

*Winona State
University*

UNDERGRADUATE CATALOG
1997-98

Winona, Minnesota

September, 1997

STUDENT AFFAIRS - STUDENT SERVICES
1997-98
WINONA STATE UNIVERSITY

<u>DEPARTMENT/TITLE</u>	<u>NAME</u>	<u>PHONE</u>	<u>OFFICE</u>
<u>STUDENT AFFAIRS</u>			
Dean of Student Affairs	Calvin L. Winbush (E.)	457-5300	130 Kryzsko Commons
Director of Career Planning & Placement	Vicki Decker (M)	457-5340	110 Gildemeister Hall
Director of Counseling & Health Services	Charles L. Bentley (M)	457-5330	130 Gildemeister Hall
Director of Child Care Center	Barbara Nagel (M)	453-2560	367 Winona St.
Director of Food Service	Mary Simota	457-5220	Kryzsko Commons
Director of Housing & Residence Life	John Ferden (M)	457-5305	130 Kryzsko Commons
Director of International Students	Terri Markos (M)	457-5303	130 Kryzsko Commons
Director of Intramurals	Mark Bambenek (M)	457-5528	137 Memorial Hall
Director of Parking Services & Conduct Officer	Shirley Mounce (C6)	457-5062	Sheehan Hall
Director of Security	Don Walski (M)	457-5555	Sheehan Hall
Director of Student Union/ Student Activities	Joe Reed (M)	457-5312	Kryzsko Commons
Administrative Asst/Office Mgr.	Bonnie L. Woodford (Confidential/Non-Represented)	457-5300	130 Kryzsko Commons
<u>CHILD CARE CENTER</u>			
Teacher	Scott Smedberg (M.)	453-2560	367 Winona St.
Teacher	Maria Langowski (M.)	452-8221	367 Winona St.
Teacher	Karen Holte (M.)	452-8221	367 Winona St.
<u>COUNSELING CENTER</u>			
Counselor	Elizabeth Burke (IFO)	457-5330	132 Gildemeister Hall
Counselor	Patricia Ferden (IFO)	457-5330	132 Gildemeister Hall
Office Secretary	Joanne Beck (C6)	457-5330	132 Gildemeister Hall
<u>CULTURAL DIVERSITY</u>			
Recruiter/Advisor	Cecil Adams (M.)	457-5595	122 Kryzsko Commons
Office Secretary	Kathy Lande (C6)	457-5595	122 Kryzsko Commons
<u>HEALTH SERVICE</u>			
Medical Director	Dr. Wayne Kelly	457-5160	Library Annex
Coordinator/RN Supervisor	Dixie Sokolik (MMA)	457-5160	Library Annex
Nurse Practitioner	Jan Seiger(IFO)	457-5160	Library Annex
Nurse Practitioner	Jan Wilke(IFO)	457-5160	Library Annex
Registered Nurse	Karen Hastings (MNA)	457-5160	Library Annex
Registered Nurse	Peggy Meyers (MNA)	457-5160	Library Annex
Registered Nurse	Pat Przybylski (MNA)	457-5160	Library Annex
Registered Nurse	Penny Tenseth (MNA)	457-5160	Library Annex
Lab Technologist	Linda Schwarze (MAPE)	457-5160	Library Annex
Dietician	Brenda Koth (MAPE)	457-5160	Library Annex
Medical Records Clerk	Kristi Schweitzer (C6)	457-5160	Library Annex

HOUSING & RESIDENCE LIFE

Residence Hall Director	Licinia Barrueco	457-5324	Sheehan Hall
Residence Hall Director	Marc Spieler (M.)	457-5320	Prentiss/Lucas Hall
Residence Hall Director	Ryan Yunkers (M.)	457-5495	Morey/Conway/Richards
Residence Hall Director	Darrin Dahl (M.)	453-2555	Lourdes Hall
Office Manager	Judy Piel (C6)	457-5306	130 Kryzsko Commons
Office Receptionist	Pat Cichosz (C6)	457-5305	130 Kryzsko Commons
Computer Specialist	David Gresham (MAPE)	457-2668	Prentiss Lucas Hall

INTERNATIONAL STUDENT PROGRAM

Office Secretary	Mary Thorne (C6)	457-5303	130 Kryzsko Commons
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CAREER PLANNING &
PLACEMENT

Administrative Assistant	Jill Voshage (C6)	457-5340	110 Gildemeister Hall
Career Information Specialist	Jane Palokangas (C6)	457-5340	110 Gildemeister Hall

STUDENT UNION/STUDENT
ACTIVITIES

Office Staff	Ann Golden (C6)	457-5314	Kryzsko Commons
Office Staff	Steve Littlejohn (C6)	457-5314	Kryzsko Commons

FOOD SERVICE

Assistant Manager	Ann Hanson	457-5220	Kryzsko Commons
Assistant Manager	David Shomler	457-5220	Kryzsko Commons
Director/Lourdes Hall	Anne Schultz	453-2511	Lourdes Hall
Office Staff	Bonnie Wait	457-5220	Kryzsko Commons

STUDENT SENATE

President	Ryan Kulikowski	457-5517	Kryzsko Commons
Vice President	Hilary Hardin	457-5544	Kryzsko Commons
Treasurer	Jim Walsh	457-5544	Kryzsko Commons

Bargaining Unit Member Number and Codes:

<u>Employees</u>	<u>Codes</u>	<u>Full Title</u>
1	E	Excluded
16	M	MSUAASF
11	C6	AFSCME Council 6
4	IFO	Inter-Faculty Organization
4	MNA	Minnesota Nurses Association
1	MMA	Middle Management Association

1997 - 98 General Catalog



WINONA STATE UNIVERSITY

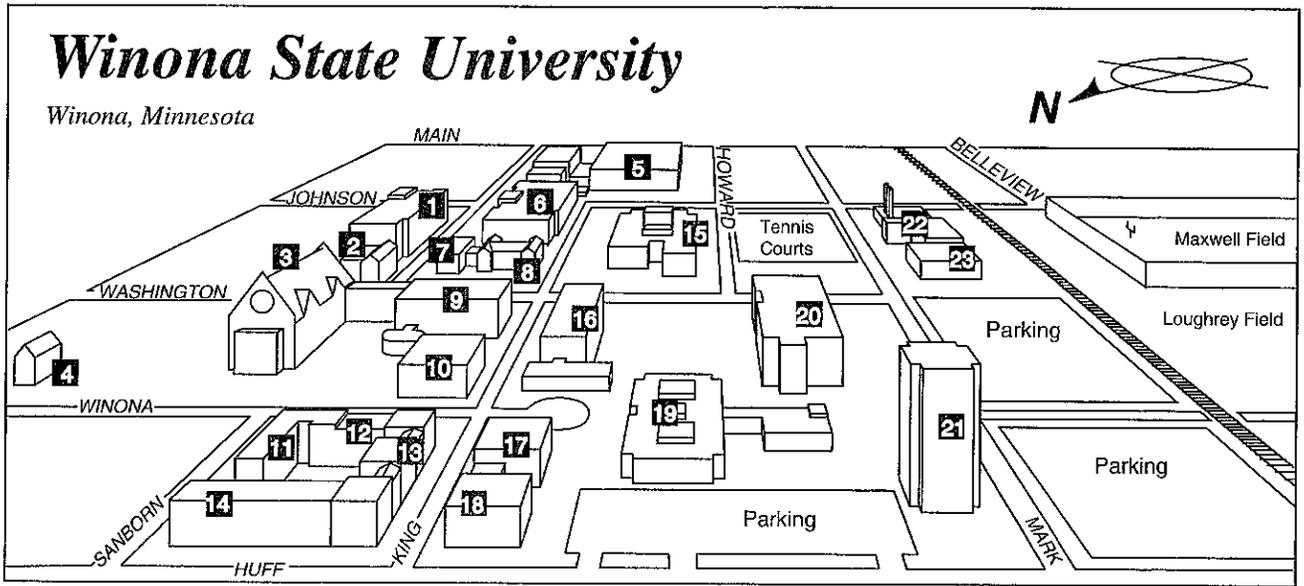
Winona, Minnesota
Telephone (507) 457-5000

In compliance with the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment), Winona State University gives notice that the following information about its students is considered directory information, and will be released upon request: Students name, gender, residency status, permanent address, campus address and phone number, dates of enrollment, quarterly class schedule, curriculum, major(s), minor(s), date of graduation from Winona State, and name and address of parents or guardian.

Any student who objects to the release of all or any part of the directory information on file in his or her name must notify the Registrar's Office, in writing, that he or she does not wish to have such information released. This request will be honored, and all or any portion of the information which the student requests will be held confidential.

The provisions of this publication are not to be regarded as an irrevocable contract between the student and Winona State University. The University reserves the right to change any provision or requirement at any time.

Winona State University is committed to providing equal education and employment opportunities to all persons and does not discriminate on the basis of race, religion, color, veteran's status, national origin, sex, sexual preference, age, marital status, physical or mental disability, status due to receipt of public assistance, or any other group or class against which discrimination is prohibited by Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Minnesota Statutes Chapter 363, and other applicable state or federal laws. Inquiries regarding compliance should be referred to the Affirmative Action Officer (507-457-5008).



1. **Maxwell Library** — contains the university's library holdings
2. **Student Health Services** and University Archives
3. **Stark Hall** — houses the College of Nursing and Health Sciences, the College of Science and Engineering, the Departments of Nursing and Engineering, as well as the Composite Materials Technology Center
4. **Alumni House** — Alumni Affairs
5. **Memorial Hall** — houses the Health, Physical Education and Recreation Department and the facilities for the university's indoor athletic activities and events
6. **Somsen Hall** — houses the College of Business, the Departments of Accounting, BEOSA, Business Administration, Economics and Finance, Marketing, Foreign Language and most administrative offices including the Offices of the President, Academic Affairs, Administrative Affairs, Admissions, Financial Aid, Registrar, Adult Continuing Education and Extension, Human Resources (personnel), Development and University Relations, News Services, Facilities Management, Business Office, Academic and Administrative Computer Centers, Publications Office, and the Print Shop
7. **Howell Hall** — houses Student Support Services, the television studio, Audiovisual Services (IRC), and the Nursery School
8. **Phelps Hall** — houses the Mass Communication and Psychology Departments, Advising and Retention, the Academic Skills Center, the Honors Program and International Studies Program
9. **Pasteur Hall** — houses the Departments of Biology, Chemistry, Physics, and Geology
10. **Watkins Hall** — houses the Departments of Computer Science and Art, including a gallery for student and professional art shows and the Watkins Art Collection
11. **Conway Hall** — women's residence hall
12. **Shepard Hall** — co-ed residence hall
13. **Morey Hall** — co-ed residence hall
14. **Richards Hall** — co-ed residence hall, and houses Honors Hall
15. **Performing Arts Center** — houses the Departments of Music, Communication Studies, Theatre Arts and Dance, and facilities for university-sponsored cultural events and KQAL, the campus radio station
16. **Gildemeister Hall** — houses the College of Education including the Departments of Education, Special Education, Counselor Education, Educational Administration, the Department of Mathematics and Statistics, as well as the Career Planning and Placement Office and the Student Counseling Center
17. **Prentiss Hall** — men's residence hall
18. **Lucas Hall** — women's residence hall
19. **Kryzsko Commons and University Center** — houses the university food services, recreational facilities and lounges, conference rooms, the "Smaug" snack bar, the Campus Book Store, and the Alumni Lounge, as well as the offices for Cultural Diversity, the International Student Program, Housing, and Student Affairs
20. **Minne Hall** — houses the College of Liberal Arts, Departments of English, History, Paralegal, Political Science, Sociology and Social Work, Philosophy, and the Women's Studies Program
21. **Sheehan Hall** — women's residence hall
22. **Heating Plant**
23. **Maintenance Building**
24. **Lourdes Hall** — co-ed residence hall, houses Residential College (not pictured)



All Buildings and parking lots accessible to the handicapped — all buildings equipped with elevators.

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1997-98 Academic Calendar Winona State University

Fall Quarter - 1997 (IFO - 56 Duty Days)

Application deadline for Arranged Classes, Internships, Independent Studies for	
Pre-Registration, Monday	April 28, 1997
Preregistration, Tuesday, Wednesday, Thursday	May 6,7,8, 1997
Last day for new undergraduate students to complete application for	
Fall Quarter, Wednesday	August 6, 1997
Last day for former undergraduate students to file intent to return for	
Mass Registration, Wednesday	August 6, 1997
* Last day for new graduate students to complete application for Fall Quarter, Monday	August 11, 1997
* Last day for former graduate students to file intent to return for Mass Registration, Monday	August 11, 1997
* Application deadline for Arranged Classes, Internships, Independent Studies, for	
Mass Registration & Drop/Add (GRADUATE), Wednesday	August 20, 1997
Application deadline for Arranged Classes, Internships, Independent Studies, for	
Mass Registration (UNDERGRADUATE), Wednesday	August 27, 1997
Labor Day Holiday, Monday	Sept. 1, 1997
Freshman Orientation Experience, Tuesday, Wednesday, Thursday, Friday, Saturday	Sept. 2,3,4,5,6, 1997
Mass Registration, Friday	Sept 5, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (UNDERGRADUATE), Friday	Sept 5, 1997
Day classes begin, Monday	Sept 8, 1997
Evening classes begin, Monday	Sept 8, 1997
Evening Class Registration - Evening Graduate and Undergraduate students ONLY,	
Monday, Tuesday, Wednesday, Thursday,	Sept. 8,9,10,11, 1997
** Class schedule change (Drop/Add), Monday, Tuesday, Wednesday, Thursday,	
Friday, Monday	Sept. 8,9,10,11,12,15, 1997
Last day to drop on-campus classes with tuition refund, Wednesday	Sept 10, 1997
Last day for former students to file intent to return for Winter Preregistration, Tuesday	Sept 30, 1997
Midterm Day, Wednesday	Oct 15, 1997
* Last day to notify the Office of Graduate Studies of intent to	
take Winter Comprehensive Examinations, Wednesday	Oct 15, 1997
Last day to withdraw from classes, Friday	Oct 17, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for	
Winter Quarter Pre-Registration, Wednesday	Oct 22, 1997
Pre-Registration for Winter Quarter, Thursday, Friday, Tuesday, Wednesday	Oct 30,31 and Nov 4,5, 1997
Veterans' Day Holiday, (observed) Monday	Nov 10, 1997
* Application deadline for Arranged Classes, Internships, Independent Studies for	
Winter Quarter Mass Registration and Drop/Add (GRADUATE), Wednesday	Nov 12, 1997
Study Day, Friday	Nov 14, 1997
Final Examinations, Monday, Tuesday, Wednesday	Nov 17,18,19, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for	
Winter Quarter Mass Registration (UNDERGRADUATE), Wednesday	Nov 19, 1997
Grading Day, Thursday	Nov 20, 1997
Quarter Break begins, Thursday, 4:30 p.m.	Nov 20, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for	
Winter Quarter Drop/Add (UNDERGRADUATE), Monday	Dec 1, 1997

NOTE: * Pertains to Graduate Students ONLY.

** No refund for reduction in credits during the last 3 days of Drop/Add.

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 our governing boards policy. Winona State University

Winter Quarter 1997 - 98 (IFO - 56 Duty Days)

Application deadline for Arranged Classes, Internships, Independent Studies for Pre-Registration, Wednesday	Oct 22, 1997
Preregistration, Thursday, Friday, Tuesday, Wednesday	Oct 30,31 & Nov 4,5, 1997
* Last day for new graduate students to complete application for Winter Quarter, Friday	Oct 31, 1997
* Last day for former graduate students to file intent to return for Mass Registration, Friday	Oct 31, 1997
Last day for new undergraduate students to complete application for Winter Quarter, Friday	Oct 31, 1997
Last day for former undergraduate students to file intent to return for Mass Registration, Friday	Oct 31, 1997
* Application deadline for Arranged Classes, Internships, Independent Studies for Mass Registration & Drop/Add (GRADUATE), Wednesday	Nov 12, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for Mass Registration (UNDERGRADUATE), Wednesday	Nov 19, 1997
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (UNDERGRADUATE), Monday	Dec 1, 1997
Mass Registration, Monday	Dec 1, 1997
Evening classes begin, Monday	Dec 1, 1997
Day classes begin, Tuesday	Dec 2, 1997
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Monday, Tuesday, Wednesday, Thursday	Dec 1,2,3,4, 1997
** Class schedule change (Drop/Add), Tuesday, Wednesday, Thursday, Friday, Monday, Tuesday	Dec 2,3,4,5,8,9, 1997
Last day to drop on-campus classes with tuition refund, Thursday	Dec 4, 1997
Last day to apply for Student Teaching all Quarters 1998-1999, Thursday	Dec 18, 1997
Last day for former students to file intent to return for Spring Preregistration, Friday	Dec 19, 1997
Christmas/New Year break begins, Friday, 10:00 p.m.	Dec 19, 1997
Classes reconvene, Monday	Jan 5, 1998
Martin Luther King Day, Holiday, observed Monday	Jan 19, 1998
Midterm Day, Wednesday	Jan 21, 1998
* Last day to notify the Office of Graduate Studies of intent to take Spring Comprehensive Examinations, Wednesday	Jan 21, 1998
Last day to withdraw from classes, Monday	Jan 26, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Spring Quarter Pre-Registration, Wednesday	Jan 28, 1998
Pre-Registration for Spring Quarter, Thursday, Friday, Tuesday, Wednesday	Feb 5,6,10,11, 1998
* Application deadline for Arranged Classes, Internships, Independent Studies for Spring Quarter Mass Registration and Drop/Add (GRADUATE), Friday	Feb 20, 1998
Study Day, Wednesday	Feb 25, 1998
Final Examinations, Thursday, Friday, Saturday	Feb 26, 27, 28, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Spring Quarter Mass Registration (UNDERGRADUATE), Friday	Feb 27, 1998
Grading Day, Monday	March 2, 1998
Spring Break begins, Monday, 4:30 p.m.	March 2, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Spring Quarter Drop/Add (UNDERGRADUATE), Wednesday	March 11, 1998

NOTE: * Pertains to Graduate Students ONLY.

** No refund for reduction in credits during the last 3 days of Drop/Add.

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 our governing boards policy. Winona State University

Spring Quarter - 1998 (IFO - 56 Duty Days)

Application deadline for Arranged Classes, Internships, Independent Studies for Pre-Registration, Wednesday	Jan. 28, 1997
Preregistration, Thursday, Friday, Tuesday, Wednesday	Feb 5,6,10,11, 1998
Last day for new undergraduate students to complete application for Spring Quarter, Friday	Feb. 13, 1998
Last day for former undergraduate students to file intent to return for Mass Registration, Friday	Feb. 13, 1998
* Last day for new graduate students to complete application for Spring Quarter, Friday	Feb. 13, 1998
* Last day for former graduate students to file intent to return for Mass Registration, Friday	Feb. 13, 1998
* Application deadline for Arranged Classes, Internships, Independent Studies for Mass Registration & Drop/Add (GRADUATE), Tuesday	Feb. 24, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Mass Registration (UNDERGRADUATE), Tuesday	March 3, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (UNDERGRADUATE), Wednesday	March 11, 1998
Mass Registration, Wednesday	March 11, 1998
Evening classes begin, Wednesday	March 11, 1998
Day classes begin, Thursday	March 12, 1998
Evening Class Registration - Evening Graduate and Undergraduate students ONLY, Wednesday, Thursday, Monday, Tuesday,	March 11,12,16,17, 1998
**Class schedule change (Drop/Add), Thursday, Friday, Monday, Tuesday, Wednesday, Thursday,	March 12,13,16,17,18,19, 1998
Last day to drop on-campus classes with tuition refund, Monday	March 16, 1998
Last day for former students to file intent to return for Fall Preregistration, Tuesday	April 7, 1998
Midterm Break, Thursday, Friday	April 9,10, 1998
* Last day to notify the Office of Graduate Studies of intent to take Summer Comprehensive Examinations, Friday	April 17, 1998
Midterm Day, Friday	April 17, 1998
Last day to withdraw from classes, Wednesday	April 22, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Fall Quarter Pre-Registration, Monday	April 27, 1998
Last day for new and former students to file intent to return or apply for admission to First Summer Session, Monday	May 4, 1998
Pre-Registration for Fall Semester, Tuesday, Wednesday, Thursday	May 5,6,7, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for First Summer Session Mail Registration, Friday	May 8, 1998
* Application deadline for Arranged Classes, Internships, Independent Studies for First Summer Session Drop/Add (GRADUATE), Tuesday	May 12, 1998
Last day mail registration will be accepted for First Summer Session, Friday	May 15, 1998
Memorial Day Holiday	May 25, 1998
Study Day, Tuesday	May 26, 1998
Final Examinations, Wednesday, Thursday, Friday	May 27,28,29, 1998
Grading Day, Saturday	May 30, 1998
Commencement, Saturday	May 30, 1998
Application Deadline for Arranged Classes, Internships, Independent Studies for First Summer Session Drop/Add (Undergraduates), Monday	June 1, 1998

NOTE: * Pertains to Graduate Students ONLY.

** No refund for reduction in credits during the last 3 days of Drop/Add.

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 our governing boards policy. Winona State University

First Summer Session - 1998 (IFO - 24 duty days)

Last day for new students to complete application process for First Summer Session, Monday	May 4, 1998
Last day for former students to file intent to return for First Summer Session, Monday	May 4, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for First Summer Session Mail Registration, Friday	May 8, 1998
* Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (GRADUATE), Tuesday	May 12, 1998
Last day mail registration will be accepted for First Summer Session, Friday	May 15, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (UNDERGRADUATE), Monday	June 1, 1998
Classes begin, Monday	June 1, 1998
Last day to drop on-campus classes with tuition refund, Monday	June 1, 1998
Late Registration, Monday, Tuesday, Wednesday, Thursday	June 1,2,3,4, 1998
** Class schedule change (Drop/Add), Monday, Tuesday, Wednesday, Thursday	June 1,2,3,4, 1998
Application deadline for Arranged Classes, Internships, Independent Studies Second Summer Session Mail Registration, Friday	June 12, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session Drop/Add (GRADUATE), Monday	June 15, 1998
Midterm Day, Wednesday	June 17, 1998
Last day to withdraw from classes, Friday	June 26, 1998
Final Examinations, Thursday (or last day of class)	July 2, 1998
Independence Day, Holiday, Friday	July 3, 1998

NOTE: * Pertains to Graduate Students ONLY.

** No refund for reduction in credits during the last 3 days of Drop/Add.

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 our governing boards policy. Winona State University

Second Summer Session - 1998 (IFO - 25 duty days)

Last day for former students to file intent to return for Second Summer Session, Monday	June 1, 1998
Last day for new students to complete application process for Second Summer Session, Monday	June 1, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Second Summer Session Mail Registration, Friday	June 12, 1998
* Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (GRADUATE), Monday	June 16, 1998
Last day mail registration will be accepted for Second Summer Session, Friday	June 19, 1998
Application deadline for Arranged Classes, Internships, Independent Studies for Drop/Add (UNDERGRADUATE), Monday	July 6, 1998
Classes begin, Monday	July 6, 1998
Last day to drop on-campus classes with tuition refund, Monday	July 6, 1998
Late Registration, Monday, Tuesday, Wednesday, Thursday	July 6,7,8,9, 1998
** Class schedule change (Drop/Add), Monday, Tuesday, Wednesday, Thursday	July 6,7,8,9, 1998
Midterm Day, Wednesday	July 22, 1998
* Last day to notify the Office of Graduate Studies of intent to take Fall Comprehensive Examinations, Wednesday	July 22, 1998
Last day to withdraw from classes, Friday	July 31, 1998
Final Examinations, Friday (or last day of class)	August 7, 1998

NOTE: * Pertains to Graduate Students ONLY.

** No refund for reduction in credits during the last 3 days of Drop/Add.

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 our governing boards policy. Winona State University

Winona State University

Mission of the University

Winona State University was founded on September 3, 1860, as the first college in the present system of state universities and the first teacher preparation institution west of the Mississippi River. The University serves the citizens of southeast Minnesota and is located among the bluffs of the beautiful Hiawatha Valley of the Mississippi River. Its mission is to serve the broad educational needs of the people of the region and others who are attracted to its complement of high-quality programs. The University is committed to preserving, extending, and disseminating knowledge. Through this commitment it fosters a love for learning in an atmosphere of intellectual excitement. It acknowledges the great benefits gained from a free and open discussion of all ideas within the academic setting and encourages respect for others and tolerance for opposing points of view.

General Goals of Winona State University

To realize its mission, Winona State University will:

Provide high-quality and affordable undergraduate and selected graduate programs.

- Provide a comprehensive base of liberal studies as the foundation for university degrees in the arts, letters, and sciences as well as offering specialized professional, technological, and occupational degrees.
- Provide pre-professional programs that are coordinated with professional programs at other universities.
- Offer undergraduate programs and degrees which provide direct entry into graduate programs or employment opportunities that require significant educational preparation.
- Maintain a special commitment to lifelong learning by meeting off-campus instructional and continuing educational needs of the citizens of the service region.
- Provide for the educational, personal, and social development of students through effective academic advising and counseling, and through high-quality, cultural, recreational and extracurricular programs.
- Provide public service to the region and serve as a cultural center and a source of problem-solving expertise.
- Support a commitment to research and to scholarly and creative activities which enhance instructional programs and teaching excellence.
- Assume leadership in consortia relationships and cooperate with private business and research organizations to maximize educational and employment opportunities for citizens of the region through the sharing of expertise and resources.
- Provide educational opportunities for all individuals including minorities, the disadvantaged, handicapped, and non-traditional students.
- Provide and evaluate all programs to meet the needs of a changing educational and technical environment.

Specific Goals of the University

By virtue of its location within the state and because of its unique strengths, the University will:

- Provide continuing leadership and excellence in teacher training by preparing outstanding teachers and by delivering services to the public and private schools of the region.
- Provide programs in health sciences and human services utilizing unique and extensive opportunities afforded by cooperative relations with outstanding regional health and human service facilities.

- Support a growing commitment to serving the educational needs of the citizens of southeastern Minnesota through establishing regional university centers.
- Provide courses, seminars, research, and management assistance to government units and businesses in the region through a variety of undergraduate and graduate programs and consulting services.
- Provide a comprehensive program of environmental testing and monitoring using chemical, physical, biological, and geological techniques in order to help ensure the environmental welfare of citizens within the region.
- Provide applied research and analytical services relating to the biological, physical, and social environments of the region.

Winona State University continues to follow a policy of quality enhancement. As evidence of this commitment, the university has recently developed the following statement of expectations:

Expectations

The mission of Winona State University is to serve the broad educational needs of the people of the region and others who are attracted to its complement of high-quality programs. The University is committed to preserving, extending, and disseminating knowledge. Through this commitment it fosters a love for learning in an atmosphere of intellectual excitement. It acknowledges the great benefits gained from a free and open discussion of all ideas within the academic setting and encourages respect for others and tolerance for opposing points of view.

In fulfilling its mission, WSU incorporates **The Seven Principles for Good Practice in Undergraduate Education** (as outlined in the *Wingspread Journal*) to maintain excellence in teaching, and **Outcomes Assessment** to demonstrate the excellence of Winona State University's programs and services.

Winona State University has a rich heritage of providing an educational setting where students are assisted in achieving their learning goals. WSU's dedication to excellence in academic programs and student services is demonstrated through the high expectations that have been set for everyone at the University—faculty, students, administration and staff. It is only through the collective efforts of each of these constituent groups that WSU can achieve its goal of excellence. In working together, each group has high expectations of itself and the others.

Winona State students are expected to be dedicated to:

1. **Active learning:** WSU students are expected to be active in the teaching-learning process, to be committed to applying their learning experience to activities beyond the classroom, and to make those learning experiences part of their life-long learning process.
2. **Standards of excellence:** WSU students are expected to meet the high expectations expressed by the faculty and staff. In addition, students are encouraged to expect excellence of faculty and staff as well. WSU students are entrusted to maintain the highest level of integrity in their academic work and interactions with others.
3. **Time on task:** Students are expected to be responsible for effectively managing their time so as to expend the utmost energy on their classroom tasks and learning experiences. A significant amount of time outside of class is expected to be spent on individual studying, in laboratory settings, in the library, or engaged in academic related discussion with peers, faculty, and administrative staff.
4. **Cooperative learning:** Students are expected to be committed to learning in settings beyond the classroom, such as those learning experiences occurring in group discussions, group work projects, multicultural interactions, and internships.

5. Personal growth and development: WSU students are encouraged to take advantage of the wide range of activities, clubs, and organizations available on campus both within their major area of study as well as those activities for their own pleasure. Such experiences contribute to the creation of the educated person and provide opportunities for students to meet informally with other students, faculty and staff.

WSU faculty are expected to be dedicated to:

1. Excellence in teaching or other assigned duties: Winona State faculty plan and organize courses utilizing instructional methods and materials which promote learning and personal growth for their students. WSU faculty have high expectations for themselves and of their students. They conduct their departmental and university assigned activities with the aim of increasing student learning and success.
2. Scholarly and Research activities: WSU faculty engage in a variety of scholarly, creative and research activities which contribute to their excellence in teaching and program quality, and provide opportunities for students to learn through participation.
3. Professional preparation, study and development: WSU faculty engage in professional studies and experiences that enhance their capacities to enrich student learning.
4. Student growth and development: WSU faculty perceive as their main objective the perpetuation of a learning environment in which students are encouraged to realize their potential. Such encouragement includes faculty/student interaction in small group settings in and out of class, a sound advising system, prompt feedback, respect for diverse talents and ways of learning, and opportunities to work one-on-one on independent study projects. WSU faculty also encourage student participation in campus organizations, cultural events, and extracurricular activities.
5. Service to the University and the Community: WSU faculty actively participate in the community through memberships in campus and community organizations.

