Human Anatomy (5)
205 Biology - Bacteriology (4)
214 Standard First Aid and Personal Safety (3)
225 Curriculum and Methods of Health Education (4)
325 Organization and Administration of Health Education (3)
354 Ind. Ed. - Principles of Safety Education (3)
416 Psychology - Personal Adjustment (3)
428 Health Science Laboratory Techniques (3)
429 Public Health (4)
432 Health Education Seminar (1)
411 Health Education Appraisal (3)

Sociology
216, 212, 350, 401, 410, 412, 450

B.S. MAJOR
PHYSICAL EDUCATION
65 Q.H. TEACHING

(No minor required)

Prerequisites for approval to Student Teach
*BIO 233
*BIO 202
*HPER 222
*HPER 280
*HPER 301
*HPER 314
*HPER 317 (Must have at least a "C" grade)
*Five of six Activity Cores
*One Techniques of Coaching Class

REQUIRED CORES FOR MAJORS (15 Q.H.)
Select 5 of the 6 core classes
166 Activity Core - Badminton, Soccer, Golf (3)
167 Activity Core - Tennis, Bowling, Archery (3)
168 Activity Core - Track & Field, Softball (3)
169 Activity Core - Football, Wrestling (3)
171 Activity Core - Gymnastics, Tumbling (3)
173 Activity Core - Volleyball, Basketball (3)

REQUIRED ACTIVITY COURSES FOR MAJORS (1 Q.H.)
211 Swimming and Diving (1) OR Advanced Lifesaving (1) OR
425 Water Safety Instructor (2)

REQUIRED TECHNIQUES CLASSES (5 Q.H.)
**301 Techniques of Teaching Rhythmic Activities (3)

One of the following techniques of coaching classes:
304 Techniques of Coaching Football (2)
305 Techniques of Coaching Basketball (2)
306 Techniques of Coaching Track & Cross Country (2)
307 Techniques of Coaching Softball & Baseball (2)
308 Techniques of Coaching Wrestling (2)
310 Techniques of Coaching Volleyball (2)
312 Techniques of Coaching Gymnastics (2)
313 Techniques of Coaching Tennis (2)

**Two dance classes prerequisite. Classes to be taken under general education.
HEALTH, PHYSICAL EDUCATION AND RECREATION/107

B.S. MAJOR
RECREATION AND LEISURE
STUDIES

(No minor required)

OPTION A - GENERAL
RECREATION - 95-97 Q.H.

REQUIRED THEORY - PROFESSIONAL
COURSES (68 Q.H.)
203 Biology - Nature Study (4) OR
204 Biology - Conservation of the Environment (4)
205 Bus. Ed. - Health/Recreation Office Management (3)
214 Standard First Aid & Personal Safety (3)
215 Art - Crafts (3)
215 CTA - Creative Dramatics for Children (4)
229 Intro. to Principles and Philosophies of Recreation and Leisure (3)
203 Intramural Activities (2)
239 Camp Crafts (3)
324 Music - Recreational Music (4)
326 Administration and Supervision of Recreation and Leisure (3)
350 Legal and Financial Aspects of Recreation (3)

INTERDISCIPLINARY ELECTIVES
(22-24 Q.H.)
A. Art, Industrial Education (7-8 Q.H.)
   Art
   114, 118, 220, 225
   Industrial Education
   241, 260, 292
   Safety Education
   354
B. Sociology, Psychology, Political Science
   Sociology
   216, 212, 414, 421, 423
   Psychology
   250, 301, 415, 416
   Political Science
   228, 221
C. Biology, Geology and Communication and Theatre Arts (8 Q.H.)
   Biology
   207, 208, 210, 211, 216, 218
   Geology
   117, 200, 220
   Communication and Theatre Arts
   223, 230, 240, 315, 340, 346

OPTION B - THERAPEUTIC
RECREATION (80-81 Q.H.)

REQUIRED THEORY - PROFESSIONAL
COURSES (74 Q.H.)
NOTE: 74 Q.H. includes 1 Q.H. of Physical Education Activity.
202 Biology - Human Physiology (5)
205 Bus. Ed. - Health/Recreation Office Management (3)
214 Standard First Aid (3)
215 CTA - Creative Dramatics for Children (4)
215 Art - Crafts (3)
229 Introduction to Principles and Philosophies of Recreation and Leisure (3)
233 Biology - Anatomy (5)
239 Camp Crafts (3)
314 Kinesiology (3)
315 Adapted Physical Education (3)
324 Music - Recreational Music (4)
326 Administration and Supervision of Recreation and Leisure (3)
350 Legal and Financial Aspects of Recreation (3)

ADDITIONAL REQUIREMENTS (6-7 Q.H.)
479 Edu. - Education of Emotionally Disturbed and Socially Maladjusted Children (3) OR
416 Psy. - Personal Adjustment (3)

One of the following:
414 Psy. - Psychology of Mental Retardation (4)
435 Physical Education for the Mentally Retarded (3)

B.S. MINOR
SCHOOL AND COMMUNITY
HEALTH
34-35 Q.H. TEACHING

REQUIRED THEORY - PROFESSIONAL
COURSES (31 Q.H.)
125 Personal and Community Health (5)
127 Current Problems in Health Education (4)
201 Biology - Anatomy (5) OR
233 Biology - General Physiology (5) OR
233 Biology - General Human Anatomy (5)
214 Standard First Aid & Personal Safety (3)
225 Curriculum and Methods of Health Education (4)
325 Organization and Administration of Health Education (3)
322 Health Education Appraisal (3)
429 Public Health (4)

ELECTIVES (3-4 Q.H.)
Biology
205, 206, 310, 312
Psychology
415, 416
Safety Education
354
Sociology
212
Health, Physical Education and Recreation
206, 320, 428, 431, 432
B.S. MINOR
PHYSICAL EDUCATION
37 Q.H. TEACHING

This minor is not acceptable in the State of Minnesota for a teacher's license.)

REQUIRED THEORY - PROFESSIONAL COURSES (24 Q.H.)

*233  Biology - Anatomy (5)
214  Standard First Aid & Personal Safety (3)
222  Foundations and Principles of Physical Education (2)
271  Prevention and Care of Athletic Injuries (3)
280  Elementary Physical Education for Majors and Minors (3)
301  Techniques of Teaching Rhythmic Activities (3)
314  Kinesiology (3)
317  Curriculum and Methods of Physical Education (4)
413  Organization and Administration of Physical Education (3)

ADDITIONAL REQUIREMENTS
(May be counted in General Education)

233  Biology - Anatomy (5)

REQUIRED ACTIVITIES FOR MINORS (11 Q.H.)

Three of the six activity core classes listed under the major are required of all minors.

MASTER OF SCIENCE PROGRAM

GENERAL INFORMATION

The Department of Health, Physical Education and Recreation offers a Master of Science Degree with either a concentration in Health Education or Physical Education. A student could complete both concentrations by using the 18 elective hours for the second concentration, however, it is strongly recommended that a student elect one of the Certification Programs for his/her elective hours.

PREREQUISITES

A minimum of thirty-six (36) undergraduate credits in the area of concentration, either health education or physical education. Each candidate pursuing a concentration in physical education must have completed an undergraduate course in anatomy and kinesiology.

REQUIREMENTS - PLAN A AND PLAN B

REQUIREMENTS (33 Q.H.)
HPER 501 (3)
HPER 515 (3)

PLAN A - Health Education Concentration
Health Education Electives (18)
Professional Education (9)

PLAN B - Physical Education Concentration
Physical Education Electives (18)
Professional Education (9)

THESIS OPTION (45 Q.H.)

Thesis 1-6 credits as a part of the 18 Health Education or Physical Education electives depending on concentration pursued.

NON-THESIS OPTION (51 Q.H.)
General Electives (18)

COMPREHENSIVE EXAMINATION

Upon completion of the course work under Plan A, Health Education or Plan B, Physical Education, each student will take a six question comprehensive examination based on the area of concentration. It is suggested that the student consult with his/her advisor before applying to the Graduate Office for permission to take the comprehensive examination.

ADDITIONAL INFORMATION

In addition to the required courses, 501 and 515, the following courses will apply to either Plan A - Health Education or Plan B - Physical Education: 513, 526, 530, 540, 541, and 599.

The following courses may be applied to Plan A - Health Education: 428G, 429G, 431G, 502, 503, 504, 505, and 506.


LICENSURE PROGRAM FOR SUPERVISORY AND CONSULTATIVE PERSONNEL - HEALTH COORDINATOR - EDUCATION 3.101

GENERAL REQUIREMENTS

1. Upon the completion of the Master's Degree a student shall have completed at least the minimal credits listed below.
2. The candidate must be eligible for the required teacher's certificate in health education.
3. Two years of teaching experience in health education are required by the Department of Education, State of Minnesota.

COURSE REQUIREMENTS (28 Q.H.)

HPER 428G Health Science Laboratory Techniques (3)
HPER 429G Public Health (4)
HPER 502 Critical Issues in Health Education (3)
HPER 504 Health Curriculum in Elementary and Secondary Schools (3)
HPER 505 Management by Objectives in Health Edu. (3)
Licensure Program for Supervisory and Consultative Personnel — Physical Education Including Athletics — Education 3.101

General Requirements
1. Upon completion of the Master's degree, a student shall have fulfilled the requirements for the undergraduate physical education major as well as the Master's requirements.
2. The candidate must be eligible for the required teacher's certificate in physical education.
3. Two years of teaching experience in physical education are required by the Department of Education, State of Minnesota.

Course Requirements (30 Q.H.)

HPER 420G Administration of High School Athletics (3)
HPER 510 Curriculum Construction in Physical Education (3)
HPER 524 Historical Implication for Current Trends and Issues in Physical Education (3)
HPER 530 Supervision of Health and Physical Education in Elementary and Secondary Schools (3)
HPER 533 Administrative Problems in Physical Education (3)
Ed. 538 School and Community Relations for Teachers (3)
Ed. Adm. 504 Curriculum Development and Administration (3)
Ed. Adm. 510 School Law (3)
Ed. Adm. 527 School Business Management (3)
Ed. Adm. 528 Personnel Administration in Education (3)

Coaching (16-18 Q.H.)

Licensing of coaches may be accomplished through professional preparation as a physical education major or minor or through a special coaching program. NOTE: It is also recommended that all students participate in at least one varsity sport as a player, manager or assistant coach.

Required Courses (12 Q.H.)
222 Foundations and Principles of Physical Education (2)
271 Prevention and Care of Athletic Injuries (3)
314 Kinesiology (3)
406 Coaching Practicum (1-3)
430 Administration of High School Athletics (3)

Additional Requirements (4 Q.H.)
304 Techniques of Coaching Football (2)
305 Techniques of Coaching Basketball (2)
306 Techniques of Coaching Track & Cross Country (2)
307 Techniques of Coaching Softball & Baseball (2)
308 Techniques of Coaching Wrestling (2)
310 Techniques of Coaching Volleyball (2)
312 Techniques of Coaching Gymnastics (2)
313 Techniques of Coaching Tennis (2)

Additional Recommended Courses:
316 Rules and Officiating (2)
321 Officiating Volleyball (2)
322 Officiating Basketball (2)
324 Officiating Gymnastics (2)

Course Listings

Courses offered on a pass/no credit basis are designated in the course description. All activity classes, except major and minor three-credit courses, are offered on pass/no credit option.
110/HEALTH, PHYSICAL EDUCATION AND RECREATION

318 Curriculum and Methods of Health Education for Nursing Personnel—3 Q.H.
Philosophy and curriculum of the total school/community health education program and the implications for nursing service personnel. Prerequisites: Admission to Nursing Major or permission of instructor. Offered yearly.

320 Health Education in the Elementary School—3 Q.H.
Healthful school environment, health services and instruction for majors in Elementary Education. Prerequisite: Health 204. Offered twice yearly.

325 Organization and Administration of Health Education—3 Q.H.
School health services, health environment, and the health education program. Prerequisites: Health 125, 127, 225. Offered yearly.

380 Techniques of Emergency Health Care I—3 Q.H.

381 Techniques of Emergency Health Care II—4 Q.H.
A continuation of HPER 380. Credit will be granted only upon successful completion of the examination of the National Registry for Emergency Medical Technicians. Offered yearly. P/NC Option.

411 Health Education Appraisal—3 Q.H.
A study and practice of the various types of health protection and maintenance of elementary and secondary school students. Opportunity for teachers, nurses, and other health education personnel to practice under a laboratory atmosphere, the screening measures, and the follow-up procedures of the results of health testing. Prerequisites: Health 204 and 320 OR Health 125 and 225 OR 310. Offered twice yearly.

422 Standard First Aid and Personal Safety Instructor and Basic First Aid Instructor Course—3 Q.H.
For certification as a Red Cross Instructor in Basic First Aid and Standard First Aid and Personal Safety. Offered yearly.

428G Health Science Laboratory Techniques—3 Q.H.
For the major in health education for further study through experiences provided in the health science laboratory. Prerequisites: 125, 225, 325. Offered yearly.

429G Public Health—Community Services and Resources—4 Q.H.
Role of public health and its relationship to the school health program, including opportunity to observe the operation and function of a public health program. Offered yearly.

431G Health Problems Workshop—1-3 Q.H.
For teachers, school nurses, school administrators and others interested in strengthening school health programs. Summer only. May be repeated for credit.

432 Health Education Seminar—1 Q.H.
Recent issues and developments in health education at the local, state and national levels. Prerequisites: 125, 225, 325, 428 and student teaching or internship in health education completed or currently enrolled. Offered yearly.

PHYSICAL EDUCATION

All students entering with advanced credit must consult the department for evaluation of credits and assignment of proper classes.

All students are urged to participate in at least one seasonal intramural activity.

Women's varsity teams are maintained in volleyball, basketball, gymnastics, golf, softball, tennis, and track and field.

Men's varsity teams are maintained in football, basketball, wrestling, cross country, baseball, golf, track and field, and tennis.

It is recommended that all students majoring in physical education participate in at least two varsity sports as a player, manager or assistant coach. It is recommended that minors in physical education participate in at least one varsity sport as a player, manager or assistant coach.

PHYSICAL EDUCATION BASIC THEORY AND PROFESSIONAL COURSES

110 Introduction to Movement and Music—2 Q.H.
A comprehensive, practical study of fundamental dance movement and its relationship with music. Offered on demand.

203 Intramural Activities—2 Q.H.
Policies and procedures in conducting intramural programs. Offered yearly.

205 Diet and Weight Control—3 Q.H.
A study of well-balanced diets, fad diets and weight-control programs. The students will help plan their own program and goals for the immediate ten week period and suggestions for continuation. An evaluation of each student's recommended weight and possible weight reduction will be done by the student health center prior to selection of a program. A student may pursue either 205 or 206 to fulfill 50% of the general education physical education requirement. Offered yearly. P/NC Option.

206 Exercise and Relaxation—2 Q.H.
A study of the various types of exercise programs which include relaxation as a goal. The student will select a program and actively participate in it. A student may pursue either 205 or 206 to fulfill 50% of the general education physical education requirement. Offered yearly. P/NC Option.

222 Foundations and Principles of Physical Education—2 Q.H.
Acquaints the prospective physical education teacher with a broad concept of foundations and principles. Offered twice yearly.

271 Prevention and Care of Athletic Injuries—3 Q.H.
Laboratory course in taping and support methods used in preventing athletic injuries; including the use of therapeutic aids. Prerequisites: Biology 201 and Health 214. Offered twice yearly.

275 Elementary Physical Education for the Elementary Teacher—3 Q.H.
Principles of activity selection, program planning, and the teaching of motor skills through exploration and problem solving methods. Offered twice yearly.
301 Techniques of Teaching Rhythmic Activities — 3 Q.H.
Fundamentals of rhythm and practice in teaching various rhythmic forms. Prerequisite: 2 quarter hours of dance activity or consent of instructor. Offered yearly.

304 Techniques of Coaching Football — 2 Q.H.
Theory and practice of teaching and coaching football. Offered every two years.

305 Techniques of Coaching Basketball — 2 Q.H.
Theory and practice of coaching basketball. Offered every two years.

306 Techniques of Coaching Track & Field and Cross Country — 2 Q.H.
Theory and practice of coaching track & field and cross country. Offered every two years.

307 Techniques of Coaching Baseball — 2 Q.H.
Theory and practice of coaching baseball. Offered every two years.

308 Techniques of Coaching Wrestling — 2 Q.H.
Theory and practice of teaching and coaching wrestling. Offered every two years.

310 Techniques of Coaching Volleyball — 2 Q.H.
Theory and practice of coaching volleyball. Offered every two years.

312 Techniques of Coaching Gymnastics — 2 Q.H.
Theory and practice of coaching gymnastics. Offered every two years.

313 Techniques of Coaching Tennis — 2 Q.H.
Theory and practice of coaching tennis. Offered every two years.

314 Kinesiology — 3 Q.H.
Mechanics of the moving body; principles of leverage and application of muscular forces. Prerequisite: Bio 233 General Human Anatomy, Pending Approval. Offered yearly.

315 Adapted Physical Education — 3 Q.H.
A study of the physically and mentally handicapped child and the part that the physical education teacher plays in his rehabilitation. Offered yearly.

316 Rules and Officiating — 2 Q.H.
Rules for officiating in men’s sports. The techniques followed by officials and correct rulings on difficult decisions. Offered every two years.

317 Curriculum and Methods of Physical Education — 4 Q.H.
Curriculum and teaching methods of physical education. Prerequisites: P.E. 222, 280. Offered yearly.

320 Officiating — Volleyball — 2 Q.H.
Methods of officiating women’s volleyball. Offered yearly.

322 Officiating — Basketball — 2 Q.H.
Methods of officiating women’s basketball. Offered yearly.

406G Coaching Practicum — 1-3 Q.H.
Directed supervision in coaching. Graduate credit granted only for coaching in higher education. Offered quarterly.

413 Organization and Administration of Physical Education — 3 Q.H.
School programs and problems concerning administration of budget, personnel, facilities, public relations and legal responsibilities. Prerequisites: P.E. 222, 280, 317. Offered yearly.

417G Physical Education Workshop — 1-3 Q.H.
Review and re-evaluation of current trends in elementary school physical education programs with special practical work. Offered on demand.
and pole vault. Offered on demand. P/NC Option, for undergraduates.

485G Dance Clinic — 3 Q.H.
This course covers these approaches to teaching dance: locomotor, body movement, rhythmic, spatial, sensory, and ideational. Areas of dance to be covered are folk, square, modern, ballroom, jazz, and ballet. Offered yearly. P/NC Option, for undergraduates.

490 Independent Study in Health and Physical Education — 1-3 Q.H.
Opportunity for undergraduates to work independently. Prerequisites: Junior or Senior standing, preparation of proposed outline and consent of major advisor. Offered quarterly.

492G Physiological Applications to Sport — 3 Q.H.
Concepts of human physiology applied to exercise physiology, sports training and individualized training regimens with specific reference to the cardiovascular, respiratory and muscular systems.

ACTIVITY ALL STUDENTS

All one credit activity courses have the P/NC Option.

101 Basketball — Men’s Rules — 1 Q.H.
Development of skills and techniques in basketball. Offered yearly. P/NC Option.

102 Softball — 1 Q.H.
Development of skills and techniques in softball. Offered yearly. P/NC Option.

103 Racquetball — 1 Q.H.
Development of techniques, knowledge of rules, terms, strategy and participation in racquetball. Offered quarterly. P/NC Option.

104 Basketball — Women’s Rules — 1 Q.H.
Development of techniques, knowledge of rules, terms, strategy, and participation in team play. Offered yearly. P/NC Option.

105 Basic Smallbore Rifle — 1 Q.H.
Skills in shooting the basic four positions found in indoor rifle shooting: prone, sitting, kneeling and offhand. Knowledge of target scoring, safe gun handling and an understanding of recreational range operation. Offered yearly. P/NC Option.

106 Flag Football — 1 Q.H.
Development of skills and techniques in flag football. Offered yearly. P/NC Option.

107 Trap and Skeet — 1 Q.H.
Skills in shooting trap and skeet from the various required stations plus knowledge in reloading shotgun shells, range etiquette, and safety. Offered yearly. P/NC Option.

108 Karate — 1 Q.H.
Development of skills and techniques in Karate. Offered quarterly. P/NC Option.

109 Fundamentals of Hatha Yoga — 1 Q.H.
Designed to expose the student to the history and practice of the science of Hatha Yoga in order to give the student a higher degree of mental, physical and emotional self-control. Offered on demand. P/NC Option.

110 Jazz Dance — 1 Q.H.
Basic techniques, terminology, history and music of contemporary jazz dance. Offered twice yearly. P/NC Option.

111 Personal Fitness — 1 Q.H.
Techniques for acquiring physical fitness. Offered quarterly. P/NC Option.

112 Advanced Lifesaving — 1 Q.H.
Requirements for American Red Cross Certificate. Prerequisite: 211 or demonstrated ability. Offered yearly. P/NC Option.

113 Archery — 1 Q.H.
Skills and knowledge necessary for recreational purposes of the beginner. Offered quarterly. P/NC Option.

114 Basic Smallbore Rifle — 1 Q.H.
Small craft safety, self-rescue, and the fundamental strokes of canoeing. Prerequisite: 211 or demonstrated ability. Offered yearly. P/NC Option.

115 Bowling — 1 Q.H.
Development of skills and techniques in bowling. Offered yearly. P/NC Option.

116 Archery — 1 Q.H.
Skills and knowledge necessary for the recreational purposes of the beginner; includes both target and field archery. Offered yearly. P/NC Option.

117 Canoeing — 1 Q.H.
Theory and practical experience in dance choreography culminating in participation in a dance theatre production. Prerequisite: junior or senior standing or consent of instructor. Offered yearly. P/NC Option. May be repeated for credit.

150 Swimming for the Physically Disabled — 1 Q.H.
Devoted to increasing swimming skills of those who in the opinion of the college physician have disabilities. Offered on demand. P/NC Option.

151 Volleyball — 1 Q.H.
Skills and knowledge necessary for recreational purposes, power volleyball skills. Offered quarterly. P/NC Option.

152 Fencing — 1 Q.H.
Skills and knowledge necessary for recreational purposes of the beginner. Offered yearly. P/NC Option.

153 Beginning Skiing — 1 Q.H.
Skills and knowledge necessary for the recreational purposes of the beginner. Offered yearly. P/NC Option. May be repeated for credit. Additional Fee.

154 Handball — 1 Q.H.
Development of skills and techniques for handball. Offered yearly. P/NC Option.

155 Track and Field — 1 Q.H.
Development of techniques, knowledge of rules, terms, strategy, and participation in team play. Offered every two years. P/NC Option.

156 Field Hockey — 1 Q.H.
Development of techniques, knowledge of rules, terms, strategy, and participation in team play. Offered every two years. P/NC Option.

157 Field Hockey — 1 Q.H.
Dances of various nations. Offered twice yearly. P/NC Option.

158 Badminton — 1 Q.H.
Development of skills in mat and rebound badminton. Offered yearly. P/NC Option.

159 Badminton — 1 Q.H.
Development of skills in mat and rebound badminton. Offered yearly. P/NC Option.

160 Tennis — 1 Q.H.
Skills and knowledge necessary for the recreational purposes of the beginner. Offered yearly. P/NC Option.
209 Beginning Swimming and Drown-proofing — 1 Q.H.
For non-swimmers. Designed to develop the basic skills and confidence essential to survival and recreational swimming. Offered quarterly. P/NC Option.

211 Swimming and Diving — 1 Q.H.
For swimmers beyond the beginning level. Designed to develop skill and endurance in the performance of basic swimming strokes and aquatic skills. Prerequisites: 209 or demonstrated ability. Offered yearly. P/NC Option.

215 Modern Dance — 1 Q.H.
Basic techniques of dance and composition. Offered twice yearly. P/NC Option.

218 Intermediate Tennis — 1 Q.H.
Strokes, footwork and strategy of tennis for the player. Prerequisite: 208 or demonstrated ability. Offered yearly. P/NC Option.

219 Golf — 1 Q.H.
Skills and knowledge necessary for the recreational purposes of the beginner. (Additional Fee). Offered yearly. P/NC Option.

220 American Country Dance — 1 Q.H.

225 Water Safety Instructor’s Course — 2 Q.H.
Teaching techniques and methods for swimming, diving, and life saving, organizing and conducting swimming programs for camp and recreational organizations. Requirements for the American Red Cross Water Safety Instructor Certificate. Prerequisite: Current ARC Senior Life Saving Certificate. Offered twice yearly. P/NC Option.

VARSIY ATHLETICS

217 Varsity Football — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

221 Varsity Basketball — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

223 Varsity Track and Field — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

224 Varsity Tennis — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

226 Varsity Baseball — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

231 Varsity Golf — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

233 Varsity Wrestling — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

235 Varsity Cross Country — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

236 Varsity Volleyball — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

237 Varsity Gymnastics — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

238 Varsity Softball — 1 Q.H.
Participation as a member of a varsity squad. Offered yearly. P/NC Option.

ACTIVITY CORES FOR MAJORS AND MINORS

All courses include comprehensive development of skills, knowledge of rules, strategies, terminology, and participation in the designated activities. Open to physical education majors and minors only.

166 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Badminton, Soccer). Offered yearly.

167 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Tennis, Bowling, Archery). Offered yearly.

168 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Track & Field and Softball). Offered yearly.

169 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Football and Wrestling). Offered yearly.

171 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Gymnastics and Tumbling). Offered yearly.

173 Physical Education Activity Core for Majors and Minors — 3 Q.H.
(Volleyball and Basketball). Offered yearly.

RECREATION

All students entering with advance credit must consult the department for evaluation of credits and assignments of proper classes.

229 Introduction to Principles and Philosophies of Recreation and Leisure — 3 Q.H.
History and development of recreation, and principles and philosophies of leisure. Offered yearly.

239 Camp Crafts — 3 Q.H.
Skills and knowledge basic to outdoor education and camping. Offered yearly.

240 Trip Camping — River Canoeing — 4 Q.H.
Use of environment for leisure activities, learning camping skills, shake down trip and a several day camping experience. Offered summer only. (Additional Fee).
326 Organization and Administration of Recreation — 3 Q.H.
Programming, personnel, finance and budgeting, areas and facilities, and other administrative aspects of the recreation program. Prerequisite: 229. Offered yearly.

350 Legal & Financial Aspects of Recreation — 3 Q.H.
Introduces the student to the legislation, liability and legal matters concerning recreation, the technical and behavioral aspects of budgeting and the traditional and recent methods of financial park and recreation operations. Offered yearly.

414G Recreational Leadership — 3 Q.H.
Leadership problems of the recreation leader in school and community recreation programs, including actual laboratory experience. Offered yearly.

421 Outdoor Education — 3 Q.H.
Study of the organized modern camp, including practical experience in camping skills and camp leadership. Offered yearly.

426 Planning and Maintenance of Park and Recreation Facilities — 4 Q.H.
Procuring, planning and maintaining recreation and park facilities and equipment. Prerequisite: 229, 329, junior standing. Offered yearly.

465 Therapeutic Recreation and Services — 3 Q.H.
Introduces the student to the areas of therapeutic recreation, role of the leader, types of patients, leadership and program methods, and basically acquaints the student with commercial, industrial, and camp recreation. Offered yearly.

COURSES FOR GRADUATE STUDENTS ONLY

All graduate courses are offered every two or three years.

501 Research Methods in Health and Physical Education — 3 Q.H.
Methods and techniques of research potential and completed problems analyzed with view to selection of topics.

502 Critical Issues in Health Education — 2-3 Q.H.
Current controversial issues are discussed to develop understanding and insight for organizing and teaching health units. May be repeated for credit.

503 Diseases of Man — 3 Q.H.
An overview of agents of disease and processes of disease in man, including an introduction to ecology of man in health and disease.

504 Health Curriculum in Elementary and Secondary Schools — 3 Q.H.
Development and organization of the school health curriculum from K-12. For health instructors, elementary teachers and school administrators.

505 Decision Making Processing in Health Education — 3 Q.H.
Concepts and operational procedure for management by objectives approach in health education.

506 Chemical Dependency Education — 3 Q.H.
An opportunity to update knowledge in Narcotic and Alcohol Education, new teaching techniques, and a review of research. Students who have taken 431G, Health Problems Workshop — Narcotics and Alcohol may not take this course.

510 Curriculum Construction in Physical Education — 3 Q.H.
A study of the construction and conduct of curriculum in physical education. A study of past experiences and results with due consideration for needs of the present and trends for the future.

513 Independent Study in Health or Physical Education — 1-3 Q.H.
A problems discovery and identification course. Each student selects a problem for intensive study and files a written report of his investigation and suggested solutions or recommendations. Prerequisite: Advance consent of cooperating staff member and approval of topic outline.

515 Tests and Measurements in Health and Physical Education — 3 Q.H.
History, and theory of measurement, the selection and administration of appropriate performance tests, and the interpretation of their results.

516 Laboratory Techniques in Human Performance — 3 Q.H.
Advanced work in the areas of exercise physiology and motor learning with particular emphasis on laboratory experience. Prerequisites: 314 Kinesiology and 400 Physiology of Exercise.

520 Psychology of Coaching — 3 Q.H.
Study of the emotional, attitudinal and personality problems of athletes, interpersonal behavior and motivational psychology.

524 Historical Implications for Current Trends and Issues in Physical Education
Relationship, from ancient to modern times, between physical education and factors in society with emphasis on influences on today's physical education trends and issues.

526 Planning of Facilities in Health and/or Physical Education — 3 Q.H.
Principles and standards for health and/or physical education equipment and facility planning, construction, use and maintenance.

528 Adapted Physical Education — 3 Q.H.
Analysis of physical education for the handicapped student with practical application in a laboratory situation and the legal implications.

530 Supervision of Health and Physical Education in Elementary and Secondary Schools — 3 Q.H.
The general aims and purposes of supervision, and the duties and relationships of the supervisor of health and physical education.

533 Administration Problems in Physical Education — 3 Q.H.
A study of administrative problems in Physical Education that confront the teacher and leader.

540 Test Construction in Health and Physical Education — 3 Q.H.
Principles of construction, selection, and interpretation of Health and Physical Education tests.

541 Current Literature and Research in Health or Physical Education — 3 Q.H.
A survey of professional literature and research in the fields of health education or physical education.
553 Physical Education in the Elementary School — 3 Q.H.
Examination of the role of physical education in the elementary school and an evaluation of trends in elementary physical education programs.

Any two of the following:
120 Western Civilization: To 1500 (4)
121 Western Civilization: 1500 to 1815 (4)
122 Western Civilization: 1815 to present (4)
123 Eastern Civilization (4)
170 African Civilization (4)

Any of the following:
165 Latin American History: Columbus to Castro (4)
230 American History: To 1828 (4)
231 American History: 1828 to 1900 (4)
232 American History: 1900 to present (4)
233 History of Mexico (4)

Electives (16 Q.H.)
Students must select History courses to a total of 16 credits. (Students preparing for Research and Writing must see the department head).

Additonal Requirements (2 Q.H.)
498 Historiography (2)

B.S. MAJOR
SOCIAL SCIENCE
95 Q.H. TEACHING

(See Social Science Major)

Effective July 1, 1979, the B.S. Social Science Major (Composite Concentration in the 1976-77 catalog) is the only Social Science Major that will meet graduation and/or teacher certification requirements. All previous B.S. Social Science Majors became invalid as of July 1, 1979.
ELECTIVES (24 Q.H.)
Electives must come from History courses numbered 300 or above to a total of 24 credits.

B.S. MINOR
HISTORY
40 Q.H. TEACHING
Effective July 1, 1979, this B.S. Minor must be in combination with the B.S. Social Science Major (Composite Concentration listed in the 1976-77 catalog) to be valid for graduation and/or teacher certification.

NOTE: Survey courses do not have to be taken in chronological sequence. Check specific prerequisites for upper level courses.

REQUIRED COURSES (32 Q.H.)
150 SOC - Human Society (4)
201 ECON - Principles of Economics I (4)
211 Economic Geography (4)
220 American National Government (4)

Any two of the following:
120 Western Civilization: To 1500 (4)
121 Western Civilization: 1500 to 1815 (4)
122 Western Civilization: 1815 to present (4)
123 Eastern Civilization (4)

Any two of the following:
165 Latin American History: Columbus to Castro (4)
230 American History: To 1828 (4)
231 American History: 1828 to 1900 (4)
232 American History: 1900 to present (4)
233 History of Mexico (4)

ELECTIVES (8 Q.H.)
Electives must come from History courses numbered 300 or above to a total of 8 credits.

REQUIRED EDUCATION COURSES (4 Q.H.)
331 (Education) Teaching Social Science in Secondary Schools (4)

MASTER OF SCIENCE
PREREQUISITES:
Undergraduate major or a minimum of thirty-six (36) undergraduate credits in history and related disciplines.

REQUIREMENTS (24 HOURS)
Any two of the following:
550 History Research and Writing (3)
552 Theories of History (3)
560 American Historiography (3)
565 European Historiography (3)
General Electives (9)
Professional Education (9)

WITH THESIS (45 HOURS)
History Electives (15)
Thesis (History 599) (6)

WITHOUT THESIS (51 HOURS)
History Electives (27)
The student should contact the History Department for further information regarding the Master's Program.

COURSE LISTINGS
GENERAL EDUCATION AND PREREQUISITE COURSES

NOTE: 100 and 200 level survey courses do not have to be taken in chronological sequence. See department for information on courses offered for Pass/No Credit. All Paralegal courses must be taken for grade only. This policy does not apply for courses taken to fulfill the major or minor requirements, or for graduate credit.

120 Western Civilization to 1500 - 4 Q.H.
A survey of civilization from its beginnings in Egypt and Mesopotamia through Greece, Rome, the Middle Ages, and the Renaissance. Offered quarterly.

121 Western Civilization 1500-1815 - 4 Q.H.

122 Western Civilization: 1815 to present - 4 Q.H.
From the fall of Napoleon to the present, stressing the Industrial Revolution, nationalism, imperialism, the rise of totalitarianism, World War II, and post-war problems. Offered quarterly.

123 Eastern Civilization - 4 Q.H.
A survey of the culture, religions, politics, and society of East Asia from its origins to the present. Emphasis on China and Japan in the nineteenth and twentieth centuries. Offered every two years.

165 Latin American History: Columbus to Castro - 4 Q.H.
A survey of Latin American history from pre-Columbian times to present, including the colonial period, the struggle for independence, and the rise of modern Latin American nations. Special emphasis is on Argentina, Brazil, Chile, and Mexico. Offered yearly.

170 African Civilization - 4 Q.H.
African history from prehistoric times to the present; origin of prehistoric man in Africa; African cultures before contact with the European; the impact of slavery; the era of imperialism; the rise of nationalism and independence; and contemporary Africa. Offered yearly.

215 Minnesota History - 4 Q.H.
A comprehensive general study of the history, geography and citizenship of the State of Minnesota from the Indian control and early explorers to the present time. Offered quarterly.