Administration and Staff are expected to be dedicated to:

1. Faculty recruitment and support: WSU administration and staff will help in attracting and maintaining a highly skilled teaching faculty dedicated to teaching, research, and service. In addition, they will support faculty enrichment activities which contribute to the quality of students' learning experiences.
2. Student recruitment and support: WSU administration and staff will be dedicated recruiting highly qualified students who can contribute to the academic excellence of the university. Administration will support academic advising and support services that increase the quality of the students' educational experience.
3. Creation of a stimulating learning environment: The Administration and staff will be responsible for the creation and maintenance of a physical environment conducive to learning, with adequate resources for both students and faculty—including library, computer and other resources required for instruction, research, and public service.
4. Cooperative decision-making: The administration will contribute to a cooperative/collegial decision-making process. Such process will ensure the appropriate participation of faculty and students in instructional governance and foster respect among the constituent groups.
5. Promoting excellence: WSU administration will be dedicated to carrying forth a leadership role in developing concern for excellence throughout the university community. The administration shall articulate the support for excellence to all constituencies.

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 and the Minnesota Board of Teaching for the preparation of elementary and secondary teachers, elementary and secondary principals, school superintendents and guidance counselors. The Program of the

Department of Chemistry is approved by the American Chemical Society. The Nursing program is accredited by the National League of Nursing. The Social Work Program is nationally accredited by the Council on Social Work Education.

Winona State University is a member of the American Association of Colleges for Teacher Education, the American Council on Education, the Midwest Association of Graduate Schools, and the American Assembly of Collegiate Schools of Business. Winona State University is an accredited institutional member of National Association Schools of Music (NASM).

Location and Community

Winona State University encompasses some 40 acres of a residential area in the heart of Winona. This community of about 28,000, situated on the banks of the Mississippi River and one of the most scenic areas of Minnesota, is noted for its educational resources. Winona is a city filled with history, folklore, and tradition. The University also maintains its historical beginnings as a teacher education institution but, like the city of Winona, it too continues in meeting the challenges and transformation of modern society.

This unique midwestern community is distinguished as the home of three institutions of higher learning; in addition to Red Wing/Winona State University, Saint Mary's College and Red Wing/Winona Technical College provide extensive educational opportunities. The University cooperates with Saint Mary's College to enrich the educational and cultural opportunities for the students of both schools through a sharing of their programs and resources.

The campus is a few blocks from the city's center—convenient for shopping, recreation, and the use of community resources as part of academic programs. Resources of the metropolitan centers of the upper midwest are readily accessible through excellent transportation connections, particularly to the Twin Cities. To supplement and enrich educational offerings, students and faculty develop field trips, attend concerts and lectures, visit museums, and seek internships in the numerous business firms and government agencies in those centers.

Campus Facilities

Although Winona State University is one of the nation's oldest universities west of the Mississippi River, the majority of the campus buildings have been constructed since 1960. The campus provides students ample facilities for educational activities that combine traditional charm with modern convenience.

In addition to the academic buildings, exceptional facilities are provided for students' social, cultural and recreational interests. The Performing Arts Center contains facilities for musical performances, theater productions, and studio work. Memorial Hall is one of the finest physical education/athletic facilities in Minnesota. Its swimming pool, six full-sized gymnasiums, indoor track and tennis facilities, handball/racquetball courts, weight training room, and physiology of exercise laboratory make it the center of the 15 men's and women's athletic teams.

Highlighting the educational facilities is Maxwell Library, which contains nearly 245,000 volumes and more than 831,000 units of microfilm documents. In addition, the library maintains on-going subscriptions to approximately 1,350 journals. The library houses a new bibliographic instruction room, which is used to teach students how to use the library's catalogs and indexes and to navigate the Internet. Plans are underway for the construction of a new multi-million dollar library.

The most recent additions to the campus learning environment are Stark Hall and Lourdes Hall Residential College.

Stark Hall, the new Health and Applied Science building, was dedicated in September, 1992. In addition to the unique undergraduate Composite Materials Engineering program, the new facility houses the accredited Nursing program, as well as elements of biology and other programs.

Lourdes Hall Residential College: The general mission of the Lourdes Hall Residential Community is to provide an enhanced learning environment for highly motivated students in order to promote

excellence in the achievement of their undergraduate education. Students are encouraged to discover the love of learning, tolerance for individual differences and benefits of a liberal education for development of their talents through strong student pursuit and high expectations from the university. Having the intimacy of a smaller environment and the resources of a state university system, we are able to create an atmosphere of collaborative learning. This is in part accomplished by a required First Year Experience Seminar during fall quarter focused on critical thinking, and a required \$100 fee utilized by students for students to support banquets, speaker series, world forum dinners and floor activities.

Campus Living

In addition to its modern academic facilities, Winona State University also has excellent facilities for student living and activities. There are seven residence halls that can accommodate 1800 students, including the Lourdes Hall Residential College.

The University Center (Kryzsko Commons) is complete with student lounges, dining facilities, bowling alley, student organization offices, conference rooms, and various other accommodations for student activities and relaxation. While emphasis has been placed on providing students with exemplary facilities for academic work, due consideration also has been given to providing students with comfortable, satisfying living accommodations.

Organization

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 is offered by highly qualified faculty in an environment which stimulates educational endeavors. More than 80 academic programs are provided by the University's five colleges:

- College of Business*
- College of Education*
- College of Liberal Arts*
- College of Nursing and Health Sciences*
- College of Science and Engineering*

Approximately 400 faculty serve students and implement programs while maintaining a "small school closeness" to individual students.

Adult, Continuing Education and Extension

Winona State University offers a wide range of learning experiences and opportunities for the residents of southeastern Minnesota through the Adult, Continuing Education and Extension Division. These include non-credit and CEU activities, workshops and conferences; extension credit courses; senior citizen registration; and the Adult Entry Program which features individualized advising, career counseling and credit for prior learning. Non-credit programs, credit courses and advising are located in numerous places throughout the WSU service area. Special programs may also be developed to meet the continuing education needs of specific agencies, schools, businesses and industries. For more information, schedules, or appointments contact the Adult, Continuing Education and Extension Office, Room 109, Sornsen, Winona State University, Winona, MN 55987; (507)457-5080.

WSU-Rochester Center

General Information

For more than 67 years Winona State University has had a strong commitment to the students of the Rochester Area. Currently, the Rochester Center serves over 2000 students. Winona State, along with the University of Minnesota and Rochester Community College, make up the University Center at Rochester. There is a formal 2 + 2 program with Rochester Community College leading to 13 baccalaureate degrees. There are also four masters degrees offered by Winona State in Rochester. Winona State University cooperates with the University of Minnesota in offering a masters in Teaching Leadership, and with Mayo Clinic in Nurse Anesthesia.

Location and Community

Olmsted County has a population base of over 100,000 people. It is the home of the Mayo Clinic and IBM Rochester. Olmsted County residents have a high level of educational attainment and are highly receptive to the life-long learning opportunities offered by Winona State University. Winona State University cooperates with both IBM and Mayo Clinic for specialized classes in computer science and the health professions.

Winona State University (Rochester) is part of the University Center Rochester (UCR) located at Highway 14 and 30th Ave SE. The University of Minnesota (Rochester) and Rochester Community College are also located at UCR.

Degrees/Programs at WSU-RC

Undergraduate Programs (2 + 2)

Winona State University-Rochester Center cooperates with Rochester Community College to offer complete educational programs to the area. Through the 2 + 2 program, students can complete 13 baccalaureate degree programs by transferring lower division credits from Rochester Community College, and completing upper level courses at WSU-RC. Students can also complete numerous undergraduate minors and four graduate programs totally in Rochester.

Undergraduate Programs

- Accounting
- Business Administration
- Business Education Office Systems Administration
- Computer Information Systems
- Computer Science
- Elementary Education
- Finance
- Individualized Study
- Management Information Systems
- Marketing
- Nursing
- Psychology
- Social Work

Graduate Programs

- Master of Business Administration
- Master of Science in Counselor Education
 - Community Counseling
 - Elementary School Counseling
 - Secondary School Counseling
 - Professional Development
- Master of Science in Nursing
 - Nursing Administration Major
 - Adult Health Nursing Major
 - Adult Nurse Practitioner
 - Clinical Nurse Specialist
 - Nursing Educator
- Master of Science in Educational Leadership
 - Specialist Degree in Educational Leadership

Special Programs

Certification/Licensure-College of Education

Certification programs include two special education licensure programs offered by the Department of Special Education. These programs can be taken at the undergraduate and at the graduate level. They include licensure in the following areas: Mild/Moderate Mental Handicaps and Learning Disabilities. At the graduate level, in conjunction with the University of Minnesota, a program in Emotional/Behavioral Disorders is offered.

National Technological University (NTU)

Through a cooperative agreement with IBM, Winona State University is administering graduate courses in engineering and computer science disciplines. All NTU classes are taught through satellite delivery, and the courses originate from over 35 participating universities.

Non-Credit Programs

WSU-Rochester Center cooperates with community and professional groups and with the Department of Adult Continuing Education and Extension to provide non-credit continuing education programs.

Campus Facilities

In 1993 the University Center Building opened, housing Winona State University-Rochester Center, the University of Minnesota Rochester Center, and Rochester Community College. This joint use facility is equipped with state-of-the-art technology for interactive television and computer systems that link UCR students with main campuses and the world.

Adult Entry Program

The Adult Entry Program is designed for the mature student who has never been to college or who is returning to college. Counselors are available in Rochester on a regular basis to assist adult students seeking a college education. The awarding of college credit for life/work experience is possible under this program. (See Adult Continuing and Extension Section for more information.)

Faculty

All program areas offered at the Rochester Center have residential faculty. These faculty members live and work in the Rochester area. Courses are also taught by Winona faculty who commute from the main campus.

Student Services

Counseling

Counseling services are regularly available through Winona State University-Rochester Center. Staff members are professional counselors with extensive academic experience in counseling.

Career Planning

Both undergraduate and graduate students receive personalized career testing and planning, as well as job search assistance from counselors who are available in Rochester on a weekly basis.

Financial Aid

Counseling is available for students concerning long and short-term plans for financing their education. An application for financial aid should be requested at the time the student applies for admission. Representatives from the WSU Financial Aid Office are available at the Rochester Center on a weekly basis. Preliminary information is available at the Rochester Center.

Joint WSU/RCC Services

Other areas of student support, i.e. services to disabled students and child care are coordinated by members of the staff at the Rochester Center.

Computer Facility

The Computer facilities consist of four teaching computer labs, two open computer labs, and a shared computer lab. All labs allow student access to mainframes on campus.

Library

Winona State University Rochester Center's library holdings are integrated into UCR's Goddard Library. This arrangement provides students with an extensive resource of reference and research material. Currently, library holdings number over 57,000 volumes. There is an overnight courier service to WSU's Maxwell Library for articles and books, which enables WSU Rochester students to have access to both the UCR and WSU libraries. On-line computer searches are possible through both the PALS and Luminet systems.

Campus Visits

Students are encouraged to visit WSU-Rochester Center at any time. For more information regarding programs and services, call (507) 285-7100.

Degrees and Programs

Graduate

Specialist Degree

Elementary School Leadership
 Secondary School Leadership
 General School Leadership

Master of Arts in English

Master of Business Administration

Master of Science

Business Education
 Counselor Education
 Education
 Educational Leadership
 English
 Nursing

Four-Year Undergraduate

Bachelor of Arts

Art
 Biology
 Communication Studies
 Economics
 English
 French
 German
 Individualized Study
 Mass Communication
 Mathematics
 Music
 Political Science
 Psychology
 Sociology
 Theatre Arts

Bachelor of Engineering

Composite Materials Engineering

Bachelor of Science

Accounting
 Art (Teaching)
 Biology
 Business Administration
 Business (Teaching)
 Chemistry
 Computer Science
 Cytotechnology
 Earth Science (Teaching)
 Elementary Education
 English (Teaching)
 Exercise Science
 Finance
 French (Teaching)
 Geology
 German (Teaching)
 Health Administration
 Human Resources Management
 Life Science (Teaching)
 Management Information Systems
 Marketing
 Mathematics (Teaching & Non-teaching)

Medical Technology
 Middle School Science (Teaching)
 Music: Business
 Music (Teaching)
 Nursing
 Office Systems Administration
 Paralegal
 Physical Education (Teaching)
 Physical Science (Teaching)
 Physics
 Production Operations Management
 Public Administration
 Recreational and Leisure Studies
 School and Community Health Education (Teaching & Non-teaching)
 Social Science (Teaching)
 Social Work
 Sociology: Criminal Justice
 Spanish (Teaching)
 Special Education (Teaching)
 Speech and Theatre Arts (Teaching)
 Statistics

Two-Year Undergraduate

Associate in Arts

General Education

Special Licensure Programs

(Graduate and Undergraduate)
 Coaching (Undergraduate Only)
 Developmental/Adapted Physical
 Education
 Early Childhood
 Early Childhood: Family Educator
 Early Childhood: Parent Educator
 Emotional/Behavioral Disorders
 (Graduate Only) (in cooperation with the University of Minnesota)
 Kindergarten Endorsement
 Learning Disabilities
 Middle School
 Mild to Moderately Mentally Handicapped
 Minnesota School Social Worker Level I
 Prekindergarten
 Special Education
 Learning Disabilities
 Mild/Moderate Mentally Handicapped

Pre-Professional

Pre-Dental Hygiene
 Pre-Dentistry
 Pre-Engineering
 Pre-Law
 Pre-Medicine
 Pre-Mortuary Science
 Pre-Optometry
 Pre-Pharmacy
 Pre-Physical Therapy
 Pre-Podiatry
 Pre-Veterinary Medicine

Admission Information

A student may apply for admission to any quarter during the academic year. The official deadline for admission is one month before the first day of registration for that quarter. At that time, all admissions material must have been submitted and received in the Admissions Office.

A \$15 non-refundable application fee must accompany all new applications.

The ACT and SAT will be considered for freshmen admission decisions; however, the ACT will be required for enrollment (registration) to assist in placement and advising.

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 successful completion of the GED test, and if they achieve an acceptable score on one of the college entrance examinations and have completed the 16 units of high school preparation requirements.

All new students must take the English and mathematics placement exams prior to initial enrollment in an English composition or mathematics course. Exempt are transfer students who have credit for college level English and/or mathematics. Placement tests are regularly offered prior to all pre-registration and mass registration periods. The Advising and Retention Center has information on specific dates, times, and locations of exam periods.

Entering students are required to obtain a medical examination from their own physician and provide proof of immunization against measles, rubella, mumps, diphtheria, and tetanus. Forms for this purpose are supplied by the University.

High School Preparation Requirements

The following high school curriculum must be completed in grades 9-12 by students seeking admission to Winona State University:

- 4 years of English (includes composition, literature and speech)
- 3 years of math to include 2 years of algebra and 1 year of geometry
- 3 years of science to include 1 year of biology and 1 year of either chemistry or physics. All courses should include laboratory experiences.
- 3 years of social studies to include 1 year of U.S. history and 1 year of geography or its equivalent is highly recommended.
- 2 years of a single World Language (including non-English native languages and American Sign Language)
- 1 year of specified electives chosen from the following:
 - World Culture (including world cultures, area studies, and cultural or ethnic studies)
 - The Arts (including visual arts and the performing arts of theatre, music, dance and media arts)
 - Computers

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.

Distinctive Admission

Students ranking in the upper 15 percent of their high school graduating class and possessing ACT scores of 26 or above or SAT scores of 1100 or above and have completed the 16 units of high school preparation requirements will be admitted with distinction.

University Admission

Students ranking in the top 50 percent of their high school graduating class or possessing ACT scores of 21 or above, or SAT scores of 1000 or above, and have completed the 16 units of high school preparation requirements will be admitted.

Special Admission

Freshman applicants not meeting any of the above requirements because of special and unique circumstances may be considered for admission by special petition. Students in this category might include minorities, disadvantaged students, and others who have potential for college success, yet their high school rank and college admission scores do not provide admissibility under the above categories.

In cases where unusual circumstances exist, a student may request a review by the Director of Admissions of an application for admission. The University Admissions Review Committee will consider these requests.

Application Procedure (freshmen)

Complete an application form.

Return completed application with \$15 non-refundable fee.

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(2162) as one of their choices will be sent an application form. After receiving your ACT test scores, you will be advised of your admissions status and the University will request the \$15 application fee and high school transcript.

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 10th grade before being eligible for consideration and high school juniors must be in the top 15 percent of their class and seniors must be in the top 25 percent of their class. Winona State University participates in the Post-Secondary Enrollment Options Program.

International Students

All applicants from foreign countries must satisfy all WSU application procedures. Students will be admitted on the basis of certified credential evaluations verifying completion of previous educational studies (**failure to supply official mark sheets from ALL schools attended is considered fraud and grounds for canceling admissions or enrollment**). Students must also submit a TOEFL score with a minimum of 500. The University requires all non-native speakers of English to complete an on-campus English placement exam. This English test determines appropriate English placement for each student.

In addition to official academic credentials and the TOEFL score, international students must present proof of financial responsibility for the full course of study. Specific financial support forms for this purpose are 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 International Student 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 University is unable to assume responsibility for emergency situations which arise while an International student is in attendance at the University. Health insurance is required for all international students. If international students do not have a health insurance policy, they will be mandated to purchase a policy through the university.

International students must complete the application process well in advance of the time they wish to enroll (minimum of one month, the Admissions Office suggests three months). This is necessary due to the

complexity of the admission process and allows for the proper planning of mandatory orientation programs for international students.

International students interested in obtaining additional information about the University or an application packet should direct their initial inquiries to the Director of International Students, Kryzsko Commons, Winona State University, Winona, MN 55987.

Planning to Transfer?

Minnesota's public colleges and universities are working to make transfer easier. You can help if you PLAN AHEAD, ASK QUESTIONS, and USE PATHWAYS created by transfer agreements.

Preparing for Transfer

If you are currently enrolled in a college or university:

1. Discuss your plans with the campus transfer specialist - Somsen Hall, Room 106.
2. Call or visit your intended transfer college. You should obtain the following materials and information:
 - college catalog
 - transfer brochure
 - information on admissions criteria and on materials required for admission (e.g., portfolio, transcripts, test scores). Note that some majors have limited enrollments or their own special requirements such as a higher grade point average.
 - information on financial aid (how to apply and by what date)
3. After you have reviewed these materials, make an appointment to talk with an advisor/counselor in the college or program you want to enter. Be sure to ask about course transfer and admission criteria.

If you are not currently enrolled in a college or university, you might begin by meeting with a transfer specialist or an admission officer at your intended transfer college to plan the steps you need to take.

Understanding How Transfer of Credit Works

1. The receiving college or university decides what credits transfer and whether those credits meet its degree requirements. The accreditation of both your sending and your receiving institution can affect the transfer of the credits you earn.
2. Institutions accept credits from courses and programs like those they offer. They look for similarity in course goals, content, and level. "Like" transfers to "like."
3. Not everything that transfers will help you graduate. Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is, "Will your credits fulfill requirements of the degree or program you choose?"
4. If you change your career goal or major, you might not be able to complete all degree requirements within the usual number of graduation credits.

Applying for Transfer Admission

1. Application for admission is always the first step in transferring. Fill out the application as early as you can prior to the deadline. Enclose the application fee.
2. Request that official transcripts be sent from every institution you have attended. You might be required to provide a high school transcript or GED test scores as well.
3. Recheck to be certain you supplied the college or university with all the necessary paperwork. Most colleges make no decisions until all required documents are in your file.
4. If you have heard nothing from your intended college of transfer after one month, call to check on the status of your application.
5. After the college notifies you that you have been accepted for admission, your transcribed credits will be evaluated for transfer. A written evaluation should tell you which courses transfer and

which do not. How your courses specifically meet degree requirements may not be decided until you arrive for orientation or have chosen a major.

6. If you have questions about your evaluation, call the Office of Admissions and ask to speak with a credit evaluator. Ask why judgments were made about specific courses. Many concerns can be cleared up if you understand why decisions were made. If not satisfied, you can appeal. See "Your Rights as a Transfer Student" below.

Your Rights as a Transfer Student

1. A clear, understandable statement of an institution's transfer policy
2. A fair credit review and an explanation of why credits were or were not accepted
3. A copy of the formal appeals process. Usual appeals steps are:
 - Student fills out an appeals form. Supplemental information you provide to reviewers-a syllabus, course description, or reading list- can help.
 - Department or committee will review.
 - Student receives, in writing, the outcome of the appeal.
 - Student can appeal decision to Vice President of Academic Affairs, Somsen 211.
4. At your request, a review of your eligibility for financial aid or scholarships.

For help with your transfer questions or problems, see your campus transfer specialist.

Transfer Students

The requirements for transfer students from a community college or a four-year college with regional accreditation for college-parallel courses are:

1. Transfer students who have completed 36 transferable academic quarter hours and have a cumulative 2.40 G.P.A. for all colleges attended to be admitted.
2. Transfer students who have completed 36 transferable academic quarter hours or less and possess a cumulative G.P.A. of 2.00 - 2.39 for all colleges attended may be considered for admission to WSU by visiting campus and interviewing with a transfer counselor. WSU will require a high school transcript to evaluate high school preparation requirements, class rank, and admission test scores. These transfer students should meet the freshman admission requirements. Should admission be offered it will be on a space available basis.
3. Transfer applicants not meeting any of the above requirements because of special and unique circumstances may be considered for admission by special petition. Students in this category might include minorities, disadvantaged students, and others who have potential for college success, yet their transfer grades or high school academic background do not provide admissibility under the above categories. In cases where unusual circumstances exist, a transfer student may request a review by the Director of Admissions. The University Admission Review Committee will consider these requests.

Some departments have higher standards for admission to their majors. These programs also may have additional applications that must be filed. Students must consult the WSU catalog and departments for more detailed information on these standards. Many departments require a minimum cumulative G.P.A. (all college courses attempted from all colleges attended) of 2.50 or higher to apply to the major. Some programs are very competitive; therefore, a 2.50 G.P.A. may not qualify for admission to that program.

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 associations, receive credit to the extent that courses completed 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, P or the equivalents were attained.

Students should be academically eligible to return to their former colleges or universities. An official transcript, including a statement of withdrawal if the student formally withdrew 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.

General Education Transfer Policy

Students transferring to WSU with an AA degree awarded by a Minnesota community college will have all general education requirements waived, except where special departmental requirements exist.

Students transferring to WSU with any other associate degree from any other accredited community college, or any four-year college or university can normally anticipate that they will meet the WSU general education requirements once they have a total of 60 quarter hours in liberal studies as defined by WSU. Those 60 hours must include at least six hours each in the areas of the humanities, the natural sciences and the social sciences as these areas are defined by WSU and must include course work equivalent to the courses required in the basic skills: English composition, speech communication, mathematics, and physical education.

A student with an associate degree who meets all of these requirements may have the Different Culture and the Allied Studies requirements of general education waived by WSU.

Students transferring to WSU from another Minnesota State University (or any other school participating in the Minnesota Transfer Curriculum) and who have completed that school's general education requirements, will have all WSU general education waived, except where special departmental requirements exist. The former school must certify, on the transcript, the student's completion of their general education program.

If a student transfers to WSU with an associate degree, but with fewer than 60 hours in liberal studies or fewer than 6 hours each in the humanities, natural sciences and social sciences, these deficiencies may be made up by taking WSU general education courses. Students qualifying for this transfer policy must check with the Registrar's Office upon completion of the defined 60 credits of liberal studies for official sanction. Students enrolled in off-campus programs should consult with their advisors concerning these requirements.

Students transferring to WSU without an associate degree or baccalaureate degree must meet all WSU general education requirements.

Most credits earned at a community or junior college may be accepted in transfer (remedial classes are not transferable); however, to obtain a bachelor's degree, 96 quarter credits must be taken from a four year institution. 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; however, it will not be necessary to take the corresponding required course at WSU. Transferred credits must have at least a "C" grade in quality to transfer.

A department may require a minimum number of WSU credits in a departmental major program in order for a student to graduate with that major from WSU.

Procedures (transfer)

1. Transfer application forms are available upon request from the Admissions Office.
2. A \$15 non-refundable application fee must accompany all new applications.
3. Transfer applicants must submit official transcripts from all colleges, vocational schools, or universities attended and a high school transcript.

Returning Students

A WSU student who has not attended WSU for one quarter or more (summer excluded) will be classified as a returning student. A student will also be classified as returning if he/she leaves WSU and attends 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 (summer excluded) will be considered a returning transfer student and must apply as a transfer student. Official transcripts are 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 Registrar's Office. The Registrar's Office will evaluate the record for possible readmission.

A returning transfer student must complete the WSU Application for Transfer and Returning Transfer Admission in the Admissions Office. The Admissions Office evaluates the transcripts for possible admission.

Undergraduate Special Students

All students taking undergraduate courses for enrichment, transferring to another school, general interest, or who have no intentions of earning a degree at WSU will be classified as undergraduate specials. Students in this category must (1) file an Undergraduate Special Enrollment Form, (2) submit a \$15 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. Admissions decisions for undergraduate specials are based on the same standards as for freshman and transfer students.

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 \$15 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.

Non-Matriculated Undergraduate Students

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 (must be out of high school at least one year) and/or five years of work experience. A maximum of 8 credits may be taken per quarter and a maximum of 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, professional enhancement, or personal enrichment. For more information, contact the Adult, Continuing Education & Extension Department, Somsen Hall, Room 109, Winona State University. (507) 457-5080.

Vocational/Technical College Students

Students interested in transferring credits from vocational-technical colleges should contact the Admissions Office.

Winona State University shall accept, for transfer electives, a general elective package of 24 credits of college-level vocational or technical courses offered by institutions with appropriate regional accreditation. A grade of "C" is required for any vocational-technical course to transfer to WSU. Some departments may offer courses for

course transfer credit of vocational classes that apply to a student's program of study. A special form is available to facilitate this process.

Students entering WSU from a vocational-technical college are considered transfer students. These students are required to submit an official transcript from the vocational school. A high school transcript and appropriate admission test scores are also required for admission.

Veterans Assistance

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, Somsen 106.

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 Form or a notice of basic eligibility to submit with the application.
2. Students who have received a Certificate of Eligibility for Winona State University should submit both copies at the time of application for admission.
3. Following admission to the university, students must present their DD-214 Form to the Veterans Office and 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. Students must 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 upon certification furnished by the school. When a student completes, drops out or interrupts his/her course of training, notification to the Registrar's Office and the Veterans Assistance Office is required.
6. Veterans with Dependents: Before a veteran can receive payments based on his/her marriage and dependents, the Veterans Administration requires that the veteran submit certified copies of marriage certificates, birth certificates and/or adoption papers for any dependents. Until these documents are on file with the VA, the veteran will be paid at the single rate. The WSU Veterans Assistance Office and the county Vets Services Officer can help expedite this procedure.
7. Re-enrollment. Re-enrollment can 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.
8. 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 or from another school.
9. Academic Load: Full time training requires 12 q.h. of undergraduate credit or 9 q.h. of graduate credit. Three-fourths time training requires 9-11 q.h. of undergraduate credit or 7-8 q.h. of graduate credit. Half time training requires 6-8 q.h. undergraduate credit or 6 q.h. of graduate credit. Less than half time training requires 1-5 q.h. of undergraduate credit or 1-5 q.h. of graduate credit.
10. Tutorial assistance: This program provides special help to overcome a marked deficiency in a subject required for the satisfactory pursuit of an educational objective. It is available to Vietnam era vets. See the Veteran's Office for detailed information.

11. Credit for military schools: Service schools and training are 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 Form 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.
12. 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.
13. Waiver of physical education activity requirements: Veterans who have been on active duty for more than one year, and who are pursuing on-teaching degrees, can waive this requirement by providing the Admissions Office with an official copy of their DD-214.
14. Veterans who are eligible for Chapter 106-"New GI Bill" benefits must obtain and submit an original DD2384 Form. Selected Reserve Educational Program Notice of Basic Eligibility. This copy can be obtained from your reserve unit with the required signatures. The Veteran's Office will forward this copy along with other pertinent forms to the Veteran's Administration.

Credit or Advanced Placement by Examination

All departments offer advanced placement credit to qualified students who achieve satisfactory scores of 3 or above on C.E.E.B., Advanced Placement 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. Many departments will also accept credit for successful completion of CLEP subject examinations.

Correspondence Courses

Winona State University does not offer correspondence courses. The University will accept some correspondence work toward a degree.

Campus Visits

Students are welcome to visit at any time. Student-conducted tours originate in the Admissions Office (Somsen Hall, Room 106) when school is in session at 9:00 a.m. and 1:00 p.m. Monday through Friday. Tours are also offered at 10:00 a.m. on selected Saturdays from October through March (except holidays). Summer tours are also available.

For further information, material, inquiries contact:

Office of Admissions
Winona State University
Post Office Box 5838
Winona, MN 55987-5838

Call:

Minnesota Residents: 1-800 CHAT-WSU
Other States: 1-800 DIAL WSU
(507) 457-5100

Financial Information

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

A non-refundable fee of \$15.00 is required with the Application for Admission. Persons who have been admitted to Winona State University and have paid the \$15.00 fee will not be subject to this fee for subsequent enrollments.