225 The World of the Jew: Past and Present - 4 Q.H.
A history of the Jew from Biblical times to the present: the outgoing into various parts of the earth; the ingoing to the Promised Land. Offered yearly.
230 American History: To 1828 - 4 O.H.
The European discovery of American and development of early United States history with special interest in areas of: White-Black-Indian interrelations; women, children, community structures; the American Revolution; and technology and science. Offered quarterly.

231 American History: 1828 to 1900 - 4 O.H.
A survey of Jacksonian democracy, the development of sectional issues, the Civil War and Reconstruction, and the emergence of the United States as an industrial world power. Offered quarterly.

232 American History: 1900 to Present - 4 O.H.
Progressive Era, World War I and peace settlements, the Twenties, the Depression, World War II, Post-War problems, foreign and domestic. Offered quarterly.

233 The History of Mexico - 4 O.H.
A survey of the history and development of the Mexican nation from prehistoric times until the present, with attention to the Indian and Spanish roots of Mexican culture, and emphasis on the continuing Mexican Revolution. Offered yearly.

240 History of Christianity - 4 O.H.
The development of Christianity from the time of Christ to the present, with emphasis on the interplay between Christianity and the political, economic, social, and cultural structure of various historical ages. Offered yearly.

241 History of Non-Christian Religion in the West - 4 O.H.
This course is a survey of non-Christian religions from pre-historic animism to the 19th and 20th century rationalistic and mystic movements. Offered yearly.

330 Psycho-history - 4 O.H.
Concentration on the attitudes towards childhood from ancient times to the present. Topics to be discussed will include infanticide, dress, sexual attitudes, expectations, psychological conceptions of childhood. Various societies will be analyzed through the medium of their attitudes toward childhood. Offered yearly.

350 Historical Attitudes Toward Death - 4 O.H.
A look at the attitudes toward death of various societies. Offered yearly.

365 History of the American Judicial System - 4 O.H.
Traces the development of the American legal system from its European heritage through the colonial period to the present day. The course is primarily concerned with the historical prospective of law development, law practices, and institutional developments which reflect upon the relations between institutions and between individuals. Offered yearly.

370 Legal Research - 3 O.H.
Techniques of Legal Research, the process of law review, the extent of legal reporting, and methods of researching court decisions. Prerequisites: Admission to the Paralegal Major and History 365. Offered yearly.

371 Legal Proof: Introduction to - 3 O.H.
Acquaint the student with logic of evidentiary rules, value of first hand evidence, types of evidence, burden of proof, qualification of witnesses, impeachment of witnesses, differentiation between proof and argument, order of proof. Prerequisites: Admission to the Paralegal Major and History 370. Offered yearly.

372 Legal Proof: Exclusionary Rules of Evidence - 3 O.H.

373 Adversary System: Civil Procedure - 3 O.H.
Basic civil court procedures, such as pleadings, pre-trial discovery, trials, and appeals, background of the adversary system, the role of the Advocate, Judge and Jury and how this process tends to establish truth. Admission to the Paralegal Major and History 370. Offered yearly.

374 Adversary System: Criminal Procedure - 3 O.H.
This course will supplement the course on the Adversary System - Civil Procedure. Criminal pleadings, the graded jury system, criminal pretrial discovery, post trial sentencing, administrative hearings, requirements of a fair hearing, and arbitration. Prerequisite: Admission to the Paralegal Major and History 370. Offered yearly.

375 Legal Writing and Substantive Law I - 3 O.H.
The student will become acquainted with terminology commonly used, demonstration for precision in meaning, and how courts interpret documents; a general acquaintance with: deeds, leases, negotiable instruments, business agreements, corporate minutes and by-laws, wills, briefs, and legal memorandums. Admission to the Paralegal Major and History 370. Offered yearly.

377 Practical Legal Investigation Techniques - 4 O.H.
Students will learn the practical techniques used in investigating cases involving traffic, aircraft, personal negligence, employer negligence, product liability, professional malpractice and criminal investigation. Students will also become acquainted with the technique of working with witnesses. Prerequisite: Admission to the Paralegal Major and History 365, 370 and 375. Offered yearly.

380 Paralegal Internship - 16 O.H.
Field placement in a selected organization for the purpose of experience and training as a professional paralegal. Prerequisites: Admission to the Paralegal Major and History 370, 371, 372, 373, 374, 375, 376.

498 Historiography - 2 O.H.
An introduction to the methodology of historic research and writing, with emphasis on the theories of histories. Prerequisite: Twelve credit hours of history or consent of instructor. Offered by arrangement.

499 Independent Readings in History - 1-4 O.H.
The exact nature of this course will be determined by the needs of the student. May be repeated to a maximum of nine credit hours. The student must have written consent of the instructor. Offered quarterly.
SEQUENCE IN AFRICAN, ASIAN, AND LATIN AMERICAN HISTORY

445G Traditional China - 4 Q.H.
The establishment of Chinese civilization and the development of traditions from the early dynasties of the 17th century. Emphasis on the ideas and institutions which went into the making of modern China. Offered every two - three years.

446G Modern China - 4 Q.H.
Western influences and their effects upon the traditions of China in the 19th century, and the rise and development of communism on the Chinese mainland. Offered every two - three years.

461G Latin American Social Revolution - 4 Q.H.
An analysis of Latin America's major revolutionary movements of the twentieth century. Special emphasis on Mexico, Bolivia, and Cuba. Prerequisite: Any history survey course. Offered every two - three years.

462G The Cuban Revolution - 4 Q.H.
Development of the Cuban Revolution. Special emphasis is given to prerevolutionary Cuban society, to the performance of the Castro regime, and to ideological developments in the revolution. Prerequisite: any history survey course. Offered every two - three years.

469G History of Brazil - 4 Q.H.
Brazilian history from discovery until the present, with emphasis given to exploration and colonization, the development of slavery and its abolition, and Brazil's struggle for industrialization and world power status. Prerequisite: Any history survey course. Offered every two - three years.

SEQUENCE IN AMERICAN HISTORY

310 History of the American Indian - 4 Q.H.
Traces Indian civilization from pre-Spanish period to present. Emphasis is upon advanced Indian civilizations and changes to Indian civilization as a result of meeting the European civilization. The course also traces the development of governmental Indian policies. Offered yearly.

426G American Economic History to 1865 - 4 Q.H.
American economic development during colonial and early national periods, transition from an underdeveloped extractive-commercial economy to the early stages of industrialism. Prerequisite: One of the following: History 230, 231, or consent of the instructor. Offered every three years.

427G American Economic History (1865-Present) - 4 Q.H.
The economic development of modern America. The development of a national transportation system, national markets, and a national economy. Prerequisite: One of the following: History 231, 232, or consent of instructor. Offered two - three years.

428G History of the Upper Midwest - 4 Q.H.
Historical development of the upper Mississippi Valley. The course includes Minnesota, Wisconsin, Iowa, North Dakota, South Dakota, Nebraska, and interplay of historical forces since the seventeenth century. Prerequisite: One of the following History 215, 230, 231, 232, or consent of instructor. Offered two - three years.

475G American Colonial History - 4 Q.H.
The first century of the American experience and emergence of the American nation. Prerequisite: One or both of the following strongly recommended: History 121 and/or 230. Offered every two - three years.

476G American Revolutionary Era - 4 Q.H.
Pre-revolutionary controversy and crises, the war for independence, the Confederation Period, and the establishment of the Constitution. Prerequisite: One or both of the following strongly recommended: History 121 and/or 230. Offered every two - three years.

477G The Early National Period - 4 Q.H.
The Federalist Era, Jeffersonianism, the War of 1812, the "New Nationalism," and the rise of sectionalism. Prerequisite: One or both of the following strongly recommended: History 121 and/or 230. Offered every two - three years.

478G The Age of Jackson - 4 Q.H.
Jacksonian democracy, manifest destiny, the Mexican War, the deepening sectional rivalry. Prerequisite: History 231 recommended. Offered every two - three years.

479G The Civil War and Reconstruction - 4 Q.H.
Origins of the war, political and military development of the war and post-bellum problems. Prerequisite: History 231 recommended. Offered every two - three years.

480G Old South - 4 Q.H.
A regional history with emphasis on those characteristics which are "peculiarly" Southern. Prerequisite: One of the following: History 230, 231, or consent of instructor. Offered every three years.

481G American Westward Expansion - 4 Q.H.
Emphasis is placed upon the fur trader, cattleman, miner, and farmer on the Trans-Mississippi frontier with special attention given to the Western myth. Prerequisite: One or both of the following recommended: 230 and/or 231. Offered every two years.

483G The Progressive Era and the "Golden" Twenties (1901-1929) - 4 Q.H.
Consideration will be given to progressivism, World War I, postwar adjustment problems and select social phenomenon of the Twenties. Prerequisite: History 232 or consent of instructor. Offered every two - three years.

484G Depression, New Deal and War (1929-1945) - 4 Q.H.
The Depression of 1929 with emphasis on the economic, social, and psychological causes and consequences, the New Deal Revolution, and the role of the United States in World War II. Offered every two - three years.

485G Contemporary America (1945-Present) - 4 Q.H.
The causes and consequences of the Cold War, U.S. involvement in the Korean war, and selected post-war problems in foreign policy, mass society, and social alienation. Prerequisite: One of the following: History 122, 232, or consent of instructor. Offered every two - three years.
486G American Social and Intellectual History — 4 Q.H.
Analysis of American thought, social developments and movements, and selected aspects of American civilization. Prerequisite: One of the following History 230, 231, 232, or consent of instructor. Offered yearly.

488G American Constitutional History — 4 Q.H.
A study of the growth and development of the Constitution of the U.S. in the context of American history. Prerequisite: One of the following: History 230, 231, 232, or consent of instructor. Offered yearly.

489G U.S. Diplomatic History — 4 Q.H.
The rise of the United States to world leadership; from the colonial times to present. Prerequisite: One of the following: History 122, 230, 231, 232, or consent of instructor. Offered every two - three years.

SEQUENCE IN EUROPEAN HISTORY

400G Ancient Near East and Greece — 4 Q.H.
Pre-history and the development of civilization until the time of Rome, with emphasis on the Near East, Greece, and the Hellenistic world. Prerequisite: History 120 or consent of instructor. Offered every two - three years.

401G Ancient Rome — 4 Q.H.
The rise of Rome from a small republic to empire, the decline and fall of the empire. The Roman contribution to western civilization. Prerequisite: History 120 or consent of instructor. Offered every two - three years.

402G Early Middle Ages — 4 Q.H.
The decline of the Roman Empire and the reorganization of Europe, the early medieval Church, Islam, the Byzantine Empire, and the development of feudalism and manorialism. Prerequisite: History 120 or consent of the instructor. Offered every two - three years.

403G High Middle Ages — 4 Q.H.
The life and institutions of Europe in the High Middle Ages; the growth of capitalism and the rise of the city Scholasticism, representative institutions, and the emergence of nationalism. Prerequisite: History 120, consent of instructor. Offered every two - three years.

406G French Revolution and Napoleon — 4 Q.H.
Political, economic, and intellectual origins of the French Revolution, a decade of revolution, the Napoleonic Era, the impact of the revolution. Prerequisite: History 121 or consent of instructor. Offered every two - three years.

408G Renaissance — 4 Q.H.
The rise of commerce, development of the national monarchies, growth of the Italian city-states, secularization of society, humanism and art in Italy and in Northern Europe, new scientific discoveries, and expansion of Europe. Prerequisite: History 120, 121, or consent of the instructor. Offered every two - three years.

409G Reformation — 4 Q.H.
Causes of Reformation; Martin Luther and John Calvin. The Reformation in England, Anabaptist, Unitarians, Catholic Counter-Reformation, wars of religion in Europe. Prerequisite: History 120, 121, or consent of the instructor. Offered every two - three years.

410G Nineteenth Century Europe — 4 Q.H.
Internal development of the principal European powers, the "New Imperialism," and the origins of World War I. Prerequisite: History 122 or consent of instructor. Offered every two - three years.

415G Twentieth Century Europe — 4 Q.H.
The peace settlements, the League of Nations and the rise of totalitarianism, World War I, and World War II. Prerequisite: History 122, 123, or consent of instructors. Offered every two - three years.

417G Hitler and Nazi Germany — 4 Q.H.
Emphasis will be given to the factors which led to Nazism, the personality of Hitler, his drive for world domination and failure, and the Nuremberg trials. Prerequisite: History 122 or consent of the instructor. Offered every two - three years.

421G Tudor and Stuart England (1471-1914) — 4 Q.H.
The transition from medieval to modern England, the Reformation, the Age of Elizabeth, and the constitutional and social conflicts of the seventeenth century. Prerequisite: History 120, 121, or consent of the instructor. Offered every two - three years.

422G England During the Industrial Revolution — 4 Q.H.
England during the 18th and 19th centuries, response to industrialism, England as a world power, Victorianism. Prerequisite: History 121, 122, or consent of the instructor. Offered every two - three years.

423G Twentieth Century England — 4 Q.H.
England in the 20th Century from the height of imperial power to a Socialist government. Prerequisite: History 121, 122, or consent of the instructor. Offered every two - three years.

432 Modern Germany — 4 Q.H.
The cultural, political, and economic development of Germany since 1815. Prerequisite: History 122 or consent of instructor. Offered every two - three years.

434G Soviet Russian (1905-Present) — 4 Q.H.
The theory of Communism and its practice in Russia. The role of the Soviet Union in world affairs. Prerequisite: History 122, 232, or consent of instructor. Offered every two years.

435G Russo-Asian History — 4 Q.H.
Consideration of special aspects of modern Russia and Asia, with particular attention to the interrelationships of the two areas. Prerequisite: One of the following: History 122, 123, 434, or consent of instructor. Offered every two - three years.
120/HISTORY – HONORS PROGRAM

440G World War II – 4 Q.H.
An effort to examine the relations in between political leadership and military strategy. Brief description of main events. Prerequisite: History 122, 232, or consent of instructor. Offered every two - three years.

COURSES FOR GRADUATE STUDENTS ONLY

531 Independent Reading in History – 1-3 Q.H.
Course content will be determined by individual student needs. Supplements prior course work, opens new fields, or develops knowledge of various forms of historical materials. Credit arranged. May be repeated to the Maximum of nine hours.

550 Historical Research and Writing – 3 Q.H.
An introduction to the techniques of historical research, with emphasis upon application of the techniques in the preparation of a research paper.

552 Theories of History – 3 Q.H.
An introduction to the various schools of historical thought and the philosophical problems basic to historical interpretation.

560 American Historiography – 3 Q.H.
Analysis of historical interpretation of American history as revealed by leading American historians and major American schools of historical thought.

565 European Historiography – 3 Q.H.
Analysis of historical interpretations of European history as revealed by leading American historians and major American schools of historical thought.

599 Thesis – 6 Q.H.
Prerequisite: Consent of the History Depart-

Honors Program

Minne Hall, Room 323 / 457-2943
*Salzberger, Director

The Honors Program at Winona State University represents the university’s commitment to academic excellence insofar as it addresses the needs and aspirations of WSU’s most talented and highly motivated students. The Program provides an enriched, integrated, and alternative route through general education and elective requirements. The objectives of the Honors Program are:

1. To identify and support students of unusual talent and intellectual energy.
2. To provide academic opportunities of sufficient rigor to excite and challenge students so identified.
3. To promote the intellectual and personal development of such students by providing systematically for their mutual and meaningful interaction.
4. To establish an environment which will nurture the development and fulfillment of realistic aspirations and self-assessment.
5. To enhance those critical skills which will contribute to career development.

ADMISSIONS TO THE WSU HONORS PROGRAM

ENTERING FRESHMAN
Freshmen admitted with distinction who have an ACT Composite score of 26 or more will be invited into Honors. They may take Honors courses beginning with their first quarter of residence. Freshmen entering with distinction whose ACT Composite score is below 26 may be invited into Honors and may enroll in Honors courses beginning with their second term in residence.

OTHERS
Students not falling into the groups mentioned above may enroll in Honors by securing nominations from faculty members of two different departments. Generally, students nominated have a cumulative Grade Point Average of at least A-/B+. Nomination forms are available in the Honors Office.

ADMISSION TO HONOR COURSES
Members of the Honors Program may enroll in any Honors course without permission. Other students may enroll on the consent of the Director or the instructor.

REQUIREMENTS FOR COMPLETION OF THE HONORS PROGRAM (14-20 Q.H.)

Students should complete each of:
201 Thought and Culture
202 Classics in Social Thought
203 Great Ideas in the History of Science and Mathematics

Complete any two of the following:
251 Seminar in Humanities
252 Seminar in Social Thought
253 Seminar in the History of Science and Mathematics

Two courses should be taken on an 'H' basis, preferably drawn from within a student’s area of concentration.
COURSE LISTINGS

Honors courses may be applied to the General Education requirements. Honors courses 201, 251 satisfy the Humanities Requirements; 202, 252 satisfy the Social Science Requirements; 203, 253 satisfy the Natural Science Requirements.

CORE COURSES

201 Thought and Culture: Topics in the Humanities — 4 Q.H.
An intensive examination of some chronologically bound period or identifiable controversy involving a limited number of primary works of enduring importance in the humanities. Topics to vary with each offering: e.g. "The Roots of Western Thought," "The Crisis of Modern Consciousness," "Cases of Conscience: the Literature of Moral Dilemma," etc. Prerequisite: Admission into Honors or consent of instructor. Grade only.

202 Classics in Social Thought — 4 Q.H.
An intensive examination of selected primary works of a number of authors generally regarded as the seminal figures in the history of social thought. Topics to vary with each offering: e.g. "The Viability of Democracy," "Freud and Psychohistory," "The American Community," "The Literature of Sexuality," etc. Prerequisite: Admission into Honors or consent of instructor. Grade only.

203 Great Ideas in the History of Science and Mathematics — 4 Q.H.
An examination, aimed at the non-scientist, of a limited number of scientific and technical concepts or developments which are of general intellectual or social interest. Topics to vary with each offering: e.g. "The Idea of Evolution," "The Copernican Revolution," "The Concept of Disease," etc. Prerequisite: Admission into Honors or consent of instructor. Grade only.

SPECIAL HONORS SEMINARS

251, 252, 253 Special Seminars in the Humanities, Social Thought, and the History of Science and Mathematics — 1-4 Q.H.
Seminars concentrating on specialized topics within one of these three areas. Emphasis will be placed on student initiative and presentation. Each of these seminars will be open to non-majors within that area and will take account of the presence of such people within these seminars. "Specialized topic" indicates the range of the topic to be considered, not the degree of technical expertise required. Prerequisite: Admission into Honors or consent of instructor. Grade only.

"H" COURSES

"H" courses are currently scheduled courses which may be designated as "H" courses so that students who desire to do so may fulfill the requirements in a more rigorous and individual manner. A student may contract for an "H" in a course on the consent of the instructor. Honors "H" contract forms are available in the Honors office. Prerequisite: consent of instructor. To earn an "H" a student must complete the standard portion of the course at an "A" or "B" level, as well as completing the additional Honors Contract.
Individualized Study Program

Sornsen Hall, Room 221 / 457-2160
Dan Willson, Advisor

This program allows individualized academic pursuit. There are, of course, certain requirements, particularly in general education. Beyond those requirements, however, you may base course selection entirely upon projected needs after graduation. Upon completing the program you are eligible for a bachelor of arts degree, but without a major. The degree may not be preparatory to graduate school. If you change to another program, all requirements of that program must be met.

B.A. Degree Requirements
192 Q.H.

It is expected that all course prerequisites will be completed. All P/NC (Pass-No Credit) classes must be completed with a P, and must not exceed 48 quarter hours of credit. The student is limited to 36 credits (exclusive of those taken to satisfy General Education requirements) in any department offering a major and must complete the last 45 quarter hours of credit in residence during his junior and senior years. A cumulative grade point average requirement is 2.00.

Basic Requirements (8-16)
110, 115 English (8)
Mathematics (0-4)
Oral Communication (0-4)

Breadth Requirements (52 Q.H.)
Humanities (12 Q.H.)
Natural Sciences (12 Q.H.)
Social Sciences (12 Q.H.)
A Different Culture (8 Q.H.)
Contemporary Living (8 Q.H.)

Additional Requirements (124-132 Q.H.)

Option I — General

Additional Requirements (124-132 Q.H.)
The student must complete 96 credits of 300 and 400 level courses.

Option II — Technical

Credits from state-supported, public, post-secondary vocational technical schools will be treated as regular transfer credits, only credits from completed programs will be applicable. These credits will transfer only into the Individualized Study Major (Technical Option), and only as a block of credits with no specific designation.

A maximum of 12 vocational-technical credits per three-month quarter of vocational-technical school attendance will be allowed in transfer into the Individualized Study Major, Technical Option, with a maximum of 72 credits accepted.

Individuals shall be assigned to act as advisors for voc-tech transfer students.

Additional Requirements (124-132 Q.H.)
The student must complete 64 credits of 300 and 400 level courses.
Industrial Education

Watkins Hall, Room 103 / 457-2130
* Morgan (Chairperson), Cramer, Delano,

The department's basic purpose is to prepare students for careers as instructors in the public schools or for positions in the middle management level of industry. The Industrial Education Program prepares licensed Industrial Education teachers for junior and senior high schools. The Industry Major is designed for students seeking jobs with technical-managerial responsibilities in industry. The department also conducts a special program for the preparation of vocational teachers employed or wishing to be employed in post-secondary vocational schools. Courses in drafting are offered for pre-engineering students. Additionally, courses in safety education, which lead to certification of driver education teachers, are offered. A graduate program leading to a M.S. Degree in Industrial Education is also provided.

B.S. MAJOR
INDUSTRIAL EDUCATION
OPTION A
60 Q.H. (TEACHING)

Minor required.

REQUIRED COURSES (49 Q.H.)
121 Industrial Education Orientation (2)
420 Laboratory Planning (3)
491 Maintenance (2)
321 Industrial Education Teaching Methods (4)

Area 1 Manufacturing
211 Plastics (4)
241 Woods (4)
251 Metals I (4)

Area 2 Construction
230 Plumbing & Electrical Systems (3)
232 Masonry Construction (3)
231 Residential Construction (3)

Area 3 Graphic Communication
260 Graphic Arts (4)
266 Drafting (4)

Area 4 Power
270 Electricity-Electronics (3)
280 Heat Engines (3)
283 Fluid Power (3)

OPTION A-1

* Recommended as the most universal licensure in Option A.

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADES 5-12 REQUIRES:

ELECTIVES (11 Q.H.)
At least 11 credits of 300 and 400 level elective courses listed under Option B, with at least 5 hours of concentration in one area and with not less than 2 credits in each of the other numbered areas. Additional hour requirements may be met with courses from any numbered area of General Industrial Education Courses, but not more than 8 credits of internship.

OPTION A-2

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADE 5-9 REQUIRES:

ELECTIVES (11 Q.H.)
At least 11 credits of 300 and 400 level courses with not less than 2 of these credits in each numbered area. Additional hour requirements may be met with courses from any area or General Industrial Education Courses, but not more than 8 credits of internship.

OPTION A-3

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADE 9-12

ELECTIVES (11 Q.H.)
At least 11 credits of 300 and 400 level courses with at least 5 hours of concentration in one area. Additional hour requirements may be met with courses from any area or General Industrial Education Courses, but not more than 8 credits of internship.

B.S. MAJOR
INDUSTRIAL EDUCATION
OPTION B
76 Q.H. (TEACHING)

No minor required.

REQUIRED COURSES (49 Q.H.)
121 Industrial Education Orientation (2)
321 Industrial Education Teaching Methods (4)
420 Laboratory Planning (3)
491 Maintenance (2)

Area 1 Manufacturing
211 Plastics (4)
241 Woods (4)
251 Metals I (4)

Area 2 Construction
230 Plumbing & Electrical Systems (3)
231 Residential Construction (3)
232 Masonry Construction (3)

Area 3 Graphic Communication
260 Graphic Arts (4)
266 Drafting (4)

Area 4 Power
270 Electricity-Electronics (3)
280 Heat Engines (3)
283 Fluid Power (3)
OPTION B-1

*Recommended as the most universal licensure in Option B.

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADE 5-12 REQUIRES:

ELECTIVES (27 Q.H.)
At least 27 additional credits selected from 300 or 400 level elective courses with not less than 12 hours of concentration in one area and with not less than 5 credits in each of the other numbered areas. Additional hour requirements may be met with courses from any area or General Industrial Education Courses, but not more than 8 credits of internship.

OPTION B-2

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADE 5-9 REQUIRES:

ELECTIVES (27 Q.H.)
At least 27 additional credits selected from 300 or 400 level courses with not less than 6 credits in each numbered area. Additional hour requirements may be met with courses from any area or General Industrial Education Courses, but not more than 8 credits of internship.

OPTION B-3

LICENSURE TO TEACH INDUSTRIAL EDUCATION GRADE 9-12

ELECTIVES (27 Q.H.)
At least 27 additional credits selected from 300 and 400 level courses with not less than 12 hours of concentration in one area. Additional hour requirements may be met with courses from any area of General Industrial Education Courses, but not more than 8 credits of internship.

ELECTIVES
Area 1 Manufacturing
341 Cabinet & Furniture Making (4)
350 Hot Metals & Welding (3)

Area 2 Construction
332 Surveying for Contractors (2)
333 Heating & Air Conditioning (2)
341 Cabinet & Furniture Making (4)
350 Hot Metals & Welding (3)
432 Construction Materials (3)
433 Residential Construction Estimating (3)
436 Building Heat Sources & Loads (3)
464 Architectural Drawing (4)
466 Building Heat Sources & Loads (3)
464 Architectural Drawing (4)

Area 3 Graphic Communications
362 Industrial Design (2)
363 Printing Processes (4)
364 Architectural Drawing (4)
365 Binding & Finishing (4)
367 Technical Problems in Machine Drafting (4)
465 Industrial Photography (2)

Area 4 Power
378 Industrial Electronics (4)
379 Communication Electronics (4)
470 Semiconductor Devices (2)
481 Automotive (Brakes & Front-End) (3)
482 Automotive Tune-Up (3)

General Industrial Education Courses
399 Internship (1-8) (Special Arrangements Necessary)
401 Evaluation - Industrial Education (3)
425 Philosophy & Practices of Vocational Education (3)
426 Vocational Course Construction (3)
453 Welding (3)
490 Special Problems (1-4)

B. S. MAJOR
VOCATIONAL EDUCATION
72 Q.H. (TEACHING)
No Minor Required

The Vocational Education Major is designed to train trade-competent individuals for teaching trade subjects in secondary vocational schools or post secondary technical programs. The sequence of course work and related educational experiences are designed to lead to a B.S. Degree with certification to teach only in the area of the trade specialty according to the requirements as described in Minnesota State Plan for Vocational-Technical Education. The individual so trained would be eligible for certification to teach certain trade subjects in either secondary or post secondary vocational programs.

ADMISSION TO THE UNIVERSITY
Individuals accepted into the university in this program must meet admission requirements outlined in the general university catalog. In addition individuals who plan to graduate with a vocational education major must meet one of the following criteria and provide the university with certificates and transcripts when appropriate. In each case a two-year trade and industry program is regarded as one which consists of a minimum of 18 months of scheduled course work.

a. Students who are currently enrolled in a two-year trade or industrial program at a Minnesota Vocational Technical Institute.

b. Individuals who have, within five years of the date of application, received a certificate or diploma indicating the satisfactory completion of a two-year trade and industry program from a Minnesota Vocational Technical Institute.

c. Individuals who are permanently employed as certified trades and industry teachers in a Minnesota Vocational Technical Institute and are recommended for this program by the Director of the employing school.
d. Individuals who have within five years of the date of application, completed an approved two-year-trade and industry program at any out of state public vocational technical school or any private trade school.

ADMISSION TO THE PROGRAM

Students admitted to the university in this program must make application for "credits in trust" after they have completed at least 60 quarter hours of college credit. The following conditions must be met at this point.

a. Sixty quarter hours of credit with an average honor point ratio of 2.00.

b. Transcript or letter in permanent file certifying that the student has successfully completed an approved two year trade and industry course.

c. A recommendation from the Industrial Education Department to grant "credits in trust."

CREDITS IN TRUST

Credits in trust are credits which have been earned by a vocational student during a two year program at an approved vocational school. They are certified by a transcript from the granting institution and they are transferred and recorded as a block of 72 quarter hours. Partial credits for less than two years of work are not acceptable. These credits are applicable only in the Vocational Education major and may not be used in any other college program.

B.S. INDUSTRY

MAJOR

INDUSTRY OPTION I

124 Q.H.

No minor required

REQUIRED COURSES (46 Q.H.)

121 Industrial Education Orientation (2)

Area 1 Manufacturing

211 Plastics (4)
241 Woods (4)
251 Metals I (4)

Area 2 Construction

230 Plumbing & Electrical Systems (3)
231 Residential Construction (3)
232 Masonry Construction (3)

Area 3 Graphic Communication

260 Graphic Arts (4)
266 Drafting (4)

REQUIRED BUSINESS ADMINISTRATION COURSES (36 Q.H.)

201 Economics (4)
201 Accounting I (4)
202 Accounting II (4)
310 Business Law (4)
315 Principles of Marketing (4)
318 Management of Promotion (4)
370 Business Organization and Management (4)
407 Introduction to Taxation (4)
440 Introduction to Cost Accounting (4)

REQUIRED INDUSTRIAL EDUCATION COURSES (13 Q.H.)

364 Architectural Drawing (4)
432 Construction Materials (3)
433 Residential Estimating (3)
434 Construction Practicum (3)

ELECTIVES - Industrial Education (11 Q.H.)

Choose from the following list:

131 Introduction to Construction (4)
185 Alternate Energy Systems (3)
332 Surveying for Contractors (2)
333 Heating and Air Conditioning (2)
341 Cabinet and Furniture Making (4)
350 Hot Metals (3)
390 Materials Testing (3)
411 Reinforced Plastics (2)
436 Building Heat Sources and Loads (3)

ELECTIVES (18 Q.H.)

Business Administration

333 Production Management (4)
420 Insurance (4)
456 Labor Law (4)
Business Administration
210 Business Machines (2)
332 Business Report Writing (3)
333 Business Correspondence (3)
320 Business Data Processing (4)
Safety
354 Principles of Safety Education (3)

MANUFACTURING OPTION

REQUIRED BUSINESS ADMINISTRATION COURSES (36 Q.H.)
207 Statistics for Business & Economics (4)
201 Accounting I (4)
202 Accounting II (4)
310 Business Law (4)
312 Business Computer Applications & Programming I (4)
330 Production Management (4)
360 Fundamentals of Business Finance (4)
370 Business Organization and Management (4)
440 Introduction to Cost Accounting (4)

REQUIRED INDUSTRIAL EDUCATION COURSES (16 Q.H.)
350 Hot Metals (3)
362 Industrial Design (2)
378 Industrial Electronics (4)
390 Materials Testing (3)
454 Manufacturing (4)

ELECTIVES – Industrial Education (8 Q.H.)
151 Introduction to Manufacturing (4)
341 Cabinet and Furniture Making (4)
367 Technical Problems in Machine Drafting (4)
411 Reinforced Plastics (2)
412 Mold and Pattern Making (2)
450 Metals II (4)
491 Maintenance (2)

ELECTIVES (18 Q.H.)
Business Administration
201 Economics (4)
203 Accounting III (4)
313 Business Computer Applications & Programming II (4)
315 Principles of Marketing (4)
335 Statistics for Business & Economics II (4)
375 Management of Human Resources (4)
419 Management Systems (4)

B.S. INDUSTRY MAJOR

VOCATIONAL OPTION V
72 Q.H.

No minor required.

The B.S. (Vocational Option) is designed for individuals who have successfully completed a two year trade and industry technical program at an Area Vocational Technical Institute and wish to pursue work toward a Baccalaureate Degree.

VOCATIONAL TECHNICAL INSTITUTE TRANSFER POLICY

Students who enter this option, after completing a two year technical program at an approved Vocational Technical Institute, are eligible to receive a maximum of 50 Q.H. of credit for this technical background. Transfer credit is applicable toward only the major in the Vocational Option. Application is made by providing a valid transcript and the credit is recorded as a block. In some cases, individuals who have completed less than the full two year program may be granted fractional credit.

REQUIRED COURSES (20 Q.H.)

Because of the individualized nature of this major, the required courses will be jointly selected by the student and his advisor with the following guidelines.
1. All courses used to meet this requirement must have an IE prefix.
2. Courses may not duplicate the students area of technical competence.
3. The student must complete a minimum of 6 Q.H. in each of 3 numbered areas (See B.S. Industry Major — Option I)

ADDITIONAL REQUIREMENTS (52 Q.H.)

Elect 16 credits in the area of Natural Science
Elect 20 credits in the areas of Business Administration & Business Education
Elect 16 additional credits (200 and above) from:
Natural Science
Economics
Business Administration

Business Education
Industrial Internship in the area of potential employment (8 credits maximum)
SE 354 Principles of Safety (3)

WORK EXPERIENCE

Two summers of work experience in the area of potential employment is required. Internships are available.

MASTER OF SCIENCE

PREREQUISITE

A minimum of thirty-six (36) undergraduate credits in industrial education.

REQUIREMENTS (12 Q.H.)

Ed. Adm. 570 Research and Writing (3)
Professional Education (9) (See M.S. General Requirements)

WITH THESIS (45 Q.H.)

Industrial Education Electives (18-23) Not more than 6 credits of internship and tours
General Electives (minimum) (9)
Thesis (1-6)

WITHOUT THESIS (51 Q.H.)

Courses (see above) 12 credits
Industrial Education Electives (30)
Not more than 6 credits of internship and tours
General electives (minimum) (9)
Two (2) starred papers in any two approved Industrial Education Courses

NOTE: The student should secure a copy of the Industrial Education Department guidelines for the Master of Science Degree.
SAFETY EDUCATION

The safety education program consists of a 12 quarter hour sequence designed to provide a background in driver education and safety. Students who complete the work and attain a B.S. degree (with teacher certification) will be certified to teach Driver Education in Minnesota schools. See Industrial Education for course listings.

REQUIRED COURSES (12 Q.H.)
- 354 Principles of Safety Education (3)
- 360 Driver and Traffic Safety I (3)
- 361 Driver and Traffic Safety II (3)
- 406 Practicum in Driver Education (3)

COURSE LISTINGS

Courses offered on a Pass/No Credit basis are 131, 151, 160, 166, 180, 409, and 482. Other courses may be taken Pass/No Credit by permission of the instructor. Certain courses may require expenditure for safety glasses and/or materials.

100 Introduction to Vocational Teaching - 3 Q.H.
Introductory course designed for beginning vocational teachers who do not have an education degree. Emphasis is placed on designing a vocational course, planning for instruction, execution and evaluating instruction, management and laboratory and students, and advising and counseling students. P/NC Only.

101 Planning for Vocational Instruction - 1 Q.H.
A basic course for adult vocational program instructors. Emphasis is placed on understanding the adult learner, developing a strategy for presenting instructional materials and determining course objectives. P/NC Only.