Estimated Tuition

Regular Academic Year

	1995-96 Tuition Per Credit Hour	1996-97 Tuition Per Credit Hour
<i>Undergraduate —</i>		
<i>on-campus and extension courses:</i>		
Resident	\$49.50	\$52.50
Non-Resident	\$107.10	\$113.50
<i>Graduate — on campus and extension:</i>		
Resident	\$73.50	\$77.90
Non-Resident	\$116.50	\$123.50

Summer Session:

	Summer 1995	Summer 1996
<i>Undergraduate:</i>		
Resident	\$49.50	\$52.50
Non-Resident	\$107.10	\$113.50
<i>Graduate:</i>		
Resident	\$73.50	\$77.90
Non-Resident	\$116.50	\$123.50

Estimated Fees

All fees are subject to change.

Activity Fee

The Activity Fee is assessed to all students attending classes through the Winona and Rochester campuses. The rates are determined by a committee consisting of members of the Student Senate and University Administration. The committee also determines the distribution of funds. Areas receiving funds include the health service, student senate, university clubs, and the Winonan. The Activity Fee is \$5.40 per credit hour..\$64.80 maximum per quarter.

Union Facility Fee

The Union Facility Fee is assessed to all students attending classes through the Winona Campus. The rate is determined by the University Administration and the State Board Office. Funds are used to finance the construction, maintenance, and daily operation of the student union building. The Union Facility Fee is \$3.35 per credit hour.. \$53.60 maximum per quarter.

MSUSA Fee

The MSUSA Fee is assessed to all students attending classes for college credit. The rates are determined by the Minnesota State University Student Association and The State Board Office. Funds are used by the Minnesota State University Student Association. The MSUSA Fee is 13 cents per credit hour.. \$2.08 per quarter.

Academic Computing Fee

The Academic Computer Fee is assessed to all students attending classes for credit. The rate is determined by the University Administration and funds are used to support the student computer labs and academic computer services. The fee is \$1.00 per credit hour.. 12.00 maximum per quarter.

Course Fees

Course Fees are assessed to all students attending courses that have additional course fees indicated in the schedule. Rates are determined by the Department Chairperson and approved by the Deans and Academic Vice President. course fees are used by the departments to pay for costs not normally incurred in every day instruction, i.e. the cost of using the bowling alley for a bowling class.

Residential College Fee

The Residential College Fee is assessed to all students within the Residential College. The rates are determined by the University Administration and funds are used to provide additional programs for those in residence at the Residential College. The Residential College Fee is \$100.00 for the first year, \$75.00 for the second year, \$50.00 for the third year, and \$25.00 for each year following the third year.

Insurance

Health insurance is available to all full-time students. Further details are available in the Counseling Center.

Incidental Fees

Several smaller fees arise from other non-course related matters including Health Service, Credit by Exam Fees, ID card replacement fees and Library Fines.

Program Change Fee

The University also assesses a fee to students who change part of their program after classes have started. A \$5.00 fee is assessed each day a student utilizes the registration system to make a change in their program after the student has initially registered.

Late Payment Fee

Payment in full for all tuition, fees and residence hall charges must be paid by the payment due date indicated in the current class schedule. Any payment accepted after the payment due date will be assessed a late fee of \$10.00 for the first day payment is late and an additional amount for each succeeding instructional day.

Students are expected to pay all accounts to the University when they are due. Due dates are published in the quarterly class schedule. Failure to receive a fee statement does not release the student from payment obligations.

The University is authorized to withhold the issuance of diplomas and official transcripts of credits and to deny students further registration until all moneys due the University have been paid.

Refund Policy

Students who withdraw from the University should obtain Application for Refund forms from the Registrars Office, first floor Somsen Hall. Students dropping classes must inform the Registrars Office using the official drop procedures. Student who withdraw from the University or who drop one or more credits will receive a tuition refund according to the following schedule:

First Term Students:

Students who have received no credit hours in any previous term at a Winona State will be refunded according to the following schedule:

<i>Regular Weekly Classes:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
Up to and including 3rd instructional day	100%	100%
During first week after the 3rd instructional day	85%	None
During 2nd week of term	75%	None
During 3rd week of term	65%	None
During 4th week of term	55%	None
During 5th week of term	45%	None
During 6th week of term	35%	None
After 6th week of term	None	None
<i>Evening and Saturday Classes:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
1st course but before 2nd course meeting	100%	100%
During first week after the 2nd course meeting	85%	None
During 2nd week of term	75%	None
During 3rd week of term	65%	None
During 4th week of term	55%	None
During 5th week of term	45%	None
During 6th week of term	35%	None
After 6th week of term	None	None
<i>Summer Session:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
1st instructional day	100%	100%
During first Week after the 1st instructional Day	75%	None
During 2nd week of term	55%	None
During 3rd week of term	35%	None
After 3rd week of term	None	None

All amounts retained by Winona State include a 5% administrative charge. (Maximum administrative amount retained is \$100.00) This charge is included in the above schedule.

Students Not Attending Their First Term

Students who have received credit hours in any previous term at Winona State will be refunded according to the following schedule.

<i>Regular Weekly Classes:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
Up to and including 3rd instructional day	100%	100%
4th through 8th instructional day	75%	None
9th through 13th instructional day	50%	None
14th through 18th instructional day	25%	None
After 18th instructional day	None	None
<i>Evening and Saturday Classes:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
1st course meeting but before 2nd course meeting	100%	100%
2nd course meeting but before 3rd course meeting	75%	None
3rd course meeting but before 4th course meeting	50%	None
4th course meeting but before 5th course meeting	25%	None
After 5th course meeting	None	None
<i>Summer Session:</i>	<i>Withdrawing</i>	<i>Credit Drops</i>
1st instructional day	100%	100%
2nd through 4th instructional day	75%	None
5th through 7th instructional day	50%	None
8th through 10th instructional day	25%	None
After 10th instructional day	None	None

If a students course schedule is reduced for the convenience of the University, the tuition shall be adjusted without penalty. Refunds on activity fees will be on the same basis as tuition when withdrawing or dropping credits. Refunds are not given for textbooks and materials. Used books may be sold at the University Bookstore during the last week of each term.

Estimated Room and Board

Payment for residence hall and meal services are made on a quarterly basis. The following cost estimates include meals and a phone in each room.
 Single Occupancy \$1,040-\$1,190
 Normal Occupancy-Double Room \$965-\$1,110
 Guest Rate (per night) \$10-\$15

Estimated Total Minimum Expenses for Undergraduate Students

	1995-96 Resident Per Qtr.	1995-96 Non-Resident Per Qtr.	1996-97 Resident Per Qtr.	1996-97 Non-Resident Per Qtr.
Tuition (16 quarter hours)	\$792.00	\$1,713.60	\$840.00	\$1,816.00
Activity, Union Facility, MSUSA ACC Compt Fee... ..	132.48	132.48	132.48	132.48
Residence Halls - Board and Room	965.00	965.00	1,010.00	1,010.00
Total Average Student	\$1,889.48	\$2,811.08	\$1,982.48	\$2,958.48

Textbooks will average about \$200.00 per term.

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 to residents of other states or nations.

Regulations and criteria regarding the determination of resident status can be obtained through the Admissions Office, Somsen Hall, Room 106. 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 Admissions Office a "State of Residence" form.

**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 a similar tuition rate as charged by the state of home residence. 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 remains in effect as long as there is continuous enrollment (summer excluded). Should reciprocity student leave WSU for more than the academic year, they must reapply for reciprocity tuition.

Midwest Student Exchange Program Kansas/Michigan/ Missouri/Nebraska

Student enrolled at Winona State University who are residents of Kansas, Michigan, Missouri, and Nebraska will pay a tuition rate of 150% of the resident rate. This represents a typical savings of over \$1,200 per year for undergraduate students.

Student Financial Aid

The Student Financial Aid Office counsels students concerning long- and short-term plans for financing 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 Hall, Room 108, Winona, MN 55987. Phone (507) 457-5090.

In general, university-administered aid is awarded after eligibility from the standpoint of need has been established. To be considered for aid, students must be enrolled or accepted for admission as regular students in an eligible academic program for the purpose of obtaining a degree, be in good academic standing and maintain satisfactory progress.

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

Application Procedure

An application for financial aid should be filled out from a completed tax return and submitted as soon as possible after January 1. Awards are made to students on a rolling basis after they have been admitted to the University. Certain programs have limited funding while others are entitlement programs and have funds available throughout the year.

Applications for financial aid are available from high school counselors or can be requested from the financial aid office at Winona State University.

Minimum Standards of Satisfactory Progress for Financial Aid Recipients

Federal regulations require that all financial aid recipients be in good standing and maintain satisfactory academic progress. The intent of this requirement is to encourage all aid recipients to advance steadily toward the completion of their degrees. To receive aid, students must meet the minimum requirements as outlined in the standards of satisfactory progress which is provided to all financial aid recipients.

Employment

Federal Work-Study: Under the Federal Work-Study Program, students can work up to 20 hours per week and earn a portion of their college expenses. Students must demonstrate a financial need.

The rate of pay is minimum wage or more, and students are paid twice a month. Most of the jobs are located on campus, but students can work in off-campus, non-profit organizations or agencies.

State Work-Study: Students placed on State Work-Study must be Minnesota residents. Demonstration of financial need is required.

The rate of pay is minimum wage or more, and like the Federal Program, students can work on or off-campus.

Scholarships

WSU Academic Scholarships

Information on WSU academic scholarships for entering students is available from the WSU Admissions Office.

Browning Academic Honors Award: Established in 1991, this \$2500 award recognizes incoming freshmen for outstanding academic achievement in high school, and is renewable each year for a total of \$10,000 if a cumulative GPA of 3.50 is maintained while remaining in

continuous full-time attendance and completing at least 12 credits per quarter. Students in the top 5% of their graduating class who have an ACT composite of 32 or greater are eligible. Awards are based upon date of acceptance to the university, therefore, early application to WSU is encouraged. Recipients are required to live on campus for their first two years unless residing with a parent or guardian. First priority awards will be made in early December. A separate application is not required.

WSU Foundation Board Scholarship: The WSU Foundation Board annually awards scholarships of \$2000 to four entering freshmen who rank in the top 5% of their high school graduating class and have an ACT composite of 28 or greater. An on-campus interview is required. Interview candidates are selected by submitting an essay. This scholarship is renewable each year for a total of \$8000 if the student maintains a cumulative GPA of 3.50, while remaining in continuous, full-time attendance and completing at least twelve credits per quarter. Recipients must live on campus for their first two years unless residing with a parent or guardian. Students must be accepted to the university by January 15 to be considered. A separate application is not required.

President's Honor Scholarship: The President's Honor Scholarships, funded by Winona State and the Rivet, Walker, Garvin, Class of 1942, Thomas Stark, Neville/Valley Wholesalers, Merchants National Bank, Schwab, and Guy Maxwell endowment funds, are awarded to entering freshmen in the following categories:

- \$1500 Top 5% of graduating class & ACT 28 or SAT 1240
- \$1000 Top 10% of graduating class & ACT 27 or SAT 1210
- \$750 Top 15% of graduating class & ACT 26 or SAT 1170

This scholarship is available for four years if recipients are in continuous full-time attendance and maintain a 3.50 cumulative GPA and completing at least 12 credits per quarter. Recipients must live on campus for their first two years unless residing with a parent or guardian. Awards are based upon date of acceptance to the university, therefore, early application to WSU is encouraged. First priority awards are made in early December. A separate application is not required.

Academic Awards: \$300 - \$500 awards are made to students graduating from a high school in Minnesota. Students who are in the top 20% of their graduating class with a minimum ACT of 21 or have an ACT composite of 24 and are at least in top half of class are eligible. Awards are based upon date of acceptance to the university, therefore, early application to WSU is encouraged. A separate application is not required.

Transfer Honor Scholarship: Students transferring to WSU are eligible to apply for a Transfer Honor Scholarship if they have a GPA of at least 3.35 on a 4.0 point scale and completed 70 quarter hour credits by April 1. Application forms are available from the Transfer Office.

Scholarships Awarded by WSU Departments

WSU academic departments select the recipients of the following scholarships of \$100-\$2000. These scholarships are awarded to freshmen and upperclassmen in good standing and majoring in the given areas. Students interested in these scholarships should contact the designated departments for information on application procedures and deadlines. The application process begins early in Spring quarter.

WSU Foundation Scholarships

Name of Scholarship	Department
Amanda Aarestad Scholarship	Elementary Education
Accounting Alumni & Friends	Accounting
APICS Twin Cities Chapter	Business Administration
ASQC La Crosse-Winona Chapter	Business
Erwin F. Bachler Scholarship	Mathematics
Greg & Linda Ballard Scholarship	Economics/Finance
Agnes M. Bard Scholarship	Music
Brock Candy Co. Scholarship	Business
Ray Brooks Award	Mass Communication
James & Margaret	
Browning Scholarship	Health/Nursing
Ervin G. Bublitz Scholarship	Sociology/Criminal Justice

John Bublitz Scholarship	Criminal Justice/Law Enforcement	Paralegal Alumni Scholarship	Paralegal
Buhler Memorial	Computer Science	Dorothy Purtzer Memorial Scholarship	Nursing
Rosalie Burton Scholarship	Nursing	Vertie Sather	Education
John Cady Scholarship	Economics/Finance	James R. & Nancy M. Reynolds Scholarship	Sociology (B.A.)
Glenn A. Carlson Scholarship	Elementary Education	Jerry Sceman	Football
Casini Scholarship	Biology	Alma Smith Scholarship	BEOSA/English
Cichanowski-Logelin	Computer Science	Marguerite Snesrud	Engineering
Computer Science Department	Computer Science	Ralph Spencer Scholarship	HPER
Larry Connell Memorial Scholarship	Sociology/Social Work	Jean Talbot Scholarship	HPER
Paul Corrigan Award	Mass Communication	William P. Theurer Scholarship	Business Administration
Richard C. Coughlin Scholarship	Liberal Arts	Frank Tolmie	Education
Coulee Rock Club Scholarship	Geology	Walter F. Wadewitz Scholarship	Science/Math Education
Bud Dahlen Memorial	Counselor Education	Watlow Winona Inc. Scholarship	Engineering
Kathryn Dunlay Scholarship	Elementary Education	Dorothy & Maynard Weber	Art
Charles & Emma Durr &		Max Weber	Art
Florence Schroth Scholarship	Education	Windsor Financial Group Scholarship	Sociology
Phyllis Ehmke Nursing Scholarship	Nursing	Winona Daily News Scholarship	Mass Communication
Gordon Elliott Scholarship	Liberal Arts	Winona Distributing Co.	Football
EMD-DCM Engineering Scholarship	Engineering	Zumbro Valley Medical Society Alliance	Nursing
EMD-DCM Statistics Scholarship	Statistics	Other Scholarships	
Mary June Fischer-Elder Scholarship	HPER	Sylvia Bremer Award	CTA/English
Ruth Severud Fish Scholarship	Art Education	Forensics Scholarship (New Students)	Forensics
Glenn Fishbaugher Scholarship	Education	Glen Galligan Scholarship	HPER
Frankard Family Scholarship	Airway Science	Blanche Hunter Scholarship	Nursing
Edith V. Fraser Scholarship	Education	Helen L. Klein Scholarship	Education
John & Edna Fuller Scholarship	Elementary Education	Raymond Thielan Scholarship	History
John & Karen Gardner Scholarship	Nursing		
Geology Alumni Scholarship	Geology		
Goodson Mfg. Co. Scholarship	Nursing		
William H. Gresham	Social Work		
Memorial Scholarship			
George E. Hajicek Scholarship			
Fred & Mary Heyer			
Memorial Scholarship	Music		
Tom Hirsch Award	MassCommunication/Photojournalism		
Home Federal Savings Bank	Nursing		
Ray Houtz Scholarship	Chemistry		
ICI Fiberite	Engineering		
Harry R. Jackson			
Memorial Scholarship	Football	Charles & Ellora Alliss Foundation	
Tammy Kempf Scholarship	Nursing	L. L. Brown	Centennial
Kendell Corp. Scholarship	English/Liberal Arts	Harriet R. Choate	Elfie Christiansen
E.L. King Scholarship	Art Education	Josephine Flagg	Theda Gildemeister
Langston Nursing Scholarship	Nursing	Etta Hudson Howell	Ethel Gage Jessen
Long Distance/		Jestus Nursing	Phillip Loughrey
USA-Sprint Scholarship	Liberal Arts	LaCrosse Lutheran	William Markle
Warren & Dorothy Marley Scholarship	BEOSA/Business Administration	Hospital Auxiliary Health Career	Beulah Norton
Thomas Mauszycki Scholarship	Art	Arthur & Viola (Zeller) Mattson	W. W. Norton
Richmond McCluer Scholarship	Music	Rotary Club	70th Year
Luther McCown Scholarship	HPER	Stephen H. Somsen	Louise Sutherland
McGladrey & Pullen Scholarship	Accounting	Ella Tucker	Winona County Bicentennial
Midtown Foods IGA Scholarship	Baseball	World War Memorial	Winona Senior Citizens Center
Randolph W. Miller Scholarship	Exercise Science		
Lenore Coborn Minne Scholarship	Elementary Education		
Madeo & Rosemary			
Molinari Scholarship	Football		
Paul Molinari Scholarship	Football		
Marjorie Moravec	Womens Basketball		
MVTL Chemistry Scholarship	Chemistry		
Fern Nelson Scholarship	Education		
Mary Lucille Nelson Scholarship	Nursing		
Richard & Janet			
Northup Scholarship	Education		
Norwest Bank Winona Scholarship	Business		
Nursing Alumni	Nursing		
Fred & Sandra Olson Scholarship	Mathematics/Statistics		
James Opsahl Scholarship	Biology		
Marvin & Muriel			
Palecek Scholarship	History		

Scholarships Awarded By the WSU Financial Aid Office

The Financial Aid Office selects the recipients for the following scholarships totaling more than \$60,000. Awards are based on the demonstrated financial need and academic standing of the student. The only application required or accepted for these scholarships is the application for student aid. All students who submit this needs analysis report to WSU receive scholarship consideration based on their test scores and/or cumulative grade point average combined with their financial need. Amounts vary from \$100 to \$1500. Financial aid applications should be filed as soon as possible after January 1.

Charles & Ellora Alliss Foundation	
L. L. Brown	Centennial
Harriet R. Choate	Elfie Christiansen
Josephine Flagg	Theda Gildemeister
Etta Hudson Howell	Ethel Gage Jessen
Jestus Nursing	Phillip Loughrey
LaCrosse Lutheran	William Markle
Hospital Auxiliary Health Career	Beulah Norton
Arthur & Viola (Zeller) Mattson	W. W. Norton
Rotary Club	70th Year
Stephen H. Somsen	Louise Sutherland
Ella Tucker	Winona County Bicentennial
World War Memorial	Winona Senior Citizens Center

Additional Scholarships Alumni Society Merit Scholarships

The WSU Alumni Society awards six \$500 scholarships to entering freshmen who are relatives of alumni. The applicant must be a child, grandchild, brother, sister, or ward of a WSU graduate. The applicant must have the endorsement of the relative and a high school counselor. Application forms are available from the WSU Alumni Office and must be completed by March 1.

Resident Tuition Scholarships

The Resident Tuition Scholarship (RTS) awards resident tuition rates to new, non-resident, non-reciprocity freshmen. This scholarship may be viewed as a \$2850 annual award and is renewable for a total of 12 academic quarters if the student maintains a cumulative GPA of 3.00 while remaining a continuous full-time student and completing at least 12 credits per quarter. Students who rank in the top 15% of their

graduating class (minorities in the top 25%) or have an ACT of 25, an SAT total of 1140 or PSAT selection index of 168 are automatically awarded the RTS upon acceptance to the university. Early application to WSU is encouraged. A separate application is not required.

Talent Scholarships (Fine Arts and Athletics)

Students talented in art, music, speech, or theater can apply for fine art scholarships by contacting the chairperson of the appropriate WSU department. Early application is encouraged.

Students interested in intercollegiate sports should contact the appropriate head coach for consideration for athletic scholarships.

Cultural Diversity Scholarships Program

The Cultural Diversity Office coordinates minority scholarships, incentive grants, internships, and summer opportunity employment programs. The following scholarships are available:

Minority Incentive Grants (\$100-\$500)

This grant is awarded to eligible students who meet the following criteria:

1. be currently enrolled at WSU
2. have at least a cumulative 2.5 GPA
3. earn 12 credits each quarter.
4. participate in at least one cultural diversity or multicultural event each quarter.

Talented Minority Scholarship (\$2,000)

WSU awards this scholarship for the recruitment of academically talented minority students. To be eligible for this scholarship, you must:

1. be a high school senior admitted to WSU with an ACT composite score of 25 or better.
2. be enrolled full time (earn at least 12 credits each quarter) for renewal.
3. have earned a cumulative 3.0 GPA at the end of each academic year for renewal.
4. participate in at least one cultural diversity or multicultural event each quarter.

Minority Incentive Scholarship (\$350-\$1,000)

This scholarship is allocated to WSU for the recruitment and retention of minority students. To be eligible for this scholarship, you must:

1. be a regular admit at WSU and have a composite ACT score of 21 or better (for incoming freshmen) or a 2.5 cumulative GPA (for incoming transfer students).
2. be in good academic standing (earn at least 12 credits each quarter and maintain a cumulative 2.5 GPA) for returning student.
3. participate in at least one cultural diversity or multicultural event each quarter.

Additional Financial Assistance

Other financial assistance is available in the form of internships and corporate scholarships. The following are specific examples:

3M MECA program of St. Paul, Minnesota

- \$2,000 Scholarship
- \$450 per week for a 13-week summer internship
- Must have 2.5 GPA

Mayo Medical Center Summer Internship; Rochester, Minnesota

- \$3,000 Stipend
- \$600 Scholarship (disbursement of \$200 per quarter)
- Must have 2.8 GPA
- Major must be related to careers or positions available within Mayo Medical Center.

Resident Tuition Scholarships

- Pay in-state tuition
- Must be in top 25% of their high school graduating class OR have

an ACT composite score of 25+ or SAT score of 1100.

- Scholarship is renewable based on cumulative 3.0 GPA and participation in at least one cultural diversity or multicultural event each quarter.

Other Programs

Cultural Diversity Employment
Nursing/Social Work Scholarship Program
Most Improved Awards
Achievement Awards
Winona Daily News Internship

If you have any questions or concerns, please contact the Cultural Diversity Office at (507) 457-5595.

Scholarships and grants of \$100-\$2000 are available to qualified minority students who are new students at WSU. The awards are renewable each year if the recipient maintains a 2.5 GPA and completes a minimum of 12 credits per quarter. March 1 is the priority application date. Applications are available from the Cultural Diversity Office, 121 Kryzsko Commons, (507) 457-5595.

Other WSU Foundation Scholarships

The Karen Sweetland Scholarship and the Kaiser Scholarship, both \$500, are awarded annually by the WSU Foundation to a WSU junior or senior with a minimum 3.75 GPA. A letter of application should be sent to the WSU Foundation. Each year a WSU Faculty/Support Staff Scholarship is awarded as a general scholarship. WinCraft Inc. offers a \$500 scholarship, giving priority to WinCraft employees or their relatives. For further information, contact the office of University Relations and Development, 210 Somsen.

A Treasures Galore Scholarship is awarded each year to a Winona County high school graduate who enrolls at WSU. Students apply through their high school guidance department.

A Norwest Bank Red Wing Scholarship is available to a student from Red Wing Independent School District 256 who enrolls at WSU. Students apply through their high school counseling center.

Other Sources of Scholarships

In addition to receiving the scholarships described here, each year WSU students also receive thousands of dollars in scholarships from outside sources such as government agencies, professional organizations, civic groups, corporations, sororities and fraternities, foundations, religious groups, educational associations and military/veterans organizations. Directories of these scholarship sources are available in public libraries, high school counselor offices and financial aid offices.

Grants

Minnesota State Grant 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 Financial Aid Office.

Non-AFDC Public Post Secondary Education Child Care Fund: The State of Minnesota provides funds for child care for students who meet certain income guidelines and are not receiving AFDC assistance. For information, contact the Financial Aid Office.

Federal Supplemental Educational Opportunity Grant: A federal grant available to undergraduate students that have Pell Grant eligibility.

Federal Pell Grant: A federal grant program that provides gift assistance to undergraduate students based on their financial need to attend college.

Bureau of Indian Affairs Grant: Grants are available to students with one-fourth or more Indian blood. Additional information and applications may be obtained by contacting the agency or area office serving your tribal group.

Rehabilitation Services: Students who have a disability may qualify for Rehabilitation Benefits that would help defray college costs. Students should contact their high school counselor or local Division of Rehabilitation Services for detailed information.

Loans

Federal Perkins Loan: A need based loan at 5% interest. Repayment and interest does not begin until after the student leaves school, and partial cancellation of the loan may be provided for employment in certain areas per terms of the promissory note.

Subsidized Federal Stafford Loan: (formerly GSL) This need based loan provides up to \$2,625 for the first year of study, \$3,500 for the second year, \$5,500 for other undergraduates, and \$8,500 for graduate and professional students. The Federal Government pays the interest while the student is enrolled on at least a half-time basis and during a six month grace period. The interest is variable, capped at 8.25 percent.

Unsubsidized Federal Stafford Loan: Same terms and conditions as Federal Stafford Loans, except that the borrower is responsible for interest that accrues while he/she is in school. This loan program is open to students who may not qualify for subsidized Stafford loans or may qualify for only partial subsidized Stafford loans.

Federal PLUS Program: A loan program that allows parents of dependent students to borrow. Parents can borrow up to the cost of attendance minus other financial aid that the student receives. The interest rate is variable; capped at 9%.

Student Educational Loan Fund (SELF): The Minnesota Higher Education Coordinating Board provides loans for undergraduates and graduate students. Currently, first and second year students can borrow up to \$4,500 per year, third and fourth year students can borrow up to \$6,000, and graduate students up to \$7,000. A student is eligible for SELF loans regardless of family income, but must have a credit worthy co-signer. The interest rate is variable with a cap on increases and decreases at 2% for any 12 month period.

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

Assistantships

Graduate assistantships are available to highly qualified graduate students in several departments. Applicants should submit requests for assistantships to the appropriate department chairperson or to the appropriate dean.

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

General Student Information

Becoming an educated person is achieved largely through academic pursuits. In addition, nurturing group relationships is of prime importance in realizing one's full potential. At Winona State University, 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 discussing and resolving current issues.

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. This student-centered facility provides conference rooms for informal gatherings, six-lane bowling alley, a pocket billiards and ping-pong area, student lounges, television viewing center, the Campus Bookstore, and staff offices. The Director of Kryzsko Commons/Student Union and the Director of Student Activities work with appropriate student committees to coordinate the social, cultural, and recreational programs. Activities include movies, dances, guest speakers, concerts, river excursions, banquets, art exhibits, and other special events.

Student Organizations

Approximately 100 student clubs represent a wide variety of interests. A variety of student clubs encompass academic, social, athletic, religious, cultural and political interests.

Each organization provides service activities that benefit the members, campus and community. Joining any one of these organizations will greatly enhance the college experience.

Student publications include the *Winonan* (university newspaper), *Bravura* (a community student newspaper) and *Satori* (a literary magazine). Students benefit from the University radio station (KQAL-FM 89.5) with student-directed programs.

Residential Services

Six traditional residence halls and the residential college offer unique opportunities to enhance academic experiences. Although the

actual delivery of educational services differs somewhat from the residence halls to the residential college, the goals of our residence life staff remain the same:

1. To complement classroom learning with a variety of experiences that enhance the academic component, encourage leadership, and citizenship.
2. To provide a safe living/learning environment where students can interact, study, socialize and rest comfortably.
3. To understand diversity.
4. To encourage participation in campus organizations and co-curricular activities.
5. To provide a network of support, referral and information regarding campus and community services available to students.
6. To provide residents, through programming, opportunities for intellectual, physical, emotional, spiritual & occupational growth.
7. To provide a well trained and responsive peer staff who are able to support and implement the goals stated above.

Residential Facilities

a.) The six residence halls house 1,300 students. Another 400 students are housed at Lourdes Hall which is also home for students enrolled in the residential college. Lifestyle options vary within each hall. The residential living brochure includes a description of each building plus the lifestyle options. It also contains information about the rooms. A well trained and professionally supervised student staff encourages community development within the halls.

b.) The residential college is an exciting academic lifestyle option. The opportunity to take some of your classes in the same building where you live lends a special meaning to a "living - learning" environment. Frequent and informal interaction with the faculty who live and work at the residential college will lead to an enhanced academic experience. Details on the lifestyle options programmed for the residential college are described in the residential living materials which accompany the application.

Campus Dining

Residents who live in the residence halls will have meals in the new \$3.1 million dollar cafeteria located in the student center. Students residing at the residential college will dine at the cafeteria located in that facility. Students who live off-campus may purchase quarterly contracts

to eat in the student center cafeteria with residence hall students. Guests, visitors and faculty are invited to join the students by paying the prescribed rate for the particular meal(s) they eat. Both dining centers offer a variety of meal plans. Residents at either facility are required to participate in the dining service unless written permission has been received from the Director of Housing.

Off-Campus Housing:

Listings of apartments and sleeping rooms for students are available from the Off-Campus Referral Service located at 130 Kryzsko Commons. Listings are not sent to students. This service is open from 8 a.m. to 4 p.m. during business days. The 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, 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 as a result of these listings. All questions about accommodations should be addressed directly to the landlords.