102 Implementation of Vocational Instruction - 1 Q.H.
A basic course for adult vocational program instructors who have completed IE 101. Emphasis is placed on techniques and methods of presenting instructional materials such as lectures and demonstrations supported by appropriate instructional aids. P/NC Only.

103 Vocational Class/Lab Management - 1 Q.H.
A basic course for adult vocational program instructors who have completed IE 101 and 102. Emphasis is placed on evaluating vocational student performance and efficient use of classroom/lab time in managing students involved with multiple activities. P/NC Only.

121 Industrial Education Orientation - 2 Q.H.
A broad analysis of industry and education with emphasis on employment potential, job benefits, employment philosophies and the literature of the two fields. Offered yearly.

131 Introduction to Construction - 4 Q.H.
Materials and processes used in the construction trade. Construction codes, specifications and the acquisition of the construction site. Offered yearly.

151 Introduction to Manufacturing - 3 Q.H.
Modern industry as found in today's society including laboratory experiences simulating industrial organization and production techniques. Offered yearly. P/NC Option.

160 Introduction to Reproduction Graphics - 2 Q.H.
A study and application of the basic industrial graphic communication methods and materials. Lab experiences will include design, layout, and mechanical printing processes. Offered yearly. P/NC Option.

166 Introduction to Drafting: The Language of Industry - 2 Q.H.
A study of industrial communication language through the application of basic drafting processes. Offered yearly. P/NC Option.

180 Fundamentals of Energy and Transportation Systems - 3 Q.H.
A course designed for general education which exposes the student to both fundamental concepts and the energy situation as they apply to transportation, home heating and alternate sources of energy.

211 Plastics - 4 Q.H.
Plastic materials and processes utilizing both thermosetting and thermoplastic materials. Vacuum forming, compression, extrusion, injection, lamination, casting, forming, coating, impregnating and fabrication. Offered yearly.

230 Plumbing & Electrical Systems - 3 Q.H.
Water distribution, treatment and waste removal, electric power requirements and wiring practices, residential and commercial requirements. Offered yearly.

231 Residential Construction - 3 Q.H.
Foundations, framing and building materials. The laboratory experience involves actual construction on a job site. Offered yearly.

232 Masonry Construction - 3 Q.H.
A study of masonry construction for residential and light commercial building. Offered yearly.

241 Woods - 4 Q.H.
Fundamental tools and processes used in woodworking. Through the construction of required projects, the student will gain experience and skill in the use of hand tools and basic machine operations. Prerequisite: 266 or consent of instructor. Offered yearly.

251 Metals I - 4 Q.H.
Metalworking tools and processes. Students will construct projects to develop some general metalworking competencies. Prerequisite: 266 or consent of instructor. Offered yearly.

260 Graphic Arts - 4 Q.H.
Process of taking an idea or message and processing into an effective finished graphic product. Will work with mechanical and photographic methods. Offered yearly.

266 Drafting - 4 Q.H.
A study and application of mechanical drafting as it relates to industry and society. Units included will be orthographic projection, auxiliary views, sectional views, isometric views, isometric sections, and oblique drawing. Offered yearly.

270 Electricity-Electronics - 3 Q.H.
A course designed to orient students with no electrical backgrounds to components, circuitry and systems. Offered yearly.
280 Heat Engines — 3 Q.H.
Power principles employed in all heat engines and the operation and maintenance of small 2 and 4 cycle engines. Offered yearly.

283 Fluid Power — 3 Q.H.
Introduction, general survey, to acquaint students with the fluid power language, and basic fundamentals of fluid mechanics as applied to fluid power systems. Offered yearly.

292 Craft Activities — 4 Q.H.
Survey of craft materials and processes, and activities for elementary and secondary education and youth activities. Offered yearly.

302 Vocational Instruction Methods — 3 Q.H.
Understanding of basic learning theory, the ability to organize and use the various teaching methods, and the opportunity to present and critique teaching presentations.

321 Industrial Education Teaching Methods — 4 Q.H.
Teaching techniques, methods and procedures in the different industrial education areas. Prerequisite: 121 and junior status. Offered yearly.

332 Surveying for Contractors — 2 Q.H.
A study of basic surveying techniques. The course will cover construction surveying, measurement and determination of land area and topographical mapping.

333 Heating & Air Conditioning — 2 Q.H.
Temperature and humidity systems, control of air handling equipment, duct and piping systems, needs specifications, and installation practices.

341 Cabinet & Furniture Making — 4 Q.H.
Fundamentals of cabinetmaking and the use of woodworking machines. Informational topics and related drawings. Prerequisite: 241. Offered yearly.

350 Hot Metals & Welding — 3 Q.H.
Laboratory course in the principles and practices used in the processing and fabrication of hot metals; arc welding, oxyacetylene welding, foundry, and forge work. Prerequisite: 251. Offered yearly.

362 Industrial Design — 2 Q.H.
Laboratory course dealing with function, materials and aesthetic considerations for mass produced industrial products. Designs will incorporate tool, and fixture requirements. Prerequisite: 241 or 251 or consent of instructor.

363 Printing Process — 4 Q.H.
Analytical study of the processes used in reproducing graphic products: US/N6 offset lithography. Prerequisite: 260 or consent of instructor.

364 Architectural Drawing — 4 Q.H.
Types of building design as applied to dwellings. Student draws a complete set of plans with specifications for a single family dwelling. Prerequisite: IE 266. Offered yearly.

365 Binding & Finishing — 2 Q.H.
Graphic finishing process of coating, punching, and perforation, folding, shrink wrapping and die cutting. Binding will include units in perfect, case, plastic wire stitching, and non-permanent processes. Prerequisite: 260 or consent of instructor.

367 Technical Problems in Machine Drafting — 4 Q.H.
Principles of designing machines will be discussed and applied, materials, processes, and procedures will be included. Detailed working drawings of machined parts, assembly drawings, and exploded views in isometric and isometric sections are included. Prerequisite: IE 266 or consent of instructor. Offered yearly.

378 Industrial Electronics — 4 Q.H.
This course is a study of electrical and electronic circuits used in industrial control. It includes electrical motors and generators, motor controls, semiconductor devices and logic gates. Prerequisite: IE 270 or consent of instructor.

379 Communication Electronics — 4 Q.H.
This course contains the devices and circuits related to communication systems. It begins with the fundamentals of semiconductor diodes and includes integrated circuits and television systems. Prerequisite: IE 270.

390 Materials Testings — 3 Q.H.
Experimental laboratory study of the composition, properties and strength of commonly used man-made and natural materials. Prerequisites: 211, 251, and 241.

400G Instructional Aids for Vocational Teaching — 3 Q.H.
Study of the different methods of presenting audio visual material to a class, plus operating the various hardware involved and the opportunity to develop teaching materials.

401G Evaluation-Industrial Education — 3 Q.H.
Methods used to measure vocational knowledge and skill achievement. Study of measurement instruments for evaluation of vocational instruction and of the interpretation of test data to improve instruction.

402G Conference Leadership — 2 Q.H.
This course is designed to provide the vocational teacher with the leadership skills essential to managing advisory committees and youth club organizations. Emphasis is placed on the selection of committee members, planning a conference agenda, conducting the conference and the follow-up activities as a result of the conference.

403G Organization & Administration of Voc. Ed. Programs — 3 Q.H.
The course will identify competencies essential to the administration of vocational programs and will provide an opportunity for in-depth study of those competencies.

405G Safety & Teacher Legal Liability — 3 Q.H.
Introduction to OSHA, recordkeeping requirements, OSHA Standards as they relate to shops/labs, protective equipment, and legal liabilities of instructors and administrators. P/NC Option, for undergraduates.

407G Vocational Coordinating Techniques — 3 Q.H.
Techniques for the management and direction of cooperative and supervised work programs in the secondary and post secondary school.
408G Materials & Methods of Cooperative Vocational Education Programs — 3 O.H.
Cooperative community based concepts of training will be analyzed. Instructional materials that may be used in the classroom, on-the-job or by a related instructional staff will be studied. Community cooperation and on-the-job training opportunities will be stressed.

409 Special Problems in Vocational Education — 1-4 O.H.
Special problems, technical or non-technical in nature, but provides staff development opportunities for vocational teachers. P/NC Option.

411G Reinforced Plastics — 2 O.H.
Fiberglass and other fibers and reinforcements with polyester resins. A major project will be required. Prerequisite: 241 or consent of instructor.

412 Mold & Pattern Making — 2 O.H.
Design and fabrication of molds for thermosetting and thermoplastic materials. Patterns will be made for the casting process. Prerequisite: 241, 251.

420 Laboratory Planning — 3 O.H.
A study of the design of laboratory facilities and the selection of appropriate equipment for instruction in the area of Industrial Education. (This course is for Industrial Education majors only.) Prerequisite: Senior standing. Offered yearly.

425G Philosophy and Practice of Vocational Education — 3 O.H.
Initial course in the vocational education sequence: trends, history and leaders in vocational education.

426G Vocational Course Construction — 3 O.H.
Opportunity to develop and evaluate a course of study. The student will be given guidance in developing a portion of a course in his teaching area.

432G Construction Materials — 3 O.H.
A study and analysis of the various materials available for the construction industry. Special emphasis will be placed on use of new materials. Prerequisite: IE 231 or consent of instructor.

433G Residential Construction Estimating — 3 O.H.
A study and application of rules and procedures involved in estimating material cost in residential construction. Prerequisite: IE 231 or consent of instructor.

434G Construction Practicum — 3 O.H.
The student will have the opportunity to frame and enclose a house as well as study current building techniques. Prerequisite: 231 or consent of instructor.

436G Building Heat Sources & Loads — 3 O.H.
This course teaches the concept of building heat loads. It includes building materials designed to reduce heat loss. A major part of the course includes traditional and energy alternative heating and cooling applications. Prerequisite: IE 131, 158.

450 Advanced Metalworking — 4 O.H.
Student designs and constructs an advanced problem in metals with emphasis in the use of metalworking machine tools. Prerequisite: 251, or consent of instructor.

453G Welding — 2-3 O.H.
Welding as a basic fastening process used in metal fabrication industries. Basic metallurgy, fabrication techniques and newer industrial processes. Prerequisite: IE 251 or consent of instructor.

454G Manufacturing — 4 O.H.
Acquaints the industrial education major with the various aspects of modern industry. A portion of this course is devoted to the complete development of mass production products. Prerequisites: IE 211, 241 and 251.

465 Industrial Photography — 2 O.H.
Study and lab work in photo mechanics including photo fabrication of metals and photo decorating. Exercises in photographing industrial machines and products. Prerequisite: 260 or consent of instructor.

470 Semiconductor Devices — 2 O.H.
Diodes, transistors, and other semiconductor devices with associated circuitry. Prerequisite: 270.

481G Automotives (Brakes & Front End) — 3 O.H.
Principles involved in the automotive brake and steering systems. The student will develop the ability to analyze and make major adjustments and repairs on these two systems.

482G Automotive Tune-Up — 3 O.H.
The automotive engine with emphasis on the electrical and carburetion system and including testing and adjusting these systems using modern equipment. P/NC Option, for undergraduates. Prerequisite: IE 180 or consent of instructor.

490 Special Problems — 1-4 O.H.
An independent study course designed for seniors who want to carry out an independent research activity. Prerequisite: senior standing, approval of department chairperson and instructor.

491 Maintenance — 2 O.H.
Technical information on industrial education laboratory equipment, cutting theories and safety, maintenance and adjustment of power equipment, saw sharpening and general hand tool maintenance. Prerequisites: 241, 251 or consent of instructor. Offered yearly.

COURSES FOR GRADUATE STUDENTS ONLY

526 Industrial Seminar — 1-6 O.H.
Study of the organization of business, methods of production, and related problems in cooperation with industrial firms.

591 Special Problems in Industrial Education — 1-6 O.H.
Problems non-technical such as school shop safety, personnel organization and inventory systems. Admission on approval of the instructor.

592 Industrial Tour — 2-6 O.H.
This course is a tour which includes experience in all Industrial Education cluster areas (Construction, Manufacturing, Communication, Power, and Transportation). Field trips are arranged with industries in several Minnesota communities. Students make their own arrangements for travel and lodging for the tour. Not more than 6 credits of Internship and tours may be applied to major. Offered summer session.
SAFETY EDUCATION

354 Principles of Safety Education — 3 Q.H.
Overview of the scope and methods of safety education including traffic, occupational, home, farm, fire and public safety.

360 Driver & Traffic Safety Education I — 3 Q.H.
Critical analysis of traffic accidents, attitude factors, essential knowledge of automobile operations, traffic laws and regulations. Offered yearly.

361 Driver & Traffic Safety Education II — 3 Q.H.
Methods of teaching and administration of high school driver and traffic safety. Prerequisite: 360. Offered yearly.

406 Practicum in Driver Education — 3 Q.H.
Teaching experience in the field of Driver Education for those who wish to be certified in this area. Prerequisites: 360, 361, 354 and admission to Teacher Education.

490G Special Problems in Safety — 1-3 Q.H.
For in-service Driver Education instructors to enable them to do independent study in research and development of high school Driver Education courses.

Internship

399 General Internship — 1 — 16 Q.H.
Specific details regarding the course are contained in internship program statements for the departments using it. There is a limit of 16 internship credits per quarter and 24 internship credits in total which may apply toward a degree program. Internships are approved only upon completion of the Sophomore year (96 credits). Students must consult the chairperson of the department in which they are majoring. Prerequisites: as set by departments. P/NC only, except 4 Q.H. of work related to courses may be taken for grade with approval of department and area dean.

555 General Internship — 1-16 Q.H.
Specific details regarding the course are contained in internship program statements for the departments using it. Students must consult the chairperson of the department in which they are majoring. A maximum of 16 internship credits can be applied toward a graduate degree program. Students may enroll for more than 16 quarter hours when credits are to be used for certification purposes. Prerequisites: as set by departments.

Mass Communications

Performing Arts Center, Room 215 / 457-2121
Vivian (Chairperson), MacDonald, Martin, Pack, *Wilkinson

Mass media are necessary in a free society to inform, survey, protect and enlighten the citizens. These vital industries are currently in a period of rapid growth, continually developing new technologies and opportunities. The WSU Mass Communications Department stresses the development of communicators with a strong sense of their responsibility and role in serving the community, as well as practical experience in the production and development of mass media content.

The program offers many opportunities for putting theory into practice as students work on the campus newspaper, the 1300-watt radio station, and in color and black-and-white television and photography facilities. An internship program places students locally, statewide, nationally and internationally in work experience situations which have led many to professional positions in media and industry. The WSU program is also a basis for graduate work in mass communications.

WSU offers three mass communications emphases: print journalism, broadcast, and photojournalism. Each allows students to develop general skills in oral, visual and written communication, to gain an understanding of communication law and theory, and to receive specific information and experience in an area of special interest.

Students are required to pass English 110, English 115, and CTA 118 before declaring a mass communications major.
B.A. MAJOR
MASS COMMUNICATIONS
58-64 Q.H.

The Mass Communications Major offers three options: Journalism Emphasis, Broadcast Emphasis, and Photojournalism Emphasis.

REQUIRED COURSES FOR ALL MASS COMMUNICATIONS MAJORS (32 Q.H.)

100 Introduction to Mass Communications (4)
101 Fundamentals of Broadcasting (4)
215 Beginning Reporting (4)
217 Advanced Reporting (4)
300 Mass Communications Law (4)
301 Principles of Public Relations and Advertising (4)
313 Mass Communications Theory and the Media (4)
210 - PHO Photography I (4)

JOURNALISM EMPHASIS (26-32 Q.H.)

Majors in Journalism Emphasis are required, in addition to the 32 required hours, to take the following courses:

218 News Editing (4)
251 Newspaper Practicum (4-6)
337 Specialized Reporting (4)
338 Feature Writing (4)
385 Issues in Journalism (2)
399 Internship (4-8)
210 - ENG Advanced Composition (4) OR
439 - ENG Technical Writing (4)

BROADCAST EMPHASIS (28-32 Q.H.)

Majors in Broadcast Emphasis are required, in addition to the 32 required hours, to take the following courses:

200 Radio Production (4)
210 Production Management (2)
250 Radio Practicum (2-6) OR
350 Television Practicum (2-6)
302 Broadcast Management (4)

320 Broadcast Journalism (4) OR
324 Advanced Television Production (4)
322 Basic Television Production (4)
323 Intermediate Television Production (4)
399 Internship (4-8)

PHOTOJOURNALISM EMPHASIS (32 Q.H.)

Majors in Photojournalism Emphasis are required, in addition to the 32 required hours, to take the following courses:

201 History of Photojournalism (2)
310 Basic Photojournalism (4)
395 Issues in Journalism (2)
410 Advanced Photojournalism (4)
260 - IND.ED. Graphic Arts (4)
370 - PHO Studio Photography (4)

Plus ELECTIVES totaling 12 Q.H. from the following:

338 Feature Writing (4)
351 Photojournalism Practicum (2-6)
399 Internship (4-8)
400 Independent Study (2-4)
412 Sports Photography (2)
413 Public Relations Photography (2)

B.A. MINOR
MASS COMMUNICATIONS

AND

B.S. MINOR
MASS COMMUNICATIONS

(Not approved for teacher certification. A B.S. candidate may earn the Mass Communications Minor with a "no minor required" major, or with a second minor in another field.)

REQUIRED COURSES (20 Q.H.)

100 Introduction to Mass Media (4)
101 Fundamentals of Broadcasting (4)
215 Beginning Reporting (4)
313 Mass Communications Theory and the Media (4)
210 - PHO Photography I (4)

In addition, students must select 12 hours of credit from other Mass Communications course listings.

MASS COMMUNICATIONS/ 131

COURSE LISTINGS

Courses offered on a Pass/No Credit Only basis are 250, 251, 350, 351 and 399. All other courses must be taken for grade only.

100 Introduction to Mass Communications — 4 Q.H.
A survey course of the mass communications media, their role in our society, career opportunities and comparison of media systems. Offered twice yearly.

101 Fundamentals of Broadcasting — 4 Q.H.
Survey of history and philosophy of broadcasting. Interaction of the media, public interest and the FCC; program policies, procedures and evaluations; basic production techniques. Some studio experiences. Offered yearly.

200 Radio Production — 4 Q.H.
Program design and presentation; equipment and staff organization. Writing, organization, production, direction and performance of radio news, music, dramatic and documentary programs. FCC rules and regulations for announcers. Prerequisites: 100 and 101. Offered twice yearly.

201 History of Photojournalism — 2 Q.H.
A general survey of the history of photojournalism — its technical evolution, aesthetic influence, and impact on social development. Prerequisite: Photography — 159 or Photography — 210. Offered yearly.

206 Preparation of Visual Materials — 2 Q.H.
Production of visuals using materials and equipment commonly available: preparation and mounting of pictures and production of graphic materials for photography and television. Offered yearly.

210 Production Management — 2 Q.H.
Managing television and film productions. Includes formulating objectives, preparation of program proposals and budgets, and figuring and working with time lines. Must be taken concurrently with 323. Offered yearly.
213 Filmmaking I — 4 Q.H.
Fundamentals of motion picture production. Development of cinematographic lighting and editing medium of communication. Offered alternate years.

215 Beginning Reporting — 4 Q.H.
A laboratory-lecture course in communications with emphasis on news writing. Style and structure of new stories; news sources; news-gathering organizations. Prerequisites: English 110 and English 115. Offered yearly.

217 Advanced Reporting — 4 Q.H.
A laboratory-lecture course in news writing with emphasis on realistic experience on and off campus. Use of various resources; interview techniques. Prerequisite: 215, or consent of instructor. Offered twice yearly.

218 News Editing — 4 Q.H.
A laboratory-lecture course with emphasis on operation of a news desk—copyreading, gatekeeper decisions, headline writing, makeup. Prerequisites: 215, 217, or consent of instructor. Offered yearly.

250 Radio Practicum — 2 Q.H.
Practical experience in the production, announcing, or administration of radio programs. Students will work as staff members of Radio Station KOAL-FM. Prerequisite: 200. May be repeated twice. Offered quarterly. P/NC Only.

251 Newspaper Practicum — 2 Q.H.
Students taking this course will produce the student newspaper, the weekly Winonan, acting as reporters, editors, and columnists. The faculty advisor of the newspaper will supervise and evaluate the staff. Course may be repeated twice. Prerequisite: 215. Offered quarterly. P/NC Only.

300 Mass Communications Law — 4 Q.H.
An introduction to basics of mass communications law, designed to acquaint students with major issues and survey current legal status of the media. Prerequisites: 100 and 101. Offered yearly.

301 Principles of Public Relations and Advertising — 4 Q.H.
An introduction to the nature, role and management of public relations and advertising. Case problems and projects give practical experience. Prerequisites: 100 and 101. Offered yearly.

302 Broadcast Management — 4 Q.H.
Investigation of techniques and organization of commercial, non-commercial and industrial radio and television. Prerequisites: 100 and 101. Offered yearly.

310 Basic Photojournalism — 4 Q.H.
The photograph as a means of communication. Students are encouraged to market their work. Prerequisite: Photography 210. Offered yearly.

313 Mass Communication Theory and the Media — 4 Q.H.
A study of the effect of the media's influence on society and culture through a comprehensive understanding of the theories of human communication. Prerequisites: 100 and 101, or consent of instructor. Offered yearly.

320 Broadcast Journalism — 4 Q.H.
Journalism as it relates to the broadcast media, especially television. Students write, tape, edit and broadcast the news. Prerequisite: 322. Offered yearly.

322 Basic Television Production — 4 Q.H.
Introduction to television production using single camera and studio television systems. Topics include lighting, audio, editing, directing, and camera operation. Offered yearly.

323 Intermediate Television Production — 4 Q.H.
Production of more advanced television presentations. Students work in teams on more complex programs. Must be taken concurrently with 210. Prerequisite: 322. Offered yearly.

324 Advanced Television Production — 4 Q.H.
Production of full-length television programs. Earlier topics are dealt with in more detail. Prerequisites: 210 and 323. Offered yearly.

337 Specialized Reporting — 4 Q.H.
Interpretive writing, investigative reporting, public affairs reporting, opinion writing (editorials and columns), or technical reporting. Prerequisite: 215 and 217, or consent of instructor. Offered yearly.

338 Feature Writing — 4 Q.H.
Training students in developing, writing, and marketing feature stories to a variety of publications. Prerequisites: 215 and 217, or consent of instructor. Offered yearly.

350 Television Practicum — 2 Q.H.
Practical experience in the production or promotion of television programs. Students will work as crew members on projects intended for broadcast over cable channel 12. May be repeated twice. Prerequisite: 322. Offered yearly. P/NC Only.

351 Photojournalism Practicum — 2 Q.H.
Practical experience in the production and dissemination of editorial photographs. Students will work as staff members of the Winonan. Prerequisites: 310 and Photography 210. May be repeated twice. Offered quarterly. P/NC Only.

385 Issues in Journalism — 2 Q.H.
Ethics, influence and responsibilities of the press; relationship to government; independent study project required. Prerequisites: 100 and 215. Offered yearly.

399 Internship — 4-8 Q.H.
Supervised, practical experience in a wide variety of fields. Offered quarterly by arrangement. P/NC Only.

400 Independent Study — 2-4 Q.H.
Independent study in areas determined by the needs of the individual student. Offered by previous arrangement only. The consent of the instructor is required. Prerequisite: Junior status. May be repeated to a total of 8 hours. Offered quarterly.

410 Advanced Photojournalism — 4 Q.H.
Specific problems relating to the practicing picture—journalist. The picture story, color theory and separation, sequential imagery and layout are topics for concern. (Students ideally should have access to a fully-adjustable camera.) Prerequisites: 215, 310, and Industrial Education 260. Offered yearly.

412 Sports Photography — 2 Q.H.
Exploration of the specifics of action photography. Requires advanced skills in photography. Prerequisite: Photography 150 or Photography 210. Offered every other year.
413 Public Relations Photography - 2 Q.H.
The specific photographic requirements of public relations. Consideration of institutional, advertising, and promotional areas. Photographic competence is required. Pre-requisite: Photography 150 or Photography 210. Offered every other year.

Mathematics and Computer Science

Gildemeister Hall, Room 311 / 457-2189

The department of Mathematics and Computer Science offers courses in mathematics, statistics and computer science designed to prepare you in teacher education, general education or preprofessional and professional fields.

B.A. MAJOR
OPTION B
80 Q.H.
(No minor required)

REQUIRED COURSES (56 Q.H.)
231 Intro to FORTRAN IV (4) OR
232 Intro to PASCAL (4)
225, 226, 227 Geometry-Calculus I, II, III (15)
316 Introduction to Modern Mathematics (4)
317 Abstract Algebra (4)
318 Introduction to Probability and Statistics (4)
329 Geometry-Calculus IV (5)
330 Differential Equations (4)
417 Linear Algebra (4)
460, 461, 462 Advanced Calculus I, II, III, (12) OR
470, 418, 419 Intermediate Analysis Mathematical Statistics (12)

ELECTIVES (24 Q.H.)
Electives from approved Math courses 315 and above to a total of 4 credits. Math 231 or 232 is acceptable as elective credits.

B.S. MAJOR
OPTION A
56 Q.H. (TEACHING)

REQUIRED COURSES (48 Q.H.)
NOTE: Math 215 and 216 may be substituted for Math 220.
130 Intro to BASIC Programming (4)
208 Fundamentals of Statistics (4)
220 College Algebra and Trigonometry (5)
225, 226, 227 Geometry-Calculus I, II, III, (15)
316 Introduction to Modern Mathematics (4)
317 Abstract Algebra (4)
318 Introduction to Probability and Statistics (4)
322 Modern Geometry (4)
417 Linear Algebra (4)

ELECTIVES (4 Q.H.)
Electives from approved Math courses 300 or above to a total of 4 credits. Math 231 or 232 is acceptable as elective credits.

ADDITIONAL REQUIREMENT (4 Q.H.)
320 Teaching Mathematics (4)
B.S. MAJOR
OPTION B
75 - 78 Q.H. (TEACHING)
(No minor required)

REQUIRED COURSES (64-67 Q.H.)
225, 226, 227 Geometry-Calculus I, II, III (15)
231 Introduction to FORTRAN (4) OR
232 Introduction to PASCAL (4)
316 Introduction to Modern Mathematics (4)
317 Abstract Algebra (4)
318 Introduction to Probability and Statistics (4)
320 Teaching of Mathematics (4)
322 Modern Geometry (4)
329 Geometry-Calculus IV (5)
330 Differential Equations (4)
417 Linear Algebra (4)
221, 222, 223 College Physics (15) OR
212, 213, 214 General Inorganic Chemistry (15) OR
460, 461, 462 Advanced Calculus (12) OR
470, 418, 419 Intermediate Analysis Mathematical Statistics (12)

ELECTIVES (11 Q.H.)
Electives from Math courses 300 or above to a total of 11 credits.

B.S. MAJOR
OPTION C
STATISTICS (TRI-COLLEGE)
66 Q.H.

REQUIRED COURSES (60-64 Q.H.)
208 Fundamentals of Statistics (4)
231 OR 232 FORTRAN OR PASCAL (4)
225, 226, 227, 329 Analytic Geometry and Calculus I, II, III, and IV (20)
318 Introduction to Probability and Statistics (4)
410, 411 Applied Statistics I, II (8)
418, 419 Introduction to Mathematical Statistics I, II (8)
*ST 222 Data Collection and Analysis (4)
*ST 223 Non-Parametric Statistics (4)
492 Practicum in Statistics (4-8)

ELECTIVES (4-8 Q.H.)
Electives will be selected from available offerings at the College of St. Teresa, St.
Mary's College and WSU, in consultation with your advisor.

B.S. MAJOR
COMPUTER SCIENCE
69 - 71.5 Q.H.

REQUIRED COMPUTER COURSES (38-39 Q.H.)
Math 231 Introduction to FORTRAN (4) OR
Math 232 Introduction to PASCAL (4)
Math 233 Structured COBOL Programming (4)
Math 240 Intro to JCL and File Handling (2)
Math 250 Fundamentals of Computer Science (4)
Physics 332 Computer Organization (4)
Math 340 Data Structures (4) OR
(*C.S. 320 Data Structures 4.5)
Math 351 Introduction to Assembly Language (4)
Math 370 System Analysis (4) OR
(*C.S. 330 System Analysis 4.5)
Math 491 Practicum in Computer Science (8)

REQUIRED MATHEMATICS COURSES
(19 Q.H.)
Math 225, 226, 227 Calculus I, II, III (15)
Math 318 Intro to Probability and Statistics (4)

ELECTIVES (12-13.5 Q.H.)
The three elective courses are to be selected in the following manner: one course
from Group I and two courses from either Group I or Group II.

Group I
Math 376 Systems Programming (4)
(or *C.S. 340 Programming Systems 4.5)
Math 430 Computer Graphics (4)
*C.S. 440 Simulation and Modeling (4)
*C.S. 460 Management Information Systems (4.5)
*C.S. 470 Data Based Management System (4.5)
MASTER OF SCIENCE

PREREQUISITE:
Undergraduate major or a minimum of thirty-six (36) credits in mathematics. Undergraduate deficiencies can be satisfied by taking graduate courses in mathematics but such courses will not count toward the advanced study program requirements.

REQUIREMENTS
(Non-thesis program)

CORE COURSES (12 Q.H.)
510 Modern Elementary Analysis (4)
513 Transformational Geometry (4)
540 Number Theory (4)

ELECTIVES (18 Q.H.)
18 credits of electives in mathematics to be selected in consultation with advisor.

PROFESSIONAL EDUCATION (9 Q.H.)
Courses to be selected in consultation with advisor.

GENERAL ELECTIVES (12 Q.H.)
General Electives to be selected in consultation with advisor.

COURSE LISTINGS

Any course not required or elected for a major or minor may be taken on a pass/no credit basis, except 491/492 which is pass/no credit only.
All courses offered on a quarterly basis unless otherwise noted.

110 Mathematics for Elementary Teachers — 4 Q.H.
Study of concepts and properties of operations essential to mathematics in the elementary grades. Open only to elementary majors.

113 Introduction to Algebra for College Students — 4 Q.H.
A study of intermediate algebra for the student who has not successfully completed two years of high school algebra.

124 Basic Statistics — 1 Q.H.
Basic ideas of elementary statistics.
225, 226, 227 Analytic Geometry and Calculus I, II, III — Each 5 Q.H.
Analytic Geometry, Differential and integral Calculus of a single variable. Three quarters in sequence. Prerequisite: Math 215, 216, or 220. (or special permission for strong students with 4 years of high school Mathematics.)

231 Introduction to FORTRAN — 4 Q.H.
An introduction to computer programming using the FORTRAN language with a structured approach. Programming applications will be taken from scientific and non-scientific areas.

232 Introduction to PASCAL — 4 Q.H.
A study of computer programming using the PASCAL language with emphasis on data types, control mechanisms, data structures, and structured programming. Applications will be taken from both scientific and commercial problems.

233 Structured COBOL Programming — 4 Q.H.
An indepth study of structured programming design utilizing the COBOL language. Topics include structured design techniques, modular program design, sequential file processing, and direct access processing. Prerequisite: Math 231 or 232.

240 Job Control Language and File Handling — 2 Q.H.
Provides the student with a moderate level of proficiency in job control language in a multiprogramming and multiprocessing environment. Prerequisite: Math 231 or 232 or 233. Grade only. Offered yearly.

250 Fundamentals of Computer Science — 4 Q.H.
An introduction to basic concepts of computer science including computer organization, problem analysis and algorithmic design, structured programming concepts, elementary data structures, numeric and non-numeric algorithms, sorting and searching. Prerequisite: Math 231 or 232.

312 Introduction to Microcomputers — 4 Q.H.
This course will examine mini/micro computers; what they are and what they can and cannot do; what is available in terms of models, equipment and cost. It also provides instruction in organizing, programming and operating microcomputer. Prerequisites: Math 233, or consent of instructor. Offered yearly.

315 Theory of Equations — 4 Q.H.
A first course coordinating ideas of algebra, analytic geometry and calculus. Prerequisite: Math 227. Offered on demand.

316 Introduction to Modern Mathematics — 4 Q.H.
Topics in modern mathematics, with emphasis on logic, set theory and matrices. Prerequisite: Math 220 or equivalent. Offered Fall Quarter.

317 Abstract Algebra — 4 Q.H.
Axiomatic development of groups, rings and fields. Prerequisite: Math 316 or consent of instructor. Offered winter quarter.

318 Introduction to Probability and Statistics — 4 Q.H.
Introduction to basic ideas and fundamental laws of probability and statistics. Prerequisite: Math 227, and either 231 or 232. (concurrent registration in 227 is acceptable). Offered Fall Quarter.

320 Teaching of Mathematics in the Secondary Schools — 4 Q.H.
Aims, organization and methods of teaching mathematics in junior and senior high school. Required for the B.S. major, does not count toward the B.A. degree. Offered Winter Quarter alternate years.

322 Modern Geometry — 4 Q.H.
Designed to prepare the prospective teacher of high school geometry in the way the subject matter will be covered in a modern course. Prerequisite: Math 227 or 231. Offered Spring Quarter alternate years.

329 Calculus of Functions of Several Variables — 5 Q.H.
A continuation of Math 227. Partial differentiation and multiple integration are studied. Prerequisite: Math 227. Offered yearly.

330 Differential Equations — 4 Q.H.
Emphasis on solving differential equations. Prerequisite: Math 329. Offered Spring.

340 Data Structures — 4 Q.H.
Basic concepts of data storage and memory utilization. Linear lists, stacks, queues, linked lists, trees and graphs. Prerequisite: Math 250 or consent of instructor. Grade only. Offered yearly.

351 Introduction to Assembly Language — 4 Q.H.
Components of a programming system. Introduction to assembler structure. Data forms: Assembly language; Macros; input/output; subroutine linkage. (Formerly Math 451). Prerequisite: Math 231 or 232.

357 Number Theory — 4 Q.H.
Study of the properties of the natural numbers. Prerequisite: Math 316 or consent of instructor. Offered every two years.

370 Systems Analysis — 4 Q.H.
A study of systems in relation to computer applications with emphasis on problem definition, problem analysis, data collection, fine design, output design and testing. Discussion will include physical characteristics of input/output devices and special processors and general performance characteristics of algorithms in relation to data designs. Prerequisite: Math 340.

376 Systems Programming — 4 Q.H.
A study of the organization and logical structure of computer operating systems and software. Topics include assembly and loading, resource allocation, multiprogramming, virtual memory, segmentation, paging, dynamic storage allocation, and operating systems overview. Prerequisite: Math 340 and 351.

401G The Metric System — 1 Q.H.
Introduction to the metric system. Offered yearly.

408G History of Mathematics — 4 Q.H.
General view of the historical development of the elementary branches of mathematics. Prerequisite: Math 227 or consent of instructor. Offered on demand.

Applications of descriptive and inferential statistical techniques. Prerequisite: Math 208, 215 or consent of instructor. Offered every two years.