The University does not own or operate married housing facilities. (Many of these listings are provided by the off-campus referral service.)

Students wishing to apply for subsidized housing may contact the Housing and Redevelopment Authority of Winona, 165 East 4th Street, Winona, MN 55987.

Reserving a Room:

Space in the residence halls and at the residential college is in high demand. Students are encouraged to apply early to be guaranteed a place in the halls or at the residential college. Residential living applications along with a \$20 processing fee are requested after receiving an acceptance to Winona State University. Approximately March 1, a housing contract/lease agreement will be mailed to you. You will have 30 days to return your contract/lease along with a \$150 advance payment to bind your contract. After receipt of the advance payment, room assignments will be mailed.

Security/Parking Services

As of Spring Quarter 1995, WSU Parking Services and WSU Security have merged. This merge made it possible for WSU to have 24-hour security.

WSU campus security provides for the protection of the campus community and its property. The University hires upper-class students to perform duties to help insure the safety of its students, staff, and property. Working 24 hours a day, campus security is responsible for keeping alert for possible theft, vandalism, health and safety hazards; enforcement of parking rules and regulations; as well as encouraging adherence to Residence Hall and University rules and regulations. The Security Director is a licensed law enforcement officer. For more information pertaining to security, contact Security/Parking Services, Sheehan Residence Hall, (507) 457-5555.

Parking lot permit applications and Parking Regulation guides are available from Security/Parking Services, Sheehan Residence Hall. Applications for permits are accepted May 1 of each year for the next academic year. If applications exceed the parking spaces available, a Spring and Fall drawing are held. After this process, if there are still spaces available, permits are sold on a first-come, first-serve basis. If no permits are available, names are put on a "waiting list."

For information and cost pertaining to permit parking on the WSU campus, contact Security/Parking Services, Sheehan Residence Hall, (507) 457-5062.

Affirmative Action Office

The Affirmative Action Office(AAO) is located in Somsen Hall. The Affirmative Action Officer provides information and support to students who encounter discrimination or have been harassed due to their gender, race, religion, national origin, age, color, creed, economic or marital status, mental or physical disability, sexual orientation or affectional preference, handicap or veteran status. The AAO also aids students who experience sexual harassment at WSU. These confidential services are available by appointment or on a walk-in basis. Call 457-5008 for more information or to make an appointment.

Counseling Center

Counseling is available without charge at the Counseling Center, 132 Gildemeister Hall, and at the Rochester Center. Counselors assist students in exploring their interests and abilities and in adjusting to university life. Students may confer with a counselor about any problem—personal, academic, or vocational.

All staff members are professional counselors with experience in counseling with college students. A testing service is available with emphasis on vocational interest testing. 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.

Academic Skills Center

The Academic Skills Center, which includes a study skills lab, is located in 126 Phelps Hall. Any student may use the facilities to receive assistance with study skills, reading efficiency, basic mathematics, and English skills. Assistance also is offered for time management, listening, note taking, reference skills, and test preparation. A student may make an appointment to work on an individual basis or enroll in Education 115, Improving Reading and Study Skills. Tutoring also can be arranged through the Academic Skills Center.

Student Health Service

Facilities

The Health Service is located in the west wing of Maxwell Library. The facility is staffed by physicians from Winona Clinic, registered nurses, a medical technologist, a dietitian/nutritionist, and a medical records clerk.

Services Include

- Medical examinations and consultations for illness, injury, and other medical concerns
- Laboratory Services
- Mantoux tests and some immunizations
- Nutrition Counseling
- Allergy Injections (students must supply their own serum)
- Contraceptive Counseling and Prescriptions
- Health education materials including pamphlets, videos, and consultation to enable students to develop lifestyles which will reduce their risk of disease and injury

Most of the service provided during regular office hours is covered by the student health fee. There are charges for medications, laboratory tests, some medical procedures and supplies. Emergency care is available evenings and weekends at Community Memorial Hospital but at the students own expense. A student health insurance plan is available.

Pre-Enrollment Medical Examination

All students are requested to fill out a report of Medical History and submit this form to the Student Health Service. This form is provided to all new students at registration or by mail upon request. The form may be filled out without a physical exam and physicians signature, HOWEVER, it is HIGHLY RECOMMENDED that a physical exam be done. **PLEASE NOTE: If a student is planning to participate in athletics, a physical exam is MANDATORY and must be completed AFTER JULY 1st!**

TRANSFER STUDENTS: Health records are not automatically sent with transcripts from other colleges, but must be specifically requested by the student. It is still necessary to complete the Report of Medical History for the Winona State Student Health Service.

Immunization Record

Minnesota Law (M.S. 135A.14) requires that all students born after 1956 and enrolled in a public or private post-secondary school in Minnesota be immunized against diphtheria, tetanus, measles, mumps, and rubella, allowing only for certain specified exemptions. Records must be on file with the Student Health Service. The law requires that students submit the information on immunizations to the Student Health Service Office within 45 days of the beginning of the term to remain enrolled. Forms are available in the Student Health Service and in the Class Schedules.

Career Planning and Placement Service

Career Planning and Placement, 110 Gildemeister, offers assistance to seniors, graduate students, and alumni seeking full time employment. Service is also provided for juniors and seniors seeking internships. Employment information is available for positions in business, industry, government, education, human services, and non-profit organizations.

Opportunities for students to interact with employers are facilitated through this office including Career Fairs, Job Fairs, on-campus interviews, and referral service. Career information and resources are available for students review in the office during regular business hours, 8:00 a.m. - 4:30 p.m. Monday through Friday during the academic year, and 7:30 a.m. - 4:00 p.m. during June, July, and August.

Students should register early in their senior year to take full advantage of services offered through Career Planning and Placement.

Student Support Services

This is a federally funded program for students who are low income, first generation or physically disabled. Services include tutoring, academic advising, deciding on a major and counseling. Information about the program can be obtained by contacting the Director in Phelps-Howell 133 or call 507-457-5465. There is no cost to students.

International Student Service

The International Student Office, located in 128 Kryzsko Commons, provides assistance to international students who hold F-1 and F-2 visas. The Director of International Students is available for information and advice regarding admission of international students, immigration matters, discrimination concerns, laws, travel, employment, personal concerns, the Friendship Family Program, 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 at WSU. However, the English Department offers three specialized courses for non-native speakers. Students are assigned to these courses on the basis of their scores on the WSU English Test for Non-Native Speakers. This test must be taken prior to registration for the initial quarter of attendance at WSU.

Cultural Diversity

Winona State University offers a Cultural Diversity Program which represents and advances minority student opportunities in academic achievement and student life. The objectives are as follows: to significantly attract and retain minority students at Winona State University; to assure the academic success of African American, Hispanic American, Asian American, and Native American students; to provide coordination, organization, and consultation for academic and support programs; to interact with administration, faculty, students, and community to create more awareness and respect for a wide range of culturally diverse groups; and to provide academic advising and career counseling in conjunction with the faculty, the Academic Skills Center, and the Counseling Center.

Child Care Center

The Child Care Center serves 6-week to 5 year old children. Hours of operation are 7:15 a.m. to 5:30 p.m., Monday through Friday. Children can be enrolled on an hourly, part-time, or full-time basis.

The purpose of the program is to enable parents of preschool children to take classes and study during the day while providing their children with quality care in an enriching, stimulating environment. The Child Care Center provides a laboratory setting for early childhood students. For more information contact the Director at 453-2560.

Nursery School

Winona State University's Nursery School is developmentally appropriate and provides an integrated setting for children three to five years old. There is a Monday, Wednesday, Friday group and a Tuesday - Thursday group. Each session starts at 9:00 a.m. and ends at 11:00 a.m.

The purpose of this program is to provide quality preschool experiences for young children, to allow parents of preschoolers to take morning classes, and to provide university students with a laboratory setting where they can observe children and participate in a structured program.

For more information contact the Education Department.

Academic Information

Policy Changes

Throughout the academic year, administrative and committee actions will change policies that affect students. It is a student's responsibility to comply with the changes as they are reported in the University newspaper the *Winonan*, in the quarterly class schedules, or posted on the Registrar's Office bulletin board, Somsen Hall, Room 114.

Credit Overloads and Limitations

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) a student must earn an average of 16 credits per quarter.

Limitations

The University may restrict the number of credits for which a student enrolls in cases where previous low scholarship, out-of-school obligations, or similar factors might interfere with satisfactory performance of his/her obligations. The University may restrict a student from registering if he/she fails to follow proper registration procedures.

Overloads

Registering in any quarter for more than 21 quarter credits requires special permission. Normally only students with a 3.0 GPA and graduating seniors are given approval for overloads.

Dean's List

An undergraduate student who completes 12 quarter hours or more for a grade at Winona State University (not including pass/no credit) during any one quarter and achieves a grade point average of 3.5 is included on the Dean's List.

Declaration and Changes in Major/Minor/Certification Program

Students must declare or change a major, minor, or certification program by completing the appropriate form which is available in the Registrar's Office, Somsen Hall, Room 114. Upon declaration or change of a declared major/minor/certification program, students must follow the requirements in effect on the date shown on the declaration or change form. Program implementation dates are available in the Registrar's Office. Detailed program requirements are available in the office of the appropriate department chairperson. This Catalog may not include the latest program requirements.

Four Year Graduation Guarantee

A four year graduation guarantee is extended to all incoming first year students who declare selected majors at the time of matriculation. It provides that a student who meets all the terms and conditions of the guarantee will graduate at the end of four years of full time study. If the guaranteed student who meets these conditions does not receive a diploma, Winona State University promises that any remaining required courses will be provided to the student tuition free. Contact the relevant department or college dean for more information.

Grade Point Average (GPA)

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 credit - 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.

The major and minor grade point averages do not include "additional requirements". (i.e. general education courses outside the major department which are required courses in the major).

Only those courses and credits taken at WSU will count for the computation of grade point averages and for probation and suspension decisions after enrolling at WSU.

Although courses taken on a pass/no credit basis grant credit applying toward graduation, the credit does not affect the cumulative grade point average.

Incomplete Grades

The mark of "Incomplete" is reserved for special cases where a student, for reasons beyond his/her control, has been unable to finish some important assignment in the course by the end of the quarter, though he/she is passing in all other aspects. The grade for the Incomplete must be received by the Registrar by mid-term day of the next quarter of the student's enrollment. If it is not removed within the specified time, the grade automatically becomes an E.

Scholastic Standards

Grading System

A student's 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, Below Average; E, Failing; NC, No Credit; I, Incomplete; P, Pass. Other designations are W, Official Withdrawal; V, Audit; IP, In Progress; H, Honors.

Time Limitation

Program requirements must be completed within seven years after a declaration or change of major/minor/certification is made. If the seven-year limit has expired, the student must complete the program requirements in effect on the day after the seven-year limit expired.

Undergraduate Student Classifications

Freshman	0-48 quarter hours of credit
Sophomore	49-96 quarter hours of credit
Junior	97-144 quarter hours of credit
Senior	145+ quarter hours of credit

Academic Advising

All students are assigned to a faculty advisor shortly after their initial enrollment at WSU. Students who have declared a major are assigned to an advisor by their major department; undeclared students are assigned to an advisor by the Advising and Retention Center. Students are required to see their advisor during the advising period held prior to preregistration each quarter. Dates of the advising period are published in the quarterly class schedule.

Suspension Policy

Academic Standing

A student must have a WSU cumulative minimum grade point average of 1.50 for the first 12 degree credits attempted; 1.75 for the first 35 degree credits attempted; and 2.00 thereafter to remain in good academic standing. Total credits attempted includes credits transferred into Winona State University.

Academic Warning and Suspension

To remain enrolled in the University, students must be in good academic standing at the end of each academic year. At the end of the fall and winter quarters, students who are not in good academic standing will be sent a notice of academic warning. These students are **expected** to meet with a member of the Academic Appeals Committee for advice and recommendations. Appointments can be arranged in the Advising and Retention Center. At the end of the spring quarter, all students who have a cumulative grade point average below the minimum required for good academic standing will be suspended by the Vice President for Academic Affairs. An exception will be made for students newly admitted to the University in the spring quarter. These students will not be subject to suspension until the following spring.

All students suspended at the end of the spring quarter will be eligible to make a written appeal for readmission. Students whose written appeals are denied will be given the opportunity to appeal in person to the committee. Students whose appeals are granted will be eligible to return for the next academic year. Instructions for making an appeal will be included in the notice of suspension.

Readmission After Suspension

Students who do not appeal their suspension, or whose appeals are denied, will be ineligible to enroll at the University during the regular academic year until after they have sat out the required time. For the first notice of suspension, the required time out is one quarter. Students receiving a notice of suspension for the second time must remain out of the University for a full academic year; students suspended three or more times must remain out two full academic years.

Students who return to the University after sitting out on suspension will be subject to suspension again at the end of the academic year in which they re-enroll.

Students who have been suspended may enroll in courses at WSU during the summer sessions.

Questions regarding the suspension policy or procedures should be addressed to the Advising and Retention Center.

Application for Graduation

Application for graduation must be made no later than two quarters prior to the expected graduation quarter. A minimum of four weeks must be allowed for application processing and notification. Forms are obtained from the Registrar's Office, Somsen Hall 114 and are processed in the order in which they are returned to that office.

The graduation for a particular quarter will be "final" ten working days after the end of the quarter. Degrees are posted on student transcripts at the end of Fall Quarter, Winter Quarter, Spring Quarter and Summer Session II.

Graduation Requirements

The requirements for graduation with a Bachelor of Arts or Bachelor of Science teaching or non-teaching degree are:

- 1) 192 quarter hours of credit;
- 2) overall C average*;
- 3) 45 quarter hours in residence during the junior and senior years combined (residence credit is defined as any credit offered by WSU and credit earned by any WSU student under the Minnesota State University Common Market Program);

- 4) enrollment at WSU during the quarter of graduation;
- 5) general education requirements completed (see section on General Education Program);
- 6) completion of a C average*, either (1) in a broad major of 65 credits or more; or (2) in a major of less than 65 credits, and in a minor. (In the latter case, if the major has more than one option or concentration, the minor requirement may **not** be fulfilled with a second option or concentration in that major. However, a student may take a major and a minor in the same department, unless that is prohibited by the department.)

*Certain departments require that students earn a "C" or better in each course in their major/minor or earn a "C" or better in specific courses in their major/minor. Students must check with individual departments for any additional GPA requirements.

A student may not obtain a major, minor, option, or concentration which is wholly contained within a major or option that she/he has completed.

A student may use a course to meet requirements in any majors, minors, options, and concentrations that require the course. (Credit earned in the course counts only once towards the minimum 192 quarter credits required for graduation.)

Note: A department may prohibit the declaration of more than one major or option within that department.

The major and minor grade point averages do not include additional requirements.

No degree is awarded until all grades are finalized. I or IP grades may not remain on the permanent record.

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 requirements for the newly chosen curriculum even though the total number of credits earned exceeds the total minimum for graduation.

Bachelor of Engineering graduation requirements are listed under the Engineering section of the catalog.

Students have the final responsibility for selecting and registering for courses that will meet curriculum requirements. Three weeks prior to graduation, a list of candidates will be posted on the Registrar's Office bulletin board on the first floor of Somsen Hall. Students should check this list to ensure that they 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.

Students who return after graduation from Winona State to earn an additional (different) bachelors degree at Winona State are required to complete a minimum of 45 additional credits for the second degree. If the student completes another major but does not complete an additional 45 credits, the major is recorded on her/his permanent record, but the additional degree is not recorded and the student does not receive another diploma. Students receive only one diploma for each degree earned.

Graduation With Honors

A graduating student with an overall grade point average of between 3.250-3.499 is graduated Cum Laude. A student with an average of 3.500-3.749 is graduated Magna Cum Laude. A student with an average of 3.750-4.000 is graduated Summa Cum Laude. All courses from all institutions are used in the computation for honors. However, to be considered for honors, a student's WSU GPA must be 3.25 or higher.

To be eligible for graduation with honors, a student must have completed 45 quarter hours in residence during his/her 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.

Teaching Degree Requirements for B.A. Graduates

The holder of a Bachelor's degree other than teacher education either from this University or another accredited institution, may qualify for teacher licensure by completing the Professional Education Sequence, including student teaching in the major field, and one of the B.S. teaching majors with a GPA of 2.50-2.75 in the major as required by the major department. A cumulative GPA of 2.75 is required. (All previous college and university credit will be included in computing the cumulative GPA.) A student requesting additional certification in a minor must also have a "C" average in the minor. Students must have a minimum of a "C" grade in each course 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 Minnesota teacher's license must have a course which covers the effects of drugs and alcohol and an approved course in human relations. Also Minnesota and Wisconsin both require verification of scores which meet the State Department of Education's minimum levels in the reading, writing, and mathematics components of the Pre-Professional Skills Tests. Wisconsin and other states have specific requirements for certification, in addition to the completion of WSU's Professional Education Program.

For additional information on teacher certification, see the Registrar, Somsen Hall, Room 114.

Students must check with individual departments for any additional GPA requirements.

Types of Courses and Credit

Arranged Classes

A student who desires to enroll in a course which is listed in the WSU Catalog, but not offered during a specified quarter, must complete an Arranged Class Application Form. A course may be offered on an arranged basis at the discretion of the appropriate faculty member, department chairperson, and dean. A student must be fully matriculated with an established grade point average at Winona State University of 2.0 or higher. Applications must be completed according to announced deadlines. A student must register for the course at the designated registration time for the particular quarter in which he/she wishes to take the course.

Audited Courses

A student may audit courses if he/she so desires. This procedure permits a student to attend classes but not receive credit. Courses pursued on an audit basis must be declared and processed prior to completing the student's registration. Regular tuition charges apply. Students may not use audited courses to satisfy graduation, certification, or licensure requirements.

Credit by Examination

Credit by departmental examination may be granted, without formal enrollment in a course, if a student 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. A student must be fully matriculated with a minimum 2.00 grade point average at Winona State University, and enrolled at the University during the quarter in which a "credit by examination" is taken. A student may not use this process to improve a grade.

Independent Study

Projects beyond the scope or range of courses offered may be pursued on an independent study basis at the discretion of the appropriate faculty member, department chairperson, and dean. A student must be fully matriculated with an established cumulative grade point average at WSU of 2.0 or higher. Applications must be completed according to announced deadlines. A student must register for the course at the designated registration time for the particular quarter in which he/she wishes to take the course.

Internships

Internship programs are available in all departments by arrangement with the department chairperson. Many departments offer internship experiences with credit and, in some instances, with pay. A student must be fully matriculated with an established cumulative grade point average at Winona State University of 2.0 or higher. Applications must be completed according to announced deadlines. A student must register for the internship at the designated registration time for the particular quarter in which he/she wishes to take the internship. See internship reference under departmental course descriptions for specific limitations.

It is important to check with the department for specific GPA requirements.

Non-Degree Credit Courses

Certain required courses are offered for non-degree credit only. The credits may be counted to meet financial aid and athletic eligibility requirements. However they may not be counted in the minimum total credits required for graduation. The following courses are offered only for non-degree credit: English 108; and Mathematics 113.

Pass/No Credit Courses

The University's pass/no credit grading type enables a student to enroll in unfamiliar or difficult academic subjects without fear of jeopardizing his/her grade point average. The program is intended to introduce students to the lifelong context of education in which learning does not have to include the traditional reward or penalty of a grade.

Although courses taken on a pass/no credit basis grant credit toward graduation, the credit does not affect the cumulative grade point average. Completion of such a course is entered P (pass) or NC (no credit) on a student's permanent record. However, P is interpreted as equivalent to A, B, C, or 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 a student selects 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.

A student 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, the total number of credits for graduation may not include more than 48 "P" credits. Optional P/NC courses, mandatory P/NC courses, student teaching and/or internships are all counted in the 48 credit limitation. A student must decide whether or not to take a given course which is offered on an optional P/NC basis by the last day of the drop/add period.

If a student receives a NC and wishes to repeat the course, he/she must do so on a regular grade and honor point basis, not on the "pass/no credit" basis.

Repeated Courses

When a student repeats a course, only the last grade received and credits earned will count. If a student withdraws (W) while repeating a course, the original grade is included in the computation of the GPA. When a student repeats a course he/she must take it the second time on a regular graded basis. It is the student's responsibility to notify the Registrar's Office of a "repeat" class by completing the necessary forms. The Registrar's Office does not accept responsibility for credit totals or

grade point averages which are incorrect because a form for notifying the Registrar's Office that a course has been repeated has not been submitted. Post-baccalaureate students cannot repeat undergraduate coursework to improve their grade point average on a previously earned Baccalaureate Degree.

Summer School and Evening Courses

Two five-week sessions are offered each summer. A student may complete a full quarter of coursework by attending both sessions. Special workshops carrying appropriate credit also are 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.

Drop/Add Policy

A student who must drop and/or add a course after registration has been completed, should consult the Schedule of Classes for instructions or contact the Registrar's Office, Somsen Hall, Room 114, for the appropriate form and instructions on how to process a drop/add.

Course and University Withdrawal

If a student withdraws either from a class or from the University, he/she is required to report to the Registrar's Office to complete the appropriate forms. The deadline occurs during the sixth week of fall, winter, and spring quarters. The date is published in the academic calendar. If a student processes the withdrawal by the deadline date he/she will receive a mark of official withdrawal (W) on his/her transcript.

If a student withdraws (W) from a class he/she is repeating, the original grade is included in the computation of the GPA.

If a student drops a course or withdraws from the University without giving official notification to the Registrar's Office, he/she will be given a grade of E.

If a student withdraws from the University during any quarter, he/she must discharge all business obligations and notify the Registrar's Office.

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 a student's written request, since student records are confidential in nature. Partial transcripts are not issued. Each transcript must include a student's complete record. The University cannot certify credit earned at other institutions; therefore, copies of such transcripts will not be issued. All Winona State University transcript requests must be submitted in writing and will be issued free of charge.

Transcript orders are usually filled with official transcripts. Official transcripts which bear the university's seal are sent directly from the Registrar's Office to the person representing a business, institution, or organization. When a transcript is given to the student, it is stamped "Issued to Student," and is not considered to be official.

All official transcripts bear the embossed seal of the University and a copy of the Registrar's signature. Because transcripts which are sent by FAX are copies, not originals, and the embossed seal cannot be copied, the Registrar's Office will not fill orders to send transcripts by FAX.

Study Programs

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 a maximum of one quarter, up to a total of three quarters at three

different institutions, 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, a student lists the courses he/she wishes to take, usually with several alternate choices. The Common Market Director at the receiving institution notifies a student whether or not the request can be met. On the application form, a student indicates his/her 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 seven state universities.

A student is eligible to participate in the Common Market Program if he/she has attended his/her 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 Hall, Room 114.

Adult, Continuing Education & Extension Program

Continuing Education provides non-credit and continuing education unit (CEU) offerings to 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.

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 for your organization, contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, Winona State, Winona, MN 55987. (507) 457-5080 or (507) 285-0111.

Extension Program

Winona State University offers a wide range of off-campus learning experiences for the residents of Southeastern Minnesota in addition to the 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 personal enrichment. Credit offerings may also be developed which provide specialized learning experiences to schools, industries, agencies, and interested groups. Instruction for extension courses includes regularly scheduled evening, weekend and daytime classes taught by University faculty, specially scheduled workshops and seminars, educational travel opportunities, and credit options for major workshops/conferences scheduled by outside agencies. Admission to WSU for undergraduate credit is not required prior to enrolling in an extension class. Graduate students must complete an application form. All extension courses may apply toward appropriate degree programs.

For more information contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, Winona State, Winona, MN 55987. (507) 457-5080.

Adult Entry Program

To serve the educational needs of all age groups within its service area, on and off campus, WSU established the Adult Entry Program for adult baccalaureate or AA non-teaching degree students.

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 Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, Winona State University, Winona, MN 55987. (507) 457-5080.

Senior Citizen Programs

All course offerings at Winona State University are available by special arrangement and within legislative limitations to senior citizens who have legal residence in the state of Minnesota. (Reciprocity is not available).

A senior citizen is defined as any person who has reached 62 before the beginning of any quarter in which a course is pursued. Senior citizens may register for courses on a no-credit basis at no cost; or they may register for credit on a fee basis which requires a service charge of \$6 per credit hour (amount subject to change). Enrollment is on a space-available basis. Many of our intellectually curious and aware senior citizens are taking advantage of this opportunity, both on and off campus.

Elderhostel, a week-long residential learning experience, is offered by WSU for individuals 55 years of age or older. This program provides academic and social stimulation for an older person who has not finished learning.

The Learning Club is a Not-For-Profit organization dedicated to the continuing education of retired people. It capitalizes on the strengths and characteristics of older learners, offering programs selected, attended, and often taught by the membership.

Our gatherings are geared specifically to the interests of retired people. **Its education as it was meant to be: challenging, yet leisurely, fun, and exciting.** Topics are taught by people who love their subject to people whose motivation is simply a love of learning and a desire to stay fresh and vibrant throughout retirement.

The Learning Club is a great way to meet interesting people. Classes are held during the day at convenient locations throughout the city.

Please contact the Adult, Continuing Education & Extension Office, Somsen Hall, Room 109, Winona State University, for registration details. (507) 457-5080.

Student Orientation Program

To assist student transition into the University, Winona State offers orientation courses for entering first-year students. These courses introduce students to the services, activities, expectations, and opportunities at the institution and provide means of networking with other students, faculty, and staff. See Course Descriptions for details. Incoming first-year students will be notified by Advising and Retention or the Residential College as to the dates, times and locations of these orientation courses.

Study Abroad

A variety of Study Abroad options are available for students interested in broadening their university experience by living and studying in a foreign country. Winona State University has established programs in England, Sweden, Norway and Japan. In addition to these programs, there are possibilities for Study Abroad through other university programs. Early and careful planning for Study Abroad is important; students should contact the Director of International Studies in Minne 128 to get further information and guidance. For additional information, refer to the International Studies Program listing in the Special Academic Programs section of the catalog.

Study at MSU-Akita, Japan

MSU-Akita is the eighth Minnesota State University campus located in Yuwa Town, Akita Prefecture, in Japan. MSU-A provides a unique opportunity for cross-cultural experience in Japan. This kind of learning will prove invaluable for a life and career in the global 21st century.

Students may enroll for one or more quarters to study Japanese language, Japan Area Studies, and general education courses. Students must be 18 years of age or older, have completed at least 36 credits toward a degree, and maintained a minimum GPA of 2.5, to be admitted to MSU-A. American students live on campus with Japanese room-mates and have the opportunity for home-stays with Japanese families.

Students interested in this program may contact Dr. Ruth Forsythe, 128 Minne Hall, (507) 457-5564.

Bristol International

Credit Earning Program

The Social Work Program at Winona State University offers students the opportunity to take social work courses through the prestigious University of Bristol in England. The Bristol International Credit Earning Program (BICEP) is a two week study program that compares American and British public policy. This experience is "sandwiched" by two workshops at WSU, one prior to departure on orientation to Britain and British public policy. And one on the students return, to debrief and to facilitate the student's integration of new knowledge. This program is available to all students with interest in the human service professions. (Social Work, Political Science, Nursing, Education, Criminal Justice, Women's Studies, Sociology, Psychology and Paralegal.)

Study Abroad in England

This program sends WSU students to study at the University of Sunderland, which is located in an area of great natural beauty, rich in English and Scottish historical and cultural associations.

Students who are selected for the Program will live and study at the University of Sunderland, taking courses taught by British instructors. The courses, many of which make use of local geographical, social, and historical resources, may be included in the General Education Program at Winona State, and some may be applicable to specific majors. Most participants are sophomores, but others may also participate if the Sunderland courses fit their programs. Credits earned in the program are transferred back to Winona State University and count towards graduation.

The program provides ample time for travel on weekends, holidays, and students, of course, may travel after the Program is completed. Scotland is near, Ireland and the Continent not too far. London and most of England is easily accessible by train or bus.

Inquiries about the program can be addressed to Professor James Nichols, Minne 316, telephone 457-5441 or 457-5440.

Oslo Exchange Program

The Oslo Exchange Program is Winona State University's first Study Abroad program. Since its beginning in 1961-62, it has provided an opportunity for well over 30 Winona State students to exchange places with roughly the same number of Norwegian students from *H_GSKOLENiOSLO* (HiO) Avdeling for laererutdanning, formerly called *Oslo Laerh_gskole*, for an entire academic year. Students from all majors are eligible to apply. Knowledge of the Norwegian language, although helpful, is not a requirement. Participants are selected each year by the Oslo Exchange Committee. For further information and application forms, contact the Sociology/Social Work Department in Minne 228.

Swedish Exchange Program

Winona State University Computer Science students have available to them an exchange program with the University College of Boras in Sweden. WSU students spend fall semester (late August until Christmas) of their junior or senior year in Sweden. Swedish students spend spring and first summer session at WSU.

While in Sweden WSU students take the following courses which are taught in English:

- I. Sweden - The Land and People; Language, Society, and Culture.
- II. Consequences of Computer-based Systems on Man and Society.
- III. Information Systems in Swedish Companies.
- IV. Prototyping and CASE Tools.

Successful completion of the Exchange Program satisfies a student's Different Culture General Education Requirement.

WSU/SMC Cooperative Program

A cooperative program is available with Saint Mary's College whereby full-time, undergraduate Winona State University students may take a class at SMC 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 Cooperative

Program unless an exception has been approved by the department chair and the appropriate college dean.