417G Linear Algebra — 4 Q.H.
A study of the theory of vector spaces and linear transformations. Prerequisite: Math 316 or consent of instructor. Offered Spring Quarter.
418G, 419G Introduction to Mathematical Statistics I, II - Each 4 Q.H.
A mathematical approach to statistics. Prerequisite: Math 318. Offered every two years.

425G, 426G Numerical Analysis I, II - Each 4 Q.H.
Numerical solution of equations, systems of linear equations, interpolation, numerical differentiation and integration. Prerequisite: Math 231 or 232 and 329. Offered every two years.

430 Computer Graphics - 4 Q.H.
A study of computer graphics techniques. Includes display devices, picture structure, transformations, 3-dimensional graphics, and the hidden-line problem. Prerequisite: Math 231 or 232. Grade only. Offered alternate years.

432G Theory of Functions of a Complex Variable - 4 Q.H.
Basic concepts of analysis; analytic functions of a complex variable. Prerequisite: Math 227. Offered on demand.

440G Linear Programming - 4 Q.H.
An introduction to linear programming. Prerequisite: Math 231 or 232 and 227 or consent of instructor. Offered on demand.

445G Introduction to Metric Spaces and Topological Notions - 3 Q.H.
Indexed families of sets, mappings, diagrams, continuity, neighborhoods, limit points, open and closed sets. Prerequisite: Math 317 or consent of instructor. Offered on demand.

A systematic approach to differentiation and integral calculus of functions, and transformations in several variables. Offered alternate years. Offered 1982-83. Prerequisite: Math 316, 439

470G Intermediate Analysis 4 Q.H.
Concepts and techniques of analysis for functions of a single variable. Prerequisite: Math 227. Alternates Fall Quarter with Math 460.

480G Computer Workshop - 3 Q.H.
An introduction to computer time-sharing utilizing the MECC time-sharing system. Offered on demand. (Same as Physics 480.)

481G BASIC Applications - 4 Q.H.
A study of the BASIC programming language and its use in education. Prerequisite: Math 480 or equivalent. Offered on demand. Grade only. (Same as Physics 481).

489G Special Topics - 1-4 Q.H.
Experiences in mathematics, and mathematics education for teachers of grades K-12. Prerequisite: consent of instructor. Offered on demand.

490 Independent Problems in Mathematics - 1-6 Q.H.
An opportunity to continue study of selected topics. Consent of instructor is required. Offered on demand.

491 Practicum in Computer Science - 8 Q.H.
Provides the student with practical experience and training. Students work a minimum of 200 hours on the job in a computer installation. Students planning to take this course must register with the department at least one year prior to the quarter in which they intend to start the practicum. Prerequisite: 25 credits in the computer science program and consent of the instructor. Pass/No Credit Only.

492 Practicum in Statistics - 4-8 Q.H.
Provides the student with experience and training in statistical techniques. The student will work a minimum of 100 hours (4 credits) or a minimum of 200 hours (8 credits) on a job utilizing statistics. Prerequisites: Math 411 or 419 and consent of instructor. Pass/No Credit Only. Offered on demand.

MATH & COMPUTER SCIENCE/ 137

COURSES FOR GRADUATE STUDENTS ONLY

(Offered only during Summer Sessions)

500 Problems in Math - 1-6 Q.H.
Designed to allow post-baccalaureate students opportunity to study mathematical topics in depth under the supervision of a faculty member. May be repeated to a total of 6 Q.H.

501, 502 Modern Mathematics for Elementary Teachers, I, II - Each 3 Q.H.
A modern approach to elementary school mathematics for teachers and supervisors. Offered on demand.

510, 511 Modern Elementary Analysis I, II - Each 4 Q.H.
A modern treatment of the fundamentals of analysis. Prerequisite: one year of college calculus. Offered on demand.

520 Contemporary Teaching of Secondary School Mathematics - 3 Q.H.
Examination of recent curriculum developments in secondary school mathematics. Offered on demand.

521 Probability I - 3 Q.H.
An introduction to the mathematical theory of probability. Offered on demand.

531, 532 Modern Algebra I, II - Each 3 Q.H.
Study of groups, rings, fields, homomorphisms, isomorphisms, modules and vector spaces. Offered on demand.

540 Introduction to Number Theory - 3 Q.H.
Congruences, quadratic residues, Euclidian algorithm, number theoretic functions. Diophantine equations. Offered on demand.
Medical Technology

Pasteur Hall, Room 215 / 457-2096

Anderson, Director of Allied Medical Science. Adjunct faculty from Metropolitan Medical Center; United Hospitals, Miller Division; St. Francis Hospital; Abbott Northwestern Hospital, Inc. and Community Memorial Hospital. See adjunct faculty listing in this catalog.

The Medical Technology Program is a four-year course of instruction leading to the degree of Bachelor of Science in Medical Technology. The first three years consist of intensive course work in the basic sciences—the fourth year is a one-year clinical internship at an approved School of Medical Technology. In order to be qualified for the clinical internship, the student will have completed the course of study as outlined in the Winona State University catalog and will have earned at least 96 quarter hours credit in residence. The student must have earned a minimum cumulative grade point average of 2.9 by the time application is made for an internship. Students accepting an invitation for clinical training in Medical Technology from an approved institution will attend and complete at that institution the training required for graduation. Tuition will be assessed on a quarterly basis and students will be evaluated each quarter.

IT SHOULD BE NOTED THAT ACCEPTANCE INTO THE FOURTH YEAR OF TRAINING IS NOT AUTOMATIC UPON COMPLETION OF THE JUNIOR YEAR AT WINONA STATE UNIVERSITY. Students are selected by affiliated institutions on the basis of academic achievement and potential as a Medical Technologist. The latter is determined through a personal interview with appropriate officials at approved Schools of Medical Technology. Following the successful completion of the fourth year, the student is graduated with the degree of Bachelor of Science with a major in Medical Technology.

Upon graduation, the student is eligible to write the examination conducted by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists. Qualifications in this examination lead to the title Medical Technologists Certified by the American Society of Clinical Pathologists (MT, ASCP).

B.S. MAJOR
136 Q.H.

Minor Not Required

NOTE: Students expecting to complete the WSU requirements within a three year period should consult with the Program Advisor prior to registration. All student programs (schedules) must be approved each quarter.

REQUIRED CHEMISTRY COURSES (29 Q.H.)
212, 213, 214 General Inorganic Chemistry (15) (must be taken during Freshman year.)
340 Organic Chemistry Survey (4) (must be taken during Sophomore year)
400 Biochemistry (5)
425 Analytical Chemistry (5)

REQUIRED MATHEMATICS COURSES (5 Q.H.)
220 College Algebra & Trigonometry (5)
(Should be taken during freshman year.)

REQUIRED PHYSICS COURSES (12 Q.H.)
201, 202, 203 General Physics (12)

ELECTIVES (16 Q.H.)
Electives must be approved by the Program Director to a minimum of 16 quarter hours. The student is encouraged to select courses from the following: Biochemistry 401, Genetics 310, General Physiology 324, Medical Laboratory Techniques 333, Embryology 370, Immunology 445, Histology 470, and Parasitology 460. Students planning to affiliate with a Veterans Administration Hospital must show credit in Parasitology.

REQUIRED BIOLOGY COURSES (26 Q.H.)
Zoology 210 is waived by credits earned in Anatomy and Physiology
201 Anatomy (5)
205 Bacteriology (4)
207, 208 Botany (8)
211 Zoology (4)
323 General Physiology (5)
(completion of 324 General Physiology is strongly recommended)

REQUIRED CLINICAL TRAINING (48 Q.H.)
Clinical training to be completed at an approved School of Medical Technology over a standard 12 month period. Minimum (48).
Military Science

Two-year. A two-year program is available for students who did not have the opportunity to participate in the four-year ROTC program during the freshman and sophomore years. Students entering this program must apply not later than the last quarter of their sophomore year and successfully complete the six-week Basic ROTC Summer Camp at Fort Knox, Kentucky. Veterans may enter the Advanced Course (Military Science III), if otherwise qualified, without taking the Basic Course or the Basic ROTC Summer Camp.

ELIGIBILITY:

a. Eligibility for enrollment in the Basic Course is identical to that for any other university course — to be officially admitted to the university. Enrollment is accomplished by officially registering for the desired courses.

b. Eligibility for enrollment is the Advanced Course and for commissioning is based upon the following criteria: be a full-time university student; be a citizen of the United States; be of good moral character; pass a physical examination and an Officer's Qualification Test; be an academic junior or have two years remaining until graduation; meet the age requirements at time of commissioning; be interviewed and selected by the Professor of Military Science.

COURSE LISTINGS

Pass/No Credit option on all 100 and 200 level courses, except for scholarship students.

101 Introduction to ROTC — 1 Q.H.
Survey course of the Army ROTC program and the U.S. Army. A brief introduction to the organization, mission and national commitments; current events affecting the Army and society and a detailed view of the Army with its involvement in U.S. government and society. Offered twice yearly. P/NC Option.

102 Adventure Training I — 1 Q.H.
Introduction to selected military skills including first aid, CPR, cross-country skiing, and snowshoeing. Emphasis is placed on maximum individual involvement. Offered yearly. P/NC Option.

103 Adventure Training II — 1 Q.H.
Introduction to a variety of individual military skills including self-defense, marksmanship, mountaineering, rappelling and rock climbing. Emphasis is placed on maximum individual involvement. Offered yearly. P/NC Option.

210 Introduction to the Study of Leadership — 2 Q.H.
Focuses on the leader by covering similarities and differences between command, management and leadership. Progresses to cover the traits and principles of leadership, professionalism, ethics and discipline. Prerequisite: 100 level courses or consent of instructor. Offered yearly. P/NC Option.

211 Basic Tactics and Operations — 2 Q.H.
Covers military organizations and functions from squad through brigade level, troop leading procedures, basic tactical formations, combined arms teams and types of military operations. Prerequisite: 100 level courses or consent of instructor. Offered yearly. P/NC Option.
**140/MILITARY SCIENCE - MUSIC**

212 History of the U.S. Army – 2 Q.H.
A study of American military history emphasizing selected actions, battles, campaigns and military personalities of the U.S. Army. Prerequisite: 100 level courses or consent of instructor. Offered yearly. P/NC Option.

301 Military Management – 3 Q.H.
A study of the techniques and factors affecting leadership in the military environment. The functional role of the platoon leader will serve as the basis for discussion. Prerequisites: 100 and 200 level courses or consent of instructor. Offered yearly. Grade Only.

302 Combined Arms and Communication Techniques – 3 Q.H.
Introduction to communication techniques including methods of instruction and written operations orders; use of supporting branches during tactical operations; organization of infantry units and special tactical operations. Prerequisites: 301 or consent of instructor. Offered yearly. Grade Only.

303 Small Unit Tactics – 2 Q.H.
A detailed course in small unit infantry organization and tactical capabilities, fundamentals of offense and defense, operations orders, and patrolling as a means of preparing the students for Advanced Camp. Prerequisite: 302 or consent of instructor. Offered yearly. Grade Only.

304 Military Skills Laboratory – 1 Q.H.
Advanced military skills emphasizing hands-on training and individual performance. Instruction is oriented toward cadet preparation for Advanced Camp. Prerequisite: 302 or consent of instructor. Offered yearly. Grade Only.

401 Staff Organization and Functions – 2 Q.H.
Purpose and mission of military staffs and methods used to accomplish goals. Includes staff work, coordination, decision papers, staff studies. Prerequisite: 303 or consent of instructor. Offered yearly. Grade Only.

402 Staff Administration – 2 Q.H.
Administrative functions of Army units. Emphasis on company administration, efficiency reports, correspondence, unit supply system, maintenance management, Equipment Records System. Prerequisite: 401. Offered yearly. Grade Only.

403 Military Law – 2 Q.H.
Fundamental concepts of military justice in the armed forces; the requirement for a separate body of law in the military; concepts of the Uniform Code of Military Justice; investigative procedures; rules of evidence; rights of the accused; preparation of charges and conduct of court members during a trial. Prerequisite: 402. Offered yearly. Grade Only.

404 Advanced Leadership Development Laboratory – 1 Q.H.
Development of leadership skills through practical work. Cadets function as assistants for military science laboratories. With supervision they plan field training exercises. Prerequisite: 402. Offered yearly. Grade Only.

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**Music**

Performing Arts Center, Room 146
457-2109


The department offers courses of study leading to a B.S. or a B.A. degree with a major in music. The program aims are to turn out graduates who are musically literate and technically competent.

For students majoring in other fields there is a program leading to a minor as well as a variety of courses and activities for the general student. Several active musical organizations are open to all students.

Private study of instruments and voice for credit with members of the music faculty is available.

Winona State University is a full member of the National Association of Schools of Music.

**B.A. MAJOR**

**OPTION A**

90-93 Q.H.

The Bachelor of Arts Music Major Option A is designed for the study of music within a Liberal Arts Curriculum.

**REQUIRED COURSES (68 - 71 Q.H.)**

201 Music Theory I (4)
202 Music Theory II (4)
203 Music Theory III (4)
204 Music Theory IV (4)
205 Music Theory V (4)
206 Music Theory VI (4)
241, 242, 243 Band, Orchestra, Choir (6-9)
(substitution of up to 6 credits of 361 permitted)
250 Sight Singing (2)
306 Conducting (3)
351 Music of the Middle Ages and Renaissance (3)
352 Music of the Baroque and Classic Periods (3)
353 Music of the Romantic and Modern Periods (3)
Private Lessons (24)

Piano requirements for all majors:
1. Ability to sight read songs of the type found in a song book.
2. Ability to harmonize at sight, improvising a simple piano accompaniment for songs requiring I, IV, V chords.
3. Ability to sight read fairly fluently simple accompaniments, vocal and instrumental, and simple piano compositions of the type used for school rhythmic activities.

B.A. MINOR
30 Q.H.

Some proficiency in piano is expected of music minors. For students who can demonstrate this proficiency, the piano requirement will be waived and other offerings of the Music Department may be elected.

REQUIRED COURSES (34 Q.H.)
201 Music Theory I (4)
202 Music Theory II (4)
203 Music Theory III (4)
241, 242, 243 Band, Orchestra, Choir (9)
(substitution of up to 3 credits of 361 permitted)
261 Piano (private lessons) (6)

ELECTIVES (6 Q.H.)
Electives in Music must total 6 credits.

B.S. MINOR
37 Q.H.

Some proficiency in piano is expected of music minors. For students who can demonstrate this proficiency the piano requirement will be waived and other offerings of the Music Department may be elected.

REQUIRED COURSES (34 Q.H.)
201 Music Theory I (4)
202 Music Theory II (4)
203 Music Theory III (4)
241, 242, 243 Band, Orchestra, Choir (9)
(substitution of up to 3 credits of 361 permitted)
261 Piano (private lessons) (6)
### INDIVIDUAL INSTRUCTION

Private lessons meeting once a week, may be repeated for credit and offered quarterly. The 260 series is a half-hour lesson and open to all students. The 270 and 460 series are one-hour lessons open to majors.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>261</td>
<td>Piano</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>262</td>
<td>Voice</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>263</td>
<td>Strings</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>264</td>
<td>Woodwinds</td>
<td>2 Q.H.</td>
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<tr>
<td>265</td>
<td>Bass</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>266</td>
<td>Percussion</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>267</td>
<td>Organ</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>268</td>
<td>Harpsichord</td>
<td>2 Q.H.</td>
</tr>
<tr>
<td>271</td>
<td>Piano</td>
<td>3 Q.H.</td>
</tr>
<tr>
<td>272</td>
<td>Voice</td>
<td>3 Q.H.</td>
</tr>
<tr>
<td>273</td>
<td>Strings</td>
<td>3 Q.H.</td>
</tr>
<tr>
<td>274</td>
<td>Woodwinds</td>
<td>3 Q.H.</td>
</tr>
<tr>
<td>275</td>
<td>Brass</td>
<td>3 Q.H.</td>
</tr>
<tr>
<td>461</td>
<td>Piano</td>
<td>4 Q.H.</td>
</tr>
<tr>
<td>462</td>
<td>Voice</td>
<td>4 Q.H.</td>
</tr>
<tr>
<td>463</td>
<td>Strings</td>
<td>4 Q.H.</td>
</tr>
<tr>
<td>464</td>
<td>Woodwinds</td>
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</tr>
<tr>
<td>465</td>
<td>Brass</td>
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</tr>
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<td>466</td>
<td>Percussion</td>
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</tr>
<tr>
<td>467</td>
<td>Organ</td>
<td>4 Q.H.</td>
</tr>
<tr>
<td>468</td>
<td>Harpsichord</td>
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</table>

### APPLIED MUSIC CLASSES

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>234</td>
<td>Piano Class</td>
<td>2 Q.H.</td>
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</tbody>
</table>

Note reading and fundamentals of piano playing. Offered quarterly.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>235</td>
<td>Piano Class</td>
<td>2 Q.H.</td>
</tr>
</tbody>
</table>

Continuation of 234. Further development of keyboard skills. Short piano pieces. Offered upon demand.

### ELECTIVES (3 O.H.)

Electives in Music must total 3 credits.

### COURSE LISTINGS

Any course may be taken on a pass/no credit basis with the consent of the department except 321 and 324.

### HISTORY AND LITERATURE

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>109</td>
<td>Introduction to Music</td>
<td>4 O.H.</td>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>110</td>
<td>History of American Jazz</td>
<td>3 O.H.</td>
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</tbody>
</table>

A history of jazz in America; its African influences; its emergence as recognizable style in the 19th century; and its present-day varieties. Prerequisite: 109 or equivalent. Offered yearly.

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</thead>
<tbody>
<tr>
<td>351</td>
<td>Music of the Middle Ages and Renaissance</td>
<td>3 O.H.</td>
</tr>
</tbody>
</table>

Analytic study of the development of music in the Medieval and Renaissance Periods. Prerequisite: 109 or 202 or equivalent. Offered yearly. P/NC Option.

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<tr>
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</thead>
<tbody>
<tr>
<td>352</td>
<td>Music of the Baroque and Classic Periods</td>
<td>3 O.H.</td>
</tr>
</tbody>
</table>

Analytic study of the development of music in the Baroque and Classic Periods. Prerequisite: 109 or 202 or equivalent. Offered yearly. P/NC Option.

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<thead>
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</thead>
<tbody>
<tr>
<td>353</td>
<td>Music of the Romantic and Modern Era</td>
<td>3 O.H.</td>
</tr>
</tbody>
</table>

Analytical study of the development of music in the Romantic and Modern Periods. Prerequisite: 109 or 202 or equivalent. Offered yearly. P/NC Option.

<table>
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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>440G</td>
<td>American Music</td>
<td>4 O.H.</td>
</tr>
</tbody>
</table>

A survey of the contemporary musical scene. The changes that have taken place in music since the beginning of this century. Historical, biographical material and record listening, for the general student as well as for music majors and minors. Prerequisite: 109 or equivalent. Offered summer only.

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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>455G</td>
<td>Opera Literature</td>
<td>4 O.H.</td>
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</tbody>
</table>

The development of opera from Florentine Camerata to the present day. Principal styles and tendencies illustrated by study of representative works. Offered alternative years.

<table>
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<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>456</td>
<td>Opera Production</td>
<td>1-4 O.H.</td>
</tr>
</tbody>
</table>

Study of representative operas and musical plays. Production problems. Performance of scenes and/or complete works. It may be repeated up to a total of 8 credits.

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>459</td>
<td>Brass Literature Seminar</td>
<td>2 O.H.</td>
</tr>
</tbody>
</table>

A survey of music for brass ensembles and solo repertory for trumpet, French horn, trombone and tuba. Whenever possible, the music will be performed by class members. Primarily for music majors and minors. Offered alternate years.
471G  Survey of Vocal Literature I (Italian) - 2 Q.H.
Arias of the 17th and 18th centuries. Offered alternate years.

472G  Survey of Vocal Literature II (German) - 2 Q.H.
Lieder and Schubert, Schumann, Franz, Mendelssohn, Brahms, Strauss, and Hugo Wolf. Offered alternate years.

473G  Survey of Vocal Literature III (French) - 2 Q.H.
Representative French songs and Faure, Duparc, Chausson, Debussy and Poulenc. Offered alternate years.

477  Piano Literature I - 2 Q.H.
Keyboard music of the Baroque and Classic periods. Offered alternate years.

478  Piano Literature II - 2 Q.H.
Keyboard music of the Romantic and Modern periods. Offered alternate years.

480  Recital - 1-3 Q.H.
Half recital (1 Q.H.) or full recital (3 Q.H.) of representative literature. May be repeated for credit. Prerequisites: department consent. Offered quarterly.

485G Psychology of Music - 4 Q.H.
A survey of theories and studies concerned with man’s behavioral patterns as manifested in musical expression and perception.

491  Independent Studies in Music - 1-8 Q.H.
Course designed to offer the advanced student opportunity to work in a Music area of special interest to him. May be taken for or repeated up to 8 credits. Consent of department. Offered quarterly.

METHODS AND EDUCATION

311  Woodwind Methods - 2 Q.H.
Class instruction in flute, oboe, clarinet, saxophone and bassoon. History, literature and teaching methods for the music major or minor. Offered alternate years.

312  String Methods - 2 Q.H.
Class instruction in violin, viola, cello, and bass. History, literature and teaching methods for the music major or minor. Offered alternate years.

313  Percussion Methods - 2 Q.H.
Class instruction in percussion instruments. History, literature and teaching methods for the music major or minor. Offered alternate years.

314  Brass Methods - 2 Q.H.
Class instruction in cornet, trumpet, horn, trombone and tuba. History, literature and teaching methods for the music major or minor. Offered alternate years.

315  Guitar Methods - 2 Q.H.
Class instruction in guitar and other fretted instruments. History, literature and teaching methods for music major or minor. Offered alternate years.

320  Music for Elementary Teachers - 4 Q.H.
Introduction of fundamental of music and techniques of teaching music in the kindergarden and elementary grades. Students with an adequate background in music should consider Music 322 as an alternative to this course. Not for music majors. Not applicable toward a B.A. degree. Offered quarterly.

321  Music in Special Education - 3 Q.H.
An overview of materials and methods used in teaching children handicapped with learning disabilities and the educable and mentally retarded. Grade only. Offered yearly. Prerequisite: 320 or equivalent.

322  Public School Music - 4 Q.H.
Study of material and methods for music instruction in the elementary grades. Prerequisite: 202. Not applicable toward the B.A. degree. Offered yearly.

323  Public School Music II - 4 Q.H.
Study of materials and methods for music in the secondary school. Prerequisite: 202. Not applicable toward the B.A. degree. Offered yearly.

324  Recreational Music - 3 Q.H.
Introduction to music techniques and fundamentals necessary for recreation programs. No prerequisites. Offered yearly. Grade only.

310G  Music Supervision and Administration - 4 Q.H.
Problems of supervision and administration in public school music programs. Prerequisite: 202. Not applicable toward the B.A. degree. Offered every three years.

410G  Music Supervision and Administration - 4 Q.H.
Designed to give the student both a philosophical overview of related arts programs and practical experience in preparation of teaching units, collection of source materials, and study of teaching methods. Offered yearly.

415  Vocal Pedagogy - 2 Q.H.
Techniques and problems of voice instruction for individuals and vocal groups. Offered alternate years.

416  Piano Pedagogy - 2 Q.H.
Survey of teaching methods and materials for piano. Offered alternate years.

422G Music Seminar on Choral Techniques and Materials - 4 Q.H.
Criteria for selection of vocal music, examination of representative music suitable for groups at various levels of development, principles of programming, rehearsal techniques and organizations. Offered on demand.

423  High School Solo Vocal Literature - 2 Q.H.
Course designed to help the high school teacher choose vocal solo literature for all types of voices. Offered alternate years.

424G  High School Orchestra Methods - 4 Q.H.
Arranging and editing materials for high school orchestras. Organizational and rehearsal procedures. Offered every three years.

425  Band Administration and Techniques - 2 Q.H.
The organization and administration of elementary and secondary instrumental music programs, performance practice, rehearsal and marching band techniques. Consent of instructor. Offered alternate years.

435G  Wind Instrument Repair - 2 Q.H.
Care, maintenance, and repair of woodwind and brass instruments. Offered every third year. P/NC Option.

486G Education Through Music - 3 Q.H.
Learning through musical games, with emphasis on personal and social development of the child through musical experiences. Offered summers.
487G Education Through Music — 3 Q.H.
Observation and participation in classroom experiences with young children. Further emphasis upon experience games. Offered summers.

488G Education Through Music — 3 Q.H.
Observation of advanced pupil groups. Experience game variations (phonics, math, social studies). Use of games and folk dances. Offered summers.

490G Music for Today’s Schools: New Ideas in Music Education — 1-3 Q.H.
The objectives of this workshop are to offer new ideas or theories, elaborate on new trends, and offer guidelines for improvement of public school programs. Course content changes each year. May be repeated for credit. Offered summer only.

THEORY

120 Introduction to Music Theory — 3 Q.H.
An introduction to the structure and notation of music found in past and present composition. Offered yearly.

201 Theory I — 4 Q.H.
Scales, intervals, melodic construction, two part writing triads. Offered yearly.

202 Theory II — 4 Q.H.
Two, three, and four-part writing, inversions, dominant sevenths, decorative pitches. Prerequisite: 201. Offered yearly.

203 Theory III — 4 Q.H.
Continuation of four-part writing secondary dominants, modulation, binary and ternary forms. Prerequisite: 202. Offered yearly.

204 Theory IV — 4 Q.H.
Diatonic and diminished sevenths. Neapolitan chords, rondo and variation forms. Prerequisite: 203. Offered yearly.

205 Theory V — 4 Q.H.
Augmented sixth, ninth, eleventh, and thirteenth chords. Fugue and sonata-allegro form. Prerequisite: 204. Offered yearly.

206 Theory VI’ — 4 Q.H.
Impression, non-tertian harmony, twentieth-century practices. Prerequisite: 205. Offered yearly.

207 Composition — 2 Q.H.
A study of the creative process. Original student compositions. Prerequisite: 204 or equivalent. Offered yearly.

250 Sight Singing — 2 Q.H.
Study in aural perception of interval and rhythmic relationships. Prerequisites: knowledge of musical notation. Offered yearly.

301 Orchestration and Instrumentation — 3 Q.H.
Study of techniques, ranges, and timbre of instruments. Fundamentals of scoring for band and orchestra. Prerequisite: 204. Offered yearly.

302 Jazz Instrumentation and Orchestration — 4 Q.H.
Scoring for stage band groups and small combinations of various instruments in the jazz idiom. Prerequisite: 202 or equivalent. Offered upon demand.

303 Electronic Music — 2 Q.H.
Survey of literature and styles of electronic music. Introduction to the synthesizer and electronic tape composition. Prerequisites: 202 or consent of instructor. Offered alternate years.

306 Conducting — 3 Q.H.
Techniques of conducting choral and instrumental groups. Offered yearly.

400G Twentieth Century Harmony — 4 Q.H.
A study of the harmonic materials commonly used by twentieth century composers. Topics include: scale materials, chords by thirds, chords by fourths, added-note chords, chords by seconds, polychords, compound and minor harmony, chord progression and connection, tonality and polytonality and atonality. Offered on demand.

401 Computer Uses in Music — 4 Q.H.
An opportunity to survey computer applications in the music field including composition and analysis. Introduction to data processing techniques and computer programming using SNOBOL4. Offered every two years.

402G Form and Analysis — 4 Q.H.
Analysis of compositions as to form, melodic and harmonic structure. Students write original compositions modeled after works analyzed. Offered every two years.

403G Counterpoint — 4 Q.H.
Strict counterpoint in 16th Century style, study of species. Prerequisite: 203. Offered alternate years.

406G Conducting II — 3 Q.H.
Advanced techniques of conducting choral and instrumental groups. Offered alternate years.
Nursing

Phelps Hall / 457-2137 and 2115
Langston (Associate Dean), Blankenfeld, Bracegirdle, Darby, Davis, Dison, Horton, Justic, Kern, Kopper, Olsen, Rehn, Runquist, Schiller, Smith, Stejskal, Thompson, Tripp, Wilke.

The nursing major offers a liberal education with a concentration of study in nursing. The curriculum is built on a broad base of general education. Upper division liberal arts courses are offered concurrently with courses in nursing. The program provides courses of increasing complexity as you progress. The nursing courses combine theory and practice of nursing, providing opportunity for you, with guidance from the faculty, to give nursing care to persons of all ages in various settings and presenting a variety of nursing needs. Various community facilities are utilized for laboratory experiences in the nursing courses. You are expected to provide your own transportation for these experiences. You must assume incidental costs including liability insurance, uniforms, lab coat, cap, pin, faculty approved stethoscope, throat cultures and treatment if necessary. You develop the ability to identify problems, arrange knowledge systematically, arrive at solutions, and test the solutions. Graduates are capable of giving professional nursing care in first-level positions in nursing and have a base for graduate study.

The program is accredited by the National League for Nursing and by the Minnesota Board of Nursing. Graduates are eligible to write the professional nurse licensure examination and to apply for Public Health Nursing Certification. You may be eligible to apply for school nursing certification by taking specified electives.

The nursing major is offered on both the Winona and Rochester campuses. Students are assigned to one of these locations for the junior and senior years. Your preference for campus assignment will be honored whenever possible.

Application for admission to the Major in Nursing is a separate process in addition to the admission procedure for becoming a student at Winona State University. The completed application for admission to the Department of Nursing must be submitted by the last Friday before the beginning of Christmas vacation. The number of students who may be admitted to the Nursing major is limited. Criteria for selection are made available from the Nursing Department upon request.

Course requirements to be completed before application to the major are:
1. English 110
2. Chemistry 208, 209 or Chemistry 212, 213
3. Biology 201, 323
4. Psychology 210
5. Sociology 150

These courses must be completed with a minimum grade of C.

A college grade point average of at least 2.5 is required to make application to the major. All previous college credit will be considered in the cumulative grade point average. After admission to the Nursing major you are required to maintain a grade point average of at least 2.0 on each course required for the major.

In courses with a clinical laboratory component, you must achieve at least a 2.0 in both theory and clinical to meet course requirements.

Before beginning junior nursing courses, admitted students must complete the following:
1. English 115
2. Biology 205, 206, 324
3. Psychology 250
4. Sociology 212
5. Math 208
6. CPR certification or its equivalent; to be kept current throughout the program.

Additional requirements to be completed before graduation:
1. HPER 214
2. Psychology 420
3. Upper division (300-400 level) electives, 8 credits.

Majors in nursing may also obtain a major or minor in another area if requirements are met for the major or minor. You must meet the requirements of the department in which you are seeking the major. The nursing department concurs with any adjustment made in these requirements by another department which is granting the additional major/minor. You should seek advisement from the department involved.

You may receive credit by examination and/or demonstration of competence for courses or parts of courses in the Nursing major, with faculty permission.

Associate Degree Nurse Student — Completion of an associate degree in nursing is required before making application. Transfer credit is granted for equivalent prerequisite courses as listed above. You must currently hold active license to practice nursing in Minnesota.

Three Year Diploma Nurse Student — Completion of a three year hospital nursing program is required before making application. A maximum of 48 vocational credits will be granted. You may receive transfer credit for college course work. You must currently hold active license to practice nursing in Minnesota.
146/NURSING

B.S. MAJOR

REQUIRED CORE COURSES (65 Q.H.)
310 Communication in Nursing (5)
321 Nursing and Social Systems (4)
330 Health & Health Problems I (5)
340 Health & Health Problems II (6)
360 Nursing Process (6)
380 Junior Seminar in Nursing (2)
390 Nursing & Health Attainment (7)
425 Contemporary Issues and Strategies for Change (4)
440 Nursing & Health Restoration (7)
450 Nursing & Health Maintenance (7)
470 Nursing Management (7)
475 Research in Nursing (3)
490 Senior Seminar in Nursing (2)

RECOMMENDED ELECTIVES (4-7) (SEE GENERAL EDUCATION REQUIREMENTS)

NOT REQUIRED COURSES
445 Practicum in Assessment (4)
480 Holistic Approaches to Healing (3)
495 Seminar (1-3)

A total of 96 upper division credits is recommended.

COURSE LISTINGS

310 Communication in Nursing - 5 Q.H. (3 class hours, 3 lab hours, 1 recitation hour)
Course designed to increase the communication skills of the student. Emphasis is on communication as a part of effective relationships with persons or groups and as an essential component of the nursing process.

321 Nursing and Social Systems - 4 Q.H.
Course designed to increase understanding of the influence of various groups on man and his health, and to increase effective participation in group process in nursing situations. Prerequisite: admission to nursing major or consent of instructor.

330 Health and Health Problems I - 5 Q.H.
Study of health and health problems as evidenced by various characteristics and influenced by various bio-psycho-social processes.

Basis of treatment modalities included. Prerequisite: admission to nursing major or consent of instructor.

340 Health and Health Problems II - 6 Q.H.
A continuation of N330. Prerequisite: N310, 321, 330 or consent of the instructor.

360 Nursing Process - 6 Q.H. (3 class hours, 1 recitation hour, 6 lab hours)
Course designed to assist the student to utilize the nursing process. Focuses on interpersonal, observational and problem solving skills needed to assess, diagnose, intervene and evaluate in nursing situations. Prerequisite: N310, 321, 330.

380 Junior Seminar - 2 Q.H.
A study of the relationship of the variables that contribute to the wholeness of man, man's coping behaviors, his health and his social systems. Prerequisite: N340, 360, or consent of instructor.

390 Nursing and Health Attainment - 7 Q.H. (3 class hours, 12 lab hours)
Assists the student to utilize the nursing process to promote a higher state of health to persons of all age groups. Laboratory experiences assist the student in assessing, diagnosing, intervening and evaluating nursing problems related to health attainment. Prerequisites: N340, 360.

425 Contemporary Issues and Strategies for Change in Nursing - 4 Q.H.
Study of current concerns in the field of nursing. Stresses the influence of the individual practitioner. Assists the student in developing those skills required for participation in the decision making process. Prerequisites: N360, 380, 390.

440 Nursing and Health Restoration - 7 Q.H. (3 class hours, 12 lab hours)
Various settings assist students in analyzing nursing process in restoring health to persons of all ages. Laboratory experience increases student understanding of the nursing process used in restoring health. Prerequisite: N360, 380, 390.

445 Practicum in Assessment - 4 Q.H. (2 class hours, 6 lab hours)
Course designed to facilitate the student's ability to make a psycho-social-physical assessment for evaluation of an individual's ability to cope with an energy imbalance. Prerequisites: completion of junior nursing courses or consent of instructor.

450G Holistic Approaches to Healing - 3 Q.H. (3 class hours, 12 lab hours)
Designed to explore ancient, cultural and alternative healing systems. To investigate the validity of preventive practices, cultural traditions, lifestyle modifications and energy balance skills. To develop holistic and humanistic interdisciplinary approaches to healing. P/NC, for undergraduates.