A Winona State University student interested in obtaining further information about the program should contact the Registrar's Office, Somsen Hall, Room 114, where academic calendars, class schedules and catalogs are available. If a student decides to take a course at St. Mary's College, a permit requiring the approval of the student's advisor and the approval of the Registrar's Office must be obtained. The permit is then presented to the registrar of the college where a student wishes to take a course, and the approved permit is returned to the home institution during their registration or drop/add days.

Students must register for SMC courses during WSU's pre-registration, mass registration or drop/add day only.

2 + 2 Programs

Winona State University's special partnership with Rochester Community College, the 2 + 2 relationship, has been particularly important to the growth of the University program as well as a unique attribute for RCC. By focusing on junior and senior level classes, with the transfer of RCC degree work, WSU-Rochester Center has been able to offer complete Bachelor's degrees. 2 + 2 programs available in Rochester are: Accounting, Business Administration, Business Education Office System Administration, Computer Information Systems, Computer Science, Elementary Education, Finance, Individualized Study, Management Information Systems, Marketing, Nursing, Psychology, and Social Work.

Student Citizenship Standards

Winona State University is an academic community committed to providing an environment of learning. As such it has a vested interest in both the safety and well-being of members of the university community, and for the promotion and protection of the educational mission of the University.

The purpose of the Student Citizenship Standards is to provide an educational experience through which students learn to understand, accept, and promote attitudes conducive to responsible involvement; to provide a system by which students are held accountable for actions which violate University standards; and to protect the due process rights of students charged with violating these Standards. It is necessary for the University to establish and enforce Citizenship Standards for the following reasons:

1. The University has a primary concern with matters which can affect academic achievement and integrity.
2. The University has a concern with conduct that interferes with the rights of others.
3. The University has a responsibility to investigate conduct which threatens the health and safety of members of the University community.
4. The University has an obligation to protect its property and the property of community members from theft, damage, or misuse.
5. The University has a commitment to enforce its contractual agreements.
6. The University has an obligation to support the laws of the city, state and federal governments.

All students are expected to comply with the Student Citizenship Standards. Consequences for failing to comply could result in sanctions. Flagrant or repeated violations of the conduct standards could result in suspension or expulsion from the University.

Academic Dishonesty

The University community requires that work produced by students represent their personal efforts. Papers and other work in written or oral format prepared for classes must contain the students own words and ideas unless the student identifies the ideas of others as being quoted, summarized or paraphrased. Such ideas must be duly cited by attributing all information that is not readily verifiable and not commonly understood in the discipline. To do otherwise is to plagiarize by using passages or ideas from others while claiming them as ones own.

PENALTY: Academic dishonesty includes, but is not limited to, cheating and plagiarism. Except for rare instances when there are mitigating circumstances, it will result in immediate dismissal from the class with a grade of E.

REDRESS: Arbitration of this penalty must be initiated by the student with the teacher involved. In case no satisfactory resolution is achieved, then the dean of the college in which the course is taught will make a determination. All affirmed incidents will be recorded by the Vice President for academic Affairs as reported by the teacher.

STUDENT RIGHTS AND RESPONSIBILITIES

1. **Constitutional Rights:** Students have the rights accorded to all persons under the Constitution to freedom of speech, peaceful assembly, petition and association. Causes may be supported by individuals and organizations by lawful means which do not disrupt the operations of the University. These rights carry with them the responsibility for each individual to accord the same rights to other students and groups and not to interfere with or obstruct the rights of others to use University facilities.
2. **Due Process Rights:** Due process refers to the concept of fair treatment in the disciplinary process. This includes information on student expectations, providing notice of disciplinary charges, decisions that are made, and the right to appeal. In cases of academic dishonesty, the due process rights of students are as follows.
 - Written or oral notice of the charges
 - An explanation of the evidence against them
 - An opportunity to present their side of the story
 - Notice of sanction(s) imposed
 - An opportunity to appeal in succession to the Department Chair, the College Dean, and the Vice President for Academic Affairs.

In cases of behavioral misconduct, students' due process rights are as follows:

- Written notice of the charges
- A prompt conference before the Conduct Officer
- The right to know the nature and source of the evidence to be used and to question it
- The right to present their own witness(es) and defense
- The right to have an advisor at the hearing (The advisor may be an attorney when a student faces probable suspension or expulsion, or if there are criminal charges pending. The advisor does not serve to represent the student by speaking for the student or by questioning witnesses).
- Written notice of the decision
- The right to appeal

Where it is believed that the health, safety, or well-being of either the accused student or a member of the University community are in serious question, a summary suspension (prior to a hearing) can be enacted by The Vice-President or his/her designee. The accused student has a right to a hearing within 72 hours to identify whether the suspension should remain in effect until a full hearing can be conducted. At this hearing conducted by the Conduct Officer, the accused student has the right to a notice of the charges, an explanation of the evidence, and an opportunity to respond to the allegations. Any student who returns to campus during the period of summary suspension could be subject to expulsion. Permission to be on campus may be granted for a specific reason, however, it must be granted in advance and in writing by the Conduct Officer.

3. **Student Responsibilities:** Students need to accept the following responsibilities:
 - The responsibility of assuming the consequences of one's own behavior and actions
 - The responsibility for knowledge of and observance of established University policies as published in official University publications
 - The responsibility to insure that no student organization includes discriminatory clauses pertaining to race, creed, religion, color, sex, national origin, disability or sexual orientation.

Code of Conduct

The following is a listing of the University's conduct expectations for its students. Any student who commits, aids or attempts to commit any of the following acts of misconduct shall be subject to action within the student judicial system.

1. Violation of written Higher Education Board and University policies or regulation contained in any official publication or administrative announcement of the Higher Education Board or Winona State University.
2. Academic Dishonesty, including, but not limited to, cheating and plagiarism. Violation of academic dishonesty are referred to the Vice President of Academic Affairs.
3. Obstruction of the free flow of traffic both pedestrian and vehicular on state-owned or controlled property.
4. Disruption of operations of the University. Disruption is an action by an individual or group which interferes with, or prevents the regular and essential operation of the University or infringes upon the rights of others to freely participate in its programs and services.
5. Physical or psychological/emotional abuse, intimidation or harassment of any person. This includes any form of fighting.
6. Theft of/ or damage to property of the state, a member of the university community, or a visitor to the university.
7. Unauthorized entry to or use of university facilities, buildings, grounds and equipment, including unauthorized possession of or use of University keys. This also includes unauthorized use of telephone systems, mail systems, and computer systems.
8. Conduct which threatens or endangers the health or safety of any person.
9. Violation of rules governing residence in state-owned or controlled property.
10. Use, possession, or distribution of narcotic or illegal drugs on state-owned or controlled property, except as expressly permitted by law.
11. Use, possession, or distribution of alcoholic beverages on state-owned or controlled property, except as expressly permitted by law.
12. Illegal or unauthorized possession or use of firearms, explosives, dangerous chemicals or other weapons on state-owned or controlled property.
13. 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 assistants, residence hall directors, security guards, student food service managers, student union night managers, and all other personnel delegated supervisory responsibility by a university official.
14. Sexual/gender harassment, racial and disability harassment, in accordance with Title VII of the Civil Rights Act and Minnesota Statutes Section 363.
15. Sexual misconduct, including but not limited to sexual assault, rape, sexual physical abuse, and/or threat of sexual violence.
16. Disorderly conduct, breach of the peace, engaging in offensive, obscene or abusive language, and aiding, abetting, or procuring another to breach the peace on state owned or controlled property or at university sponsored or supervised functions.
17. Gambling for money or other things of value, except as permitted by law.
18. Solicitation, including the distribution of advertisements and samples, on university property without prior authorization by the appropriate university official(s).
19. Hazing or any behavior or activity by a group or individual that degrades a student or interferes with a student's class attendance or educational pursuits.
20. Tampering with fire/safety equipment or setting off a false alarm including Code Blue.
21. Falsification or misuse, including forgery, alteration, or fraudulent misuse of University records, permits, documents, or identification cards.

22. Knowingly furnishing false or incomplete information to the University or a University official in response to an authorized request.
23. Intentional 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.
24. Violation of federal, state, or local law on University property.

Off-Campus Offenses

Disciplinary action may be taken against a student who commits a violation of University regulation off-campus when the offense occurred during a University sponsored activity. In addition, the University may take disciplinary action against a student for an off-campus offense when by the nature of the offense the continued presence of the student on campus is likely to interfere with the educational process of the victim and/or the orderly operation of the University.

Sexual Violence or Assault

Sexual Violence or Assault Acts of sexual violence, assault or abuse, such as rape, acquaintance rape, other forms of non-consensual sexual activity will not be tolerated on the Winona State University campus. Such acts are criminal behaviors and create an environment contrary to the goals and missions of the University. These acts will be swiftly investigated and will subject an individual to complaints and disciplinary sanctions under the systems complaint procedure or university student conduct codes as well as possible referral to appropriate law enforcement agencies.

(a) Victims of sexual violence or sexual harassment may report incidents to the appropriate University authorities, including the campus security office, affirmative action office, or student affairs/student life office.

(b) Victims of sexual violence occurring on property owned by the Minnesota State University System will be informed of their rights under Minnesota State University Statutes section 135A.15. These rights include the following:

1. The victim has the right to file criminal charges with local law enforcement officials.
2. Local University authorities, at the request of the victim, will provide assistance in notifying the appropriate law enforcement officials and disciplinary authorities of any incident of sexual assault.
3. At the direction of law enforcement authorities, the campus security office will provide complete and prompt assistance in obtaining, securing, and maintaining evidence in connection with an incident of sexual assault.
4. University authorities will provide assistance to the sexual assault victim or complainant in preserving materials relevant to a campus disciplinary proceeding.
5. All sexual assault complaints will be investigated and resolved by the appropriate campus disciplinary authorities.
6. The victim may be accompanied by an attorney or other support person at, and may participate in, any campus disciplinary proceeding concerning the sexual assault complaint.
7. The victim will be informed of the outcome of any campus disciplinary proceeding concerning the sexual assault complaint, consistent with laws relating to data practices.
8. At the request of the sexual assault victim, University authorities in cooperation with appropriate law enforcement authorities will provide assistance in shielding the victim from unwanted contact with the alleged assailant, including transferring the victim to alternative classes or alternative University-owned housing, if alternative classes or housing are available and feasible.
9. University authorities will inform sexual assault victims of their rights to assistance from the office of the Crime Victim Ombudsman and the Crime Victims Reparation Board and will provide assistance in contacting these offices.

University Conduct Officer

The University Conduct Officer (a representative of the Office of the Vice President for Student Affairs) is designated to coordinate the Student Citizenship Standards process. The Conduct Officer is responsible for:

- investigating incidents to determine whether a formal notice of violation should be issued,
- issuing formal notices of violation,
- providing an accused student with a copy of the Student Citizenship Standards Policy,
- determining (after consultation with the accused student) whether the case will be heard by the University Conduct Officer or referred to a committee for a formal hearing.
- ensuring the accused student understands the Student Citizenship Standards Procedure, and student's rights and responsibilities
- notification to the accused student of decisions made regarding the outcome.

Civil Responsibility

Since students are citizens as well as members of the University community, there may be violations of the Standards which are also civil or criminal offenses. The Standards are not intended to replace the legal system. Therefore, an action involving the student in a legal proceeding does not free the student of responsibility in a University proceeding. The University will decide on the basis of its interest whether to proceed with action simultaneously or whether to defer action. In addition, where an alleged violation of law occurs on University property, the University may inform law enforcement agencies of such violation.

Student Judicial Board (J-Board)

The Student Judicial Board is designated to hear original complaints and appeals from the University Conduct Officer and to recommend to the Vice President for Student Affairs disciplinary sanction and citizenship status of the student. The J-Board consists of ten students appointed by the Student Senate. The President of the Student Senate or his/her designee attends ex-officio.

The Student Citizenship Standards Procedure

Initiation of Complaint - Any member of the University community may initiate a complaint. Before any action is taken, the complaint must be in writing to the University Conduct Officer.

Notification to the Student - A student accused of violating the Standards will be notified in writing of the nature of the allegation, the Conduct Code Standard allegedly violated, and the possible sanctions.

Preliminary Conference - An accused student will meet with the Conduct Officer in an informal preliminary conference, the purpose of which is to ensure that the student understands the disciplinary process. The student(s) shall have the following options:

1. Admit to the charges, receive the appropriate sanction, and sign a statement waiving student rights to a hearing.
2. Request a meeting with the University Conduct Officer to present a defense.
3. Request a hearing with Student Judicial Board to present a defense. The Conduct Officer reserves the right to refer any case to the J-Board.

University Conduct Officer Meeting - If the student elects a meeting with the University Conduct Officer, the allegations will be presented and the accused will have an opportunity to present a defense. Accused students who fail to appear for the meeting after proper notice will be deemed to have not contested the charges against them. Appeals will be referred to the J-Board.

Student Judicial Board Hearing - If a student elects the Student Judicial Hearing option, the allegations will be heard by a panel of the Board in a formal, adversarial setting. Accused students who fail to appear for the hearing after proper notice will be deemed to have not contested the charges against them.

Sanctions

Acquittal - Conduct does not warrant further action and charges are dropped.

Warning - A notice to students that their conduct has been questionable and that future breaches of conduct could be treated more severely.

Work Hours - Sanction imposed on student for violations. Number of hours depends on severity of offense and number of offenses.

Disciplinary Probation - Probation is a trial period during which students must behave in a manner acceptable to the University. Disciplinary probation is assigned for a specific period of time. An additional incident of misconduct during the term of probation could result in separation from the University for not less than one academic quarter.

Suspension - 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.

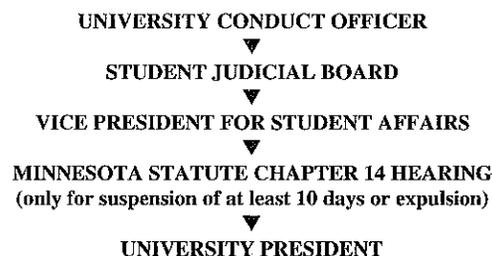
Summary Suspension - A summary suspension requires that students immediately leave the campus. It may be imposed when the Vice President of Student Affairs has reasonable cause to believe a student is an immediate threat to the safety of themselves or others or property or are an immediate threat to disrupt essential operation of the University. Any student subjected to a summary suspension shall be required to remain off campus until a hearing is held. Cases involving summary suspension are referred to the J-Board.

Loss of Privilege - Loss of privilege is the withdrawal of a privilege or use of a service, including denial of housing, for a specific period of time consistent with the offense committed.

Expulsion - An involuntary permanent separation of the student from the University. Standard withdrawal procedures will be followed.

Appeals

Students wishing to appeal a disciplinary decision may do so by filing a request in writing with the Vice President for Student Affairs. The decision of the President is final. The appeal process is as follows:



Students may appeal decision made regarding academic course dishonesty allegations in succession to the Department Chair, College Dean, and the Vice-President for Academic Affairs.

Appeals at each level must be received in writing within five class days or, in the case of break periods, within five work days of receipt of the original or appellate decision. In the case of residence hall sanctions, the appeal must be filed by the deadline specified in the eviction or non-renewal notice. The appeal must state the grounds for appeal and argumentation in support of the appeal.

Grounds for Appeal

For suspension of more than 10 days or expulsion, appeal to the next level is a matter of right (Chapter 14 Hearing).

The following are allowed as grounds for appeal in all other cases:

1. New evidence not reasonably available at the time of the hearing
2. Violation of hearing procedures
3. Violation of student's due process rights
4. Inconsistency of the sanction relative to the severity of the behavior.
5. Decisions contrary to the weight of evidence.

Appeals on grounds other than the above may be allowed if the grounds can be adequately documented or supported.

For additional information regarding the Student Citizenship Standards, contact the Office of the Vice President for Student Affairs, Winona State University, Kryzsko Commons 130, (507) 457-5300.

Student Grievance Procedure

1. PURPOSE: The purpose of this administrative procedure is to describe the method of processing a student grievance. This procedure does not apply to disputes between students and does not substitute for procedural due process in student disciplinary cases nor the systemwide procedures as stated in the collective bargaining agreements between the State University System and the various exclusive bargaining agents representing employees of Winona State University. Authoritative reference is State University Board Rule, Article II, 2.2 Subd. 8.

2. DEFINITIONS

a. *Grievance* - "Grievance" means a dispute or disagreement between a student and the university.

b. *Academic Calendar* - "Academic Calendar" delineates the academic schedule of the university as beginning on the first day of fall quarter and ending on the last day of the second summer session.

c. *Academic Calendar Day* - "Academic Calendar Day" is a day when the university is in session during the academic year as indicated on the academic calendar.

d. *Investigative Committee* - The "Investigative Committee" shall consist of six full-time students, none of whom are on academic or disciplinary probation. Members shall be appointed by the Student Senate. The Vice President for Student Affairs, the Vice President of the Student Senate, and the appropriate vice president shall serve as ex officio members.

3. PROCEDURE:

STEP I

Whenever any student or group of students has a grievance, he/she or they shall first meet on an informal basis with the faculty, staff member, or university administrator directly involved in the dispute in an attempt to resolve the grievance.

STEP II

Whenever any student or group of students has a grievance which remains unresolved after consultation with the faculty, staff member, or university administrator involved, they shall file a written account of their grievance with the appropriate academic dean in cases where the dispute involves teaching faculty, or the appropriate supervisor in cases where the dispute involves other university employees or the university. The notification shall contain a concise statement indicating the intention of the party to proceed with the grievance, and the relief requested. Within five (5) academic calendar days of receiving the written grievance, in cases of disputes with a teacher, there shall be a meeting of the student(s), the faculty member directly involved, the department chairperson, and the appropriate academic dean. In cases of disputes with other employees or the university, the student, staff member involved, and the appropriate university administrator shall meet. The responsible parties for resolving the grievance at this level are the student (or students) and the dean or appropriate supervisor. (Note: The following steps in this process do not apply to grievances raised on questions of grading and other matters of classroom activity, which are under the control of the faculty member responsible for the class.)

STEP III

If the grievance is not resolved at the Step II meeting, the Investigative Committee shall be notified. Proceedings shall commence within ten (10) academic calendar days after the Step II meeting. The Investigative Committee shall make a recommendation in writing within seven (7) academic calendar days of the date of the hearing to the University President for his/her consideration and action.

STEP IV

The University President will notify both parties of his/her decision within seven (7) academic calendar days of receipt of the recommendation from the Investigative Committee. The President's decision shall be final.

General Education Requirements

Undergraduate Students

The General Education Program is designed to widen a student's intellectual horizons. General Education courses introduce a student to new subject areas, expand a student's knowledge of familiar subjects and help a student explore new disciplines in which he/she may have special interests and aptitudes.

The following general education requirements are applicable to all undergraduate degree programs except engineering. Transfer students should check the transfer policy statement under the Admissions Information section in the university catalog entitled "General Education Transfer Policy" for detailed information concerning general education.

Required General Education Courses - 60-68 Quarter Hours Minimum

I. BASIC SKILLS

A. WRITTEN COMMUNICATION (8-12 credits)

English 110 and English 115 (English 108 is an additional requirement for students with low English placement scores)

B. ORAL COMMUNICATION (4 credits)

CMST 191 or satisfactory completion of a special examination offered once quarterly by prior arrangement and available only to students with less than 145 credits.

C. MATHEMATICS (4 credits)

*Mathematics 111 Contemporary Mathematics (4) or Mathematics

113 Intermediate Algebra (4) or successful completion of a written examination or successful completion of a 100** level General Education mathematics (MATH) course. **Note: Credits for **MATH 113 are non-degree credits and will not count towards total credits for graduation.**

*Mathematics 111 is intended only for students who will not be taking any course in which MATH 113 Intermediate Algebra or a higher level mathematics (MATH) course is a prerequisite.

D. PHYSICAL EDUCATION ACTIVITIES (2 credits)

HPER 101, 102, 103, 105, 107, 113, 115, 117, 119, 120, 121, 124, 126, 138, 151, 152, 153, 190, 201, 202, 207, 208, 209, 211, 212, 215, 218, 219, 220, 230, 232, 241, 253.

II. HUMANITIES — 12 Quarter Hours Minimum

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

III. NATURAL SCIENCES — 12 Quarter Hours Minimum

Courses must be selected from an approved list of courses for Group III which stress basic knowledge of natural science (including mathematics) 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 other subject areas. Courses from at least two departments must be included.

V. DIFFERENT CULTURE — 8 Quarter Hours Minimum

Courses must be selected from an approved list of courses for Group V which constitute studies concerning the way of life, political system, philosophy, social structure, economic system, or language of a group whose race is not Caucasian or whose native language is not English. The Different Culture requirement may be waived for students presenting evidence of extensive exposure to a culture other than their own. A Different Culture waiver request form may be obtained in the Registrar's Office.

VI. ALLIED STUDIES — 6 Quarter Hours Minimum

Courses must be selected from an approved list for Group VI, which deal primarily with requirements of modern living including an understanding of basic technology, recreational opportunities, health maintenance principles, business, etc.

Approved Courses

The courses listed below 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.

The following policies concern using general education courses to meet graduation requirements:

A. Students may use a general education course towards meeting the requirements in any minors or concentrations that require the course.

B. A Student may use a general education course to meet both major/option requirements and a general education requirement *only if* the course is an "additional requirement." An "additional requirement" is a general education course which is required in the major/option and is outside of the major/option department. Additional requirements are noted in major/option and minor programs with an asterisk. Additional requirements are not calculated into a student's major G.P.A.

C. Most departments prohibit the use of additional requirements for General Education; in such departments, a general education course which is required in a major or option will count towards meeting the major/option requirement and the student must take a different general education course to meet general education requirements.

D. If a general education course is listed under a student's major department but is not required in a major/option of that department, a student may not use the course to meet a general education requirement. This provision does not apply to basic skills courses.

E. No course may be used by a student to satisfy more than one general education requirement. Note: *Indicates course may be used in one of two categories.

II. HUMANITIES (12 credits-2 departments)**ART**

- 109 Introduction to Art
- 114 2-D Design
- 115 3-D Design
- 118 Drawing I
- 215 Crafts

- 221 Art History I
- 222 Art History II
- 223 Art History III
- 224 American Art
- 225 Fiber Structures

COMMUNICATION STUDIES

- 196 Fundamentals of Interviewing
- 261 Public Speaking
- 280 Nonverbal Communication
- 282 Introduction to Communication Studies
- 283 Introduction to Rhetorical Studies

ENGLISH

- 120 Introduction to Literature
- 121 Major British & American Fiction
- 125 Masterpieces of Short Fiction
- 131 Masterpieces of American Literature
- 132 Masterpieces of European Literature in Translation

FOREIGN LANGUAGES

- 200 Exploratory Foreign Language
- * 110 Elementary French I
- * 111 Elementary French II
- * 112 Elementary French III
- * 213 Intermediate French I
- * 214 Intermediate French II
- * 110 Elementary German I
- * 111 Elementary German II
- * 112 Elementary German III
- * 213 Intermediate German I
- * 214 Intermediate German II
- * 250 Origins & Development of German Cultures
- * 110 Elementary Japanese I
- * 111 Elementary Japanese II
- * 112 Elementary Japanese III
- * 213 Intermediate Japanese I
- * 214 Intermediate Japanese II
- * 215 Intermediate Japanese III
- * 110 Elementary Spanish I
- * 111 Elementary Spanish II
- * 112 Elementary Spanish III
- * 213 Intermediate Spanish I
- * 214 Intermediate Spanish II

HISTORY

- 120 Western Civilization: to 1500
- 121 Western Civilization: 1500-1815
- 122 Western Civilization: 1815-Present
- * 123 Eastern Civilization
- 135 American Military History
- * 165 Latin American History: Columbus to Castro
- 225 Jewish Communities and Jewish Cultures
- 230 American History: to 1828
- 231 American History: 1828-1900
- 232 American History: 1900-Present
- * 233 History of Mexico
- * 235 American Indian History
- 240 History of Christianity
- 241 History of Non-Christian Religion in West

HONORS

- 201 Thought & Culture: Topics in Humanities
- 251 Special Seminar in Humanities: Social Thought/History, Science and Mathematics

HUMANITIES

- 140 Approaches to the Film

MUSIC

- 109 Introduction to Music
- 110 History of American Jazz
- 114 World Music
- 120 Introduction to Music Theory

PHILOSOPHY

- 110 Critical Thinking
- 120 Introductory Philosophy
- 130 Moral Problems
- * 201 Classical Philosophy
- * 202 Aristotle and Late Classical Philosophy
- * 210 Inductive Reasoning
- 230 Moral Theory
- * 240 Philosophy of Science
- 250 Symbolic Logic
- 260 Problems in Philosophy

THEATRE AND DANCE

- 001 Theatre Activities (maximum of 4 credits)
- 111 Introduction to Theatre
- 115 Dance Appreciation
- 141 Oral Interpretation I
- 211 Survey of Dramatic Literature I
- 212 Survey of Dramatic Literature II

III. NATURAL SCIENCE (12 credits-2 departments)**BIOLOGY**

- 104 Conservation of Environment
- 117 Human Biology
- 118 General Biology (Lab)
- 201 Human Anatomy (Lab)
- 203 Nature Study (Lab)
- 211 Anatomy & Physiology I (Lab)
- 212 Anatomy & Physiology II (Lab)
- 213 Anatomy & Physiology III (Lab)
- 241 Principles of Biology I (Lab)
- 242 Principles of Biology II (Lab)
- 243 Principles of Biology III (Lab)
- 269 Human Reproduction
- 303 Survey of Plants (Lab)

CHEMISTRY

- 100 Chemistry Appreciation
- 108 Intro General Chemistry (Lab)
- 204 Unified Science
- 208 General Organic & Biochemistry I (Lab)
- 209 General Organic & Biochemistry II (Lab)
- 212 Principles of Chemistry I (Lab)
- 213 Principles of Chemistry II (Lab)

COMPUTER SCIENCE

- 115 Personal Computer Usage
- 130 Introduction to Basic Programming
- 210 Computers in Society

GEOLOGY

- 100 Minnesota Rocks & Waters
- 101 Introduction to Geology I (Lab)
- 102 Introduction to Geology II (Lab)
- 200 Descriptive Oceanography (Lab-4 cr; No Lab-3 cr)
- 220 Astronomy I (Lab-4 cr; No Lab-3 cr)
- 221 Astronomy II (Lab)
- 230 Meteorology (Lab)

HONORS

- 203 Great Ideas/History of Science & Mathematics
- 253 Sem in Hum: Soc Thought/History, Science & Mathematics

MATHEMATICS

- 208 Fundamentals of Statistics
- ** 115 Precalculus I
- ** 116 Precalculus II
- ** 120 College Algebra & Trig
- ** 121 Intro Math with Applications
- ** 122 Calc Non-Math Majors
- ** 125 Calculus I
- ** 126 Calculus II

** 127 Calculus III

** Higher Level Course - waives Math 113.

PHILOSOPHY

- * 210 Inductive Reasoning

PHYSICS

- 115 Physical Concepts of Man's Environment
- 184 Energy: Principles, Our Life Style & Alternatives
- 200 Fundamentals of Aviation
- 201 General Physics I (Lab)
- 221 College Physics I (Lab)

IV. SOCIAL SCIENCES (12 credits-2 departments)**ECONOMICS**

- 102 Introduction to Economics
- 201 Principles of Microeconomics
- 202 Principles of Macroeconomics
- 203 Principles of Economics III

GEOGRAPHY

- 110 World Regional Geography
- 212 Physical Geography
- 213 Cultural Geography

HONORS

- 202 Classics in Social Thought
- 252 Seminar in Social Thought

PHILOSOPHY

- * 240 Philosophy of Science

POLITICAL SCIENCE

- 103 Intro to Political Science
- * 123 Politics & Society in Mediterranean Middle East
- * 124 Politics & Society in Latin America
- * 125 Politics & Society in Far East
- * 126 Politics & Society in Sub-Saharan Africa
- 130 Introduction to International Relations
- 220 American Government and Politics
- * 222 Politics & Sociology in Persian/Arabian Gulf

PSYCHOLOGY

- 210 General Psychology
- 275 Intro to Psychology of Women
- 298 Health and Wellness

SOCIOLOGY

- 150 Human Society
- 205 Social Interaction
- 212 The Family
- 216 Social Problems

V. DIFFERENT CULTURE (8 credits)**COMMUNICATION STUDIES**

- 193 Chinese Communication Theory/Kinetics
- 281 Cross Cultural Communication
- 285 Native American Oratory
- 286 African American Rhetoric

ENGLISH

- 105 Eng: Non-Native Speakers/Listening
- 106 Eng: Non-Native Speakers/Reading and Writing I
- 107 Eng: Non-Native Speakers/Reading and Writing II
(Applicable to international students only)
- 151 American Indian Literature
- 223 Classical Mythology
- 224 Bible as Literature

FOREIGN LANGUAGE

- * 110 Elementary French I
- * 111 Elementary French II
- * 112 Elementary French III
- * 213 Intermediate French I
- * 214 Intermediate French II
- * 110 Elementary German I
- * 111 Elementary German II
- * 112 Elementary German III
- * 213 Intermediate German I
- * 214 Intermediate German II
- * 250 Origins & Development of German Cultures

- * 110 Elementary Japanese I
 - * 111 Elementary Japanese II
 - * 112 Elementary Japanese III
 - * 213 Intermediate Japanese I
 - * 214 Intermediate Japanese II
 - * 215 Intermediate Japanese III
 - * 110 Elementary Spanish I
 - * 111 Elementary Spanish II
 - * 112 Elementary Spanish III
 - * 213 Intermediate Spanish I
 - * 214 Intermediate Spanish II
- GEOGRAPHY**
- 223 Geography of Orient
 - 224 Geography of Africa
 - 225 Geography of Latin America
 - 223 Geography of Middle East
- HISTORY**
- * 123 Eastern Civilization
 - 125 Classical History
 - * 165 Latin American History
 - 170 African Culture
 - * 233 History of Mexico
 - * 235 History of American Indian
- INTERNATIONAL STUDIES**
- 200 Introduction to International Studies
- MUSIC**
- 115 Music of Far East
 - 116 Music of American Indian
- PHILOSOPHY**
- * 201 Classical Philosophy
 - * 202 Aristotle & Late Classical Philosophy
- POLITICAL SCIENCE**
- * 123 Politics & Society in Middle East
 - * 124 Politics & Society in Latin America
 - * 125 Politics & Society in Far East
 - * 126 Politics & Society in Black Africa
 - * 222 Politics & Society in Persian/Arabian Gulf
- SOCIOLOGY**
- 201 Scandinavian Culture I
 - 202 Scandinavian Culture II
- THEATRE AND DANCE**
- 213 Greek and Roman Drama

VI. ALLIED STUDIES (6 credits)**ACCOUNTING**

- 201 Financial Principles of Accounting I
- 202 Financial Principles of Accounting II
- 203 Managerial Accounting

BUSINESS ADMINISTRATION

- 101 Introduction to Law & the Legal Process
- 110 Introduction to Business

BUSINESS EDUCATION & OFFICE SYSTEMS**ADMINISTRATION**

- 107 Introduction to Word/Information Processing
- 201 Keyboarding
- 202 Word Processing
- 215 Personal Finance
- 218 Job Search Strategies

COUNSELOR EDUCATION

- 200 Career/Decision Making

EDUCATION

- 120 Parenting

FINANCE

- 201 Introduction to Finance

HEALTH/PHY ED/RECREATION

- 111 Cardiopulmonary Resuscitation
- 204 Personal & Community Health
- 205 Nutrition and Weight Management
- 206 Exercise & Relaxation
- 214 Standard First Aid & Personal Safety
- 239 Outdoor Pursuits
- 345 Advanced First Aid & Emergency Care

MASS COMMUNICATION

- 100 Mass Media & Society
- 120 Telecommunication
- 170 Photography
- 175 Color Photography
- 270 Photography History

NURSING

- 260 Women's Health Issues

Returning Students

At the beginning of fall quarter 1986, anyone still on the old General Education Program was converted automatically to the new program, regardless of any credit earned under the old program.

Academic Programs

All degree and non-degree undergraduate programs are listed in the following Academic Programs sections.

Bachelor and Associate Degree Programs. These programs are listed according to the five colleges within the University:

College of Business

College of Education

College of Liberal Arts

College of Nursing and Health Sciences

College of Science and Engineering

Included are undergraduate majors, minors, program options, licensure programs, and professional sequences. Within each college, programs are listed by departments arranged alphabetically.

Interdisciplinary Programs. Undergraduate programs sponsored by more than one department are listed alphabetically. (i.e. Public Administration and Social Science)

Special Academic Programs. Various non-baccalaureate or special degree programs, such as pre-professional programs, are listed alphabetically.

Course Descriptions

Concluding the Academic Programs section are all courses offered by all academic departments. Courses are listed by departments arranged alphabetically. Please note the following information for each course:

1. Course Number. A course number indicates the level at which the course should be taken. Generally freshmen take 100 level courses, sophomores 200 level, juniors 300 level, and seniors 400 level. Students are required to limit course selection to courses not more than one level above their class standing. Freshmen students are not permitted to enroll

in 400 level courses. 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.

2. Prerequisites. 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 is noted in the description. A department's general pass/no credit policy is included in its listing of program requirements. Students must check the policy before enrolling in a course on a pass/no credit basis.

5. Content Description. A brief description of subject matter gives students an idea of what to expect in the course.

Note: For information on graduate academic programs, see GRADUATE BULLETIN available from the Office of Graduate Studies, located in the Registrar's Office, Somsen Hall, Room 114.

Orientation Program

To assist student transition into the University, Winona State offers orientation courses for entering first-year students. These courses introduce students to the services, activities, expectations, and opportunities at the institution and provide means of networking with other students, faculty, and staff.

- 100 Introduction to Higher Education (1)

- 101 First Year Experience Seminar (1)

Program Planning Sheet

General Education

I. Basic Skills						
A. Written Com. (8-12 crs.)						
Dept.	Title	No.	1	2	3	4
English		108*	4			
English		110	4			
English		115	4			
(Pre. Req. for 115-Engl. 110)						
*Required of students who have a low English admission score.						
B. Oral Communication (0-4 crs.)						
CTA		191				
or EXAM			0-4			
C. Mathematics (0-4 crs.)						
Math 111 or Math 113						
or Exam						
or 100 level Gen Education math course			0-4			
D. Physical Education Act. (2 crs.)						

II. Humanities (12 crs.) Two departments required.

210	113					
	6.3					

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

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

215						
215 4						

V. A Different Culture (8 crs.)

415						
415						

VI. Allied studies (6 crs.) (B.T. Req.) HPER 204

115						

General Electives

Dept.	Title	No.	1	2	3	4

Major Courses

Minor Courses

Professional Education

Dept	Title	No.	1	2	3	4
	Ed Growth & Development	300	4			
	Ed Learning in Classroom	301	4			
	Ed Prof. Field Experience	302	2			
	Ed Curriculum & Evaluation	306	4			
	Ed Human Relations	308	4			
	Ed Sec Rding Tch Strategies					
	(Secondary Only)	429	4			
	Ed Prof Topics & Issues	459	4			
	Ed Student Teaching	460-465	16			

College of Business

Ken Gorman, Dean
Somsen Hall 309 (507) 457-5014

Departments

Accounting
Business Administration
Business Education and Office Systems Administration
Economics and Finance
Marketing

Degrees Offered

ASSOCIATE IN SCIENCE (2 Year)

Office Systems

BACHELOR OF ARTS

Economics Major
Economics Minor

BACHELOR OF SCIENCE (MAJORS)

Accounting
Business Administration
 General Administration Option
 Public Administration Option
Finance
Health Science Administration
Human Resources Management
Management Information Systems*
Marketing
Office Systems Administration Option
Production And Operations Management**

BACHELOR OF SCIENCE (MINORS)

Accounting
Business Administration
Business Information Systems Management
Business Law
Quality and Productivity Management**
Training and Development

BACHELOR OF SCIENCE (TEACHING MAJOR)

Business Education Option

MASTER OF BUSINESS ADMINISTRATION

MASTER OF SCIENCE

Business Education

*Offered in cooperation with the Computer Science Department.

**Offered in cooperation with the Mathematics and Statistics Department

NOTE: See GRADUATE BULLETIN for graduate programs.

Mission

The mission of the Winona State University College of Business is to provide high quality professional education in business. College of Business programs emphasize high expectations; strong verbal, written, and quantitative skills; ethical behavior; and cultural diversity, all of which will enhance the development of our students as critical thinkers and business decision makers. The focus of the Colleges program is excellence in teaching. The primary emphasis is undergraduate education.

The mission of the Winona State University College of Business is enhanced by:

- Faculty recruitment and development that concentrate on quality instructional performance.
- Research and scholarly activity that enhance instructional programs and teaching excellence.
- Service that offers mentoring opportunities and forms partnerships with faculty, students, and business.

To accomplish this general purpose, curricula are designed so that each student:

- Acquires the broad knowledge essential to understanding the environments within which businesses operate.
- Comprehends the bodies of knowledge and skills necessary for effective business administration and for problem solving (i.e. business functions and operations, economic-social-legal environment, quantitative methods and information systems, organization theory and interpersonal behavior, and administrative policy and processes).
- Secures a basic education in the arts, sciences, and humanities.
- Develops an appropriate specialization within the College of Business.
- Comprehends and puts into practice standards of ethical professional conduct.
- Understands the ever-increasing pace at which social and technological changes are occurring and is prepared to deal with those changes.
- Develops an appreciation for cultural diversity as well as an expanded, global view of business and economics.
- Develops an inquisitive attitude about problems of society and business as well as actively seeks creative solutions to these problems.

Research and Community Service

In order to support its obligation to area communities, to the faculty, and to the general concept of research, the College of Business supports the following entities.

Small Business Institute (SBI)

The SBI is designed to provide students with hands-on experience under the supervision of a faculty member in developing strategies and problem solutions for area small businesses. There is no cost to the small business receiving SBI services and no compensation to the faculty member or student rendering the services.

Admission and Graduation Standards

Admission into the College of Business entitles the student to register for an unlimited number of upper-level College of Business courses. Without such Admission Status, students with undeclared majors will be limited to a maximum of THREE upper-level courses in the College of Business. All other students may register for a maximum of EIGHT upper-level College of Business courses. Graduate Special students are granted automatic College of Business Admission Status. Application for Admission forms and instructions for application are available in the Dean's office.

Prerequisites for Admission into the College of Business:

(Additional requirements may be specified for a particular major.)

1. Completion of all specified prerequisite courses for the major with a grade of "C" or better in each. (A list of courses specified for each major in the College can be found in the detailed section for each program.
2. See individual departments for GPA requirement.

Graduation requirements for a College of Business major:

(Additional requirements may be specified for a particular major.)

- A. Completion of all coursework required for the major.
- B. See individual departments for minimum GPA requirement for graduation.

Transfer Students: Transfer students are expected to meet the same requirements. They may apply for admission into the College of Business only after having taken at least six 4-credit courses at WSU. The applicable GPA of transfer students is to be the GPA they acquire at WSU.

Accounting

Somsen Hall, Room 323A, (507) 457-5860
Bergin, Briggs, Hurley, Ihrike, Lee, Milacek, Sallee, Schneider

The basic purpose of the Accounting Program is to prepare students for careers in business and government, with emphasis on preparation for professional certification. (e.g., CPA, CMA)

ADMISSION REQUIREMENTS

All students applying for admission to an Accounting major in the College of Business shall have completed the following courses with a grade of C or better in each and shall have a minimum cumulative GPA of 2.5 for all courses taken at Winona State.

Writing Skills:

- Engl 110 College English I
- Engl 115 College English II

Math Skills:

- Math 115 Precalculus I OR
- Math 121 Intro Math Applications OR
- a higher level Math course.

Statistical Skills:

- Busa 207 Statistics for Bus. & Econ. I

Computer Literacy:

- Busa 200 Microcomputers in Business

Knowledge of the Economy:

- Econ 201 Principles of Microeconomics
- Econ 202 Principles of Macroeconomics

Accounting Skills:

- Acct 201 Financial Accounting Prin I
- Acct 202 Financial Accounting Prin II

In addition to meeting the above requirements, each student must complete and submit a College of Business Admission Application form. If accepted, the student will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided the course prerequisites have been met. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

- a. Complete all coursework and satisfy all other Winona State requirements for a B.S. in Accounting.
- b. Complete a minimum of 20 credit hours of 300/400 level ACCT courses at Winona State University.
- c. Achieve a grade of "C" or better in all courses counted toward the major.
- d. At either the beginning or end of the last quarter of undergraduate work, have BOTH a 2.50 overall GPA AND a 2.50 GPA in ACCT courses.

Pass/No Credit Courses

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.

B.S. MAJOR ACCOUNTING

116 Q.H. (No Minor Required)

REQUIRED COURSES (92 q.h.)

CORE REQUIREMENTS (52 q.h.)

Accounting (12 q.h.)

- 201, 202 Financial Accounting Principles I and II (8)
- 440 Cost Accounting I (4)

Business Administration (20 q.h.)

- 207 Statistics for Business and Economics I (4)
- 335 Statistics for Business and Economics II (4)
- 310 Business Law I (4)
- 370 Business Organization and Management (4)
- 498 Business Policies (4)

Economics and Finance (12 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 360 Corporate Finance (4)

Marketing (4 q.h.)

- 315 Principles of Marketing (4)

Other (4 q.h.)

One of the following:

- 312 BUSA - Business Computer Applications (4) OR
- 130 CIS - Intro to BASIC Programming (4) OR
- 231 CIS - Introduction to FORTRAN (4) OR
- 232 CIS - Introduction to PASCAL (4) OR
- 362 BUSA Management Information Systems (4)

Accounting (24 q.h.)

- 301, 302, 303 Intermediate Accounting I, II, III (12)
- 407 Introduction to Taxation (4)
- 411 Auditing I (4)
- 442 Advanced Accounting I (4)

BEOSA (4 q.h.)

- 333 Business Communications (4)

Business Administration (8 q.h.)

- 311 Business Law II (4)
- 200 Microcomputers in Business

Mathematics (4 q.h.)

- * 122 Calculus for Non-Mathematics Majors (4) OR
- * 125 Calculus I (4)

*These courses may be used to satisfy certain general education requirements.

ELECTIVES (24 q.h.)

Economics elective 300 or 400 level. (4 q.h.)

Accounting (12 q.h.)

Elect from courses 300 and 400 level.

NOTE: Internships may not be used to satisfy this requirement.

Others (8 q.h.)

300 and 400 level courses from Accounting Department, Economics and Finance Department, and/or Business Administration and Marketing Department, including a maximum of 4 credits of internship.

B.S. MINOR ACCOUNTING

32 Q.H.

REQUIRED COURSES (28 q.h.)

Accounting (24 q.h.)

- 201, 202 Financial Accounting Principles I, II (8)
- 203 Managerial Accounting (4) OR
- 440 Cost Accounting I (4)
- 301, 302 Intermediate Accounting I and II (8)
- 407 Introduction to Taxation (4)

Business Administration (4 q.h.)

- 310 Business Law I (4)

ELECTIVE (4 q.h.)

Accounting elective 300 or 400 level.

Note: A student minoring in Accounting may not use ACCT 440 to satisfy the Accounting elective requirement if the student has used ACCT 203 to satisfy the requirements of his or her major.

Business Administration

Somsen Hall, Room 324, (507) 457-5170

Bjorke (Chairperson)

Business Administration:

Astani, Gernander, McDaniel, Najmaic, Safari, M. Wolfmeyer.

Management:

Dewan, Gander, Foegen, Rasch, Schmid, Sinkiewicz*, P. Wolfmeyer.

* on leave all year 1996

The basic purpose of the Business Administration programs is to prepare students for careers in administration of all types of organizations in the private sector, the non-profit sector, and the public sector. The Management curriculum is designed to provide students with the tools to pursue professional careers in management and more specialized areas such as human resources management. The Management Information Systems curriculum is intended to train students in the integration of information systems into the various business areas. The Health Administration curriculum is designed to prepare administrators who will be able to manage and develop various health service organizations and programs. The main focus of the POM major is providing the expertise necessary to manage the production and operations function of a business organization.

Pass/No Credit Courses

Any course not applied toward a major, minor or option, may be taken by undergraduates on a pass/no credit basis by permission of the instructor.

B.S. MAJOR

BUSINESS ADMINISTRATION

100 Q.H. (No Minor Required)

ADMISSION REQUIREMENTS:

All students applying for admission to a Business Administration major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

ENGL 110 College English I

ENGL 115 College English II

Math Skills:

MATH 115 Precalculus I OR

MATH 121 Intro Math Applications OR

MATH 125 Calculus I

Statistical Skills:

BUSA 207 Statistics I

Computer Literacy:

BUSA 200 Micro. Applic. in Bus.

Knowledge of the Economy:

ECON 201 Principles of Microeconomics

ECON 202 Principles of Macroeconomics

Accounting Skills:

ACCT 201 Financial Accounting Principles I

ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in at least all but two of the courses counted toward the major. A course cannot be repeated more than twice.
3. Completion of a minimum of 36 credits of 300-400 level courses from the College of Business at WSU.

OPTION A - GENERAL ADMINISTRATION

100 q.h.

REQUIRED COURSES (76 q.h.)

CORE REQUIREMENTS (52 q.h.)

Accounting (12 q.h.)

201, 202 ACCT Financial Accounting Principles I and II (8)

203 Managerial Accounting (4)

Economics and Finance (12 q.h.)

201 ECON Principles of Microeconomics (4)

202 ECON Principles of Macroeconomics (4)

360 FIN Corporate Finance (4)

Business Administration (24 q.h.)

200 BUSA Microcomputers in Business (4)

207, 335 BUSA Statistics for Business and Economics I, II (8)

310 BUSA Business Law I (4)

370 MGMT Business Organization & Management (4)

498 BUSA Strategic Management (4)

Marketing (4 q.h.)

315 MKTG Principles of Marketing (4)

OTHER REQUIREMENTS (24 q.h.)

Business Administration (16 q.h.)

311 BUSA Business Law II (4)

362 BUSA Management Information Systems (4)

330 POM Production/Operations Management (4)

375 MGMT Management of Human Resources (4)

Economics and Finance (4 q.h.)

203 ECON Principles of Economics III (4)

OR an elective, 300 level or above.

Mathematics (4 q.h.)

*115 MATH Precalculus I (4) OR

*121 MATH Introductory Mathematics with Applications (4) OR

*125 MATH Calculus I (5)

*These courses may be used to satisfy certain general education requirements.

ELECTIVES (24 q.h. minimum required beyond the core and other required courses listed above.)

Must be numbered 300 or above (from the BA, ECON/FIN, MKTG, or ACCTG Departments or others by department approval) including a Marketing course (4 q.h.) and a Finance course or ECON 304 or ECON 425 (4 q.h.); OR

One of the following minors: Accounting, Business Information Systems Management, Business Law, Quality and Productivity Management, or others by department approval.

OPTION B - PUBLIC ADMINISTRATION

100 Q.H.

REQUIRED COURSES (72 q.h.)

CORE REQUIREMENTS (52 q.h.)

Accounting (12 q.h.)

201, 202 ACCT Financial Accounting Principles I and II (8)

203 ACCT Managerial Accounting (4)

Economics and Finance (12 q.h.)

- 201 ECON Principles of Microeconomics (4)
- 202 ECON Principles of Macroeconomics (4)
- 360 FIN Corporate Finance (4)

Business Administration (28 q.h.)

- 200 BUSA Microcomputers in Business (4)
- 207, 335 BUSA Statistics for Business and Economics I, II (8)
- 310 BUSA Business Law I (4)
- 370 MGMT Business Organization & Management (4)
- 498 BUSA Strategic Management (4)

Marketing (4 q.h.)

- 315 MKTG Principles of Marketing (4)

OTHER REQUIREMENTS (20 q.h.)

Business Administration (4 q.h.)

- 311 BUSA Business Law II (4)

Economics & Finance (4 q.h.)

- 320 ECON Business-Government Relations (4)

Mathematics (4 q.h.)

- * 121 MATH Introductory Mathematics with Applications (4) OR
- * 122 MATH Calculus for Non-Math Majors (4) OR
- * 125 MATH Calculus I (5)

*These courses may be used to satisfy certain general education requirements.

Political Science (8 q.h.)

- 221 POLS State & Local Government (4)
- 228 POLS Intro to Public Administration (4)

ELECTIVES (28 q.h.)

Twelve credits from the following: (12)

Accounting

- 345 ACCT Governmental and Other Not-for-Profit Accounting (4)

Business Administration

- 461 MGMT Personnel Compensation (4)
- 465 MGMT Collective Bargaining (4)

Economics and Finance

- 303 ECON Intermediate Macroeconomics (4)
- 400 ECON Public Finance: Taxation (4)
- 405 ECON Monetary Theory & Policy (4)
- 420 ECON Labor Economics (4)
- 425 ECON Managerial Economics (4)
- 444 ECON Public Finance: Expenditures and the Deficit (4)

Political Science (16 q.h.)

Eight credits from the following:

- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 420 Administrative Law (4)

Eight credits from the following:

- 320 Constitutional Law (4)
- 322 American Political Parties and Pressure Groups (4)
- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 340 Environmental Policy Analyses (4)
- 401 Independent Readings (1-4), when applicable
- 410 Political Analysis (4)
- 426 Public Budgeting (4)
- 499 Seminar (1-4), when applicable

B.S. MAJOR

HUMAN RESOURCES MANAGEMENT

100 Q.H. (No Minor Required)

ADMISSION REQUIREMENTS:

All students applying for admission to a Human Resources major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

- ENGL 110 College English I
- ENGL 115 College English II

Math Skills:

- MATH 115 Precalculus I OR
- MATH 121 Intro Math Applications OR
- MATH 125 Calculus I

Statistical Skills:

- BUSA 207 Statistics I

Computer Literacy:

- BUSA 200 Micro. Applic. in Bus.

Knowledge of the Economy:

- ECON 201 Principles of Microeconomics
- ECON 202 Principles of Macroeconomics

Accounting Skills:

- ACCT 201 Financial Accounting Principles I
- ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in at least all but two of the courses counted toward the major. A course may not be repeated more than twice.
3. Completion of a minimum of 36 credits of 300-400 level courses from the College of Business at WSU.

REQUIRED COURSES (72 q.h.)

CORE REQUIREMENTS (52 q.h.)

Accounting (12 q.h.)

- 201, 202 ACCT Financial Accounting Principles I and II (8)
- 203 ACCT Managerial Accounting (4)

Business Administration (24 q.h.)

- 200 BUSA Microcomputer in Business (4)
- 207, 335 BUSA Statistics for Business and Economics I, II (8)
- 310 BUSA Business Law I (4)
- 370 BUSA Business Organization and Management (4)
- 498 BUSA Strategic Management (4)

Economics and Finance (12 q.h.)

- 201 ECON Principles of Microeconomics (4)
- 202 ECON Principles of Macroeconomics (4)
- 360 ECON Corporate Finance (4)

Marketing (4 q.h.)

- 315 MKTG Principles of Marketing (4)

OTHER REQUIREMENTS (20 q.h.)

- 375 MGMT Management of Human Resources (4)
- 461 MGMT Personnel Compensation (4)
- 467 MGMT Personnel Staffing and Evaluation (4)
- 490 MGMT Organization & Leadership Dynamics (4)

Mathematics (4 q.h.)

- *115 MATH Precalculus I (4) OR
- *121 MATH Introductory Mathematics with Applications (4) OR
- *125 MATH Calculus I (5)

*These courses may be used to satisfy certain general education requirements.

ELECTIVES (28 q.h.)

Select a minimum of 16 credits from the following:

Business Administration

- 372 BUSA Fundamentals of Management Science (4)
- 380 MGMT International Labor Relations (4)
- 399 BUSA Internship Problems in Personnel (4)
- 463 MGMT Management Development (4)
- 465 MGMT Collective Bargaining (4)

- 469 MGMT Labor Relations Legislation (4)
- 470 MGMT Theories of Management (4)
- 475 MGMT Problems in Management of Human Resources (4)
- 480 BUSA Independent Studies in Business (1-6)
- 481 MGMT Independent Readings in Management (1-4)
- 482 MGMT Independent Readings in Human Resources (1-4)
- 483 MGMT Independent Readings in Labor Relations (1-4)

Business Education & Office Systems Administration

- 440 BEOSA Training and Development (4)

Economics and Finance

- 320 ECON Business-Government Relations (4)
- 420 ECON Labor Relations and Economics (4)

Other electives: Related courses offered by other departments may be taken. A list of acceptable courses is available in the Department office for human resources management majors. All 28 elective credits must be in courses at 300 and 400 level.

B.S. MAJOR - MANAGEMENT INFORMATION SYSTEMS

116-126 Q.H. (No Minor Required)

ADMISSION REQUIREMENTS:

All students applying for admission to a MIS major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

- ENGL 110 College English I
- ENGL 115 College English II

Math Skills:**Math Option 1:**

- MATH 218 Intro to Discrete Mathematics and
- MATH 121 Intro Math Applications OR
- MATH 122 Calculus for Non-Math Majors,

Math Option 2:

- MATH 218 Intro to Discrete Mathematics and
- MATH 125 Calculus I and
- MATH 126 Calculus II

Statistical Skills:

- BUSA 207 Statistics I OR
- STAT 279 Statistics

Computer Literacy:

- BUSA 362 Management Information Systems

Knowledge of the Economy:

- ECON 201 Principles of Microeconomics
- ECON 202 Principles of Macroeconomics

Accounting Skills:

- ACCT 201 Financial Accounting Principles I
- ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

MIS students must meet both the Computer Science entrance requirements and complete the Computer Science Department application form and the College of Business entrance requirements.

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in all courses counted toward the major. A course may not be repeated more than twice.

3. A minimum overall GPA of 2.5.
4. Completion of a minimum of 36 credits of 300-400 levels courses from the College of Business at WSU.

REQUIRED COURSES (104-114 q.h.)**Accounting (12 q.h.)**

- 201 ACCT Financial Accounting Principles I (4)
- 202 ACCT Financial Accounting Principles II (4)
- 203 ACCT Managerial Accounting (4)

BEOSA (4 q.h.)

- 333 Business Communication (4)

Business Administration (24 q.h.)

- 310 BUSA Business Law I (4)
- 362 BUSA Management Information Systems (4)
- 370 MGMT Business Organization and Management (4)
- 372 BUSA Fundamentals of Management Science (4)
- 462 BUSA Management Decision Support Systems (4)
- 498 BUSA Strategic Management (4)

Computer Science (32 q.h.)

- 233 CS Structured COBOL (4)
- 234 CS Algorithms and Problem Solving I (4)
- 240 CS Advanced COBOL & File Processing (4)
- 250 CS Algorithms and Problem Solving II (4)
- 340 CS Data Structures (4)
- 370 CS Systems Analysis (4)
- 375 CS Software Engineering (4)
- 385 CS Applied Database Management Systems (4)

Economics and Finance (12 q.h.)

- 201 ECON Principles of Microeconomics (4)
- 202 ECON Principles of Macroeconomics (4)
- 360 FIN Corporate Finance (4)

Marketing (4 q.h.)

- 315 MKTG Principles of Marketing (4)

Mathematics (8-10 q.h.)

- 218 MATH Intro to Discrete Math (4)
- 121 MATH Introductory Math with Applications OR
- 122 MATH Calculus for Non-Math Majors (4) OR
- 125 & 126 MATH Calculus I, II (5-10)

One of the following statistics sequences (8-12 q.h.)

- 207 BUSA Statistics for Business I AND
- 335 BUSA Statistics for Business II (8) OR
- 279 STAT Statistics AND
- 410 STAT Analysis of Variance AND
- 411 STAT Multiple Regression (12)

ELECTIVES (12 q.h.)

Choose three from the following: (12 q.h.)

Accounting

- 301 ACCT Intermediate Accounting I (4)
- 350 ACCT Accounting Systems (4)
- 440 ACCT Cost Accounting I (4)

Business Administration

- 312 BUSA Business Computer Programming (4)
- 322 Business Application Programming/Development (4)
- 330 POM Production/Operations Management (4)
- 342 BUSA Advanced Business Computer Applications (4)
- * 399 BUSA Internship Problem
- 422 BUSA Computer-Aided Modeling for MS/OR (4)
- 461 BUSA Management of Telecommunications in Business Environment (4)
- 482 BUSA Management of Information Technology in Practice (4)
- 492 BUSA Topics in MIS (4)
- 495 BUSA Expert Systems (4)

Computer Science

- 312 Microcomputer Organization (4)
- 341 Data Structures II (4)
- 351 Introduction to Assembler and Architecture (4)
- 412 Networking/Telecommunications (4)
- 413 Advanced Networking and Telecommunications (4)

- 415 Higher-Level Languages (4)
- 417 Object Oriented Program Language (4)
- 448 Expert Systems (4)
- 467 Information Systems Applications (4)
- 470 Systems Design of CASE Tools (4)
- 485 Database Systems Design (4)
- *491 Practicum

Economics and Finance

- 425 ECON Managerial Economics (4)
- 463 FIN Financial Management (4)

* only one may be counted toward electives for the major.

**B.S. MAJOR - HEALTH SCIENCE
ADMINISTRATION MAJOR**

106-112 Q.H. (No Minor Required)

ADMISSION REQUIREMENTS:

All students applying for admission to a Health Administration major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

- ENGL 110 College English I
- ENGL 115 College English II

Math Skills:

- MATH 115 Precalculus I OR
- MATH 121 Intro Math Applications OR
- MATH 125 Calculus I

Statistical Skills:

- BUSA 207 Statistics I

Computer Literacy:

- BUSA 200 Micro. Applic. in Bus.

Knowledge of the Economy:

- ECON 201 Principles of Microeconomics
- ECON 202 Principles of Macroeconomics

Accounting Skills:

- ACCT 201 Financial Accounting Principles I
- ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in at least all but two of the courses counted toward the major. A course may not be repeated more than twice.
3. Completion of a minimum of 36 credits of 300-400 level courses from the College of Business at WSU.

Required General Education Courses

Basic Skills (14 q.h.)

- 110 ENG College English I (4)
- 115 ENG College English II (4)
- 191 CTA Fundamentals of Speech Communication (4)
- PE Activity (2)

Humanities (12 q.h.)

Natural Science (12 q.h.)

- 115 MATH Precalculus I OR
 - 121 MATH Mathematics with Applications (4)
- Choose remaining 8 credits including one lab course from approved general education courses under Natural Science.

Social Science (12 q.h.)

- 150 SOC Human Society (4)
- 210 PSY General Psychology (4)
- 201 ECON Principles of Microeconomics (4)

Different Cultures (8 q.h.)

Allied Studies (6 q.h.)