460G Senior Seminar in Nursing - 2 Q.H. (2 class hours)
The student will plan and present to a collegial group a situation that demonstrates his ability to utilize a synthesized base of knowledge and skill in nursing. Emphasis is on self-evaluation as a means of personal and professional growth. Prerequisite: N450.

495 Seminar - 1-3 Q.H.
Subject matter of current interest arranged by the department. Course may be repeated when offered with different content and title. Grading will be P/NC unless otherwise specified at time of registration.
The purpose of the Paralegal Program is to enable the student to develop professional skill as a paraprofessional in the field of legal services. The Program is designed to meet the needs of students who wish to enter into an occupational service for people and institutions involved with local, state and federal laws.

The Program is an interdisciplinary Program and includes general education, specialized legal courses, business administration, sociology, history, and political science. There are four phases to the Program; Phase I Prerequisites, Phase II Interdisciplinary Foundations, Phase III Foundations of Law and Phase IV Professional Specialization.

A high school diploma and admission to Winona State University are required for admission to the Program. It will be recommended that the candidate for admission in the upper half of his class or have a score of at least twenty (20) on the ACT test. Students wishing to enter the Program must apply for admission and seek advising from the Coordinator of the Program.

B.S. MAJOR
PARALEGAL
192 Q.H.
(Minor not required)

PHASE I: GENERAL EDUCATION

Prerequisite requirements of the Paralegal Program can partially fulfill the General Education requirements of Winona State University. Consult the Program Coordinator for detailed information on the Paralegal prerequisites and the university's General Education Requirements.

110 English - Freshman Composition I (4)
115 English - Freshman Composition II (4)

PHASE II: INTERDISCIPLINARY FOUNDATIONS

At the beginning of Phase II the student may elect an area of concentration to pursue - business administration, sociology, or multi-legal services.

REQUIRED COURSES (40 Q.H.)
230 History - American History I (4)
231 History - American History II (4)
117 Biology - Human Biology (4)
AND
118 Biology - General Biology (4)
OR
201 Biology - Anatomy (5)
150 Sociology - Man & Society (4)
220 Pol Sci - American National Government (4)
210 Psychology - General Psychology (4)
For Business & Multi-Legal Options
201 Bus Ad - Principles of Accounting I (4)
202 Bus Ad - Principles of Accounting II (4)
For Sociology Option
240 Bus Ad - Financial Accounting I (4)
201 Bus Ad - Principles of Accounting I (4)
201 Econ - Principles of Economics I (4)

PHASE III:
FOUNDATIONS OF LAW

REQUIRED COURSES (21 Q.H.)
History 370, Legal Research, must be taken as the first course of the Legal specialties, the other Legal Specialty courses may be offered other than in the sequence listed. Students will be advised by the History Office as to the proper sequence.
370 History - Legal Research (3)
371 History - Legal Proof, Introduction (3)
372 History - Legal Proof, Exclusionary Rules of Evidence (3)
373 History - Adversary System - Civil (3)
374 History - Adversary System - Criminal (3)
375 History - Legal Writing I (3)
376 History - Legal Writing II (3)

PHASE IV:
PROFESSIONAL SPECIALIZATION, BUSINESS ADMINISTRATION, SOCIOLOGY, OR MULTI-Legal SERVICES

BUSINESS ADMINISTRATION OPTION
(61 Q.H.)
Each individual student's program will be dependent upon the area of specialization chosen - taxes, insurance, banking corporations, labor relations, etc.

REQUIRED CLASSES
203 Bus Ad - Managerial Accounting (4)
310 Bus Ad - Business Law I (4)
311 Bus Ad - Business Law II (4)
407 Bus Ad - Introduction to Taxation (4)
420 Bus Ad - Insurance (4)
Internship (16)
Elective hours as approved by advisor (25)
Philosophy

Minne Hall, Room 348 / 457-2943
*Sheehan (Chairperson), Salzberger

The department acquaints the students with the accumulated philosophical wisdom of both Western and Oriental traditions. Emphasis is balanced between content and the cultivation of philosophical thinking. There is, in addition, an exploration of the philosophical (moral, epistemological, etc.) foundations of what is studied by other disciplines of the university.

B.A. MINOR
28 Q.H.

REQUIRED COURSES (16 Q.H.)
210 Classical Philosophy (4)
300 Modern Philosophy (4)
350 Buddhism (4)
360 Chinese Philosophy (4)

ELECTIVES (12 Q.H.)
Electives must total 12 credits.

COURSE LISTINGS

Courses offered on a Pass/No Credit basis are designated in the course description.

102 Practical Logic — 4 Q.H.
Analysis of arguments of many forms, distinguishing the logical from the psychological, and providing practice in identifying sound and unsound reasoning. Offered Fall and Winter. P/NC Option.

103 Introductory Philosophy — 4 Q.H.
Considers the fundamental divisions, problems, and concepts of philosophy. Offered quarterly. P/NC Option.

110 Asian Philosophy — 4 Q.H.
A survey of selected major philosophies of Asia, emphasizing the thought of India and China. Offered each Fall. P/NC Option.

135 Moral Problems and Human Relations — 4 Q.H.
A practical course in moral philosophy involving moral dilemmas and concerns which arise in the course of personal relations, e.g., truthfulness and lying, sexuality, familial duties and rights, friendship, etc. Offered each Fall. P/NC Option.

161 Zen Meditation — 1 Q.H.
A beginning acquaintance with the practice of Zen Meditation (zazen) as well as an investigation of how meditation practice bears upon Eastern philosophy in general. Offered each quarter. P/NC Option.

210 Classical Philosophy — 4 Q.H.
A study of the major philosophical ideas of the classical world concentrating on ancient Greece; the nature of the universe, human society, moral beliefs in the works of the Presocratics, Plato and Aristotle. Offered each Winter. P/NC Option.

235 Introduction to Moral Theory — 4 Q.H.
A survey of the major normatives ethical theories, i.e. theories concerning the good life, right conduct, and the good. Major figures: Plato, Aristotle, Hume, Kant, the Utilitarians, modern contract theory. Offered each spring. P/NC Option.

273 Philosophy of Technology — 4 Q.H.
A study of the nature of technology, its relation to science, its impact on its human authors and the environment. Emphasis is on the reciprocal relations between technical and the rest of the human conditions in the contemporary world. Offered each Winter.

300 Modern Philosophy — 4 Q.H.
The major philosophers in the West from the 16th Century to the early 18th Century. Descartes to Kant. Prerequisite: one Philosophy course. Offered alternate Springs. P/NC Option.
335 Biomedical Ethics — 4 Q.H.
A philosophical consideration of moral and conceptual issues in bio-medicine. Topics may include: professional responsibility and codes of ethics, decision-making, fetal research, genetic engineering, heroic measures, death, abortion, and euthanasia. Offered each Winter. P/NC Option.

350 Buddhism — 4 Q.H.
Major philosophies of Buddhism. Prerequisite: 103 or 110 or 161. Offered alternate Springs. P/NC Option.

360 Chinese Philosophy — 4 Q.H.
Major Chinese Schools including: Confucianism, Taoism, Hua Yen, and Ch' an. Prerequisite: 103 or 100 or 161. Offered alternate Springs. P/NC Option.

401 Independent Readings in Philosophy — 1-4 Q.H.
An individually planned program of readings. May be repeated to a maximum of 12 quarter hours. Prerequisites: two Philosophy courses and consent of instructor. Offered by arrangement.

435 Topics in Social and Political Philosophy — 1-4 Q.H.
Variable content. A consideration of problems in social and political philosophy. Topics may include: business and morality, equality and preferential treatment, animal rights, sexuality. May be repeated as topics change. Offered alternate Springs. P/NC Option.

442 Philosophy of Science — 4 Q.H.
A treatment primarily concerned with methodological topics and meaning in modern science, including illustrations drawn from the formal and empirical sciences. Lecture (Same course as Biology—442). Prerequisite: Senior standing. A laboratory science. (Open to students in physical, biological and social sciences and teacher education). Offered alternate years. P/NC Option.

499 Great Philosophers — 4 Q.H.
An intensive study of a single philosopher. May be repeated for different philosophers. Prerequisites: two Philosophy courses or consent of instructor. Offered as appropriate.

PHOTOGRAPHY

PHO 150 Photography — 4 Q.H.
An introductory course in the science and art of black-and-white photography. Materials, equipment, composition, processing, printing, and display are covered. Requires an average of two hours per week darkroom work. Not intended for those in the minor. Offered quarterly. P/NC Option.

B.A. MINOR
PHOTOGRAPHIC ARTS
32 Q.H.

REQUIRED COURSES (20 Q.H.)
ART 114 Design I (4)
PHO 210 Photography I (4)
PHO 211 Photography II (4)
PHO 250 History of Photography (4)
PHO 311 Color Photography I (4)

ELECTIVES (12 Q.H.)
PHO 208 Nature Photography (2)
PHO 212 Photography III (4)
PHO 312 Color Photography II (4)
PHO 355 Multi-Image Audiovisual Production (4)
PHO 360 Fine Print Photography (4)
PHO 370 Introduction to Commercial Photography (4)
PHO 410 Advanced Nature Photography (1-3)
PHO 451 Photo Production (2)
PHO 456 Photographic Field Trip (2-8)
PHO 460 Directed Study in Photography (3)
PHO 461 Directed Study in Photography (3)
HUM 140 Approaches to the Film (4)

COURSE LISTINGS

Courses offered on a Pass/No Credit basis are designated in the course description.

150 Photography — 4 Q.H.
An introductory course in the science and art of black-and-white photography. Materials, equipment, composition, processing, printing, and display are covered. Requires an average of two hours per week darkroom work. Not intended for those in the minor. Offered quarterly. P/NC Option.
151 Beginning Color Photography - 4 Q.H.
Introductory course with emphasis on darkroom work. Weekly lecture and laboratory work. May be repeated. Not intended for those in the minor. Offered quarterly. P/NC Option.

208 Nature Photography - 2 Q.H.
Specific uses of the camera in out-of-doors picture making: film types, close-up techniques, tele-photo techniques, and lighting. Offered yearly. P/NC Option.

210 Photography I - 4 Q.H.
Still photography, camera theory, cameras, film, lighting, photographic techniques for black-white and color and basic darkroom procedures. For Mass Communication majors and Photography minors only. Offered yearly.

211 Photography II - 4 Q.H.
Lecture, demonstration, laboratory course. Students should have access to a camera with adjustable lens and shutter. Prerequisite: 210 or consent of instructor. Offered yearly.

212 Photography III - 4 Q.H.
Arranged projects in photography. Requires consent of instructor. Offered on demand.

250 History of Photography - 4 Q.H.
A general survey of photography from conception to the present with emphasis on the significant developments in technology and aesthetics in the United States. Offered yearly. P/NC Option.

311 Color Photography I - 4 Q.H.
Basic theory of color and color materials, use of film, processing and printing. Prerequisite: 210 or consent of instructor. Offered yearly.

312 Color Photography II - 4 Q.H.
Advanced work with color photo materials. Experimentation encouraged. Prerequisite: 311. Offered yearly.

350 Studio Art Photography - 2 Q.H.
Fundamentals of photographing art works for portfolio or documentation. Emphasis on exposure, lighting and backgrounds for individual and group pieces. Designed for Art majors or minors. Offered yearly. P/NC Option.

355 Multi-Image Audiovisual Production - 4 Q.H.
Theory and technique of producing multiple screen audiovisual presentations using slides and film with synchronized sound. Prerequisite: 211 or consent of instructor. Offered yearly. P/NC Option.

360 Fine Print Photography - 4 Q.H.
This course is designed to improve the student's photographic techniques and vision through the individualization of his/her photographic equipment, materials and procedures. Prerequisite: 211. Offered yearly. P/NC Option.

370 Introduction to Commercial Photography - 4 Q.H.
The basics of commercial photography with emphasis on the use of the studio and studio equipment. Prerequisites: 211 and 311. Offered yearly.

410 Advanced Nature Photography - 1 Q.H.
Techniques of nature photography, work with the macro lens and view camera. Requires advanced skills in photography. Prerequisites: 210 and 211, or consent of instructor. May be repeated twice. Offered yearly. P/NC Option.

451G Workshop in Photo Production - 2 Q.H.
Techniques, materials, and equipment used in photo mechanical production. Offered on demand.

456G Photographic Field Trip - 28 Q.H.
A photographic experience in a trip environment. Prerequisite: 210 or consent of instructor. P/NC Option for undergraduates.

460G/461G Directed Study in Photography - 3 Q.H. each.
Requires advance consent of instructor. Offered on arranged basis only.

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Physical Therapy

Pasteur Hall, Room 215 / 457-2096
Anderson, Director of Allied Medical Sciences.

Physical Therapy is essentially a five-year program completed in two phases. Phase I is the pre-physical therapy segment and requires 24-36 months.

The Pre-Physical Therapy phase is designed to provide competence in biology, chemistry, physics, and mathematics. It will also provide students with a broad background in the humanities and social sciences.

During the fall quarter of the junior year, students should make application for admission to the clinical school of your choice. The application is made with the assistance of the program director. Acceptance by a clinical institution is not automatic upon completion of the junior year. Acceptance is entirely on a competitive basis and success depends largely upon academic achievement during Phase I of the program.

Upon successful completion of the clinical affiliation, the degree of Bachelor of Science in Physical Therapy is conferred by Winona State University. The student is then eligible to write the qualifying examination as specified by the Registry of Physical Therapists. Qualification in the examination leads to the title Registered Physical Therapist (R.P.T.). The therapist is then qualified to practice in any hospital or clinic in the United States provided that additional requirements of the particular state are satisfied.
PHYSICAL THERAPY – PHYSICS/ 151

B.S. MAJOR
81 Q.H.
(Minor Not Required)

GENERAL EDUCATION REQUIREMENTS
(56 Q.H.)
Must include P. E. 204 and at least 9 Q. H. of Sociology and Psychology.

All science and math courses listed except Geology are waived by required advance courses in these areas.

REQUIRED COURSES (69 Q.H.)
201 Biology — Anatomy (5)
205 Biology — Bacteriology (4)
207 Biology — Botany (4)
211 Biology — Zoology (4)
323 Biology — Physiology (5)
(Completion of 324 is strongly recommended)

Zoology 210 is waived by credits earned in anatomy and physiology.

212 Chemistry — General Chemistry (5)
213 Chemistry — General Chemistry (5)
214 Chemistry — General Inorganic Chemistry (5)
340 Chemistry — Organic Chemistry Survey (4)
400 Chemistry — Biochemistry (5)
215 Mathematics — College Algebra (4)
216 Mathematics — College Trigonometry (4)
201 Physics — General Physics I (4)
202 Physics — General Physics II (4)
203 Physics — General Physics III (4)
314 Health & Phy. Ed. — Kinesiology (3)

ELECTIVES (12 Q.H.) (ELECTIVES MUST BE APPROVED BY PROGRAM DIRECTOR)

REQUIRED PHYSICAL SCIENCE COURSE (4 Q.H.)
311 Teaching Science in Secondary School (4)

ADDITIONAL REQUIREMENTS (MAY BE COUNTED IN GENERAL EDUCATION (22 Q.H.)

Biology
201 Botany I (4)
208 Botany II (4)
210 Zoology I (4)
211 Zoology II (4)

Geology
116 Physical Geology (5)
117 Historical Geology (5)

Philosophy of Science or Philosophy of Technology (4)

WISCONSIN CERTIFICATION REQUIREMENTS FOR PHYSICS CONCENTRATION (33 Q.H.)
(Select credits under “Required Courses” and “Electives” to give a concentration of 33 Q.H. of Physics).

ELECTIVES IN PHYSICS (3 - 6 Q.H.)
Physics 200, 204, 300, 301, 401 and 402 are not acceptable electives in this program.

ELECTIVES IN CHEMISTRY OR PHYSICS
(15 Q.H.)
Chemistry 215 or 400, 351, 360, 361, 365, 412, 425, 450.

REQUIRED MATHEMATICS COURSES
(13 Q.H.)
215 College Algebra (4)
216 Trigonometry (4)
225 Analytic Geometry & Calculus I (5)

B.S. MAJOR
PHYSICAL SCIENCE
92 Q.H. (TEACHING)
(No minor required)

REQUIRED CHEMISTRY COURSES (20 Q.H.)
212 General Inorganic Chemistry I (5)
213 General Inorganic Chemistry II (5)
214 General Inorganic Chemistry III (5)
350 Organic Chemistry I (5) OR
340 Organic Chemistry Survey (4) plus
360 Chemical Literature (1)

REQUIRED PHYSICS COURSES (12-15 Q.H.)
201 General Physics I (4)
202 General Physics II (4)
203 General Physics III (4)
221 College Physics I (5)
222 College Physics II (5)
223 College Physics III (5)

PHYSICS

Pastor Hall, Room 114 / 457-2090

The department aims to provide instruction so that regardless of special interests, you may acquire a general understanding and appreciation of physics. A knowledge of physics provides a basis for creative work in many areas in modern science and technology. Physicists and applied physicists are found in teaching, research, and development, and management in industry, education, and government.

The physics program is designed to prepare you for graduate or professional work in physics and applied physics, and to provide for the training of elementary and secondary teachers of physics and general science.
Other requirements for Wisconsin Certification
Biology 104 or 204 (4 Q.H.)
Earth Science (4 more Q.H.)
Biological Science (4 more Q.H.)

B.S. MAJOR
85 Q.H.

REQUIRED COURSES (34 Q.H.)
221, 222, 223 College Physics I, II, III (15)
340 Modern Physics (5)
345 Thermodynamics (4)
350 Mechanics I (4)
360 Electromagnetic Theory I (4)
460 Advanced Laboratory I (2)

ELECTIVES (22 Q.H.)
Physics 200, 204, 300, 301, 380, 401, 402 and 410 are not acceptable electives in this program. Physics electives total 22 credits. These must include at least one of the courses 330, 332, 461, 462 and at least one additional 400 level course.

ADDITIONAL REQUIREMENTS (29 Q.H.)
NOTE: Math 215 and 216 may be substituted for Math 220.
220 College Algebra and Trigonometry (5)
225, 226, 227 Analytic Geometry and Calculus I, II, III (15)
329 Calculus of Functions of Several Variables (5)
330 Differential Equations (4)

B.S. MINOR
37 Q.H.

OPTION A
50 Q.H.

REQUIRED COURSES (15 Q.H.)
221, 222, 223 College Physics (15)

ELECTIVES (20 Q.H.)
Electives in Physics must total 20 credits.
Physics 200, 204, 300, 301, 380, 401, 402, and 410 are not acceptable electives in this program.

ADDITIONAL REQUIREMENTS (15 Q.H.)
NOTE: Math 215 and 216 may be substituted for Math 220.
220 College Algebra and Trigonometry (5)
225, 226 Analytic Geometry and Calculus I, II (10)

B.S. MINOR
37 Q.H.

OPTION B

REQUIRED COURSES (16 Q.H.)
201, 202, 203 General Physics I, II, III (12)
326 Electronics with Biomedical Applications (4)

ELECTIVES (16 Q.H.)
Electives in Physics must total 16 credits and be approved by department.
Physics 200, 204, 300, 301, 380, 401, 402 and 410 are not acceptable electives in this program.

ADDITIONAL REQUIREMENTS (5 Q.H.)
NOTE: Math 215 and 216 may be substituted for Math 220.
220 College Algebra and Trigonometry (5)

B.S. MINOR
37 Q.H.

OPTION C

REQUIRED COURSES (27-29 Q.H.)
201, 202, 203 General Physics I, II, III (12)*
204**, 301, 402 (15)
OR
200, 204**, 401 (17)

ELECTIVES (8-10 Q.H.)
Electives in Physics-Aviation must be approved by the department from the following courses: 300, 380, 401 and 410.

*Prerequisite Math 220 or Math 215 & 216 or high school equivalent.
**Prerequisite FAA Private Pilot Written Examination must be passed.

COURSE LISTINGS

Any course not required for a major or minor may be taken on a pass/no credit basis.

115 Physical Concepts of Man's Environment - 4 Q.H.
A non-mathematical study of selected physical concepts used in describing man's environment. Lecture. No prerequisite. Offered quarterly. Not open to students with credits in higher numbered non-aviation physics courses.

184 Energy: Principles, Our Life Style and Alternatives - 4 Q.H.
The course addresses itself to the general concepts, problems and policy related to energy and explores some technical questions which arise from the use of present and alternative sources of energy. Methods, needs and policy in conservation are explored. The course is designed to serve all students. Lecture and discussion. No prerequisite. Offered quarterly.

201 General Physics I - 4 Q.H.
Principles of mechanics for those contemplating the study of biology, medicine, etc. or seeking a general cultural course in the physical sciences. Lecture and laboratory. Prerequisite: Mathematics 220 (or 215, 216). Offered yearly.

202 General Physics II - 4 Q.H.
A continuation of course 201. The elementary principles of electricity. Lecture and laboratory. Prerequisite: Mathematics 220 (or 215, 216). Offered yearly.

203 General Physics III - 4 Q.H.

221 College Physics I - 5 Q.H.
Similar in content to course 201, but aims to meet the specific requirements of students who expect to major in physics, mathematics, chemistry, and engineering. Lecture and laboratory. Prerequisite: Mathematics 225. Offered yearly.

222 College Physics II - 5 Q.H.
A continuation of course 221, covering electromagnetic theory. Lecture and laboratory. Prerequisite: College Physics 221. Offered yearly.
223 College Physics III — 5 Q.H.
A continuation of course 222, covering optics and special topics in modern physics. Prerequisite: College Physics 222. Offered yearly.

225 Statics — 4 Q.H.

305 Solar Energy — 4 Q.H.
A lecture-laboratory course that covers the applications and theory of solar energy. The emphasis of the course will be in solar home heating. Topics to be covered are solar radiation data, solar collectors, energy storage, sizing of solar system, solar hot water heating, and solar air conditioning. Prerequisite: Math 215. Offered yearly.

310 Science and Technology in Litigation — 5 Q.H.
Designed to provide a working knowledge of investigative procedures; basic sciences, especially dynamics, heat, and optics; and recent technological advances employed in litigation in the areas of automobile collisions, aviation disaster, product liabilities, and major calamities. Grade Only. Offered yearly. Prerequisite: History 365 and History 370 or permission of instructor.

326 Electronics with Biomedical Applications — 4 Q.H.
A lecture-laboratory course that provides a basic background in the use of diodes, transistors, power supplies, transducers and amplifiers. Applications will be in the biomedical field and include such items as the electrocardiograph, cardiotachometer, and blood-pressure recorder. Prerequisite: consent of instructor. Offered yearly.

330 Electronics — 5 Q.H.
A lecture-laboratory course in solid state electronics. Circuit theory, diodes, transistors, power supplies, amplifiers, waveform generator and integrated circuits. Prerequisite: 222 or 202 or consent of instructor. Offered every two years.

332 Computer Organization — 5 Q.H.
A lecture-laboratory course in fundamentals of digital computers and digital electronics; Boolean algebra, logic circuits, counters, registers, arithmetic-logic units, memory units and control units. Offered yearly.

340 Modern Physics — 5 Q.H.
A lecture-laboratory course in modern physics. Special relativity, kinetic theory, Bohr atom, quantum mechanics and solid state physics. Prerequisites: 203 or 223 and Mathematics 227. Offered yearly.

345 Thermodynamics — 4 Q.H.

350 Mechanics I — 4 Q.H.
Fundamental laws of mechanics of particles and rigid bodies including vibrations. Prerequisite: 221. Offered yearly.

370 Optics — 4 Q.H.

400G Seminars in Environmental and Human Services — 2-4
This course consists of one or more seminars offered from time to time on topics relevant to environmental and human services. Each seminar offers 2-4 hours of credit. The first series of seminars consists of the following four: (a) Environmental Radioactivity, (b) Accident Analysis, (c) Computer Information Systems, and (d) Noise Pollution. Offered yearly.

404G Nuclear Radiation Physics — 5 Q.H.
A first course in health physics, includes atomic and nuclear structure, radioactivity, interaction of radiation with matter, radiation dosimetry, health physics instrumentation, external and internal radiation protection. Prerequisite: 203 or consent of instructor. Lecture-laboratory course. Offered every two years.

405G Mechanics II — 4 Q.H.
A continuation of 350 including central force fields, scattering and Lagrangian and Hamiltonian mechanics. Prerequisite: 350. Offered every four years.

430G Electromagnetic Theory I — 4 Q.H.

440G Mathematical Methods in Physics I — 4 Q.H.

451G Quantum Mechanics I — 4 Q.H.

460G Advanced Laboratory I — 2 Q.H.
A study of the experimental techniques used in modern physics. Experiments are drawn from such fields as mechanics, statistical physics, optics, solid state physics and atomic and nuclear physics with special emphasis on the quantum character of matter. Prerequisites: 21 quarter hours in Physics. Offered on demand.

461G Advanced Laboratory II — 2 Q.H.
A continuation of Physics 460. Offered on demand.
480G Computer Workshop — 3 Q.H.
An introduction to computer time-sharing utilizing the MECC time-sharing system. Prerequisite: consent of instructor. Offered quarterly or on demand. (Same as Mathematics 480).

481G BASIC Applications — 4 Q.H.
A study of the BASIC programming language and its multidisciplinary use in elementary, secondary and vocational education. Prerequisite: Physics 480 or equivalent. Offered quarterly or on demand. Grade Only. (Same as Math 481).

490G Individual Problems in Physics — 1-5 Q.H.
An opportunity for the qualified advanced undergraduate to work independently. Topics may include research, development of special skills, selected readings, etc. Time arranged. Prerequisite: consent of the physics advisor. May be repeated to a total of 5 credits. Offered yearly.

AVIATION COURSES

200 Fundamentals of Aviation — 6 Q.H.
Fundamentals of aviation necessary for completion of the F.A.A. Private Pilot written examination as well as an overview of aviation in general. Grade or P/NC.

204 Private Flight Laboratory — 5 Q.H.
This course will cover airplane operational examinations and the use of radio for voice communications; emphasis on basic piloting techniques such as stall landings, short and soft field operation; and cross-country flight procedures. Grade or P/NC. Student must enroll in the course in order to earn credit.

300 Fundamentals of Instrument Flight — 6 Q.H.
Provides the student with aeronautical knowledge necessary for successful completion of the FAA Instrument written examination. Additional subjects covered in depth are Advanced Meteorology, Integrated and Inertial Instrument Flight and Ground Systems, National and International Air Space, and sophisticated radio communications and navigation. Grade or P/NC. Offered yearly.

301 Instrument Flight Laboratory — 5 Q.H.
This course will cover oral and airplane operational examinations for instrument flight at an advanced level; instrument piloting techniques such as aircraft maneuvers, IFR, departure, en route, and approach procedures and ADF, ILS, and VOR approach techniques and proficiencies. Grade or P/NC. Student must enroll in the course to earn credit. Offered quarterly.

380 Seminars in Aviation Organization/Administration — 1-4 Q.H.
Seminars on topics relevant to the organization and administration of aviation. The series will cover airline, commuter, corporate, federal and general aviation topics. Prerequisites: junior standing and/or instructor's permission. May be repeated. Offered yearly.

401 Advanced Fundamentals of Aviation — 6 Q.H.
Provides the student with the aeronautical knowledge that is necessary for successful completion of the FAA Commercial Pilot written examination. Additional subjects covered in depth are advanced aerodynamics and performance, gas turbine engines, servo and hydraulic systems, environmental control, safety and interface of the flight deck and maintenance crews. Grade or P/NC. Offered yearly.

402 Commercial Flight Laboratory — 5 Q.H.
This course will cover all airplane operational examinations for commercial flight. Emphasis on advanced piloting techniques for commercial operation such as aircraft maneuvers, takeoffs and landings, passenger comfort, cross-country flight, voice and radio navigation, night operation, primary instrument flight and safety. Grade or P/NC. Student must enroll in this course in order to earn credit. Offered quarterly.

410 Turbojet-Prop. Transport Seminar — 1-4 Q.H.
This course fulfills the Federal Aviation Administration's ground requirements for pilots of heavy, sophisticated aircraft. Basic aircraft systems theory, design, function, operation and procedures are covered in depth. Prerequisites: Physics 300 and 401 or equivalent. Offered yearly. May be repeated.

COURSES FOR GRADUATE STUDENTS ONLY

550 Individual Problems in Physics — 1-6 Q.H.
An opportunity for the qualified student to work independently. Topics may include research, development of special skills, selected readings, etc. Time arranged. Prerequisite: consent of the physics advisor. May be repeated to a total of six credits.
Political Science deals with the theory and practice of politics, government, and administration. As an academic discipline it includes political theory, public law, politics and public policy, public administration and international relations, foreign policy and comparative governments of modern and developing nations.

The primary objective of the Political Science curriculum is to prepare you for graduate studies and/or a career in government, business or education. It can also be used as a preparation for law school. In addition, Political Science courses contribute to liberal education by offering the opportunity to acquire a knowledge of your governmental system and the way in which it operates so that you will be better equipped to exercise the responsibilities of citizenship.

B.A. MAJOR
POLITICAL SCIENCE
60 Q.H.

REQUIRED COURSES (4 Q.H.)
220 American National Government (4)

ELECTIVES (56 Q.H.)

Fifty-six (56) credit hours with at least four quarter hours in each of the following areas: American Field; Comparative Field; Theory; International Field. Students may select from the following list:

American Field - minimum of 4 Q.H.
221 State and Local Government (4)
228 Public Administration (4)
315 American Political Thought (4)
320 Constitutional Law (4)
322 Political Parties and Interest Groups (4)
323 Minnesota Politics and Processes (4)
324 Urban Planning (4)
340 Politics of Ecology (4)

Comparative Field - minimum of 4 Q.H.
330 Political Systems of Britain and France (4)
331 Political Systems of Germany and the Soviet Union (4)
333 Political Systems of Africa (4)
334 Political Systems of the Middle East (4)
335 Political Systems of Latin American Countries (4)
337 Political Systems of the Far East (4)
338 Political Systems of Southeast Asia (4)
450 Politics of Revolution and Modernization (4)

International Field - minimum of 4 Q.H.
243 International Politics (4)
346 International Law (4)
347 International Organization (4)
422 American Foreign Policy (4)
433 The Foreign Policy of the Soviet Union (4)
444 Foreign Policy of the People's Republic of China (4)

Public Law Field - minimum of 4 Q.H.
310 Criminal Justice System (4)
320 Constitutional Law (4)
346 International Law (4)
347 International Organization (4)
420 Administrative Law (4)

Theory Field - minimum of 4 Q.H.
260 Development of Political Thought (4)
315 American Political Thought (4)
316 Medieval Political Theory (4)
325 Modern Political Theory (4)
410 Political Analysis (4)
415 Political Psychology (4)
450 Politics of Revolution and Modernization (4)

B.A. MAJOR
SOCIAL SCIENCE
60 Q.H.

REQUIRED COURSES (24)
150 Soc - Human Society (4)
201 Econ- Principles of Economics I (4)
211 Geog- Economic Geography (4)
220 American National Government (4)
231 Hist- American History 1828 - 1900 (4)
232 Hist- American History 1900 - Present (4)

ELECTIVES (36 Q.H.)

At least 4 Q.H. in each of the following fields of Political Science: American, Comparative, International and Theory; with the remainder being any course in Political Science up to a minimum of 36 Q.H. Students may select from the following list:

American Field - Minimum of 4 Q.H.
221 State and Local Government (4)
228 Public Administration (4)
315 American Political Thought (4)
320 Constitutional Law (4)
322 Political Parties and Interest Groups (4)
323 Minnesota Politics and Processes (4)
324 Urban Planning (4)
340 Politics of Ecology (4)
420 Administrative Law (4)
421 American Presidency (4)
426 Public Budgeting (4)

Comparative Field - minimum of 4 Q.H.
330 Political Systems of Britain and France (4)
331 Political Systems of Germany and the Soviet Union (4)
333 Political Systems of Africa (4)
334 Political Systems of the Middle East (4)
335 Political Systems of Latin American Countries (4)
337 Political Systems of the Far East (4)
338 Political Systems of Southeast Asia (4)
450 Politics of Revolution and Modernization (4)
**156/Political Science**

**International Field — minimum of 4 Q.H.**
- 243 International Politics (4)
- 346 International Law (4)
- 347 International Organization (4)
- 422 American Foreign Policy (4)
- 433 The Foreign Policy of the Soviet Union (4)
- 444 Foreign Policy of the People’s Republic of China (4)

**Public Law Field — minimum of 4 Q.H.**
- 310 Criminal Justice System (4)
- 320 Constitutional Law (4)
- 346 International Law (4)
- 347 International Organization (4)
- 420 Administrative Law (4)

**Theory Field — minimum of 4 Q.H.**
- 260 Development of Political Thought (4)
- 315 American Political Thought (4)
- 316 Medieval Political Theory (4)
- 325 Modern Political Theory (4)
- 410 Political Analysis (4)
- 415 Political Psychology (4)
- 450 Politics of Revolution and Modernization (4)

**B.S. Major**

**Social Science**
95 Q.H. Teaching

(See Social Science Major)

Effective July 1, 1979, the B.S. Social Science Major (Composite Concentration in the 1976-77 catalog) is the only Social Science Major that will meet graduation and/or teacher certification requirements. All previous B.S. Social Science Majors become invalid as of July 1, 1979.

**B.S. Major**

**Public Administration**
99 Q.H.

(Interdisciplinary Major, no Minor required)

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**Core Requirements (47-59 Q.H.)**
- 201 BAd - Principles of Accounting I (4)
- 201 Econ - Principles of Economics I (4)
- 202 Econ - Principles of Economics II (4)
- 220 American National Government (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 320 Constitutional Law (4)
- 410 Political Analysis (4)
- 416 Internship (4 - 16)
- 420 Administrative Law (4)
- 425 Psy - Organizational Psychology (3)
- 426 Public Budgeting (4)

**Option A — General Public Administration (52 Q.H.)**

Credits are to be selected from the following courses with a minimum of 8 hours from each of the following four disciplines.

**Political Science**
- 315 American Political Thought (4)
- 322 Political Parties and Processes (4)
- 324 Urban Planning (4)
- 329 Municipal Administration (4)
- 340 Politics of Ecology (4)
- 421 The American Presidency (4)
- 499 Seminar in Political Science when applicable (1 - 4)

The student must consult with the major advisor for other courses that might apply.

**Sociology**
- Soc 205 Social Interaction (4)
- Soc 350 Population Analysis (4)
- Soc 421 Urban Sociology (4)
- Soc 425 Collective Behavior and Social Movements (4)
- Soc 430 Political Sociology (4)
- Soc 437 Sociology of Large Organizations (4)

**Business Administration**
- BAd 203 Managerial Accounting (4)
- BAd 310 Business Law I (4)
- BAd 312 Business Computer Applications and Programming I (4)
- BAd 313 Business Computer Applications and Programming II (4)

**Economics**
- Econ 302 Intermediate Microeconomic Analysis (4)
- Econ 303 Intermediate Macroeconomic Analysis (4)
- Econ 320 Business-Government Relations (4)
- Econ 400 Public Finance (4)
- Econ 415 Economic Development (4)
- Econ 420 Labor Economics (4)
- Econ 425 Managerial Economics (4)

**Other Electives (Optional for Completing the Requirements in Total Number of Hours)**
- CTA 319 Discussion and Small Group Dynamics (4)
- CTA 329 Advanced Interpersonal Speech Communication (4)
- Geog 349 Maps and Air Photos (4)
- Geog 380 Urban Geography (4)
- Geog 450 Cartography (4)
- Hist 492 American Urban History (4)

**Option B — Business Administration (52 Q.H.)**

**Required Courses (20 Q.H.)**
- 202 BAd Financial Accounting II (4)
- 310 BAd Business Law I (4)
- 320 Econ Business-Government Relations (4)
- 420 Econ Labor Economics (4)
- 425 Econ Managerial Economics (4)
ELECTIVES (16 Q.H.)
302 Econ Intermediate Microeconomic Analysis (4)
303 Econ Intermediate Macroeconomic Analysis (4)
311 BAd Business Law II (4)
312 BAd Business Computer Applications and Probramming (4)
313 BAd Business Computer Applications and Programming II (4)
315 BAd Principles of Marketing (4)
345 BAd Governmental Accounting (4)
360 BAd Fundamentals of Business Finance (4)
375 BAd Management of Human Resources (4)
410 Econ Regional Economics (4)
415 Econ Economic Development (4)
419 BAd Management Systems (4)
456 BAd Labor Law and Legislation (4)
461 BAd Personnel Compensation (4)
465 BAd Collective Bargaining (4)
475 BAd Personnel Problems (4)
490 BAd Organization and Leadership Dynamics (4)

OTHER ELECTIVE REQUIREMENTS (16 Q.H.)
Electives in Political Science - minimum of 8 Q.H.
Electives in Sociology - minimum of 8 Q.H.
For courses that will apply - see course listing under Option A.

OPTION C - HEALTH EDUCATION (52 Q.H.)
REQUIRED COURSES (11 Q.H.)
127 HPER Current Problems in Health Education (4)
214 HPER Standard First Aid (3)
429 HPER Public Health (4)

ELECTIVES (12 Q.H.)
Any 12 credits from the following:
125 HPER Personal and Community Health for Majors and Minors (5)
225 HPER Curriculum and Methods of Health Education (4)
325 HPER Organization and Administration of Health Education (3)
428 HPER Health Science Laboratory Techniques (3)
432 HPER Health Education Seminar (1)

OTHER ELECTIVE REQUIREMENTS (29 Q.H.)
A minimum of eight quarter hours in Political Science, four quarter hours in Business Administration, or four quarter hours in Economics and four quarter hours in Sociology.
For courses that will apply, see course listing under Option A.

OTHER ELECTIVE REQUIREMENTS (26 Q.H.)
A minimum of eight quarter hours in Political Science, four quarter hours in Business Administration, or four quarter hours in Economics and four quarter hours in Sociology.
For courses that will apply, see course listing under Option A.

B.A. MINOR
POLITICAL SCIENCE
28 Q.H.
REQUIRED COURSES
220 American National Government (4)

ELECTIVES (24 Q.H.)
Twenty-four (24) quarter hours with at least four quarter hours in three of the four areas: American Field, Comparative Field; Theory; International Field.
Students may select from the following list:

American Field - minimum of 4 Q.H.
221 State and Local Government (4)
228 Public Administration (4)
315 American Political Thought (4)
320 Constitutional Law (4)
322 Political Parties and Interest Group (4)
323 Minnesota Politics and Processes (4)
324 Urban Planning (4)
340 Politics of Ecology (4)
420 Administrative Law (4)
421 American Presidency (4)
426 Public Budgeting (4)

Comparative Field - minimum of 4 Q.H.
330 Political Systems of Britain and France (4)
331 Political Systems of Germany and the Soviet Union (4)
333 Political Systems of Africa (4)
334 Political Systems of the Middle East (4)
335 Political Systems of Latin American Countries (4)
337 Political Systems of the Far East (4)
338 Political Systems of Southeast Asia (4)
450 Politics of Revolution and Modernization (4)
### International Field — minimum of 4 O.H.
- 243 International Politics (4)
- 346 International Law (4)
- 347 International Organization (4)
- 422 American Foreign Policy (4)
- 433 The Foreign Policy of the Soviet Union (4)
- 444 Foreign Policy of the People’s Republic of China (4)

### Public Law Field — minimum of 4 O.H.
- 310 Criminal Justice System (4)
- 320 Constitutional Law (4)
- 346 International Law (4)
- 347 International Organization (4)
- 420 Administrative Law (4)

### Theory Field — minimum 4 O.H.
- 260 Development of Political Thought (4)
- 315 American Political Thought (4)
- 316 Medieval Political Theory (4)
- 325 Modern Political Theory (4)
- 410 Political Analysis (4)
- 415 Political Psychology (4)

### B.S. MINOR
#### POLITICAL SCIENCE

28 O.H. TEACHING

Effective July 1, 1979, this B.S. Minor must be in combination with the B.S. Social Science Major (Composite Concentration listed in the 1976-77 catalog) to be valid for graduation and/or teacher certification.

**REQUIRED COURSES (4 O.H.)**

- 220 American National Government (4)

Twenty-four credit hours with at least four quarter hours in each of the following areas: American Field; Comparative Field; Theory; International Field.

**Students may select from the following list:**

#### American Field — minimum of 4 O.H.

- 221 State and Local Government (4)
- 228 Public Administration (4)
- 315 American Political Thought (4)
- 320 Constitutional Law (4)
- 322 Political Parties and Interest Groups (4)

- 323 Minnesota Politics and Processes (4)
- 324 Urban Planning (4)
- 340 Politics of Ecology (4)
- 420 Administrative Law (4)
- 421 American Presidency (4)
- 426 Public Budgeting (4)

#### Comparative Field — minimum of 4 O.H.

- 243 International Politics (4)
- 346 International Law (4)
- 347 International Organization (4)
- 422 American Foreign Policy (4)
- 433 The Foreign Policy of the Soviet Union (4)
- 444 Foreign Policy of the People’s Republic of China (4)

#### International Field — minimum of 4 O.H.

- 243 International Politics (4)
- 346 International Law (4)
- 347 International Organization (4)
- 422 American Foreign Policy (4)
- 433 The Foreign Policy of the Soviet Union (4)
- 444 Foreign Policy of the People’s Republic of China (4)

#### Public Law Field — Minimum of 4 O.H.

- 310 Criminal Justice System (4)
- 320 Constitutional Law (4)
- 346 International Law (4)
- 347 International Organization (4)
- 420 Administrative Law (4)

#### Theory Field — minimum 4 O.H.

- 260 Development of Political Thought (4)
- 315 American Political Thought (4)
- 316 Medieval Political Theory (4)
- 325 Modern Political Theory (4)
- 410 Political Analysis (4)
- 415 Political Psychology (4)

### B.S. MINOR
#### PUBLIC ADMINISTRATION

43-57 O.H.

**POLITICAL SCIENCE (16 O.H.)**

- 220 American National Government (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 320 Constitutional Law (4)
- 324 Urban Planning (4)
- 329 Municipal Administration (4)
- 340 Politics of Ecology (4)
- 410 Political Analysis (4)
- 430 Administrative Law (4)
- 499 Seminar (when applicable) (1-4)

**INTERNSHIP (4-16 O.H.)**

- PS 416 Internship in Political Science (4-16)

**PSYCHOLOGY (3 O.H.)**

- PSY 425 Organizational Psychology (3)

**SOCIOLOGY (8 O.H.)**

- Soc 205 Social Interaction (4)
- Soc 350 Population Analysis (4)
- Soc 421 Urban Sociology (4)
- Soc 425 Collective Behav. & Soc. Mov. (4)
- Soc 430 Political Sociology (4)
- Soc 437 Sociology of Large Organizations (4)

**BUSINESS ADMINISTRATION AND ECONOMICS (12-14 O.H.)**

The student may choose Option I or Option II:

#### OPTION I — BUSINESS ADMINISTRATION (12 O.H.)

- 201 BAd Principles of Accounting I (4)
- 203 BAd Managerial Accounting (4)
- 310 BAd Business Law I (4)
- 312 BAd Business Computer Applications and Programming I (4)
- 313 BAd Business Computer Applications and Programming II (4)
350 BAd Accounting Systems (4)
456 BAd Labor Law and Legislation (4)
465 BAd Collective Bargaining (4)

OPTION II - ECONOMICS (14 Q.H.)

Fourteen (14) quarter hours to include Economics 201 and 202, and Business Administration 365 or 465.

201 Econ Principles of Economics I (4)
202 Econ Principles of Economics II (4)
303 Econ Intermediate Macroeconomic Analysis (4)
320 Econ Business-Government Relations (4)
400 Econ Public Finance (4)
420 Econ Labor Economics (4)
425 Econ Managerial Economics (4)
456 BAd Labor Law and Legislation (4)
465 BAd Collective Bargaining (4)

COURSE LISTINGS

All undergraduate courses may be taken on a pass/no credit basis except for majors and minors.

Courses are categorized according to areas of Political Science including International, American, Comparative, Public Law and Theory. Each course will be followed by a letter I, A, C, L or T symbolizing its proper category.

103 Introduction to Political Science - 4 Q.H.
An analytical and historical consideration of the problems common to all political systems in all centuries and various attempts to solve them. Offered quarterly. P/NC Option.

123 Politics and Society in Middle East - 4 Q.H.
A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, nationalism, etc., on the lives of individuals, groups and nations and on the politics of the Middle East. Offered quarterly. P/NC Option.

124 Politics and Society in Latin America - 4 Q.H.
A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, nationalism, etc., on the lives of individuals, groups and nations and on the politics of Latin America. Offered quarterly. P/NC Option.

125 Politics and Society in the Far East - 4 Q.H.
A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, nationalism, etc. on the lives of individuals and nations in Asia. Offered quarterly. P/NC Option.

126 Politics and Society in Black Africa - 4 Q.H.
A study of the political cultures of African nations south of the Sahara. A study of the impact of factors such as religion, wealth, natural resources, modern ideologies, nationalism, etc., on the lives of individuals and nations and on the politics of Africa south of the Sahara. Offered yearly. P/NC Option.

199 Freshman Seminar - 1-4 Q.H.
An open discussion of some political topics of current interest. Discussion will center around causes and possible remedies of some of the maladies of modern society. Different alternatives will be discussed with an eye on acquiring a better understanding of the problems. May be taken for up to 4 Q.H. Offered yearly. P/NC Option.

200 American National Government - 4 Q.H.
A study of the purposes of American government, civil rights, the federal system, the powers and functions of the three branches of government, political parties and interest groups, and contemporary problems. Prerequisite to all other political science courses Offered quarterly. P/NC Option.

220 American National Government - 4 Q.H.
A study of the purposes of American government, civil rights, the federal system, the powers and functions of the three branches of government, political parties and interest groups, and contemporary problems. Prerequisite to all other political science courses Offered quarterly. P/NC Option.

221 State and Local Government (A) - 4 Q.H.
An examination of the organization, functions and problems and policies of the state, municipal, and county governments in the United States. Prerequisite: 220. Offered yearly. P/NC Option.

222 Public Administration (A) - 4 Q.H.
The theory and practice of public administration. Planning, organization and the political processes as they affect the area of administration. Prerequisite: 220. Offered yearly. P/NC Option.

223 International Politics I - 4 Q.H.
An examination of the nation-state system, power politics, the processes affecting international relations, the sources of tensions in international politics and the possibilities of their peaceful solution. Offered yearly. P/NC Option.

260 Development of Political Thought (T) - 4 Q.H.
Political ideas from ancient Greece and from the Judeo-Christian tradition. Issues to be dealt with concern the role of the individual and the state, punishment and authority, economic organization, and the role of violence in political interaction. Offered every three years. P/NC Option.

310 Criminal Justice System (L) - 4 Q.H.
An introductory study of the administration of criminal justice. This course will examine society’s efforts to limit the conduct of its members through the defining of forbidden acts. The steps of the process from apprehension to post-conviction remedies will be studied as parts of an interrelated system for establishing guilt or innocence. Prerequisite: 220. Offered bi-annually. P/NC Option.

315 American Political Thought (A) or (T) - 4 Q.H.
Political ideas and major political movements in the U.S. from 17th Century Puritanism to the present. Puritanism, Revolutionary thought, Constitutionalism, Utopian Communities, Populism, Pragmatism, the New Deal, Socialism, Conservatism, and the Black Revolution. Prerequisite: 220. Offered every two years. P/NC Option.

316 Medieval Political Theory (T) - 4 Q.H.
Political ideas from Augustine to Machiavelli. Emphasis on religious ideas and movements as they bear on political thought. Includes Augustine, Aquinas, John of Salisbury, Marsilio of Padua, Luther, Calvin, and various communal society and their thought. Offered every three years. P/NC Option.
320 **Constitutional Law (A)(L)** - 4 Q.H.
Judicial function in constitutional cases; division of powers between the nation and the states, and with the national government; powers of the President, limitations on the powers of government; separation of powers; protection of individual rights. Prerequisite: 220. Offered yearly. P/NC Option.

322 **Political Parties and Interest Groups (A)** - 4 Q.H.
Development, characteristics, organization and policies of the major American political parties. Includes an examination of the nominating process, party campaigns and finances, elections, voting behavior, and the role and techniques of interest groups. Prerequisite: 220. Offered every two years. P/NC Option.

323 **Minnesota Politics and Processes (A)** - 4 Q.H.
A study of the purposes of Minnesota government civil rights, the powers and functions of the legislative, the executive and the judicial branches; political parties and interest groups, the federal system, contemporary problems. Offered every two years. P/NC Option.

324 **Urban Planning (A)** - 4 Q.H.
Emphasis on special topics in the politics and technical problems of urban planning. Comprehensive land use planning, social and economic planning, transportation, urban renewal, zoning and other means of regulation and execution of plans. Prerequisites: 220 and 221. Offered every three years. P/NC Option.

325 **Modern Political Theory (T)** - 4 Q.H.
Political ideas from Machiavelli to the present. The problems of the development of the modern nation state system are analyzed through the writings of the following thinkers: Machiavelli, Hobbes, Locke, Rousseau, J. S. Mill, Marx, Burke, and Marcuse. Offered every two years. P/NC Option.

329 **Municipal Administration (A)** - 4 Q.H.
Management, planning, and implementation of decisions of municipal administrations and organizations; administration relations with Executive, Judicial and Legislative bodies, financial and personnel administration; problem solving for Municipal Government; Economic and Social Maladies of the Municipality; public policy and popular participation. Prerequisites: 220 and 221. Offered every two years. P/NC Option.

330 **Political Systems of Britain and France (C)** - 4 Q.H.
A comparative study of the principles, structures and operation of the contemporary political systems of Britain and France. Offered every two years. P/NC Option.

331 **Political Systems of Germany and the Soviet Union (C)** - 4 Q.H.
A comparative study of the principles, structure and operation of the contemporary political systems of Germany and the Soviet Union. Offered every two years. P/NC Option.

332 **Political Systems of Africa (C)** - 4 Q.H.
An analysis of governmental and political institutions and ideologies which have resulted from social and economic transition in the emerging nations of Africa. Offered every two years. P/NC Option.

333 **Political Systems of the Middle East (C)** - 4 Q.H.
An analysis of the traditional and contemporary political systems of the Middle East and the Arab-Israeli conflict. Offered every two years. P/NC Option.

334 **Political Systems of Latin American Countries (C)** - 4 Q.H.
A comparative study of the structure and dynamics of Latin American politics and governments. Offered every three years. P/NC Option.

335 **Political Systems of the Far East (C)** - 4 Q.H.
A comparative study of the principles, structure and operation of contemporary Far Eastern political systems. Emphasis on the systems of India, Pakistan, China and Japan. Offered every three years. P/NC Option.

336 **Political Systems of Southeast Asia (C)** - 4 Q.H.
A comparative study of the political systems of Indo-China, Malaysia, Thailand, Burma, the Philippines, and Indonesia; contemporary problems of this region in relation to world politics. Offered every three years. P/NC Option.

340 **Politics of Ecology (A)** - 4 Q.H.
An analysis of the politics of ecology. Special emphasis upon the institutional and decision-making problems of the American political system in meeting the challenges of pressure groups in formulating a solution to the ecological problems. Prerequisite: 220. Offered every two years. P/NC Option.

346 **International Law (I)(L)** - 4 Q.H.
The nature and sources of international law; jurisdiction of states over persons and territory; recognition of states and governments; law of the sea; governmental immunities; principle of state responsibility; law of treaties; transnational legal problems. Prerequisite: 220. Offered every two years. P/NC Option.

347 **International Organization (I)** - 4 Q.H.
An analysis of the background organization, aims, activities and accomplishments of the United Nations and its Specialized Agencies. A consideration of the factors affecting the success or failure of world organizations. Offered every two years. P/NC Option.

401 **Independent Readings in Political Science** - 1-4 Q.H.
Readings in an area of political science of particular interest to the student. Credit arranged. Offered on demand. Grade arranged.

410G **Political Analysis (T)** - 4 Q.H.
The various research approaches utilized in the study of the political process. Emphasis is placed upon methods available for the collection and analysis of data. Prerequisite: 103 or 220 or junior standing. Offered every two years.

415G **Political Psychology (T)** - 4 Q.H.
A study of psychological concepts as they have been applied in the analysis of political behavior including motivation, perception, attitude formation and change, and political personality. Offered on demand.
416G  Internship Program (A) — 1 - 16 Q.H.
To provide practical experience in Local, State, and National Government and in Public Administration (limited enrollment). Credit arranged. (May not apply towards a graduate degree.) Offered quarterly. P/NC Option.

420G  Administration Law (A) or (L) — 4 Q.H.
An exploration of the law of the Administrative Process: Legislative, Executive, and Judicial control of administrative action, the formal administrative process; administrative discretion; and the applicability of res judicata and stare decisis to administrative proceedings, with due consideration to The Federal Administrative Procedure Act. Prerequisite: 220. Offered biennially.

421G  American Presidency (A) — 4 Q.H.
A study of the institution of the presidency, the gradual growth of formal and informal tools of presidential power, the influence that different presidents have brought to the office, the significance of presidential style and character, recruitment patterns for the presidency, and various suggestions to reform the institution of the presidency. Prerequisite: 220. Offered biennially.

422G  American Foreign Policy (A) — 4 Q.H.
A consideration of major foreign policies, objectives and commitments of the United States and their political, economic and military implications, as well as policy decisions currently confronting the United States. Prerequisite: 220. Offered on demand.

426G  Public Budgeting (A) — 4 Q.H.
An examination of the politics of budgeting at federal, state and local levels. Budgeting is viewed as a mechanism for setting goals and objectives of governmental agencies and of distributing benefits and costs of governmental decisions. Consideration will be given to program planning, program analysis, intergovernmental relations, the government and the economy, and recent reforms in budgetary systems. Prerequisites: 220 and 228. Offered biennially.

433G  The Foreign Policy of the Soviet Union (I) — 4 Q.H.
A study of the historical development of Soviet Foreign Policy and its influence on international politics. Emphasis on its ideological basis and evolution from the early revolutionary stage to alliances, the Cold War, and peaceful coexistence. Offered every two years.

444G  Foreign Policy of the People's Republic of China (I) — 4 Q.H.
A study designed to equip the student with an in-depth understanding of the decision-making process of foreign policy and the application of political power in the international political system by the People's Republic of China. Offered every three years.

501  Readings in Political Science — 1 - 4 Q.H.
The nature and scope of this course consists of independent readings in any area of political science. Credit arranged. May be repeated up to 12 hours.

502  Formation of Public Policy — 4 Q.H.
An integrated study of the policy-making process, the relationship of persons, groups, and governmental and non-governmental institutions in the initiation, formulation and implementation of policy in the United States. Prerequisite: 220. Offered by arrangement only.

503  Community Decision Making — 4 Q.H.
Discussion and critique of the power structure literature: emphasis on methods of studying community elites. Prerequisite: 220. Offered by arrangement only.
Psychology

Minne Hall, Room 314 / 457-2141

The general function of the department is to foster a scientific approach to the understanding and modification of behavior with emphasis on human behavior. The department offers two majors and a minor for students enrolled in the B.A. program, and a B.S. minor.

All courses offered are graded.

B.A. MAJOR

OPTION A

44 Q.H.

REQUIRED COURSES (20 Q.H.)
210 General Psychology (4)
231 Statistics I (3)
305 Theories of Personality (3) or 420 Abnormal Psychology (3)
308 Experimental Psychology (4)
350 Psychological Testing and Measurement (3)
343 History and Systems of Psychology (3)

REQURED COURSES IN OTHER DEPARTMENTS (13-14 Q.H.)
Biology
201 Anatomy (5)
210 Zoology I (4)
202 Human Physiology (5)
Mathematics
231 Introduction to FORTRAN (4)

ELECTIVES (23 Q.H.)
Electives from Psychology to a total of 23 credits.

B.A. MAJOR

ALTERNATE OPTION B

72 Q.H.

(No minor required)

REQUIRED COURSES (20 Q.H.)
210 General Psychology (4)
231 Statistics I (3)
305 Theories of Personality (3) or 420 Abnormal Psychology (3)
308 Experimental Psychology (4)

REQUIRED COURSES IN OTHER DEPARTMENTS (13-14 Q.H.)
Biology
201 Anatomy (5)
210 Zoology I (4)
202 Human Physiology (5)
Mathematics
231 Introduction to FORTRAN (4)

ELECTIVES (23 Q.H.)
Electives from Psychology to a total of 23 credits.

B.A. MINOR

29 Q.H.

REQUIRED COURSES (4 Q.H)
210 General Psychology (4)

ELECTIVES (25 Q.H.)
Electives from Psychology to a total of 25 credits.

B.S. MINOR

29 Q.H. TEACHING

This minor must be in combination with the B.S. Social Science Major to be used toward graduation or certification.

REQUIRED COURSES (7 Q.H.
210 General Psychology (4)
416 Personal Adjustment (3)

NOTE: Students cannot receive credit for Psychology 250 or 301 for the B.S. minor.

ELECTIVES (22 Q.H.)
Electives may be selected from any of the courses offered in the Psychology Department except Psychology 260 and Psychology 301.

COURSE LISTINGS

No courses may be taken on a pass/no credit basis.

210 General Psychology — 4 Q.H.
Introduction to psychology as a social, human, and empirical science. Required before taking more advanced courses in psychology. Offered quarterly.

231 Statistics I — 3 Q.H.
An overview of descriptive and inferential statistics with emphasis on understanding. Topics include central tendency, variability, correlation, simple regression, and tests of significance. Offered twice yearly.
250 Developmental Psychology - 4 O.H.
Development and decline of emotional, social, intellectual, and physical characteristics from conception to death. Prerequisite: 210. Offered yearly.

301 Principles and Applications of Learning - 3 O.H.
Integration of the fields of animal and human learning, emphasizing both behaviorist and cognitive approaches. Topics include basic conditioning paradigms, biological constraints, the physical basis of learning, transfer of training, interference and the information processing approach to memory. Prerequisite: 210. Offered yearly.

305 Theories of Personality - 3 O.H.
Freud’s psychoanalytic theory, Jung’s analytic theory, social-psychological theories, stimulus-response theory, and Roger’s self theory. Prerequisite: 210. Offered yearly.

308 Experimental Psychology - 4 O.H.
Introduction to the scientific method and research techniques in psychology, including how to read and write technical reports. Content areas vary but include learning, memory, and attitude measurement. Laboratory experience is included. Prerequisites: 210, 231 or permission of instructor. Offered yearly.

340 Psychology of Human Differences - 3 O.H.
Research in biographical factors related to individual differences in traits and abilities. Prerequisite: 231, or consent of instructor. Offered yearly.

350 Psychological Testing & Measurement - 3 O.H.
Problems, issues and techniques in psychological testing and measurement with emphasis on the development of skills in the administration and interpretation of psychological tests. This includes intelligence, achievement, vocational interests, aptitude and personality testing. Prerequisite: 210. Offered once or twice yearly.

360 Psychology in Business and Industry - 3 O.H.
Personnel selection techniques, morale, group processes, principles of motivation, fatigue, safety, and industrial training. Prerequisite: 210. Offered yearly.

365 Consumer Psychology - 3 O.H.
Marketing or advertising with the psychological factors affecting consumer behavior. Prerequisite: 210. Offered yearly.

369 Introduction to Cognitive Psychology - 3 O.H.
Contemporary information processing approach to psychology, including perception, memory, decision-making, language, and thinking. Offered yearly.

375 Theories of Learning - 4 O.H.
A chronological view of the theories that have influenced thought and experimentation in the field of learning during the 20th Century. Prerequisite: 210. Offered yearly.

400G Independent Study - 1-4 O.H.
Independent study or research for credit under the guidance of a staff member with prior consent. May be repeated. Prerequisite: 210. Offered quarterly.

401 Field Experience in Psychology - 3 O.H.
Actual experience in settings and situations where principles of psychology are applied in dealing with human problems. Prerequisite: Advanced standing in psychology. Offered quarterly. P/NC Only.

403 Independent Research in Psychology - 3 O.H.
Conducting an actual investigation using appropriate experimental or other research methodologies. May be repeated. Prerequisite: Advanced standing in psychology. Offered quarterly, by arrangement.

410 Sensation and Perception - 4 O.H.
Emphasis on vision and audition. Topics include psychophysics, the structure of the sense organs, sensory coding, adaptation, attention, perception of form space and depth, illusions, perceptual development and contributions of the observer. Prerequisite: 210. Offered yearly.

414G Psychology of Mental Retardation - 4 O.H.
Causes, diagnosis, problems, and treatment of mental retardation. Personal, social, and educational adjustment of retarded persons. Prerequisite: 210. Offered yearly.

415 Social Psychology - 3 O.H.
Interpersonal influence, reference group behavior, socialization, social stratification, leadership, role behavior, group structure and process, and intergroup tensions and prejudice. Prerequisite: 210. Offered yearly.

416G Personal Adjustment - 3 O.H.
Stress, trauma, guilt, frustration and aggression, conflict, defense mechanisms and factors affecting personality development. Prerequisite: 210. Offered yearly.

418G The Psychology of Drug or Chemical Dependency - 3 O.H.
Psychological, sociological, and physiological factors related to drug dependency. The course does not meet teacher certification requirements, but is designed for non-education majors. Prerequisite: 210. Offered yearly.

420G Abnormal Psychology - 3 O.H.
Normal and abnormal behavior is contrasted. Dynamics and social causes of abnormal behavior. Prerequisite: 210. Offered yearly.

421 Behavior Modification - 3 O.H.
Current methods, principles and research of behavior modification, and applications included in school, hospital, and management situations, and in behavior therapy and self-control. Prerequisite: 210. Offered yearly.

425 Organizational Psychology - 3 O.H.
Organizational socialization, organizational decision-making, dynamics of achievement motivation, dynamics of power and affiliation motivation, and organizational structure and communication. Offered yearly.

431 Clinical Psychology - 3 O.H.
Current psychological changes in human behavior including the theoretical framework underlying the methodologies. Prerequisites: 210 and 305. Offered yearly.

434 History and Systems of Psychology - 3 O.H.
Major psychological theories and theoretical issues with historical perspective. Prerequisite: At least 15 hours in psychology or consent of instructor, or graduate standing. Offered yearly.

498 Seminar in Psychology - 3 O.H.
Topics will be specified at the time the course is offered. Offered alternate years.
Social Science

Minne Hall, Room 212 / 457-2978

The following listings are the composite concentrations, majors and minor, bachelor of arts and bachelor of science, offered in Social Science.

B.A. MAJOR
COMPOSITE CONCENTRATION
61 Q.H.

REQUIRED HISTORY COURSES (12 Q.H.)
230, 231, 232 American History I, II, III (12)

REQUIRED POLITICAL SCIENCE COURSES (4 Q.H.)
220 American National Government (4)

REQUIRED GEOGRAPHY COURSES (8 Q.H.)
211 Economic Geography (4)
213 Cultural Geography (4)

REQUIRED ECONOMICS COURSES (12 Q.H.)
201, 202, 203 Principles of Economics I, II, III (12)

REQUIRED SOCIOLOGY COURSES (8 Q.H.)
150 Human Society (4)
376 Intro to Sociological Research (4)

ELECTIVES (21 Q.H.)
One course from each of the following Geography, History and Sociology, and three courses numbered 300 and above.

B.S. MAJOR
COMPOSITE CONCENTRATION
95 Q.H. TEACHING

(NO MINOR REQUIRED)

Effective July 1, 1979, this is the only Social Science Major that will meet graduation and/or teacher certification requirements. All other B.S. Social Majors become invalid as of July 1, 1979.

REQUIRED HISTORY COURSES (8 Q.H.)
SELECT ANY TWO:
230 American History: To 1828 (4)
231 American History: 1828-1900 (4)
232 American History: 1900-present (4)

REQUIRED SOCIOLOGY COURSES (8 Q.H.)
150 Human Society (4)
376 Intro to Sociological Research (4)

REQUIRED POLITICAL SCIENCE COURSES (8 Q.H.)
103 Introduction to Political Science (4)
220 American National Government (4)

REQUIRED GEOGRAPHY COURSES (8 Q.H.)
211 Economic Geography (4)
320 Geography of the United States (4)

REQUIRED ECONOMICS COURSES (9 Q.H.)
201, 202, 203 Principles of Economics I, II, III (9)

REQUIRED PSYCHOLOGY COURSES (7 Q.H.)
210 General Psychology (4)
416 Personal Adjustment (3)

REQUIRED EDUCATION COURSES (4 Q.H.)
331 Teaching or Social Studies in Secondary Schools (4)

ELECTIVES (43 Q.H.)
In-depth in an area or electives from Social Science (includes 12 credits in General Education). (43)

POLITICAL SCIENCE OPTION
(28 Q.H.)

At least four quarter hours in three areas: American Field; Comparative Field; Theory; International Field.

WISCONSIN CERTIFICATION REQUIREMENTS IN BROAD FIELD SOCIAL STUDIES

BROAD FIELD SOCIAL SCIENCE CONCENTRATION (33 Q.H.)
(Select credits under "Required Courses" and "Electives" to give a concentration of 33 Q.H. in one field.)

MINIMUM OF 3 ADDITIONAL CONCENTRATIONS (48 Q.H.)
(Select credits under "Required Courses" and "Electives" to give a minimum of three (3) additional concentrations - minimum of 12 Q.H./concentration).

REQUIRED COURSES (8 Q.H.)
Biology 104 OR 204 (4)
Economics 102 (4) OR Economics 201 (4)

B.A. MINOR
COMPOSITE CONCENTRATION
36 Q.H.

REQUIRED HISTORY COURSES (12 Q.H.)
230, 231, 232 American History I, II, III (12)

REQUIRED POLITICAL SCIENCE COURSES (4 Q.H.)
220 American National Government (4)
REQUIRED GEOGRAPHY COURSES
(4 Q.H.)
211 Economic Geography (4)

REQUIRED SOCIOLOGY COURSE (4 Q.H.)
150 Human Society (4)

ELECTIVES (12 Q.H.)
One course in Sociology or Geography and two courses in Political Science.

B.S. MINOR
COMPOSITE CONCENTRATION
41 - 42 Q.H. (TEACHING)

Effective July 1, 1979, this B.S. Minor must be in combination with the Social Science (Composite Concentration) to be valid for graduation and/or teacher certification.

REQUIRED HISTORY COURSES (12 Q.H.)
230, 231, 232 American History I, II, III (12)

REQUIRED SOCIOLOGY COURSES
(4 Q.H.)
150 Human Society (4)

REQUIRED POLITICAL SCIENCE COURSES (4 Q.H.)
220 American National Government (4)

REQUIRED GEOGRAPHY COURSES (4 Q.H.)
213 Cultural Geography (4)

REQUIRED ECONOMIC COURSES (4 Q.H.)
201 Principles of Economics (4)

REQUIRED INDEPENDENT READINGS (1-2 Q.H.)
Geography, or History, or Sociology

ELECTIVES (8 Q.H.)
One course in Economics (202), Geography, or Sociology and two courses in Political Science.

REQUIRED EDUCATION (4)
331 (Education) Teaching of Social Studies in Secondary Schools (4)

SOCIAL STUDIES
MINOR – MINOR OPTION FOR ELEMENTARY TEACHERS
40 Q.H.

Econ 102 Introduction to Economics (4)
Geog 110 World Regional Geography (4)
Geog 213 Cultural Geography (4)
Soc. 150 Human Society (4)
Psy. 210 General Psychology (4)

Select any two:
Hist. 120 Western Civilization to 1500 (4)
Hist. 121 Western Civilization 1500-1815 (4)
Hist. 122 Western Civilization 1815- Present (4)
Hist. 230 American History: to 1828 (4)
Hist. 231 American History: 1828 to 1900 (4)
Hist. 232 American History 1900 to Present (4)

Select one:
Pol Sci 103 Intro. to Political Science (4)
Pol Sci 220 American National Government (4)
Pol Sci 221 State & Local Government (4)

ELECTIVES (8 Q.H.)
Choose from Economics, Geography, History, Political Science, Sociology, Psychology.
Sociology and Social Work

Minne Hall, Room 228 / 457-2967

Schwartz, (Chairperson), Aldrich, Bublitz, Ellenbecker, Funmaker, Perry, Reynolds, Stevens, Wimberly.

The departmental programs are intended to provide you with an understanding of basic principles of social behavior and knowledge of strategies of working with people. A major in this area is prepared for employment in social welfare, casework, correctional work, community organization, industrial relations, public relations, research, government, personnel and business, or for graduate study.

B.A. MAJOR
SOCIAL SCIENCE - SOCIOLOGY CONCENTRATION
59 Q.H.

REQUIRED COURSES (40 Q.H.)
150 Human Society (4)
201 Econ - Principles of Economics I (4)
205 Social Interaction (4)
211 Geog - Economic Geography (4)
212 The Family (4)
216 Social Problems (4)
220 Hist - American National Government (4)
231, 232 Hist - American History (8)
350 Population Analysis (4)

ELECTIVES (20 Q.H.)
Must take at least five courses in Sociology 300 or above.

B.A. MAJOR
SOCIOLOGY
56 Q.H.

REQUIRED CORE COURSES (20 Q.H.)
150 Human Society (4)
208 Math - Mathematics (4)
376 Introduction to Social Research (4)

475 Theory and Method in Sociology (4)
476 Laboratory in Social Research (4)

ELECTIVES (36 Q.H.)
Electives must come from 200, 300 and 400 level courses to total 36 credits within the department. Mathematics 231 may be taken for elective credit in Sociology. It is strongly recommended that all sociology majors take 460 Internship.

B.S. MAJOR
SOCIOLOGY: CRIMINAL JUSTICE
80 Q.H.