- 201 ACCT Financial Accounting Principles I (4)
- 202 ACCT Financial Accounting Principles II (4)

**ADMINISTRATIVE CORE
REQUIREMENTS (52 q.h.)**

Accounting (4 q.h.)

- 203 Managerial Accounting (4)

Business Administration (28 q.h.)

- 200 Microcomputers in Business (4)
- 207 Statistics for Business and Economics I (4)
- 310 Business Law I (4)
- 335 Statistics for Business and Economics II (4)
- 362 Management Information Systems (4)
- 370 Business Organization and Management (4)
- 375 Management of Human Resources (4)

Business Education and Office Systems Administration (4 q.h.)

- 333 Business Communications (4)

Economics and Finance (4 q.h.)

- 202 Principles of Macroeconomics (4)

Marketing (8 q.h.)

- 315 Principles of Marketing (4)
- 334 Marketing Research (4)

Psychology (4 q.h.)

- 425 Organizational Psychology (4)

HEALTH CARE CORE REQUIREMENTS (54 - 60 q.h.)

Biology (6 q.h.)

- 171 Medical Terminology A (2)
- 172 Medical Terminology B (2)
- 173 Medical Terminology C (2)

Business Administration (4 q.h.)

- 460 Health Law (4)

Economics and Finance (8 q.h.)

- 420 Health Care Financial Management (4)
- 450 Health Economics (4)

Health Administration (20-26 q.h.)

- 320 Proseminar in Health Care Administration (2)
- 405 Long Term Care System Management (4)
- 425 Introduction to Ambulatory Care Systems Management (4)
- 475 Health Services Administration & Strategic Planning (4)
- 490 Health Administration Practicum (4 or 8)
- 495 Current Topics in Health Service Administration (4)

Nursing (4 q.h.)

- 327 Introduction to Public Health (4)

Philosophy (4 q.h.)

- 330 Biomedical Ethics (4)

Sociology (8 q.h.)

- 434 Medical Sociology (4)
- 450 Sociology of Aging (4)

B.S. MAJOR - PRODUCTION AND OPERATIONS MANAGEMENT

112 Q.H. (no minor required)

ADMISSION REQUIREMENTS:

All students applying for admission to a POM major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

- ENGL 110 College English I
- ENGL 115 College English II

Math Skills:

- MATH 122 Calculus for Non-math Majors OR
- MATH 125 Calculus I AND
- MATH 126 Calculus II

Statistical Skills:

- STAT 279 Statistics

Computer Literacy:

- BUSA 312 Bus. Computer Programming OR
- CS 231 Fortran

Knowledge of the Economy:

- ECON 201 Principles of Microeconomics
- ECON 202 Principles of Macroeconomics

Accounting Skills:

- ACCT 201 Financial Accounting Principles I
- ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in at least all but two of the courses counted toward the major. A course may not be repeated more than twice.
3. Completion of a minimum of 36 credits of 300-400 level courses from the College of Business at WSU.

REQUIRED COURSES (100 q.h.)

Accounting (12 q.h.)

- 201 ACCT Financial Accounting Principles I (4)
- 202 ACCT Financial Accounting Principles II (4)
- 440 ACCT Cost Accounting (4)

Business Administration (12 q.h.)

- 310 BUSA Business Law I (4)
- 372 BUSA Fundamentals of Management Science (4)
- 498 BUSA Strategic Management (4)

Economics (8 q.h.)

- 201 ECON Principles of Microeconomics (4)
- 202 ECON Principles of Macroeconomics (4)

Finance (8 q.h.)

- 335 FIN Forecasting Methods (4)
- 360 FIN Corporate Finance (4)

Mathematics (4 q.h.)

- 122 MATH Calculus for Non-Math Majors (4) OR
- 125 MATH Calculus I (5) AND
- 126 MATH Calculus II (5)

Management (4 q.h.)

- 370 MGMT Business Organization and Management (4)

Marketing (4 q.h.)

- 315 MKTG Principles of Marketing

Production Operation Management (24 q.h.)

- 330 Production and Operations Management (4)
- 431 Production Planning and Control (4)
- 432 Mgmt Tech Changes in Mfg Systems (4)
- 433 Quality and Productivity Management (4)
- 439 Current Topics in POM (4)
- 440 Cases in POM (4)

Statistics (20 q.h.)

- 279 STAT Statistics (4)
- 310 STAT Statistical Quality Control (4)
- 311 STAT Industrial Design of Experiment (4)
- 411 STAT Applied Statistics: Multiple Regression (4)
- 412 STAT Applied Statistics: Analysis of Variance (4)

One of the following:

- 312 BUSA Business Computer Programming (4) OR
- 231 CS Fortran (4)

ELECTIVES (12 q.h.)

Select and obtain approval for 12 credits of 300-400 level courses in Business, Computer Science, Mathematics and Statistics.

Suggested courses:

BEOSA

- 333 Business Communication (4)

Business Administration

- 362 Management of Information Systems (4)
- 399 Internship Problems (4)
- 422 Computer Aided Modeling in OR/MS (4)
- 462 Management Decision Support Systems (4)
- 492 Topics in MIS (4)

Management

- 375 Management of Human Resources (4)
- 380 International Labor Relations (4)
- 467 Personnel Staffing & Evaluation (4)
- 490 Organization & Leadership Dynamics (4)

Mathematics

- 440 Linear Programming (4)

Statistics

- 409 Design of Samples and Surveys (4)
- 488 Statistics Project (4)
- 492 Practicum in Statistics (4)

B.S. MINOR

BUSINESS ADMINISTRATION

44 Q.H.

REQUIRED COURSES (40 q.h.)

Accounting (12 q.h.)

- 201, 202 Financial Accounting Principles I & II (8)
- 203 Managerial Accounting (4)

Business Administration (16 q.h.)

- 207 BUSA Statistics for Business & Economics I (4)
- 310 BUSA Business Law I (4)

Economics and Finance (12 q.h.)

- 201 ECON Principles of Microeconomics (4)
- 202 ECON Principles of Macroeconomics (4)
- 360 FIN Corporate Finance (4)

Management (4 q.h.)

- 370 MGMT Business Organization and Management (4)

Marketing (4 q.h.)

- 315 MKTG Principles of Marketing (4)

ELECTIVES (4 q.h.)

Choose one of the following:

Business Administration

- 200 Microcomputers in Business (4)
- 312 Business Computer Programming (4)

BEOSA

- 320 Business Data Processing (4)

Computer Science

- Any computer course (4)

B.S. MINOR - BUSINESS LAW

36 Q.H.

REQUIRED COURSES (20 q.h.)

Accounting (8 q.h.)

- 201, 202 ACCT Financial Accounting Principles I, II (8)

Business Administration (8 q.h.)

- 310, 311 BUSA Business Law I, II (8)

Economics (4 q.h.)

- 202 ECON Principles of Macroeconomics (4)

ELECTIVES (16 q.h.)

Choose 16 q.h. from the following courses or other courses with prior written approval of the Department Chairperson.

Accounting

- 407 ACCT Introduction to Taxation (4)

Business Administration

- 101 BUSA Intro to Law and Legal Processes (4)
- 315 BUSA Insurance Law (4)
- 325 BUSA Consumer Law
- 327 BUSA Topics and Issues in Business
- Note:** Topics require prior written approval of the department chairperson.
- 320 BUSA Transnational Business Transactions Law (4)
- 430 BUSA Real Estate Law (4)
- 460 BUSA Health Law (4)
- 491 BUSA Seminar in Business Law (4)

The following courses require prior written approval of department chairperson.

Political Science

- 320 Constitutional Law (4)
- 420 Administrative Law (4)

Philosophy

- 332 Philosophy of Law (4)

B.S. MINOR - QUALITY AND PRODUCTIVITY MANAGEMENT

36 Q.H.

REQUIRED COURSES (36 q.h.)

Production and Operations Management (20 q.h.)

- 330 Production Operations Management (4)
- 431 POM Production and Planning Control (4)
- 432 POM Mgmt of Tech Changes in Mfg Systems (4)
- 433 POM Quality and Productivity Management (4)
- 439 POM Current Topics in POM (4)

Statistics (12 q.h.)

- 310 STAT Statistical Quality Control (4)
- 311 STAT Industrial Design of Experiments (4)
- 411 STAT Applied Stats: Multiple Regression (4) OR
- 412 STAT Applied Stats: Anal of Variance (4)

One of the Following: (4 q.h.)

- 207 BA Statistics for Business and Economics (4) OR
- 208 STAT Fundamentals of Statistics (4) OR
- 279 STAT Statistics (4)

B.S. MINOR - BUSINESS INFORMATION MANAGEMENT

28 Q.H.

REQUIRED COURSES (28 q.h.)

Business Administration (16 q.h.)

- 200 Microcomputers in Business (4)
- 312 Business Computer Programming (4) OR
- 322 Business Application Programming/Development (4)
- 342 Advanced Business Computer Applications (4)
- 362 Management and Information Systems (4)

ELECTIVES (12 q.h.)

Select three from the following:

Business Administration

- 312 BUSA Business Computer Programming (4) OR
- 322 BUSA Business Application Programming/Development (4)
- 372 BUSA Management Science (4)
- 422 BUSA Computer Aided Modeling (4)
- 461 BUSA Management of Telecommunications (4)
- 462 Decision Support Systems (4)
- 482 Management of Information Technology in Practice (4)
- 492 Topics in MIS (4)
- 495 BUSA Expert Systems in Business (4)

Business Education And Office Systems Administration

Somsen Hall, Room 319, (507) 457-5165
B. Murphy (Chairperson), S. Eiken, J. Karjala, B. Smith.

The Department prepares business teachers, training personnel, and administrative personnel, such as information systems managers, administrative assistants, and information analysts.

A primary Department goal is to provide the depth of knowledge and competencies required for promotion and career advancement, in addition to basic entry-level proficiencies. All programs are specifically designed with a balanced curriculum of general knowledges and specialized skills.

The following program alternatives are available to students:

- Bachelor of Science: Business (Teaching) Option
- Bachelor of Science: Office Systems Administration Option
- Bachelor of Science: Training and Development Minor

Master of Science: Business Education (See GRADUATE BULLETIN)

ADMISSION REQUIREMENTS:

All students applying for admission to a BEOSA major in the College of Business shall have completed the following courses with a grade of C or better in each and shall have a minimum cumulative GPA of 2.0 for all courses taken at WSU.

Writing Skills:

- Eng 110 College English I
- Eng 115 College English II

Math Skills:

- Math 115 Precalculus I OR
- Math 121 Intro Math Applications OR
- Stat 208 Fundamentals of Statistics

Computer Literacy:

BEOSA 203 Document Production

BEOSA 320 Business Information Processing (spreadsheets and database)

Knowledge of the Economy:

ECON 201 Principles of Microeconomics

ECON 202 Principles of Macroeconomics

Accounting Skills:

ACCT 201 Financial Accounting Principles I

ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, a student must complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level College of Business courses in pursuing a major provided they have met course prerequisites. Without Admission Status, students will be limited in the number of upper-level business courses that can be taken. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all course work required for the major.
2. A grade of "C" or better in all courses counted toward the major.
3. A minimum overall GPA of 2.0.

Vocational-Technical College**Transfer Policy**

Students who have completed a one- or two-year business program at a vocational school may apply for a transfer of approved business credits. Student's transcript will be evaluated by BEOSA faculty. (Refer to section in catalog on transfer of vocational credits.) This transfer policy applies only to students majoring in business (teaching) and/or office systems administration.

Articulated Program

A 2 + 2 Office Systems Administration Program is offered in cooperation with the Rochester Community College with upper division courses offered by WSU faculty at the WSU Rochester Center. Contact the BEOSA department chairperson for further information.

Teaching Majors

The BEOSA Department will recommend for student teaching only those students who have a minimum: 1) 2.75 overall grade point average; 2) 2.5 grade point average in the major; 3) of "C" or better in all major courses.

Pass/No Credit Courses

No courses in the Department are open to declared majors and minors on a Pass/No Credit basis except 397, 398, 399.

B.S. MAJOR

96 Q.H. (No Minor Required)

OPTION A - OFFICE SYSTEMS ADMINISTRATION

96 Q.H. (No Minor Required)

REQUIRED COURSES

BEOSA (55-59 q.h.)

203 Document Production (4)

206 Administrative Procedures (4)

218 Job Search Strategies (3)

320 Business Information Processing (4)

330 Integrated Information Systems Applications (4)

333 Business Communications (4)

334 Business Organization for Information Management (4)

335 Information Resource Management (4)

340 Publication Design (4)

360 Interpersonal Business Relations (4)

397 Information Services Internship (4-8)

433 Personnel Management for Information Systems (4)

435 Information Systems Management (4)

440 Training and Employee Development (4)

Accounting (12 q.h.)

* 201 Financial Accounting Principles I (4)

* 202 Financial Accounting Principles II (4)

* 203 Managerial Accounting (4)

Economics and Finance (8 q.h.)

* 201 Principles of Microeconomics (4)

* 202 Principles of Macroeconomics (4)

Business Administration (4 q.h.)

310 Business Law (4)

Marketing (4 q.h.)

315 Principles of Marketing (4)

* These courses may be used to satisfy certain general education requirements.

ELECTIVES (9-13 q.h.)**Recommended Electives:****BEOSA**

215 Personal Finance (4)

336 Information Services Seminars (1)

350 Quality of Work Life (4)

410 Administrative Communication (4)

441 Training Techniques and Media (4)

Additional electives may be chosen from other departments with advisor approval.

OPTION B**BUSINESS EDUCATION (TEACHING)****96 Q.H. (No Minor Required)**

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES

BEOSA (55 q.h.)

203 Document Production (4)

206 Administrative Procedures (4)

215 Personal Finance (4)

218 Job Search Strategies (3)

320 Business Information Processing (4)

330 Integrated Information Systems Applications (4)

333 Business Communications (4)

334 Business Organization for Information Management (4)

335 Information Resource Management (4)

340 Publication Design (4)

360 Interpersonal Business Relations (4)

402 Basic Business Teaching Methods (2)

403 Keyboarding Teaching Methods (2)

404 Office Education Teaching Methods (2)

405 Accounting Teaching Methods (2)

435 Information Systems Management (4)

Accounting (12 q.h.)

* 201 Financial Accounting Principles I (4)

* 202 Financial Accounting Principles II (4)

* 203 Managerial Accounting (4)

Economics and Finance (12 q.h.)

* 201 Principles of Microeconomics (4)

* 202 Principles of Macroeconomics (4)

* 201 Introduction to Finance (4)

Business Administration (4 q.h.)

310 Business Law (4)

Marketing (4 q.h.)

315 Principles of Marketing (4)

*These courses may be used to satisfy certain general education requirements.

** See catalog for prerequisites.

ELECTIVES (9 q.h.)

Electives to be chosen with advisor approval.

B.S. MINOR

TRAINING AND DEVELOPMENT

36 Q.H.

CORE REQUIREMENTS (20 q.h.)

BEOSA (12 q.h.)

410G Administrative Communication (4)

440G Training & Employee Development (4)

441G Training Techniques and Media (4)

Education (4 q.h.)

442G The Adult Learner (4)

Management (4 q.h.)

**463G Management Development (4)

FOUNDATION REQUIREMENTS (16 q.h.)

BEOSA 320 Business Information Processing (4) OR

BUSA 200 Microcomputers in Business (4)

BEOSA 334 Business Organization for Information Management (4) OR

MGMT 370 Business Organization & Management (4)

BEOSA 360 Interpersonal Business Relations (4) OR

ED 308 Human Relations (4)

BEOSA 433 Personnel Management for Information Systems (4) OR

MGMT 375 Management of Human Resources (4)

**Business (teaching) and OSA majors meet prerequisites with BEOSA 334 and 433.

Economics and Finance

Somsen Hall, Room 309, (507) 457-5014

Kauffman (Chairperson),

Economics: Gallegos, Gieske, Hyle, Manrique, Pevas, Rieder, Salyards.

Finance: Kesler, Murray, Wrolstad.

The purpose of Economics and Finance Programs is to develop highly employable professional business analysts and managers. Majors are provided with a firm understanding of the economy and its financial systems, the ability to conceptualize business issues, and the opportunity to develop quantitative and computer skills necessary to solve today's complex business problems. The Department also seeks to provide graduates with the background necessary to pursue graduate degrees.

Pass/No Credit Courses

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.

ADMISSION AND GRADUATION REQUIREMENTS FOR MAJORS IN ECONOMICS

Admission Requirements:

Each student applying for admission to an Economics major in the College of Business shall have completed the following courses with a grade of "C" or better in each course.

Writing Skills:

ENGL 110 College English I

ENGL 115 College English II

Math Skills:

MATH 122 Calculus for Non-Math Majors OR

MATH 125 Calculus I

Statistical Skills:

BUSA 207 Statistics for Business I OR

STAT 279 Statistics

Computer Literacy:

BUSA 312 Bus. Computer Programming

Knowledge of the Economy:

ECON 201 Principles of Microeconomics

ECON 202 Principles of Macroeconomics

ECON 203 Principles of Economics III

In addition to meeting these requirements, the student must complete and submit a College of Business Admission Application form. If accepted, the student will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided the student has met the prerequisites for the courses. Without Admission Status the student will be limited in the number of upper-level courses for which the student may enroll. (See *Admission and Graduation Standards* under the College of Business.)

Graduation Requirements:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in all courses counted toward the major.
3. Completion of at least 24 quarter hours of credit in economics courses offered by the economics program at WSU, including Economics 499 Seminar in Economics.

FOR MAJORS IN FINANCE

Admission Requirements:

Each student applying for admission to a Finance major in the College of Business shall have completed the following courses with a grade of "C" or better in each course.

Writing Skills:

ENGL 110 College English I

ENGL 115 College English II

Math Skills:

MATH 122 Calculus for Non-Math Majors

MATH 123 Matrix Algebra and Linear Programming

Statistical Skills:

STAT 279 Statistics

Computer Literacy:

BUSA 200 Microcomputers in Business

Knowledge of the Economy:

ECON 201 Principles of Microeconomics

ECON 202 Principles of Macroeconomics

Accounting Skills:

ACCT 201 Financial Accounting Principles I

ACCT 202 Financial Accounting Principles II

In addition to meeting these requirements, the student must complete and submit a College of Business Admission Application form. If accepted, the student will be entitled to enroll in any number of upper-level College of Business courses in pursuing the major provided the student has met the prerequisites for the courses. Without Admission Status the student will be limited in the number of upper-level courses for which the student may enroll. (See *Admission and Graduation Standards* under the College of Business.)

Graduation Requirements:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in all courses counted toward the major.

B.A. MAJOR - ECONOMICS

64 Q.H. (Minor Required)

REQUIRED COURSES (44-45 q.h.)

Economics (28 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 203 Principles of Economics III (4)
- 302 Intermediate Microeconomics (4)
- 303 Intermediate Macroeconomics (4)
- 304 Money and Banking (4)
- 499 Seminar in Economics (4)

Note: May be repeated for an additional 4 q.h. of elective credit.

Business Administration (4 q.h.)

- 312 Business Computer Programming (4)

Mathematics/Statistics (12-13 q.h.)

- * 122 Calculus for Non-Mathematics Majors (4) OR
- * 125 Calculus I (5)
- 207 Statistics for Business and Economics I (4) AND
- 335 Statistics for Business and Economics II (4) OR
- 279 Statistics (4) AND
- 309 Intermediate Statistics (4)
- * These courses may be used to satisfy certain general education requirements.

ELECTIVES (20 q.h.)

Additional economics courses must be taken from 300 level or above.

B.A. MINOR - ECONOMICS

32 Q.H.

REQUIRED COURSES (24 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 203 Principles of Economics III (4)
- 302 Intermediate Microeconomics (4)
- 303 Intermediate Macroeconomics (4)
- 304 Money and Banking (4)

ELECTIVES (8 q.h.)

Economics electives in courses 300 and above.

B.S. MAJOR - FINANCE

96 Q.H. (No Minor Required)

REQUIRED COURSES (92 q.h.)

MATHEMATICS/STATISTICS REQUIREMENTS (16 q.h.)

- * 122 Calculus for Non-Mathematics Majors (4)
- 123 Matrix Algebra and Linear Programming (4)
- 279 Statistics (4)
- 309 Intermediate Statistics (4)
- * This course may be used to satisfy certain general education requirements.

BUSINESS COMMON BODY OF KNOWLEDGE REQUIREMENTS (48 q.h.)

Accounting (12 q.h.)

- 201 Financial Accounting Principles I (4)
- 202 Financial Accounting Principles II (4)
- 440 Cost Accounting I (4)

Business Administration (20 q.h.)

- 200 Microcomputers in Business (4)
- 312 Business Computer Programming (4) OR
- 322 Business Applications Programming/Development (4)
- 342 Advanced Business Computer Applications (4)
- 310 Business Law I (4)
- 330 Production/Operations Management (4) OR
- 370 Business Organization and Management (4)

Economics and Finance (12 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 360 Corporate Finance

Marketing (4 q.h.)

- 315 Principles of Marketing (4)

FINANCE MAJOR REQUIREMENTS (28 q.h.)

Finance Core Requirements (16 q.h.)

- 303 Intermediate Macroeconomics (4)
- 335 Forecasting Methods (4)
- 377 Investments (4)
- 463 Cases in Financial Management (4)

Finance Option Requirements - Choose one option (12 q.h.)

Option A - Investments

- 421 Institutional Investment and Financial Markets (4)
- 422 Portfolio Theory and Management (4)
- 473 Real Estate Investment (4)

Option B - Banking

- 404 Commercial Bank Management (4)
- 405 Monetary Theory and Policy (4)
- 471 Real Estate Finance (4)

FINANCE MAJOR ELECTIVES (4 q.h.)

One course, 300 or 400 level, in Economics or Finance.

Marketing

Somsen Hall, Room 101E (507) 457-5001
Bovinet (Chairperson), English, Newberry, Smith, Young.

The Marketing Department is committed to fostering excellence in marketing education. Students who pursue education in marketing will develop an understanding of the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. Graduates are prepared for a professional career in marketing or advanced graduate studies.

ADMISSION REQUIREMENTS:

All students applying for admission to the Marketing major in the College of Business shall have completed the following courses with a grade of C or better in each.

Writing Skills:

ENGL 110 College English I
ENGL 115 College English II

Math Skills:

MATH 121 Math with Applications
MATH 122 Calculus for Non-Math Majors

Statistical Skills:

STAT 279 Statistics I

Computer Literacy:

Proficiency in spreadsheet, word processing and graphical programs - see the chairperson of the department for guidelines.

Accounting Skills:

ACCT 201 Financial Accounting Principles I
ACCT 202 Financial Accounting Principles II

Economic Skills:

ECON 201 Principles of Microeconomics
ECON 202 Principles of Macroeconomics

Marketing Basics:

MKTG 315 Principles of Marketing

In addition to completing these requirements, students must each complete and submit a College of Business Admission Application form. If accepted, students will be entitled to enroll in any number of upper-level (300 and 400) College of Business courses in pursuing the major provided they have met the prerequisites for the courses. Without Admission Status students will be limited in the number of upper-level courses for which they may enroll. (See *Admission and Graduation Standards* under the College of Business.)

GRADUATION REQUIREMENTS:

1. Completion of all coursework required for the major.
2. A grade of "C" or better in all courses counted toward the major.
3. A minimum of 50% of the marketing course requirements must be completed at Winona State University.

B.S. MAJOR - MARKETING

96 Q.H. (No Minor Required)

REQUIRED COURSES (60 q.h.)

MATH REQUIREMENTS (8 Q.H.)

- 121 Mathematics with Applications (4)
122 Calculus for Non-Mathematics Majors (4)

COMMON BODY OF KNOWLEDGE (52 q.h.)

Accounting (12 q.h.)

- 201, 202 Financial Principles of Accounting I and II (8)
203 Managerial Accounting (4)

Business Administration (24 q.h.)

- 279 STAT Statistics (4)
310 Business Law I (4)
330 Production Operation Management (4)
335 Statistics for Business and Economics II (4)
362 Management Information Systems (4)
370 Business Organization and Management (4)

Economics and Finance (12 q.h.)

- 201 Principles of Microeconomics (4)
202 Principles of Macroeconomics (4)
360 Corporate Finance

Marketing (4 q.h.)

- 315 Principles of Marketing (4)

MARKETING CORE (12 q.h.)

- 330 Consumer Behavior (4)
332 Market Analysis (4)
334 Marketing Research (4)

ELECTIVES (20 q.h.)

- 350 Management of Promotion (4)
352 Professional Selling (4)
354 Sales Management (4)
360 Systems and Channels (4)
362 Business to Business Marketing (4)
364 Retailing and Entrepreneurship (4)
381 Strategic Market Planning (4)
384 International Marketing (4)
387 Marketing New Products (4)
390 Topics in Marketing (4)
429 Small Business Consulting (4)
480 Independent Study (1-4)
498 Internship (1-12)
499 Internship Problem (4)

INTEGRATIVE CAPSTONE EXPERIENCE (4 q.h.)

- 428 Marketing Management (4)

College of Education

Carol Anderson, Dean
Gildemeister Hall

Departments

Counselor Education
Education
Educational Leadership
Health, Physical Education and Recreation
Special Education

Degrees Offered

BACHELOR OF SCIENCE (MAJORS)

Exercise Science
Recreation & Leisure Studies
School & Community Health Education

BACHELOR OF SCIENCE (TEACHING MAJORS)

Elementary Education
Physical Education
School & Community Health Education
Special Education

BACHELOR OF SCIENCE (TEACHING MINORS)

Early Childhood Education
School & Community Health Education
(For specific majors and minors in secondary education see appropriate college listing.)

EDUCATION LICENSURES

Coaching Licensure
Early Childhood/Family Educator
Early Childhood/Parent Educator
Middle School Licensure
Prekindergarten Licensure

SPECIAL EDUCATION LICENSURES

Learning Disabilities
Mild/Moderate Mental Handicaps

MASTER OF SCIENCE

Counselor Education:
Professional Development Program
Community Counseling Program
Elementary School Counseling Program
Secondary School Counseling Program
Education:
Education (Elementary or Secondary)
Early Childhood Concentration
Special Education
Learning Disabilities Concentration
Mild/Moderate Mentally Handicapped Concentration
Educational Leadership:
Elementary School Leadership
Secondary School Leadership

SPECIALIST

Educational Leadership
Elementary School Leadership
Secondary School Leadership
General School Leadership

NOTE: See GRADUATE BULLETIN for graduate programs and advanced licensures.

Mission

The basic mission of the College of Education at Winona State University is to provide continuing leadership and excellence in the preparation of classroom teachers, counselors, administrators and other educational professionals. The College of Education provides the delivery of educational services to public and private schools. It accomplishes its mission by offering baccalaureate, licensure, and selected graduate programs to prepare professionals for public and private schools in the region.

The mission of the College of Education is to provide the knowledge, skills, professionalism, and practice necessary to enable students to perform with excellence as educational professionals in the service region, state and nation. The College of Education endeavors to provide students with appropriate field experiences in the region, throughout Minnesota, and other states. Further, the College of Education provides opportunity for cross-cultural and international awareness through both general education and professional work.

The faculty of the College of Education is committed to the serious study of education and the promotion of professional standards to foster innovation in professional preparation.

The College of Education at Winona State University is accredited by the National Council for Accreditation of Teacher Education (NCATE). The accreditation includes the basic and advanced levels of professional education programs offered at the university. All teacher education programs are approved for licensure by the Minnesota Board of Teaching.

Research and Regional Service

The College of Education has established an Educational Alliance with public and private schools within the WSU service region. The Alliance is a collaborative effort to meet school needs for research, in-service for teachers and educational services.

Internships

Several programs within the College of Education provide field experience through internships for students in schools, businesses and other institutions.

Counselor Education

Gildemeister Hall Room 132, (507) 457-5335
 Hatfield, T. (Chairperson), Borrer, Eiken, Maher, Ruiz, Wilkinson.

The Department's major purpose is to provide students in the helping professions and in education with a background in the science of human behavior, learning, development, personality, counseling, and group process.

The Department offers four programs leading to the Master of Science degree. (See GRADUATE BULLETIN for program descriptions.)

CHEMICAL DEPENDENCY COURSE OFFERINGS

Students interested in chemical dependency issues and practice are encouraged to avail themselves of the several course offerings noted below and described in more detail in the Course Listings section to follow. Courses with an asterisk (*) address subject matter required for certification as chemical dependency practitioners in the states of Minnesota and Wisconsin. Courses without the asterisk designation are additional related courses.

- 220 Emotions and Behavior (undergraduate only)
- *430 Helping Skills (undergraduate only)
- *431G Chemical Dependency: Causes and Symptoms
- *432G Chemical Dependency Assessment
- *434G Special Populations in Chemical Dependency
- *435G Minority Issues for Helping Professionals

Note: These courses alone do not automatically lead to certification as a chemical dependency practitioner. For further information on this issue, contact the Counselor Education Department.

Education

Gildemeister Hall, Room 152, (507) 457-5350
 Hermann (Chairperson), Billman, R. Clay, Helble, Joyce, Leicester, L. McMillen, S. Rislove, J. Sherman, T. Sherman, Tolmie, Williams.

The Department aims to integrate into preservice teacher education the knowledge, skills, and dispositions necessary to be an effective educator. This includes a philosophy of education, knowledge of the individual learner, understanding of the opportunities, objectives, and responsibilities of a school in a democratic society; practice toward teaching effectively, and the professionalism to work with others in promoting continual improvement of schools.