REQUIRED CORE COURSES (16 Q.H.)
Soc 150 Human Society (4)
Math 208 Fundamentals of Statistics (4)
Soc 376 Introduction to Social Research (4)

REQUIRED COURSES (64 Q.H.)
PolSci 220 American National Government (4)
PolSci 221 State and Local Government (4)
PolSci 310 Criminal Justice System (4)
Soc 405 Models of Intervention (4)
Soc 414 Juvenile Delinquency (4)
Soc 415 Criminology (4)
Soc 416 Corrections (4)
Soc 417 Operations and Procedures in Law Enforcement (4)
Soc 418 Criminal Law and Procedure (4)
Soc 460 Internship (16) (within Criminal Justice Agency)
Soc 478 Seminar in Criminal Justice (4)
Soc 481 Community Action (4)
Soc 488 Agency Administration (4)

*460 Internship: extended application of practical experience within a social service or criminal justice agency. Restricted to junior and senior sociology, social science, and paralegal majors. Arranged. Students selecting both Criminal Justice and Social Work as majors will be required to take 32 quarter hours of internship.

B.S. MAJOR
SOCIOLOGY: SOCIAL WORK
80 Q.H.

Social Work students are advised that it is strongly recommended that they take at least 4 credits (plus lab when required for the course) in the human biological sciences (e.g. a course in Human Biology, General Human Anatomy, General Biology, Zoology) as part of the Natural Sciences segment of the General Education Requirements.

REQUIRED CORE COURSES (16 Q.H.)
Soc 150 Human Society (4)
Math 208 Fundamentals of Statistics (4)
Soc 376 Introduction to Social Research (4)

REQUIRED COURSES (16 Q.H.)
Soc 205 Social Interaction (4)
Psy 210 General Psychology (4)
Psy 250 Developmental Psychology (4)
SocW 375 Introduction to Social Work (4)

REQUIRED CORE COURSES (16 Q.H.)
Soc 205 Social Interaction (4)
SocW 390 Public Welfare (4)
SocW 402 Social Work Methods I (4)
SocW 403 Law and Social Work (4)
SocW 406 Social Work Methods II (4)
SocW 408 Social Group Work Practice (4)
*Soc  460 Internship (16) (within
  Social Service Agency)
Soc  481 Community Action (4)
SocW 479 Seminar in Social Work (4)
Soc  488 Agency Administration (4)

NOTE: It is highly recommended that stu­
dents take Social Work courses in numerical sequence.

*460 Internship: extended application of practical experience within a social service or criminal justice agency. Restricted to junior and senior sociology, social science, and paralegal majors. Arranged. Students selecting both Criminal Justice and Social Work as majors will be required to take 32 quarter hours of internship.

B.S. MINOR
28 Q.H. TEACHING

Effective July 1, 1979, this minor must be in combination with the Social Science Major (composite concentration). Not valid for teacher certification and/or graduation as of July 1, 1979.

REQUIRED COURSE (4 Q.H.)
150 Human Society (4)

ELECTIVES (24 Q.H.)
Electives to be chosen from within the department. Also Math 208 Fundamentals of Statistics, and Ed 480 Urban Ed., may be used as electives toward the minor.

B.S. MAJOR
PARALEGAL — SOCIOLOGY
OPTION

(Minor not required)
(See Paralegal Major)

B.A. MINOR

SOCIOLOGY: GENERAL OPTION
24 Q.H.

REQUIRED COURSES (12 Q.H.)
150 Human Society (4)
205 Social Interaction (4)
216 Social Problems (4)

ELECTIVES (12 Q.H.)
Electives within the department must total 12 credits.

B.A. MINOR
SOCIOLOGY: URBAN &
COMMUNITY STUDIES OPTION
28 Q.H.

REQUIRED COURSES (28 Q.H.)
Soc 150 Human Society (4)
Soc 320 Community Studies (4)
Soc 350 Population Analysis (4),
Soc 421 Urban Sociology (4)
Soc 428 Sociology of Small Towns and
  Regions (4)
Soc 430 Political Sociology (4)
Soc 481 Community Action (4)

299 Field Experience — 4-8 Q.H.
Direct field work experience in social service agencies. Designed to acquaint students with the structure and processes involved in professional social service work. May be repeated once. Arranged. Prerequisite: 150. Offered quarterly. Restricted to Freshmen and Sophomores (Sociology, Social Science and Paralegal majors). P/NC Only.

320 Community Studies — 4 Q.H.
Qualitative analysis of community life using observation, interviewing, and video-taping techniques. Prerequisite: 150. Offered yearly.

334 Sociology of Education — 4 Q.H.
Analysis of the American educational system, with emphasis on the interaction of the system with other social institutions, and consequent social change. Prerequisite: 150, Offered every two years.

350 Population Analysis — 4 Q.H.
Ways in which sociological and demographic factors explain variations in population events (births, deaths, migration). Examination of causes and consequences of current population problems at the regional, national and international levels. Prerequisite: 150. Offered yearly.

376 Introduction to Social Research — 4 Q.H.
An introduction to the elementary tools used in social research. Basic knowledge and skills are developed in theory construction, statistics, research methodology and writing scientific papers. Prerequisite: 150. Limited to 30 students. Offered quarterly.

400G Life Styles of American Cultural and Minority Groups — 2 Q.H.
The study of intergroup relations, American minorities, discrimination and prejudice. For teacher certification. Offered quarterly.

405G Models of Intervention — 4 Q.H.
An in depth study of therapeutic methodologies used in the human service professions. Special emphasis is on social systems and directive models to assist individual clients with behavioral changes. Prerequisite: 402 or consent of instructor. Limited to 20 students. Offered yearly.
168/SOCLIOLOGY & SOCIAL WORK

411G Sociology of Religion - 4 Q.H.
An analysis of religious beliefs, institutions and symbols; their role in society. Prerequisite: 150. Offered every two years.

412G Sexuality in American Society - 4 Q.H.
An extensive review of recent research in the area with specific emphasis on behavioral and cultural aspects of sexuality. Prerequisite: 150. Offered twice yearly.

414G Juvenile Delinquency - 4 Q.H.
In depth analysis of juvenile delinquency, its development, control, treatment, and prevention. Prerequisite: 150. Offered quarterly.

415G Criminology - 4 Q.H.
The criminal, the machinery of justice and its treatment of the criminal and society's reaction to the criminal. Prerequisite: 150. Offered twice yearly.

416G Corrections - 4 Q.H.
An analysis of the juvenile and adult correctional institutions, their functions and philosophies. Prerequisite: 150. Offered twice yearly.

417 Operations and Procedures in Law Enforcement - 4 Q.H.
Operational and procedural requirements in law enforcement including: community relations, communications, testifying and criminal investigation. Prerequisite: 150. Offered yearly.

418G Criminal Law and Procedure - 4 Q.H.
Analysis and study of substantive criminal law and procedure from arrest through sentencing. The criminal process is examined in terms of legal steps and decision-making. Limited to 20 students. Prerequisites: 150, Political Science 310, and Political Science 320. Offered yearly.

419G Social Philosophy - 4 Q.H.
Early ideas about the nature of society studied in relation to the historical and philosophical foundations of modern sociological theory. Prerequisite: 150. Offered every two years.

421G Urban Sociology - 4 Q.H.
Growth, structure and function of the city; spatial patterning, neighborhoods and ethnic groups; social life of the city dweller and urban social change. Prerequisite: 150. Offered every two years.

423G Race Relations and Minority Groups - 4 Q.H.
The social and cultural context of ethnic groups, social processes in organization of race and ethnic relationships. Prerequisite: 150. Offered every two years.

425G Collective Behavior and Social Movements - 4 Q.H.
An examination of a wide range of relatively unstructured group phenomena (fads, crazes, rumors, panics, riots, social movement, revolutions, and public opinion). Prerequisite: 150. Offered every two years.

427G Social Change - 4 Q.H.
Theoretical and empirical models for analyzing social change; examination of interrelated social problems; emphasis on the causes of social change. Prerequisite: 150. Offered every two years.

428G Small Towns and Regions - 4 Q.H.
The study of the social organization of the non-metropolitan towns and regions in the U.S. and selected other countries. Prerequisite: 150. Offered every two years.

430G Political Sociology - 4 Q.H.
The organization of power into political structures and the social dynamics of this process. Prerequisite: 150. Offered every two years.

431G Social Class and Power - 4 Q.H.
Social classes, their membership, and their use of social, economic and political power. Prerequisite: 150. Offered every two years.

434G Medical Sociology - 4 Q.H.
Social factors associated with the incidence and treatment of illness and the social organization of medical institutions and distribution of medical services. Prerequisite: 150. Offered every two years.

435G Family Roles and Relationships - 4 Q.H.
Specific study of family roles, communication patterns, decision-making, and interpersonal relationships. Limited to 25 students. Prerequisite: 312. Offered yearly.

437G The Sociology of Large Scale Organization - 4 Q.H.
Theoretical and empirical models for analyzing complex institutions and bureaucracies. Power and the challenge of social responsibility are examined. Prerequisite: 150. Offered every two years.

440G Social-Cultural Anthropology - 4 Q.H.
The varieties and range of human behavior examined through comparative study of cultures in all parts of the world.

444G North American Indians - 4 Q.H.
A cultural area approach to aboriginal cultures of North America. Effects of cultural contact, contemporary problems of Indian reservations and communities.

448G Indians of the Western Great Lakes - 4 Q.H.
An analysis of Indian cultures in the area around the Western Great Lakes with special emphasis on traditional cultures of the Indians in the Upper Mississippi River region.

450G Sociology of Aging - 4 Q.H.
Growth of the aged population, comparative view of the role of the aged; problems of the aged and proposed solutions. Prerequisite: 150. Offered every two years.

460 Internship - 1, 16 Q.H.
Field placement in a selected human service organization for the purpose of experience and training as a professional human service worker. Prerequisite: Junior or Senior standing in sociology and at least 24 hours of completed coursework in sociology. Arranged. Offered quarterly. P/NC Only.

475G Sociological Theory and Methods - 4 Q.H.
Methods and techniques of research; major emphasis placed on the critical, qualitative and analytical study of social theories. Prerequisites: 150, 376, and Math 208. Limited to 25 students. Offered yearly.

476G Laboratory in Social Research - 4 Q.H.
The conduct of social research; research studies of the college and the community. Prerequisites: B.A. 150, 376, 475, Math 208; B.S. 150, 376, Math 208. Limited to 25 students. Offered twice yearly.
SOCIAL WORK

NOTE: All courses taken for grade only, and should be taken in number sequence.

375 Introduction to Social Work — 4 Q.H.
An introductory course designed to acquaint the student with the historical, philosophical and developmental background of social work practice. Prerequisite: 150. Offered quarterly.

390 Public Welfare — 4 Q.H.
The study of alternative modes of analyzing contemporary public welfare policies and programs emphasizing their usefulness. Prerequisite: 375. Offered yearly.

402G Social Work Methods I — 4 Q.H.
Basic theory, values and beginning skills development necessary in social work intervention at various systems levels. Combines classroom skills and laboratory experiences. Prerequisite: Social Work 375. Limited to 25 students. Offered twice yearly.

403G Law and Social Work — 4 Q.H.
Basic principles of law which pertain to social work practice; organization of courts, legal aid societies; and other problems of a legal nature that affect social work practitioners. Prerequisite: Social Work 375. Limited to 25 students. Offered twice yearly.

406G Social Work Methods II — 4 Q.H.
Assessment, planning, methodology and skill development fundamental to social work intervention. Combines classroom skills and laboratory experiences. Prerequisite: Social Work 402. Limited to 25 students. Offered twice yearly.

408G Social Group Work — 4 Q.H.
Focuses primarily on the practice principles of the social worker's use of group as a means and context for helping individuals. Prerequisite: Social Work 406. Limited to 25 students. Offered yearly.

478G Seminar in Criminal Justice — 4 Q.H.
An integrated examination of the problem areas in the present Criminal Justice system and an analysis of potential solutions. Limited to 20 students. Prerequisites: 150, 414, 415, 416, and 418. Offered yearly.

479G Seminar in Social Work — 1-4 Q.H.
In depth discussion and examination of practice dilemma, issues, and policies in social service agencies. Students should take 460, Internship, before 479G. Prerequisite: 460. Limited to 20 students. Offered yearly.

480G Seminar in Sociology — 1-4 Q.H.
Analysis of selected topics and problems from the sociological perspective (subject to be chosen by instructor and announced before registration). Prerequisite: 16 hours of sociology. Offered on demand.

481G Community Action — 4 Q.H.
The comparison of different community action models, analysis of existing services and planning for future services with special emphasis upon intergroup and intragroup relationships. Prerequisite: Social Work 402 or consent of instructor. Limited to 25 students. Offered yearly.

485 Independent Readings in Sociology — 1-4 Q.H.
Intended to aid the student who has a special area of interest that goes beyond formal course limits. By arrangement. Offered quarterly.

487 Special Projects in Sociology — 1-4 Q.H.
For the student interested in pursuing an independent research project in sociology. By arrangement. Offered quarterly.

488G Agency Administration — 4 Q.H.
Analysis of essential components of budget construction, agency administration and grant writing within public agencies. Prerequisite: Junior or senior standing and permission of instructor. Offered yearly.

515 Current Social Problems — 1-4 Q.H.
An examination of the incidence, causes and treatment of major social problems. Prerequisite: permission of instructor. Offered on arranged basis.

COURSES FOR GRADUATE STUDENTS ONLY

SOCIOLOGY & SOCIAL WORK/169
Special Academic Programs

One-Year and Two-Year Programs

SHORT-TERM PROGRAMS

In addition to baccalaureate and graduate degree programs, Winona State University offers a variety of short-term programs including one-year nondegree programs, two-year associate degree programs and preprofessional sequences in agriculture, dental hygiene, dentistry, mortuary science, optometry, podiatry, general engineering, chemical engineering, fishery and wildlife management, forestry, law, medicine, pharmacy and veterinary medicine. The university also offers a post-baccalaureate (Fifth Year) program in teacher education which is designed for classroom teachers not planning to enter a Master’s Degree program.

One-Year

STENOGRAPHIC PROGRAM
48 Q.H.

REQUIRED STENOGRAPHIC AND BUSINESS COURSES (32 Q.H.)

Students who have not completed beginning typewriting and shorthand courses should enroll in the beginning courses, not those listed below. It will be necessary for beginners to extend their program at least one quarter.

105 Secretarial Accounting (3)
203 Advanced Typewriting (3)
206 Integrated Office Practice (3)
210 Business Machines (2)
224 Advanced Gregg Shorthand (4)

234 Shorthand Transcription (2)
235 Intro to Word Processing & Transcription (3)
333 Business Correspondence (3)
335 Records Management and Filing (3)
340 Word Processing Today/Tomorrow (3)
360 Interpersonal Business Relations (3)

ASSOCIATE IN ARTS CRIMINAL JUSTICE
96 Q.H. (TWO-YEAR DEGREE)

Required to meet General Education Requirements.

REQUIRED COURSES (32 Q.H.)

Soc 150 Human Society (4)
PolSci 220 American National Government (4)
PolSci 221 State and Local Government (4)
PolSci 310 Criminal Justice System (4)
Soc 414 Juvenile Delinquency (4)
Soc 415 Criminology (4)
Soc 416 Corrections (4)
Soc 418 Criminal Law and Procedure (4)

ELECTIVES (64 Q.H.)

Suggested General Education courses for those students entering Law Enforcement:

HPER 108 Karate (1)
HPER 113 Personal Fitness (1)
Bio 117 Human Biology (3)
CTA 118 Introduction to Speech Communication (4)
HPER 209 Beginning Swimming and Drownproofing (1)
HPER 211 Swimming and Diving (1)
HPER 214 Standard First Aid and Personal Safety (3)
Physics 400 Seminars in Environmental Human Services (2-3)
HPER 490 Independent Study in Health and Physical Education (1-3)

For further information contact the Sociology Department.

Two-Year

GENERAL ASSOCIATE IN ARTS CURRICULUM
96 Q.H.

All candidates for the General Associate in Arts must complete 8-16 Q.H. credits of basic requirements consisting of the following courses: 110, 115, English (8), Oral Communication (0-4), Mathematics (0-4)

In addition to these basic requirements, you are required to complete five study areas which consist of Humanities (12 Q.H.); Natural Sciences (12 Q.H.); Social Sciences (12 Q.H.); A Different Culture (8 Q.H.); and Contemporary Living (8 Q.H.). In addition to the General Education requirements select electives to complete the 96 credits required for the degree.
172/SPECIAL ACADEMIC PROGRAMS - PRE-PROFESSIONAL

REQUIRED SECRETARIAL AND
BUSINESS COURSES (47-48 Q.H.)

Students who have not completed
beginning typewriting or shorthand courses
should enroll in the beginning courses, not
those listed below.
105 Secretarial Accounting (3) OR
201 Principles of Accounting I (4)
202 Intermediate Typewriting (3)
203 Advanced Typewriting (3)
206 Integrated Office Practice (3)
210 Business Machines (2)
223 Intermediate Gregg Shorthand (4)
224 Advanced Gregg Shorthand (4)
234 Shorthand Transcription (2)
235 Intro to Word Processing & Transcrip­tion (3)
320 Business Data Processing (4)

PRE-PROFESSIONAL Sequences

PRE-DENTISTRY
135 Q.H.

Pasteur Hall, Room 215 / 457-2095
Dr. Ronald L. Zwonitzer, Advisor

REQUIRED COURSES

This 3-year program with a minimum
of 135 credits has been planned especially
for the student planning to enter the School
of Dentistry at the University of Minnesota;
however, it also meets the minimum re­quirements of at least 90% of the U.S. Den­tal Schools. Students planning to enter Den­tal Schools other than the U of M should consult those catalogs. All pre-dent students
are encouraged to consult with the advisor
to help plan their program.
109 Music (4)
109, 333 Art (7)
110, 115, 120 English (12)
118 Speech (4)
201, 202, 203 Physics (12)
212, 213, 214 Chemistry (15)
215, 216 Math or 220 (5-8)
210, 211 Zoology (8)
207, 208 Botany (8)
290 Biology (5)
350, 351 Organic Chemistry (10)
210, 250 Psychology (8)

Elective Courses should be chosen to
give the student as broad and liberal an ed­ucation as possible within the limits of time
available. Electives from the following ideas are suggested: Sculpturing, Genetics, Analy­tical Chemistry, Accounting, Anthropology, Business, Economics, History, Sociology, and Literature. Students must take the Den­tal Admission Test no later than October of
the Academic year prior to the planned en­trance date into the dental school of choice.

Pre-professional programs are not de­gree programs (e.g. major or minor) at
Winona State University. They are programs
which are preparatory for a degree at another
college or university.

PRE-AGRICULTURE
96 Q.H.

Pasteur Hall, Room 215 / 457-2095
Dr. James Opsahl, Advisor

REQUIRED COURSES (68-70 Q.H.)
110, 115 English (8)
220 CTA (4)
201, 202, 203 Economics (12)
212, 213 General Inorganic Chemistry (10)
215, 216 Math (or 220), 225 Math (8-10)
207, 210, and 208 or 211 Biology (12)

ADDITIONAL REQUIREMENTS
(26-28 Q.H.)

Additional courses to meet require­ments of specific curriculum. (See Advisor).

PRE-DENTAL HYGIENE

Pasteur Hall, Room 215E / 457-2095
Dr. Ronald L. Zwonitzer, Advisor

Program designed to meet preliminary
or basic sciences of the University of Minne­sota, University of Minnesota-Duluth, Man­kato State University, and Normandale Community College. 1 year minimum.
PRE-ENGINEERING

GENERAL (ALL ENGINEERING EXCEPT CHEMICAL)
93-103 Q.H.

Pasteur Hall, Room 114 / 457-2094
Dr. Richards Shields, Advisor

Students without excellent facility in higher algebra are advised to enroll in Math 220 before Math 225. Students must enroll in the physics sequence in the Spring quarter of their freshman year.

RECOMMENDED COURSES (63 Q.H.)
110, 115 English (8)
225, 226, 227 Analytic Geometry and Calculus (15)
330 Differential Equations (4)
221, 222, 223 College Physics I, II, III (15)
225 Statics (4)
345 Thermodynamics (4)
350 Mechanics (4)
212 General Inorganic Chemistry (5)
329 Calculus Functions of Several Variables (5)
330 Differential Equations (4)
104 OR 204 Conservation of the Environment (4)
201 Principles of Economics I (4)
232 Intro to FORTRAN (4)

TECHNICAL ELECTIVES (15-20 Q.H.)
Most fields of engineering recommend:
329 Calculus of Functions of Several Variables (5)
318 Probability and Statistics (4)
328 Electrical Circuits (5)
213 General Inorganic Chemistry (5)
Some fields of engineering recommend:
330 Electronics (5) OR
340 Modern Physics (5)
Consult advisor for specific recommendations.

LIBERAL EDUCATION ELECTIVES
(15-20 Q.H.)
Consult Advisor for specific recommendations.

PRE-CHEMICAL ENGINEERING

Pasteur Hall, Room 312G / 457-2101
Dr. Fred Foss, Advisor

Students should begin chemistry and mathematics sequences their first quarter; students without an excellent facility in higher algebra should start with Math 220 rather than 225.

RECOMMENDED COURSES (94 Q.H.)
110, 115 English (8)
212. 213. 214 Chemistry (15)
225, 226, 227 Analytic Geometry and Calculus (15)
221, 222, 223 Physics (15)
425 Analytical Chemistry (5)
350, 351, 352 Organic Chemistry (15)
329 Calculus Functions of Several Variables (5)
330 Differential Equations (4)
104 OR 204 Conservation of the Environment (4)
201 Principles of Economics I (4)
232 Intro to PASCAL (4)

ELECTIVES
One course each from Art and Music.
For more information consult the pre-chemical engineering advisor.

PRE-FISHERY AND WILDLIFE MANAGEMENT
102-104 Q.H.

Pasteur Hall, Room 215 / 457-2097
Dr. James Opsahl, Advisor

Most students planning to transfer to the University of Minnesota to complete their Forestry program must enroll in a three and a half week summer field session at the University's Lake Itasca Biological Station the summer between their sophomore and junior years.

The following courses must be completed to be eligible.
110, 115 English (8)
220 Communication & Theatre Arts (4)
201, 202 Economics (8)
201, 202, 203 Physics (12) ** ***
207, 208 Biology (8)**
212, 213 General Inorganic Chemistry (10)**
215 Mathematics (OR 220), 208 OR 410*, 222, 231, 232, OR 225, Mathematics (16-18)
116 Geology (5) ***
213 Geography OR
210 Psychology OR
150 Sociology (4)
Humanities courses (except Philosophy) (8)

ELECTIVES (SEE ADVISOR) (11-13 Q.H.)
(Students who have not completed trigonometry in high school must take 216 Math, those who have not had drafting must take 266 Industrial Ed.)

*Offered every other year. **One Biology sequence and either Chemistry or Physics must be taken during Freshman year. *** Students should take Geology 116 or Physics 201 their first fall quarter.
PRE-LAW
Minne Hall, Room 212 / 457-2978
Mr. Roderick Henry, Advisor

University law schools require completion of a B.A. degree or its equivalent before entering law school. It is therefore suggested that interested students follow a program which will provide breadth of knowledge with in-depth study of areas of special interest to the student. It is also suggested that electives be taken in areas not too closely related to a major field of study. Many Pre-law students major in Economics, Business, English, History, or Political Science. Other Departmental Majors also provide an excellent background for law school.

All students interested in Pre-Law are encouraged to contact the Pre-Law advisor concerning questions on majors, minors, grade point averages, Law School Admission tests, Law School Data Assembly Services, and Law Schools in the United States.

REQUIRED COURSES
English, Chemistry, and one Biology Sequence must be taken during the Freshman year.
110, 115, 120 OR 439 English (12)
201, 202, 203 Physics (12)
207, 208 Botany (8)
210, 211 Zoology (8)
212, 213, 214 Chemistry (15)
350, 351, 352 Organic Chemistry (15)
425 Analytical Chemistry (5)
215, 216, (OR 220) 225, 226, Math (15-18)

OTHER COURSES TO COMPLETE REQUIRED CREDITS
Consult with your major advisor for those courses necessary for completion of the B.S. or B.A.

PRE-MEDICINE
135 Q.H.

Pasteur Hall, Room 215 / 457-2095
Dr. Ronald L. Zwonitzer, Advisor

With few exceptions admission into a medical school requires a Bachelor's Degree. Each pre-med student should, therefore, choose an area of interest in which to major. Contrary to popular belief, the major does not have to be in science, as about 45% of the students accepted are non-science majors. Below are the minimum requirements for admission to the University of Minnesota Medical School, Mayo School of Medicine and the 2-year program at Duluth, Minnesota as well as the majority of medical schools in the U.S. Students should consult catalogs of the medical schools of their choice for more specific requirements. The Medical College Admissions Test (MCAT) should be taken no later than October prior to the planned entrance date into medical school.

REQUIRED COURSES
Biology 210, 211; 201 OR 207 (12-13)
Chemistry 212, 213, 214, 350, 351, 352 (30)
English 110, 115 (8)
Economics 201, 202 (8)
Mathematics 225, 226 (10)
Physics 201, 202, 203 (12) OR 221, 222, 223 (15)
Psychology 210 (4)
Sociology 150 (4)

Additional courses may be chosen from the Humanities, Social Science and the specific electives listed below. The University of Minnesota requires 8 Q.H. of artistic expression courses (e.g. art, music, language, theatre). Students not meeting the prerequisites for Math 225 will have to take Math 215 and 216 or Math 220 (5-8 Q.H.). Students exempted from English 110 and 115 may elect higher level English courses or general electives. Health 204, Speech 118 and Chemistry 425 are recommended electives. See advisor for PCAT and pharmacy career information. The PCAT must be taken no later than the February prior to the fall entrance into pharmacy schools.

PRE-MORTUARY SCIENCE

Pasteur Hall, Room 215E / 457-2095
Dr. Ronald L. Zwonitzer, Advisor

Course of study to be designed according to the graduate school chosen by the student. Two years minimum.

PRE-OPTOMETRY

Pasteur Hall, Room 215E / 457-2095
Dr. Ronald L. Zwonitzer, Advisor

Course of study to be designed according to the graduate school chosen by the student. Three years minimum.

PRE-PHARMACY
90 Q.H.

Pasteur Hall, Room 312E / 457-2101
Dr. David J. Rislove, Advisor

REQUIRED COURSES (88-92 Q.H.)
This program meets the requirements of most pharmacy colleges but especially those of the University of Minnesota and the University of Wisconsin. Students plan-
Post-Baccalaureate Program

FIFTH YEAR PROGRAM

The Fifth Year Program in Teacher Education is basically to strengthen the preparation of classroom teachers who do not plan to qualify for a Master’s degree. It emphasizes areas in which the individual is teaching and therefore areas in which he/she already has some competence. Persons who have less than an undergraduate minor may not choose that field for their fifth year major. The Fifth Year Program is available in nearly all teaching fields.

The Fifth Year Program is planned with the students to meet their needs and interests in regard to their major, minor, professional education and supporting fields.

ADMISSION

1. Students seeking admission to the Fifth Year Program must complete an application form and submit to the Office of Graduate Studies. The application form may be obtained from that office in Somsen Hall, Room 228.
2. Students who plan to enter the Fifth Year Program must meet with the director prior to enrollment in the program.
3. Students must hold, or be eligible for, a teacher’s certificate valid in Minnesota or in the state where they teach.
4. Students must hold a bachelor’s degree in teacher education from a college or university accredited by the appropriate regional or national accrediting agency, or by a college recognized by the state university of the state in which the college or university is located. Students who hold a bachelor’s degree from an unaccredited institution will be admitted to the Fifth Year Program after completing at least 15 hours of creditable work.
5. Students must submit two (2) transcripts of all collegiate work to the Graduate Office prior to their first enrollment in the program.
6. Students must have at least one year of teaching experience prior to their admission to the program.

PLANNING THE PROGRAM

1. When students are admitted to the Fifth Year Program, an advisor will be appointed by the Director of the Fifth Year Program from the student’s intended area of concentration.
2. Students must, in conference with their advisor, outline the courses they plan to take to complete the Fifth Year Program requirements. This will be done prior to enrollment in the program. The student may obtain the necessary program forms from the Office of Graduate Studies. The program forms must be prepared in triplicate. After the advisor has endorsed each of the three copies the advisor will forward them to the Office of Graduate Studies for processing and distribution. Any subsequent changes in student programs must have the prior approval of the advisor and the Director of the Fifth Year Program.

REQUIREMENTS

1. A minimum of 45 quarter hours of credit is required for graduation.
2. The student’s curriculum is designed to provide for: (1) the opportunity for the student to explore new fields; (2) the opportunity to place emphasis up-
on continued growth in the areas he/she is teaching and those related to them; and (3) the opportunity for continued study of the fundamental problems in professional education. In keeping with this design, the curriculum shall contain the following specific requirements:

a. Students must earn a minimum of 15 quarter hours in courses related to the area or areas in which they are teaching. As used here, "area" is not necessarily synonymous with a collegiate major or minor, nor is it necessarily restricted to a subject closely related to the major or minor.

b. The remaining 30 quarter hours are free electives. Students will select courses in keeping with each of the aspects of the overall design with approval of their advisor and/or in keeping with the approved program submitted to the Director of the Fifth Year Program.

c. Only courses numbered 300 and above shall be applicable on the Fifth Year Program.

d. Students will normally earn a minimum of 15 hours at the graduate level ("G" courses and 500 level courses).

3. A maximum of 15 credits earned at Winona State University can be accepted at the time of enrollment in the program provided that the work is applicable to the overall program. In no case, however, will the number of credits earned prior to the enrollment, including transfer credits and credits earned at Winona State University, exceed 15.

4. There are no required courses in the Fifth Year Program.

5. The student must earn a grade of "C" or more in a course if the credits of that course are to be counted toward the minimum of 45 quarter hours of credit.

6. A minimum honor point ratio of 2.5 ("C" = 2) is required for completion of the Fifth Year Program, including transferred credits.

7. All credits used in completing the Fifth Year Program must be earned within ten years of the beginning of the program.

8. A thesis or research paper is not required. A student may elect to write a paper for credit.

TRANSFER CREDIT

1. Credits transferable to the Fifth Year Program: A maximum of 15 quarter hours of work may be accepted in transfer from any one of a combination of the following sources: (a) credits earned at a college after the bachelor's degree has been granted by the college but prior to admission to the Fifth Year Program; (b) transfer credits from other accredited colleges or universities taken since the bachelor's degree has been granted.

2. Courses in which the student has earned a grade of less than "C" will not be accepted.

3. Credit earned in courses taken as part of the Master's Degree Program may be transferred to the Fifth Year Program provided that the work is applicable to the student's overall program.

4. Credits earned in courses taken as part of the Fifth Year Program may be transferred to a Master's Degree Program provided that they meet all graduate program requirements.

COMPLETION OF PROGRAM

Upon successful completion of a Fifth Year Program, the student will be issued a transcript showing completion of the program. The student's completion of the Fifth Year Program will be duly recognized at regular graduation ceremonies.
APPENDIXES — ONE-TIME COURSE OFFERINGS — 1980-81

Appendixes

One-Time Course Offerings 1980-81 Academic Year

ART

241 Clay Workshop — 5 Q.H.
An open workshop to encourage interplay between beginning students, advanced and professional ceramists. Wheel-throwing and slab-building techniques will be used to encourage artistic expression. The technical aspects of glaze formulation and kiln-firing will be studied. (Offered Winter Quarter 1981)

244 Painting Workshop: Landscape — 3 Q.H.
An introduction to landscape painting using pastel and acrylic paint. Student will work directly from nature in pastels and translate these works into acrylic paint on canvas. PINC Option. (Offered Spring Quarter 1981)

345 Ceramics Workshop — 4 Q.H.
An opportunity for both beginning and advanced students to work in a ceramics studio with instruction given based upon the needs and experiences of the class. (Offered Spring Quarter 1981)

454 A Survey of Women Artists: 12th Through 20th Century — 4 Q.H.
A lecture/discussion course surveying the history of women artists from the 20th Century to the present; their lives in social, cultural settings—European and American; the nature of their work and its relationship to the major trends of their respective times. PINC Option. (Offered Winter Quarter 1981)

161 Radio Broadcast Production I — 4 Q.H.
The organization, writing, production, directing and performance/presentation of basic radio programs. Prerequisites: 118 and 202. (Offered Winter Quarter 1981)

222 Cross-Cultural Communication — 2 Q.H.
To identify cultural aspects of verbal and nonverbal behavior, attitudes, values, and communication styles; to examine cultural differences that can cause communication problems; to promote understanding between cultures and thereby to make communication more effective. PINC Option. (Offered Winter Quarter 1981)

260 Announcing II — 2 Q.H.
Advanced techniques in radio and television announcing. Instruction and practice in specialized types and styles of continuity. Prerequisite: 160. (Offered Winter Quarter 1981)

261 Radio Broadcast Production II — 4 Q.H.
Advanced exercises and experiences in radio broadcast production. Prerequisite: 160. (Offered Spring Quarter 1981)

317 Informational Speaking: Meetings & Conferences for Business & Professional Person — 4 Q.H.
Course participants will be involved in informational speaking, business meetings, conferences with some activities in conducting meetings and business conferences with topics to be determined by the students. PINC Option. (Offered Spring Quarter 1981)

COMMUNICATION & THEATRE ARTS

160 Announcing I — 2 Q.H.
Basic techniques of radio and television announcing. Instruction and practice in voice and vocal control. The reading of various broadcast materials. Laboratory practice with audio and video tapes. Prerequisites: 118 and 202. (Offered Fall Quarter 1980)

322 Advanced Cross-Cultural Communication — 2 Q.H.
Continuation of CTA-222 with concentration upon culture and communication by stressing theory — in addition, emphasis will be placed upon communication within subcultures in the U.S.A. PINC Option. (Offered Spring Quarter 1981)

360 Communication in the Classroom — 4 Q.H.
This course is designed for teachers K–9. The class will improve the communication skills of teachers who serve as role models for their students. Additionally, the class will provide information on how to foster a healthy communication climate in the classroom, as well as how to teach various communication skills. PINC Option. (Offered Spring Quarter 1981)

411 Play Production for Schools and Community Groups — 3 Q.H.
Theory and practical experience in organizing and executing plays for schools, churches and community groups. Content includes play selection; schedule organization; audition and rehearsal procedures; design and construction of sets, lighting, props and make-up and costumes; publicity, promotion and box office procedures; and sources to consult for help or rental of equipment. PINC Option. (Offered First Summer Session 1980)

COUNSELOR EDUCATION

101 Drug Abuse: Prevention for High School Youth — 2 Q.H.
Partnerships in Prevention will be a comprehensive drug abuse prevention program for high school students. It is a two-week institute preparing students to be peer counselors in a support system back in their home communities. PINC Option. (Offered Second Summer Session 1980)
ENGLISH

421G Tutoring the Writing Student – 4 Q.H.
Practicum in teaching English grammar and mechanics to freshman composition students. Practice in analyzing grammatical constructions; preparing diagnostics, exercise, testing, and teaching materials; and tutoring composition students in the writing lab. Three class meetings each week, plus two hours per week of supervised lab observation/assistance/tutoring. (Offered Fall Quarter 1980)

FOREIGN LANGUAGE – POLISH

211 The Polish-American Experience – 3 Q.H.
This course will study the phenomenon of Polish immigration to the North American continent from the earliest periods to the present, placing particular emphasis upon the period after 1854. The major areas of discussion will be 1) distinct periods of immigration, 2) reasons for coming, 3) conditions encountered, 4) regions selected, 5) retention of old-world culture, 6) adaptation and the problems of change, 7) reception accorded by host country, 8) sociocultural status and aspirations, 9) parish life, 10) outstanding Polish-Americans, 11) later generations' relationship to Polish language and culture, and 12) new ties with Poland and attitudes toward later developments there. (Offered Winter Quarter 1981)

GEOGRAPHY

209 Energy Alternatives – 4 Q.H.
A survey of the energy alternatives for the coming decade. (Offered Spring Quarter 1981)

HEALTH, PHYSICAL EDUCATION & RECREATION

116 Aerobic Dance – 1 Q.H.
An aerobic dancing program to achieve total fitness. Consists of completely choreographed exercise routines set to a variety of music. Participants are taught how to determine their individual training zone for fitness. Pulse rates are monitored to help control the level of intensity or determine whether participants walk, jog, or run through the routines. P/NC Option. (Offered Spring Quarter 1981)

342 Choreography I – 3 Q.H.
A course in the fundamentals and techniques of dance composition. Content: styles and techniques, use of steps, qualities of classical dance, relation with music design, highlighting space, make-up, costumes, and choreographers in dance history. (Offered Winter Quarter 1981)

INTERDISCIPLINARY

Education/English 595 Great River Writing Project Summer Institute – 8 Q.H.
Participants will be practicing public or private school teachers committed to teaching English to their students in their classrooms and will be selected after formal application with supporting documents and interview. They may teach at any level, kindergarten through first year of college, and need not be English or language arts specialists. (Offered Second Summer Session 1980)

MATHEMATICS & COMPUTER SCIENCE

482G Selection of a Personal Computer – 1 Q.H.
Specifications, limitations, capabilities, cost, serviceability, and expandability of different models of personal computers will be considered along with hardware demonstrations by several vendors. Students will have an opportunity to work with different computers. (Offered First Summer Session 1980)

483G Selecting Software for a Personal Computer – 1 Q.H.
Discussion and demonstration of several sample software systems. Cost and legal considerations will be considered. (Offered First Summer Session 1980)

505 Mathematics with Applications – 3 Q.H.
An extension of basic college mathematics to areas that have applications in the economic, behavioral, social, and life sciences. Emphasis on mathematical modeling of real-world problems. (Offered Second Summer Session 1980)

NURSING

395 Practicum in Nursing Fundamentals – 3 Q.H.
Students will develop & demonstrate mastery of basic nursing principles. Emphasis will be placed on correlating previous skill development with on-going clinical experience. Emphasis is on beginning nursing strategies and developing concepts related to nature and nursing practice. (Offered First Summer Session 1980)

PHOTOGRAPHY

245 Television Production for Social Sciences – 1 Q.H.
A one-credit course to give students in the Social Sciences basic skills in operating portable television recording equipment and editing equipment, so as to be able to produce video programs as reports on research. This course must be taken concurrently with Sociology 420. (Offered Spring Quarter 1981)

316 Cinema Arts Seminar – 2 Q.H.
Students will view and research examples of classic film art and experiment with selected production techniques in filming and editing. P/NC Option. (Offered Winter Quarter 1981)

340 Special Problems Seminar: Photography – 4 Q.H.
This seminar will address both aesthetic and technical concerns, and will be team-taught for the benefit of affording the classroom as much experience as possible. P/NC Option. (Offered Fall Quarter 1980)
Standards for Student Citizenship

The university expects you to display honesty and integrity in all phases of your university life. Complete and accurate information is required on admission and personnel records.

Persons who violate university regulations may have disciplinary sanctions imposed by the university including suspension or expulsion under disciplinary policies and procedures of the university and/or may be liable to legal prosecution. Other members of the university community and guests or visitors to the university are subject to university rules and regulations. Violations may result in legal prosecution. Penalties assessed as a result of the violation of any of these regulations shall be imposed according to due process.

The following proscriptions, which were approved by the Student Affairs Committee in December, 1968, and reviewed yearly, are not intended in any way to discourage or restrict freedom of speech, freedom of criticism, expression of grievances, petition for redress of wrongs, real or fancied, so long as rights of freedom of speech and assembly are exercised in a lawful and peaceful manner.

1. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other university activities, including the university's public service functions or of other authorized activities on state owned or controlled property.

2. Obstruction of the free flow of traffic both pedestrian and vehicular on state owned or controlled property.

3. Physical abuse or detention of any person on state owned or controlled property or at any university sponsored or supervised functions, or conduct which endangers the health or safety of any person.

4. Theft of or damage to property of the state or of property of a member of the university community or of a visitor to the university.

5. Unauthorized entry to or use of university facilities, including buildings, grounds and equipment.

6. Violation of university established policies or regulations, including regulations in publications pertaining to student organizations, students, faculty administrative staff, non-academic employees and visitors' conduct, the use of university facilities, or procedures concerning the time, place, and manner of public expression.

7. Violation of rules governing residence in state owned or controlled property.

8. Use, possession, or distribution of narcotic or illegal drugs on state owned or controlled property, except as expressly permitted by law.

9. Failure to comply with directions of university officials and any law enforcement officers acting in performance of their duties and to identify oneself to these persons when requested to do so. University officials include resident hall assistants, residence hall directors, student food service managers, and all other personnel delegated supervisory responsibility by a university official.

10. Illegal or unauthorized possession or use of firearms, explosives, dangerous chemicals or other weapons on state owned or controlled property.

11. Dishonesty, such as knowingly furnishing false information to the university.

12. Forgery, alteration, or use of university documents, records, or instruments of identification with intent to defraud.

13. Disorderly conduct, breach of the peace, and aiding, abetting, or procuring another to breach the peace on state owned or controlled property or at university sponsored or supervised functions.

14. Solicitation, including the distribution of advertisements and samples, on university premises without prior authorization by the appropriate university official.

15. No pets are allowed in academic buildings at any time, except with approval by the Vice President for Academic Affairs. Permission in non-academic buildings must come from the Vice President for Student Affairs.

The following regulations are in accord with the above proscriptions:

1. In accordance with Minnesota statutes and university rules, no person may possess or use alcoholic beverages on university property.

2. Minnesota statutes and university rules prohibit gambling and the selling of chances.

3. Students are expected to meet their financial obligations to the university promptly and fully. Failure to do so may result in the deferment of registration procedures until all financial obligations are satisfied.

4. The university disapproves of all forms of hazing.

5. Tampering with fire equipment or setting off a false alarm is a felony under state law and will result in disciplinary action.
ENGLISH

421G Tutoring the Writing Student - 4 Q.H.
Practicum in teaching English grammar and mechanics to freshman composition students. Practice in analyzing grammatical constructions; preparing diagnostics, exercise, testing, and teaching materials; and tutoring composition students in the writing lab. Three class meetings each week, plus two hours per week of supervised lab observation/assistance/tutoring. (Offered Fall Quarter 1980)

FOREIGN LANGUAGE - POLISH

211 The Polish-American Experience - 3 Q.H.
This course will study the phenomenon of Polish immigration to the North American continent from the earliest periods to the present, placing particular emphasis upon the period after 1854. The major areas of discussion will be 1) distinct periods of immigration, 2) reasons for coming, 3) conditions encountered, 4) regions selected, 5) retention of old-world culture, 6) adaptation and the problems of change, 7) reception accorded by host country, 8) sociocultural status and aspirations, 9) parish life, 10) outstanding Polish-Americans, 11) later generations' relationship to Polish language and culture, and 12) new ties with Poland and attitudes toward later developments there. (Offered Winter Quarter 1981)

GEOGRAPHY

209 Energy Alternatives - 4 Q.H.
A survey of the energy alternatives for the coming decade. (Offered Spring Quarter 1981)

HEALTH, PHYSICAL EDUCATION & RECREATION

116 Aerobic Dance - 1 Q.H.
An aerobic dancing program to achieve total fitness. Consists of completely choreographed exercise routines set to a variety of music. Participants are taught how to determine their individual training zone for fitness. Pulse rates are monitored to help control the level of intensity or determine whether participants walk, jog, or run through the routines. P/NC Option. (Offered Spring Quarter 1981)

342 Choreography I - 3 Q.H.
A course in the fundamentals and techniques of dance composition. Content: styles and techniques, use of steps, qualities of classical dance, relation with music design, highlighting space, make-up, costumes, and choreographers in dance history. (Offered Winter Quarter 1981)

INTERDISCIPLINARY

Education/English 595 Great River Writing Project Summer Institute - 8 Q.H.
Participants will be practicing public or private school teachers committed to teaching writing in their classrooms and will be selected after formal application with supporting documents and interview. They may teach at any level, kindergarten through first year of college, and need not be English or language arts specialists. (Offered Second Summer Session 1980)

MATHEMATICS & COMPUTER SCIENCE

482G Selection of a Personal Computer - 1 Q.H.
Specifications, limitations, capabilities, cost, serviceability, and expandability of different models of personal computers will be considered along with hardware demonstrations by several vendors. Students will have an opportunity to work with different computers. (Offered First Summer Session 1980)

483G Selecting Software for a Personal Computer - 1 Q.H.
Discussion and demonstration of several sample software systems. Cost and legal considerations will be considered. (Offered First Summer Session 1980)

505 Mathematics with Applications - 3 Q.H.
An extension of basic college mathematics to areas that have applications in the economic, behavioral, social, and life sciences. Emphasis on mathematical modeling of real-world problems. (Offered Second Summer Session 1980)

PHOTOGRAPHY

245 Television Production for Social Sciences - 1 Q.H.
A one-credit course to give students in the Social Sciences basic skills in operating portable television recording equipment and editing equipment, so as to be able to produce video programs as reports on research. This course must be taken concurrently with Sociology 420. (Offered Spring Quarter 1981)

316 Cinema Arts Seminar - 2 Q.H.
Students will view and research examples of classic film art and experience with selected production techniques in filming and editing. P/NC Option. (Offered Winter Quarter 1981)

340 Special Problems Seminar: Photography - 4 Q.H.
This seminar will address both aesthetic and technical concerns, and will be team-taught for the benefit of affording the classroom as much experience as possible. P/NC Option. (Offered Fall Quarter 1980)
The president of the university delegates the responsibility for student disciplinary counseling to the Office of Student Affairs and to the Student Judicial Committee. (The president of the Student Senate or his/her designee attends these meetings ex officio.)

When charged with a violation(s) of university regulations or state statutes, students will meet with a university official or request a hearing before the Student Judicial Committee.

It is the function of the Student Judicial Committee to recommend to the Vice President of Student Affairs disciplinary sanctions and the citizenship status of the student. Generally, the disciplinary sanctions may include one of the following procedures:

**Acquittal** (Administrative or Committee Recommendation) may find in favor of the student or feel that the conduct does not warrant further action.

**Warning** (Administrative or Committee Recommendation) consists of counseling. An interview will be conducted by a member of the Student Affairs Office staff. The student will remain in "good standing," but to disregard this warning could result in further action.

**Probation** (Administrative or Committee Recommendation) is a status imposed on a student because of sub-standard conduct on campus. While this status exists, the student is retained at the university subject to periodic re-evaluation. If the probationary status was imposed by an administrative officer of the university, the student has the right to appeal this decision to the Student Judicial Committee. A statement reading "see disciplinary record" may be attached to the student's permanent record. The attached notation will be removed at the time of graduation.

**Suspension** (Committee Recommendation) is an involuntary separation of the student from the university; a time limit is established and standard withdrawal procedures will be followed. All rights and privileges of student status are withdrawn. Temporary notation of suspension will appear on the student's record, subject to removal at the time of graduation.

**Expulsion** (Committee Recommendation) is an involuntary separation of the student from the university; separation is permanent. Standard withdrawal procedures will be followed. This action becomes a permanent part of the student's record.

**NOTE:** Students may appeal with or without counsel in any action affecting their status by filing a request in writing with the Student Judicial Committee within ten days. Any student suspended from Winona State University for improper conduct for a period longer than one year or expelled may appeal to the State University Board at the first regular meeting thereafter held subsequent to the time such student is suspended or expelled, by giving the president of the university ten days notice in writing of intention to appeal. Upon hearing the final appeal, suspension or expulsion may be confirmed or overruled by action of the State University Board.
Administration

Office of the President

Robert A. Hanson, President
W. R. Kim Nelson, Executive Assistant to the President
Robert A. DuFresne, Distinguished Service Professor
Gary W. Janikowski, Director, Personnel Management

Office of the President for Academic Affairs

Helen Popovich, Vice President for Academic Affairs
Susan J. Day, Assistant Vice President for Academic Affairs
Ronald Butterfield, Registrar
David Forsythe, Director of Computer Services
Robert E. Froelich, Dean of Regional Campus
Edward T. Jacobsen, Director of Libraries
Jonathon Lawson, Dean of Liberal Arts
Wesley J. Matson, Dean of Education
James Spear, Director of Audiovisual Services
Dennis A. Tanner, Dean of Business & Industry
Dan L. Willson, Dean of Natural & Applied Sciences/Graduate Studies
Rosemary Langston, Associate Dean of Nursing

Office of the Vice President for Student Affairs

John Kane, Vice President for Student Affairs
Diane Dingfelder, Assistant to Vice President for Student Affairs
Calvin Winbush, Administrative Assistant to the Vice-President for Student Affairs
Paula Aussem, Sheehan Residence Hall Director/Security Coordinator
Charles Bentley, Director of Counseling Center
John Ferden, Director of Housing
Warren Haesly, M.D., Director of Student Health Services
Robert Lietzau, Director of Student Financial Aid
Terri Markos, Director of International Student Program
James Mootz, Director of Admissions
Scott Peak, Assistant Director of Housing/Presntiss-Lucas Residence Hall Director
Gavin Strand, Director of Student Placement
Christina L. Thomas, Special Services Program Coordinator
Douglas Van Antwerp, Morey-Shepard Residence Hall Director
Charles Zane, Director of Student Union/Student Activities

Office of Development and University Relations

Harry Gianneschi, Vice President for University Relations
Linda Wood, Assistant Director of Development
Richard Davis, Director of Publications
Gary MacDonald, Photojournalist
John Michalowski, Print Shop Manager
Janet Sill, Director of News and Information/Affirmative Action Officer

State University Board

Garry D. Hays, Chancellor, 550 Cedar Street, St. Paul 55101
Arnold C. Anderson, P. O. Box 512, Montevideo 56265
Howard Casmey, Ex-Officio, Commissioner of Education, 712 Capitol Square Building, St. Paul 55101
Dale Johnson, Owatonna Tool Company, 655 Eisenhower Drive, Owatonna 55060
Paul O. Johnson, 115 Outer Drive, LeSueur 56058
Lee Krueger, 10044 Nicollet Ave., So. #204, Bloomington 55420
Ben Miller, Miller, McDonald, Erickson & Moller, P.O. Box 486, Bemidji 56601
Gin Peterson, Route 3, Mora 55051
Rod Searle, RR1, Box 44, Waseca 56093
**Administration/Faculty**

*Brian Aldrich, Associate Professor, Sociology; A.B., Lewis and Clark College; M.S., Ph.D., University of Wisconsin—Madison; 1976—*

Carlis M. Anderson, Assistant Professor, Music; B.F.A., University of South Dakota; M.M.E., University of Colorado; 1963—

*Dwight L. Anderson, Professor, Biology; B.A., Peru State College; M.A., Ph.D., University of South Dakota; Adjunct Staff of Metropolitan Medical Center, United Hospitals, St. Francis Hospital, Northwestern Hospital; 1966—*

Janice Andrews, Assistant Professor, Sociology; B.A., Augsburg College; M.S.W., Washington University; 1981—

Paula A. Aussem, Residence Hall Director/Security Coordinator; B.S., Winona State University; 1980—

Norman Baron, Assistant Professor, Geography; B.S., University of Wisconsin—Milwaukee; M.A. Michigan State University; 1965—

*George E. Bates, Jr., Professor, History; A.B., University of Nebraska; A.M., University of Michigan; Ph.D., University of Illinois; 1970—*

*Thomas N. Bayer, Professor, Geology and Earth Science; B.A., Macalester College; M.S., Ph.D., University of Minnesota; 1964—*

*Richard C. Behnke, Professor, Health, Physical Education and Recreation; B.S., Winona State University; M.A., Northern Michigan University; P.E.D., Indiana University; 1969—*

*Archie F. Beighley, Professor, Education; B.S., University of Wisconsin-Platteville; M.S., University of Wisconsin—Madison; Ed.D., University of Idaho; 1967—*

*Sandra Bennett, Associate Professor, English/Mass Communications; B.A., Brigham Young University; M.A., Ph.D., University of Utah; 1976—*

Charles Bentley, Director, Counseling Center; B.A., Macalester College; M.S., Winona State University; March 1968—

Audrey Berndt, Instructor, Reference Librarian; B.A., Taylor University; M.A., University of Minnesota; 1969—

*Jean Billman, Assistant Professor, Education; B.A., Wittenberg University; Ed.M., Ed.D., Temple University; 1976—*

Joell W. Bjorke, Assistant Professor, Business Administration & Economics; B.S., St. Cloud State University; J.D., William Mitchell; 1981—

Norma J. Blankenfeld, Instructor, Nursing; B.S.N., University of Minnesota; January, 1979—

*Danning Bloom, Associate Professor, Physics; B.A., Illinois Wesleyan University; Ph.D., University of Colorado—Boulder; 1976—*

*George Bolon, Associate Professor, Physics; B.S., M.S., Oregon State University; Ph.D., University of Utah; 1968—*

Darlene Bracegirdle, Associate Professor, Nursing; B.S.N., Carroll College; M.S.N., Marquette University; 1978—

*David Bratt, Associate Professor, Communication and Theatre Arts, B.A., Calvin College; M.A., University of Iowa; Ph.D., University of California—Santa Barbara; 1976—*

Adolph Bremer, Instructor, Mass Communications (part-time); B.A. University of Iowa; M.S. Winona State University; 1956—

Brian Briggs, Assistant Professor, Business Administration and Economics; B.S., University of Connecticut; M.S., Northern University; March 1979—

James Bromeland, Assistant Professor, Political Science; B.A., M.S., Mankato State University; 1971—

*Raymond J. Brooks, Assistant Professor, Photography; B.S. Valley City State College; M.S., Moorhead State University; 1965—*

*Ervin G. Bublitz, Professor, Sociology; B.A., St. Mary's College; B.S., M.S., Winona State University; Ph.D., University of Utah; 1970—*

*Gary Bunce, Professor, Mathematics & Computer Science; B.S., North Dakota State University; M.A., Ph.D., University of New Mexico; 1971—*

*Ronald Butterfield, Registrar; A.A., Rochester Community College; B.S., M.S., Winona State University; Ed.D., Ball State University; 1967—*

*Seymour Byman, Professor, History; B.A., University of Illinois; M.A., Roosevelt University; Ph.D., Northwestern University, 1970—*

Glenn A. Carlson, Associate Professor, Education; B.S., M.Ed., University of Wisconsin—Superior; 1967—

*Roger Carlson, Professor, Geography; B.A., M.A., University of California, Los Angeles; Ph.D., University of Nebraska—Lincoln; 1967—*

Cynthia Carver, Instructor, Communication & Theatre Arts; B.A., Concordia College - Moorhead; M.A., Bradley University; 1979—

*George M. Christensen, Professor, Counseling Center; Psychology; B.S., M.A., Ph.D., University of Minnesota; 1955—*

Pauline Christensen, Instructor, Regional Campus; B.S., Iowa State University; M.S., Winona State University; 1970—72; 1973—

Ruth Clottey, Assistant Professor, Business Administration and Economics; B.A., Ohio Northern University; M.B.A., Bowling Green University; 1979—
*Bruce Kent Cowgill, Professor, English; B.S., Midland College; M.A., Ph.D., University of Nebraska; 1970–

Donald W. Cramer, Assistant Professor, Industrial Education; B.S., Winona State University; M.A., Ball State University; 1970–

*David Dapkus, Associate Professor, Biology; B.S., M.S., Ph.D., University of Minnesota; 1974–

Betty L. Darby, Assistant Professor, Nursing; B.S., University of Minnesota; M.S., Winona State University; M.S.N., University of Wisconsin-Madison; 1972–

Helen Davis, Assistant Professor, Nursing; B.S.N., St. Xavier College; M.S.P.H., University of Minnesota; 1979–

Richard Davis, Director of Publications; B.S., Winona State University; 1971–

Susan J. Day, Assistant Vice President for Academic Affairs; B.S., University of Wisconsin-LaCrosse; M.S., Winona State University; Certificate of Advanced Study, Northern Illinois University; 1957–

Norman J. Decker, Vice President for Administrative Affairs; B.A., Winona State University; January, 1968–

*Emilio DeGrazia, Professor, English; B.A., Albion College; M.A., Ph.D., Ohio State University; 1969–

Douglas Delano, Instructor, Industrial Education; B.S., Winona State University; November, 1976–

Russell F. Dennison, Instructor, Library; B.A., Central College; M.A., University of Wisconsin-Madison; December, 1980–

Diane Dingfelder, Assistant to the Vice President for Student Affairs; B.A., Northern Illinois University; M.S., University of Wisconsin-LaCrosse; May, 1975–

Norma Dison, Assistant Professor, Nursing; B.A., Valparaiso University; M.A., M.S.N., University of Minnesota; December, 1975–

*John F. Donovan, Professor, Geology and Earth Science; B.Sc., St. Francis Xavier University; M.S., University of Iowa; Ph.D., Cornell University; 1968–

*Marjorie Dorner, Associate Professor, English; B.A., St. Norbert College; M.A., Marquette University; Ph.D., Purdue University; 1971–

*Mary Ann Dressel, Professor, Chemistry; B.S., Elmhurst College; M.S., Ph.D., Illinois Institute of Technology; January, 1971–

*Robert A. DuFresne, Distinguished Service Professor; B.S., St. Cloud State University; M.Ed., University of Colorado; Ed.D., University of North Dakota; January 1967–

*Glenn F. Dukes, Professor, Industrial Education; B.S., M.S., Ph.D., Iowa State University; 1969–

*Wayne Dunbar, Associate Professor, Chemistry; B.A., Franklin College; M.A., Purdue University; Ph.D., Northern Illinois University; 1976–

*James Howard Eddy, Associate Professor, Political Science; B.S., St. John’s University; M.A., Ph.D., University of Oklahoma; 1965–

*Everett Eiken, Professor, Counselor Education; B.A., Luther College; M.S., Winona State University; Ed.D., University of Northern Colorado; 1966–

*Shirley Eiken, Professor, Business Education and Office Administration; B.A., Luther College; M.S., Winona State University; Ed.D., University of Northern Colorado; 1966–

*Ahmed El-Afandi, Professor, Political Science; B.Com., University of Alexandria; M.A., Ph.D., University of Missouri-Columbia; 1968–

Mickey Ellenbecker, Assistant Professor, Sociology; B.A., Mankato State University; M.S.W., University of Wisconsin-Madison; 1976–

David B. Ellis, Assistant Professor, Business Administration and Economics; B.S., University of Tennessee; M.B.A., Southern Illinois University; 1979–

*Joseph P. Emanuel, Professor, Biology; B.S., University of Minnesota-Duluth; M.S., University of Minnesota; 1949–

*William H. Emmons, Associate Professor, Mathematics & Computer Science; B.A., Luther College; M.S., Winona State University; M.N.S., University of Idaho; 1961–

Donald English, Assistant Professor, Business Administration & Economics; B.S., Bucknell University; M.B.A., Indiana University; 1977–

James R. Erickson, Instructor, Regional Campus; B.S., M.S., Winona State University; March, 1974–

*Wayne C. Erickson, Professor, Education; B.A., Concordia College-Moorhead; M.S., North Dakota State University; Ed.D., Northern Arizona University; Ed.D., University of North Dakota; 1967–

John C. Ferden, Director of Housing; B.A., Luther College; 1974–

*David L. Ferris, Assistant Professor, Regional Campus; B.S., A.M., Indiana State University; D.A.G., Michigan State University; Ed.D., Indiana University; March, 1981–

*Donald Fick, Professor, Chemistry; B.S., University of Wisconsin-River Falls; M.S.T., University of North Dakota; Ed.D., Oregon State University; 1960–

*Lavonne Fiererick, Instructor, Health, Physical Education and Recreation and Director, Women’s Athletics; B.S., St. Cloud State University; M.S., Southern Illinois University; 1969–

*Joseph Foegen, Professor, Business Administration and Economics; B.B.A., M.B.A., Ph.D., University of Wisconsin-Madison; 1958–

*Frederick W. Foss, Jr., Professor, Chemistry; B.S., University of Michigan; M.S., University of Minnesota; Ph.D., University of the Pacific; December 1957–

*Otto J. Frank, Professor, Education; B.S., Dickinson, State College; M.S.Ed., Ed.D., University of North Dakota; 1969–

*Calvin R. Fremling, Professor, Biology; B.S., M.S., St. Cloud State University; Ph.D., Iowa State University of Science and Technology; 1959–

Robert E. Froelich, Dean of Regional Campus; B.S., M.E.D., Xavier University; M.A., Miami University; Ph.D., Leeds University; 1979–

*Walter W. Funmaker, Instructor, Sociology; B.A., California State College - Los Angeles; M.A., University of Minnesota; March, 1978–

Vivian Fusillo, Assistant Professor, Communication and Theatre Arts; B.A., Marymount College; M.A., Stephen F. Austin State College; 1968–

*Greg H. Gardner, Assistant Professor, Communication and Theatre Arts; B.A., M.A., Ph.D., Bowling Green State University; 1980–
*Judy M. Gernander, Associate Professor, Business Administration and Economics; B.A., Mankato State University; J.D., University of Minnesota Law School; 1970—

*Harry R. Gianneschi, Vice President, University Relations/Alumni; B.A., M.A., Western Illinois University; Ph.D., Bowling Green State University; August 1978—

Michael Gieske, Assistant Professor, Business Administration and Economics; B.S., Iowa State University; 1972—

*Kenneth L. Gorman, Assistant Professor, Business Education and Office Administration; B.S., M.S., Ed.D., Northern Illinois University; 1980—

*George Grangaard, Professor, Education; B.S., Wisconsin State University–LaCrosse; M.S., Winona State University; Ed.D., Ball State University; 1958—

Marceline C. Gratiaa, Associate Professor, Mathematics & Computer Science; B.S., M.S., St. Louis University; 1961-65; 1967—

*Paul H. Grawe, Associate Professor, English; B.A., Carleton College; M.A., Ph.D., Northwestern University; 1968—

*Gary Grob, Associate Professor, Health, Physical Education and Recreation; B.S., M.S., Winona State University; Ph.D., University of Utah; 1965—

*Robert Gunner, Associate Professor, Health, Physical Education and Recreation; B.S., M.A., Michigan State University; P.E.D., Indiana University; 1962—

Robert W. Guthrie, Instructor, English; B.A., Amherst College; M.A., University of California - Los Angeles; 1981—

Warren Haesly, M.D., University Student Health Physician; M.D., Northwestern University; 1968—

*David E. Hamerski, Professor, Physics; B.S., St. Mary's College; M.S., University of Minnesota; Ph.D., Washington University; St. Louis 1961—

*Robert A. Hanson, President of the University; B.S., M.S., Ph.D., University of Minnesota; August, 1977—

Richard D. Hastings, Instructor, Head Catalog Librarian; B.S., M.S.L.S., Wayne State University; 1967—

*Timothy Hatfield, Assistant Professor, Counselor Education; A.B., Harvard College; Ed.M., Harvard Graduate School of Education; Ph.D., University of Minnesota; 1980—

Marjorie P. Haugen, Assistant Professor, Mathematics & Computer Science; B.S., Mount Union College; M.A., University of Minnesota; 1971—

*Robert Hayden, Assistant Professor, Mathematics & Computer Science; B.S., Massachusetts Institute of Technology; M.S., University of Connecticut; Ph.D., Iowa State University; 1981—

Roderick Henry, Associate Professor, History; B.S., M.A., Ball State University; 1963—

Walter R. Hinds, Jr., Associate Professor, Music; B.P.S.M., Capitol University; B.S., M.S., Juilliard School of Music; 1964—

Thomas L. Hirsch, Assistant Professor, Photography; B.S., University of Wisconsin–LaCrosse; M.S., Stout State University; 1967—

*Ruth Hopf, Professor, Business Education and Office Administration; B.S., Winona State University; M.A., University of Northern Colorado; Ph.D., University of Iowa; 1956—

Marian Hopkins, Instructor, Regional Campus; B.A., Eastern Michigan University; M.A., University of Michigan; 1973—

*Richard Hopkins, Associate Professor, Geography; B.A., Eastern Michigan University; M.A., University of Michigan; 1957—

Annette Horton, Instructor, Nursing; B.S.N., College of Saint Teresa; 1977—

*Daniel B. Hoyt, Professor, History; B.A., Dakota Wesleyan University; M.A., Ph.D., University of Iowa; 1951—

Henry E. Hull, Associate Professor, History; B.S., Bemidji State University; M.A., University of Minnesota; 1961—

Robert Hungerford, Associate Professor, Music; B.S., M.S., Juilliard School of Music; Conservatoire National Superieure De Musique, Paris; 1966—

*Donald J. Hunter, Associate Professor, Business Administration and Economics; B.S., University of Illinois; M.S., Ph.D., Iowa State University; 1974—

Frederic Ihrke, Assistant Professor, Business Administration & Economics; J.D., William Mitchell College of Law; 1981—

*Edward T. Jacobsen, Professor, Director of University Libraries; A.B., Ripon College; M.A., University of Oklahoma; M.A., University of Wisconsin–Madison; 1953—

Gary W. Janikowski, Director, Personnel Management; B.A., M.S., Winona State University; August 1975—

*Carol Jefferson, Associate Professor, Biology; B.A., St. Olaf College; Ph.D., Oregon State University; 1976—

*Herbert N. Johnson, Professor, Mathematics & Computer Science; B.S., Moorhead State University; M.S., New Mexico Highlands University; Ed.D., University of Oregon; 1966—

Stephen Juare, Instructor, Health, Physical Education and Recreation, Director of Intramurals Programs; B.S., M.S., Winona State University; 1975—

Marcia Justic, Assistant Professor, Nursing; B.S.N., College of Saint Teresa; M.S.N., Indiana University; 1976-77; 1980—

Susan Kallestad, Instructor, Education; B.S., University of Minnesota; 1980—

*John Kane, Vice President for Student Affairs; B.S., University of Wisconsin–La Crosse; M.S., Winona State University; Ed.D., Oregon State University; 1960—

Kathleen A. Kane, Instructor, English; B.A., M.A., University of Minnesota; 1981—

John Terry Kautz, Assistant Professor, Business Administration & Economics; B.A., Macalester College; M.B.A., University of Iowa; 1978—

*James Keill, Professor, Education; A.B., Doane College; M.A., University of Northern Colorado; Ed.D., University of Nebraska; 1968—

Robert Keister, Assistant Professor, Health, Physical Education and Recreation; B.A., Wartburg College; M.S., Winona State University; 1961—

Betty Kelley, Instructor, Health, Physical Education & Recreation; B.A., Luther College; M.Ed., University of Minnesota; 1981—
Darlene Kern, Assistant Professor, Nursing; B.A., M.S., Winona State University; M.S.N., University of Wisconsin-Madison; 1978—

*Robert King, Associate Professor, Music; B.S.Ed., Ohio State University; M.M., Eastman College; Ed.D., University of Illinois; 1980—

*Wayne J. Kirk, Professor, Education; B.S., University of Wisconsin-LaCrosse; M.Ed., University of Illinois; Ph.D., University of Minnesota; 1964—

*Eldon A. Koplin, Associate Professor, Education; B.A., M.A., University of South Dakota; Ed.D., University of Northern Colorado; 1970—

Judith Kopper, Assistant Professor, Nursing; B.S., M.S., University of Washington-Seattle; M.S.N., University of Minnesota; November, 1978—

Sue Ann Kuchenmeister-Mullen, Assistant Professor, Health, Physical Education and Recreation; B.S., M.S., Winona State University; 1970—

Rosemary Langston, Associate Dean, Nursing; B.S.N., University of Buffalo; M.S.N., Texas Woman’s University; Ed.D., University of Minnesota; 1978—

*Jonathon Lawson, Dean of Liberal Arts; B.F.A., M.A., Ph.D., Texas Christian University; August, 1981—

Thomas Lee, Assistant Professor, Business Administration & Economics; B.S., M.B.A., Mankato State University; Certified Public Accountant; 1973–74; 1978—

John W. Lewis, Professor, Psychology; B.A., University of Iowa; M.S., Southern Illinois; Ph.D., University of Iowa; 1963–

Robert Lietzau, Director of Financial Aid; B.S., M.S., Winona State University; 1967—

Joyce Locks, Associate Professor, Health, Physical Education and Recreation; B.S., St. Cloud State University; M.A., University of Northern Colorado; 1962—

Lee Loerch, Assistant Director of Admissions/Veterans Counselor; B.S., Winona State University; M.S., University of Wisconsin-LaCrosse; 1978—

Louise Loftness, Assistant Professor, Nursing; B.S.N., Corpus Christi State University; M.S.N., University of Texas; 1981—

Major Russell Lohmann, Military Science; B.S., University of Nebraska-Omaha; 1980—

Orval A. Lund, Jr., Assistant Professor, English; B.A., Moorhead State University; M.A., University of Arizona, 1968—

Maurice J. McCauley, Associate Professor, Physics; B.S., University of Wisconsin-LaCrosse; M.S., Arizona State University; 1964—

*Richard McCluer, Associate Professor, Music; B.A., Westminster College; M.F.A., Princeton University; 1959—

*Wilfred Grant McKenzie, Assistant Professor, Art; B.S., M.S., M.F.A., University of Wisconsin-Madison; 1966—

*Leland McMillen, Professor, Education; B.S., M.S., Winona State University; Ed.D., University of South Dakota; 1968—

Gary H. MacDonald, Assistant Professor, Mass Communications and Photo-Journalist, B.F.A., M.S., Wayne State University; 1978—

Terry Lynn Markos, Director, International Students (part-time); B.A., University of Wisconsin-Madison; M.S., University of Wisconsin-LaCrosse; 1971—

*Dwight H. Marston, Associate Professor, Health, Physical Education and Recreation; Director of Men’s Athletics; B.A., University of Northern Iowa; M.A., University of Iowa; P.E. Director, Indiana University; Ed.D., Ball State University; 1966—

Dennis Martin, Assistant Registrar; B.A., Eureka College; M.S., Illinois State University; 1975—

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