PROFESSIONAL EDUCATION SEQUENCE for the EFFECTIVE EDUCATOR PROGRAM

COURSE PREREQUISITES

The professional education sequence is required of all elementary and secondary education majors. The following courses are the requirements:

PREREQUISITE COURSES:

Education 300***	Growth and Development	4 crs.
Education 301	Learning in the Classroom	4 crs.
Education 302****	Professional Field Experience	2 crs.

Students may not proceed in other Education courses until prerequisite requirements are met. (C grade or better)

Education 306	Curriculum and Evaluation	4 crs.
Education 308	Human Relation	4 crs.
Education 429G	Secondary Reading and Teaching Strategies (Secondary only)	4 crs.
Education 459	Professional Topics and Issues	4 crs.
Education 460-465	Student Teaching	16 crs.

38-42 crs.

Additional course required for licensure:

HPER 204 Personal and Community Health**	4 crs.
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**This course may also be taken for the General Education Requirement and applied to Allied Studies as well as the Education Department sequence.

***Any student repeating Ed. 300 will also enroll in Ed. 150 concurrently.

****All students at Winona State University must successfully complete an Ed. 302 Field Experience; this course is non-transferrable to WSU.

B.S. MAJOR - ELEMENTARY EDUCATION (TEACHING) 45 Q.H.

PREREQUISITES (10 q.h.)

- 300 Growth and Development (4)
- 301 Learning in the Classroom (4)
- 302 Professional Field Experience (2)

Note: The preceding courses are prerequisites for Education 321, 328, 329, 333, 334, 335, and 352.

REQUIRED COURSES (45 q.h.)

Education (26 q.h.)

- 321 Children's Literature (4)
- 328 Teaching of Reading and Language Arts I (5)
- 329 Teaching of Reading and Language Arts II (5)
- 333 Teaching Social Studies in the Elementary School (4)
- 334 Teaching Mathematics in the Elementary School (4)
- 335 Teaching Science and Environmental Education (4)

Art Education (4 q.h.)

- 300 Elementary Art Education (4)

HPER (7 q.h.)

- 309 Physical Education for Elementary Teachers (3)
- 320 Health Education in the Elementary School (4)

Mathematics Education (4 q.h.)

- 110 Mathematics for Elementary Teachers I (4)

Music (4 q.h.)

- 320 Music Education for Elementary Teachers (4)

KINDERGARTEN ENDORSEMENT

Students with a major in Elementary Education may earn a kindergarten endorsement by completing Ed. 416, Ed. 417, and successfully completing eight quarter hours of student teaching in a kindergarten setting.

B.S. MINOR - EARLY CHILDHOOD EDUCATION (TEACHING)

Students with a major in Elementary Education may earn an Early Childhood Education minor which leads to kindergarten endorsement and prekindergarten licensure. Early childhood minors must be accompanied with one academic concentration identified for Elementary Education majors.

44 Q.H.

REQUIRED COURSES (44 q.h.)

- 410 Foundations of Early Childhood Education (4)
- 413 Development in Infancy (4)
- 414 Development in Early Childhood (3)
- 416 Early Childhood Education I: Curriculum and Methods (4)
- 417 Early Childhood Education II: Curriculum and Methods (4)
- 418 Prekindergarten Practicum (2)
- 422 Socialization of the Young Child (3)
- 423 Young Children with Special Needs (4)
- 424 Organization & Administration of Early Childhood Program (4)
- 461 Student Teaching-Kindergarten (8)
- 467 Student Teaching-Pre-Kindergarten (4)

B.S. MINOR - PREKINDERGARTEN LICENSURE

May be taken with any major leading to a Bachelor's degree.
42 Q.H.

Required Courses For Non-education Majors seeking prekindergarten licensure

- EDUC 301 Learning in the Classroom (4)
- EDUC 308 Human Relations (4)
- HPER 204 Personal and Community Health (3)

Required Early Childhood Courses

- EDUC 410G Foundations of Early Childhood Education (4)
- EDUC 413G Development in Infancy (4)
- EDUC 414G Development in Early Childhood(3)
- EDUC 416G Early Childhood Education I: Curriculum and Methods (4)
- EDUC 418G Practicum in Prekindergarten (2)
- EDUC 422G Socialization of the Young Child (3)
- EDUC 423G Young Children with Special Needs (4)
- EDUC 424G Organization and Administration of Early Childhood Programs (4)
- EDUC 467 Student Teaching - Pre-Kindergarten (4)

EARLY CHILDHOOD/FAMILY EDUCATION LICENSURE

The Early Childhood/Family Education Program offers two licensure options. The Parent Educator License prepares personnel to work as organizers, program developers, and group facilitators with the parents of young children. The Family Educator License prepares personnel to work with both parents and their young children in an Early Childhood/Family Education setting.

B.S. LICENSURE - FAMILY EDUCATION/ PARENT EDUCATION

29-30 Q.H.

- EDUC 369 Intro to Early Childhood Family Education (1)
- EDUC 413G Development in Infancy (4)
- EDUC 414G Development in Early Childhood (3)
- EDUC 441G Parent Education-Curriculum and Methods (3)
- EDUC 442G The Adult Learner (4)

- EDUC 443G Facilitating Parent Groups (3)
- EDUC 440G Practicum in Parent Education (4)
- Choose two courses from the following (7-8 q.h.)**
- EDUC 120 Parenting (4)
- EDUC 422G Socialization of the Young Child (3)
- SOC 212 The Family (4)
- SOC 435G Family Roles and Relationships (4)

B.S. LICENSURE - FAMILY EDUCATION/ EARLY CHILDHOOD FAMILY EDUCATION

43-44 Q.H.

- EDUC 369 Intro to Early Childhood Family Education (1)
- EDUC 413G Development in Infancy (4)
- EDUC 414G Development in Early Childhood (3)
- EDUC 441G Parent Education-Curriculum and Methods (3)
- EDUC 442G The Adult Learner (4)
- EDUC 443G Facilitating Parent Groups (3)
- EDUC 410G Foundations of Early Childhood Education (4)
- EDUC 416G Early Childhood Education I: Methods and Curriculum (4)
- EDUC 423G Young Children with Special Needs (4)
- EDUC 418G Prekindergarten Practicum (2)
- EDUC 444G Practicum in Early Childhood Family Education (4)
- Choose two courses from the following: (7-8)**
- SOC 212 The Family (4)
- SOC 435G Family Roles and Relationships (4)
- EDUC 120 Parenting (4)
- EDUC 422G Socialization of the Young Child (3)

MIDDLE SCHOOL LICENSURE

24 Q.H. for Elementary Majors (plus approved academic area)

27 Q.H. for Secondary Majors

- EDUC 300 Growth and Development (4)
- EDUC 301 Learning in the Classroom (4)
- EDUC 469G Middle School Philosophy, Organization and Interdisciplinary Planning (4)
- EDUC 427G Development and Remediation in Reading (3) (secondary only)
- SPED 400G Education of Exceptional Children & Youth (4)
- EDUC 470 OR
- EDUC 570 Advanced Practicum in Middle School (8)

Middle School Practicum follows course work and Student Teaching.
Note: Licenses based upon completion of these approved programs:

1. Secondary school teachers who complete approved Middle School Licensure programs shall be issued licenses valid for middle school teaching in all subjects or fields in which they are eligible for current secondary school teaching licenses.
2. Elementary school teachers shall be issued licenses valid for middle school teaching in the licensure fields for which they complete appropriate academic preparation. Following is a list of fields in which middle school licensure may be granted to elementary school teachers:

- English/Language Arts
- Health
- Mathematics
- Science (Life or Earth or Physical)
- Secondary Developmental Reading
- Social Studies
- Speech and Theatre Arts
- French
- German
- Spanish

No other teaching fields will be authorized as valid for middle school licensure for elementary school teachers.

**B.S. MINORS/CONCENTRATIONS
FOR ELEMENTARY MAJORS:**

Effective July 1, 1993, students admitted into teacher education will fulfill the BOT academic component for elementary major requirement in one of three ways

- a. by completing one of five minors approved for elementary education majors.
- b. by completing two areas of concentration of approximately 20 credits each. Concentrations will be drawn from designated minors for elementary majors.
- c. by completing an ECE minor or a special education major plus one of the approved areas of concentration.

**B.S. MINOR OR CONCENTRATION
GENERAL SCIENCE (TEACHING)**

43 Q.H.

Minor suggested for Elementary Education majors. WSU minor not for licensure.

Note: Minor is approved for Minnesota Middle School Licensure Program.

REQUIRED COURSES (42-43 q.h.)

Biology (19 q.h.)

- 104 Conservation of the Environment (4)
- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)
- 243 Principles of Biology III (5)

Chemistry (4 q.h.)

- 100 Chemistry Appreciation (4)

Geology (12 q.h.)

- 101 Introduction to Geology I (4)
- 102 Introduction to Geology II (4)
- 230 Meteorology (4)

Physics (4 q.h.)

- 115 Conceptual Physics (4)

Geology Electives (4)

- 200 Oceanography (3-4) OR
- 220 Astronomy I (3-4)

CONCENTRATION: GENERAL SCIENCE (20 q.h.)

Biology (4 q.h.)

- 104 Conservation of the Environment (4)

Chemistry (4 q.h.)

- 100 Chemistry Appreciation

Geology (4 q.h.)

- 101 Geology I (4) OR
- 102 Geology II (4)

Physics (4 q.h.)

- 115 Conceptual Physics (4)

**B.S. MINOR OR CONCENTRATION -
LANGUAGE ARTS (TEACHING)**

39 Q.H.

Minor suggested for Elementary Education majors. WSU minor not for licensure. Note: also requirements for a concentration in language arts.

The Language Arts minor is currently approved for Minnesota Middle School Licensure Program.

REQUIRED COURSES (39 q.h.)

Communication Studies (8 q.h.)

- 261 Public Speaking (4)
- 282 Introduction to Communication (4)

Education (7 q.h.)

- 427 Developmental and Remediation in Reading (3)
- 429 Secondary Reading and Teaching Strategies (4)

English (20 q.h.)

- 210 Advanced Composition (4)
- 223 Classical Mythology (4) OR
- 224 Bible as Literature (4)
- 310 Story Writing (4) OR
- 312 Poetry Writing (4)
- 418 Stylistics Writing (4) OR
- 420 Intro to Language Study (4)

Select 4 credits from:

- 151 American Indian Literature (4) OR
- 201 Intro to Literary Studies (4) OR
- 351 American Literature I (4) OR
- 352 American Literature II (4)

Theatre/Dance (4 q.h.)

- 290 Creativity Across the Curriculum (4)

**CONCENTRATION: LANGUAGE ARTS (20 q.h.)
Education (4 q.h.)**

- 429 Secondary Reading and Teaching Strategies (4)

Theatre and Dance (4 q.h.)

- 290 Creative Across the Curriculum (4)

English (12 q.h.)

- 201 Intro to Literary Studies (4)
- 210 Advanced Composition (4)
- 420 Intro to Language Study (4)

**B.S. MINOR OR CONCENTRATION
MATHEMATICS (TEACHING)**

38 Q.H.

Minor suggested for Elementary Education majors. WSU minor not for licensure.

REQUIRED COURSES (30 q.h.)

Education (4 q.h.)

- 434 Remedial Mathematics Methods (4)

Mathematics (12 q.h.)

- * 115 Precalculus (4)
- 217 Intro to Linear Algebra (4)
- 218 Introduction to Discrete Mathematics (4)

Mathematics Education (8 q.h.)

- 120 Mathematics for Elementary Teachers II (4)
- 201 Geometry for Elementary Teachers (4)

Statistics (6 q.h.)

- 208 Fundamentals of Statistics (4)
- 219 Exploratory Data Analysis (2)

* Indicates courses that may be taken as a part of the General Education requirements.

ELECTIVES (8 q.h.)

Electives must be selected in consultation with an advisor in the Mathematics and Statistics Department. Possible electives include Math 116, 121, 122, 125, 126, 316, and Stat 309. For additional courses also contact your Education advisor.

CONCENTRATION: MATHEMATICS (20 Q.H.)

Education (4 q.h.)

- 434 Remedial Mathematics Methods (4)

Mathematics (4 q.h.)

- *115 Precalculus (4)

Mathematics Education (8 q.h.)

- 120 Mathematics for Elementary Teachers II (4)
- 201 Geometry for Elementary Teachers (4)

Computer Elective (4 q.h.)

Students must select one of the following:

- COMS *115 Using Personal Computers (4)

COMS *130 Intro to Basic Programming (4)
 EDUC 352 Integrating Micro-Computers in Elementary Education (4)
 * Indicates courses that may be taken as a part of the General Education requirements.

Note: Minor is approved for Minnesota Middle School Licensure Program.

B.S. MINOR OR CONCENTRATION MULTICULTURAL GLOBAL STUDIES (TEACHING)

42 Q.H.

Minor suggested for elementary Education majors. WSU minor not for licensure. Minor is approved for Minnesota Middle School Licensure Program.

REQUIRED COURSES (26 q.h.)

Education (10 q.h.)

150 Introduction to Field Experience (2)
 450 Comparative Education (4)
 483 Curriculum, Methods and Resources in Multicultural Education (4)

Communication Studies (4 q.h.)

281 Crosscultural Communications (4)

Special Education (4 q.h.)

400 Exceptional Children and Youth (4)

Foreign Language (8)

Choose from one language

ELECTIVES (16 q.h.)

Choose from at least two departments

Communication Studies

193 Chinese Communication Theory/Kinetics (4)
 280 Nonverbal Communication (4)
 285 Native American Oratory (4)
 286 African American Oratory (4)
 381 Advance Crosscultural Communication (4)

Counselor Education

435 Minority Issues for Helping Profession (1-3)

English

151 American Indian Literature (4)
 224 Bible as Literature (4)

Geography

213 Cultural Geography (4)
 224 Geography of Africa (4)
 323 Geography of the Orient (4)

Health/Phy Ed/Recreation

201 Folk Dance

History

123 Eastern Civilization (4)
 165 Latin American History (4)
 170 African Civilization (4)
 233 History of Mexico (4)
 310 History of American Indians (4)
 316 Women in History: Colonial-1890 (4)
 317 Women in History: 1890-Present (4)

Music

110 History of American Jazz (4)
 114 Non-Western Music (3)
 115 Music of the Far East (4)
 116 Culture and Music of Native Americans (4)

Political Science

123 Politics and Society in Mediterranean Middle East (4)
 124 Politics and Society in Latin America (4)
 125 Politics and Society in Far East (4)
 126 Politics and Society in Black Africa (4)

Psychology

275 Introduction to Psychology of Women
 325 Social Psychology (4)

Sociology

201 Scandinavian Culture I (4)
 205 Social Interaction (4)

212 The Family (4)
 216 Social Problems (4)
 340 Social/Cultural Anthropology (4)
 411 Sociology of Religion (4)
 421 Urban Sociology (4)
 423 Race Relations and Minority Groups (4)
 435 Family Roles and Relationships (4)
 450 Sociology of Aging (4)

CONCENTRATION: MULTICULTURAL/GLOBAL STUDIES (22 q.h.)

Education (10 q.h.)

150 Introduction to Field Experience (2)
 450 Comparative Education (4)
 483 Curriculum, Methods and Resources in Multicultural Education (4)

Communication Studies (4 q.h.)

281 Crosscultural Communications (4)

Special Education (4 q.h.)

400 Exceptional Children and Youth (4)

Foreign Language (8)

Choose from one language

B.S. MINOR OR CONCENTRATION SOCIAL STUDIES (TEACHING)

40 Q.H.

Minor suggested for Elementary Education majors. WSU minor not for licensure. Note also requirements for concentration in social studies.

REQUIRED COURSES (36 q.h.)

Economics (4 q.h.)

Select one of the following:

102 Introduction to Economics (4) OR
 201 Principles of Microeconomics (4) OR
 202 Principles of Macroeconomics (4)

Geography (8 q.h.)

110 World Regional Geography (4)
 213 Cultural Geography (4)

Psychology (4 q.h.)

210 General Psychology (4)

Sociology (4 q.h.)

150 Human Society (4)

History (12 q.h.)

Select one of the following sequences:

120 Western Civilization to 1500 (4) AND
 121 Western Civilization to 1850 (4) AND
 122 Western Civilization to Present (4) OR
 230 American History to 1828 (4) AND
 231 American History: 1828-1900 (4) AND
 232 American History: 1900-Present (4)

Political Science (4 q.h.)

220 American National Government (4)

ELECTIVES (4 q.h.)

Choose from economics, geography, political science, psychology, or sociology courses.

Note: Minor approved for Minnesota middle school licensure program.

CONCENTRATION: SOCIAL STUDIES (20 q.h.)

GEOG 110 World Regional Geography (4)
 HIST 230 American History to 1828 (4)
 HIST 231 American History 1828 to 1900 (4)
 HIST 232 American History 1900 to Present (4)

Choose one course from the following:

PSY 210 General Psychology (4) OR
 SOC 150 Human Society (4) OR
 POLS 220 American National Government (4)

**SEE EDUCATION DEPARTMENT FOR OTHER MINORS
APPROVED FOR ELEMENTARY EDUCATION MAJORS**

**ADMISSION TO A TEACHER EDUCATION
PROGRAM**

(Effective July 1, 1995)

To be admitted to the Effective Educator Program, the student must:

1. have completed 45 quarter hours of credit.
2. have earned a 2.75 GPA in all college coursework.

OR Alternate GPA Determination:

Those students not achieving a 2.75 GPA overall will have their GPA calculated based upon the last 45 credits attempted. Only entire quarter/semester coursework will be used in calculating this alternate GPA.

3. Meeting Writing Competence
Alternative ways of meeting writing competence include any two of the following:
 1. Pass department writing clearance.
 2. B grades in English 110 and 115 or 112.
 3. PPST Writing section passed.
4. complete the Preprofessional Skills Test.
5. have a record of good citizenship.

Students who have previously applied and not been admitted may request consideration under the alternate admissions standard by reapplying for admission through Education Department.

The University reserves the right to consider as part of the Education Department's admission and retention policy those personal qualities, general health, and scholastic achievement, or such other standards as may be appropriate. Students should make themselves aware of the Student Citizenship Standards found in the Academic Information section of this catalog.

**RETENTION AND STUDENT TEACHING
REQUIREMENTS**

After a student has been accepted into a teacher education program, the student must first meet prerequisite requirements (a grade of C or better in Education 300 and 301 and a grade of Pass in Education 302) and then maintain the following scholastic and personal records to be eligible for student teaching:

Elementary Education Majors: 1) a grade of C or better in each course in the professional education sequence; 2) a grade of C or better in each course in the elementary education major; 3) a cumulative GPA of 2.75 or better as well as a 2.75 GPA in the major is required. Previous college and university credits will be used to calculate GPA for program admission. 4) the maintenance of a record of good citizenship; 5) the completion of all courses in the Professional Education Sequence and the Elementary Education major prior to student teaching.

Secondary Education Majors: 1) a grade of C or better in each course in the professional education sequence; 2) a GPA of 2.50-2.75 in the major as required by the major department; 3) maintaining a cumulative GPA of 2.75 or better is required. Previous college and university credits will be used to calculate GPA for program admission. 4) the maintenance of a record of good citizenship; 5) the teaching requirements identified by the major department as well as completion of the Education Department's Professional Education Sequence courses prior to student teaching.

No Professional Education Sequence course or Elementary Education major course may be repeated more than once. An exception for one additional repetition may be appealed to the College of Education Admission, Retention, and Appeals Committee.

STUDENT TEACHING APPLICATION

Application for student teaching is made to the Director of Student Teaching by December for all quarters of the succeeding year (see calendar). If students are not enrolled during the Spring Quarter to make application for student teaching for the subsequent year, they must

submit their application before the end of the second week of the quarter preceding the quarter they plan to student teach. Students apply for a quarter when they will not have other commitments, i.e. coaching, music tours, etc. Applications are available in the Department of Education Office.

STUDENT TEACHING REQUIREMENTS

Student teaching is a requirement for completing any one of the teacher education curriculums and is usually done during the senior year. One full quarter of full day teaching is required in an area public school contracted by the University or elsewhere in Minnesota through the Common Market Program. All Elementary Education majors will complete a full quarter, full days at a grade level. The period of student teaching will equal the number of weeks in the University quarter during which students will receive credit. However, student teachers follow the calendar of their respective school districts. As such, Fall Quarter assignments begin with the workshop and opening of schools in systems where students are assigned.

Planning for student teaching begins during the sophomore year in order that all requirements may be fulfilled. Students should not plan to enroll for additional courses during the full quarter of student teaching.

Student teaching on the secondary level is required in all major fields. If a second major or a teaching minor is completed, the Director of Student Teaching will indicate the WSU student teaching requirements necessary to meet licensure.

LICENSURE

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.

Persons applying for initial licensure must have met the prescribed scores on the Pre-Professional Skills Test in reading, writing, and mathematics as set by the Minnesota Board of Teaching.

Licenses are issued by the Board of Teaching/State Department of Education. Application for the license to teach in the State of Minnesota must be made during the last few weeks of the final quarter of attendance at WSU. Application forms are available in the Registrar's Office. A person whose bachelor's degree is not in teacher education and who is interested in licensure is asked to check teacher licensure requirements. See section on "Teaching Licensure" under "Academic Information."

Minnesota teacher licensure requirements state that any secondary school teacher licensed to teach with a minor preparation in a subject or field shall within seven years after the initial licensure acquire the minimum established by the Board of Teaching for major preparation in order to continue to be licensed to teach in the subject or field.

Wisconsin Licensure: Adequate preparation in conservation of natural resources is required for licensure to teach early childhood and elementary education and for secondary education licenses in science and social studies. Further, secondary teachers in all majors must have a discrete course in secondary reading. Secondary majors in social studies also must have a course in consumers cooperative/marketing. Courses offered at WSU that meet the requirements are:

104 Biology-Conservation of the Environment

102 Economics-Introduction to Economics or

201 Principles of Microeconomics

429G Education-Secondary Reading and Teaching Strategies

For K-12 licensure in special fields (art, music and physical education), persons must complete methods courses and must student teach at both the elementary and secondary levels.

Illinois Licensure: All prospective Illinois teachers must log 100 hours of pre-student teaching classroom experience at appropriate elementary or secondary content area. Effective July 1, 1988, teachers applying for licensure in Illinois must pass an Illinois basic skills test and a test in subject matter. Out-of-state persons possessing valid licensure in another state will be issued a two-year provisional license until they meet Illinois requirements.

See Education Department regarding any changes in licensure requirements for particular states.

Educational Leadership

(See GRADUATE BULLETIN)

Health, Physical Education, Recreation and Exercise Science

Memorial Hall, Room 122, (507) 457-5200
Miller, (chairperson), Anderson, Fiereck, Grimm, Grob, Gunner, Hosier, Juare, Leaf, Mullen, Nauman, Nelson, Olson, Purtzer, Sheridan, Smith, Wistrcill, L. Wothke.

The programs in Health, Physical Education, Therapeutic Recreation, Recreation and Leisure Studies and Exercise Science provide students with discipline specific knowledge, skill, practice and professionalism experiences via classroom instruction, laboratory experimentation, practicum field experience and student teaching or internship capstone experiences necessary for professional careers or advanced graduate studies.

The department fosters the development of physical, social, emotional, recreational, clinical and culturally diverse skills to enhance the human behavior and well-being of all populations.

Additional Degree Requirements

Each major has specific grade point averages that must be met. Please refer to the requirements listed with each major.

Pass/No Credit Courses

In the course description section courses with no grading designation may be taken for grade or Pass/No Credits. Courses offered for Pass/No Credit only or grade only basis are so designated. **All courses in the major, minor, options etc. must be taken on a grade only basis except Internships.**

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH EDUCATION

78-79 Q.H. (No Minor Required)(Non-Teaching)

REQUIRED COURSES (56-57 q.h.)

HPER (45 q.h.)

- 127 Problems in Health/Wellness (4)
- 204 Personal and Community Health (4)
- 214 Standard First Aid & Personal Safety (3)
- 325 Program Planning in Health/Wellness (4)
- 399 Internship (16)
- 425 Organization and Administration of Health Education (3)
- 428G Health Science Strategies (3)
- 429G Community Health (4)
- 432 Health Education Seminar (1)
- 488G Alcohol and Drug Education (3)

Biology (8 q.h.)

- * 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4) OR
- 305 Bacteriology (4) OR
- 209 Microbiology (4)

ACCT/BEOSA (3-4 q.h.)

- 201 Financial Principles of Accounting I (4) OR
- 205 Health/Recreation Office Management (3)

ELECTIVES (22 q.h.)

Elect courses from the following:
Biology - 104, 202, 206, 220, 269, 310, 312, 370
Nursing - 260
Political Science - 320, 329, 340, 426
Psychology - 250, 302, 325, 365, 420

Sociology - 212, 216, 350, 412, 450
HPER - 205, 206, 320, 354, 411, 422, 431, 490

*Course may be used to satisfy certain general education requirement.

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH/PUBLIC ADMINISTRATION OPTION

104-105 Q.H. (Non-Teaching)

REQUIRED COURSES (56-57 q.h.)

HPER (45 q.h.)

- 127 Problems in Health/Wellness (4)
- 204 Personal and Community Health (4)
- 214 Standard First Aid & Personal Safety (3)
- 325 Program Planning in Health/Wellness (4)
- 399 Internship (16)
- 425 Organization and Administration of Health Education (3)
- 428G Health Science Strategies (3)
- 429G Community Health (4)
- 432 Health Education Seminar (1)
- 488G Alcohol and Drug Education (3)

Biology (8 q.h.)

- * 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4) OR
- 305 Bacteriology (4) OR
- 209 Microbiology (4)

ACCT/BEOSA (3-4 q.h.)

- 201 Financial Accounting Principles I (4) OR
- 205 Health/Recreation Office Management (3)

ELECTIVES (22 q.h.)

Elect courses from the following:
Biology - 104, 202, 206, 220, 269, 310, 312, 370
Nursing - 260
Political Science - 320, 340, 426
Psychology - 250, 302, 325, 365, 420
Sociology - 212, 216, 350, 354, 410, 412, 450
HPER - 205, 206, 320, 411, 422, 431, 490

OPTION REQUIREMENTS (12 q.h.)

Political Science

- 221 State and Local Government (4)
- 228 Public Administration (4)
- 324 Urban Planning (4) OR
- 329 Intergovernmental Relations (4)

ELECTIVES (12 q.h.)

Any 12 credits from the following:

Political Science

- 320 Constitutional Law (4)
- 322 Political Parties and Interest Groups (4)
- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 340 Politics of Ecology (4)
- 410 Political Analysis (4)
- 426 Public Budgeting (4)

*Course may be used to satisfy certain general education requirement.

B.S. MAJOR - SCHOOL AND COMMUNITY HEALTH EDUCATION (TEACHING)

65 Q.H. (No Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Students majoring in School and Community Health (Teaching) must have both a 2.75 overall GPA and 2.5 GPA in the major to be admitted into the Professional Education sequence and for degree issuance.

REQUIRED COURSES (44 q.h.)

HPER (36 q.h.)

- 127 Problems in Health/Wellness (4)
- 204 Personal and Community Health (4)
- 214 Standard First Aid & Personal Safety (3)
- 320 Health Education in the Elementary School (4)
- 325 Program Planning in Health/Wellness (4)
- 411 Health Education Appraisal (3)
- 425 Organization and Administration of Health Education (3)
- 428G Health Science Strategies (3)
- 429G Community Health (4)
- 432 Health Education Seminar (1)
- 488G Alcohol and Drug Education (3)

Biology (8 q.h.)

- *211 Anatomy and Physiology I (4)
- 209 Microbiology (4) or
- 305 Bacteriology (4)

ELECTIVES (21-22 q.h.)

- Biology - 104, 206, 212, 269, 310, 312, 370.
- Nursing - 260
- Political Science - 320, 340, 426
- Psychology - 250, 302, 325, 365, 420
- Sociology - 212, 216, 350, 412, 450
- HPER - 205, 206, 354, 422, 431, 490

PREREQUISITES FOR STUDENT TEACHING

- HPER 125, 127, 214, 320, 325 (must have at least a "C" grade in each course)
- BIOL 211 and 305 or 209

B.S. MAJOR - PHYSICAL EDUCATION (TEACHING)

68-70 Q.H. (No Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Students majoring in Physical Education (Teaching) must have both a 2.75 overall GPA and 2.5 GPA in the major to be admitted into the Professional Education sequence and for degree issuance.

Although no minor is required, dual majors and minors and HPER options are recommended to improve a student's marketability.

REQUIRED COURSES (68-70 q.h.)

HPER (39 q.h.)

- 214 Standard First Aid & Personal Safety (3)
- 222 Foundations & Principles of Physical Education (2)
- 291 Prevention and Care of Athletic Injuries (3)
- 303 Tests and Measurements in Physical Education (3)
- 309 Teaching Elementary Physical Education (3)
- 314 Kinesiology (3)
- 315 Developmental Adapted Physical Education (4)

- 317 Curriculum and Methods of Physical Education (4)
- 340 Physiology of Exercise (5)
- 413 Organization and Administration of Physical Education (3)
- 445G Motor Learning (3)
- 470G Mechanical Analysis of Motor Skills (3)

Biology (8 q.h.)

- * 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4)

Activity Cores (15 q.h.)

Select 5 of the 6 core courses.

- 166 Badminton, Soccer, Golf (3)
- 167 Tennis, Bowling, Archery (3)
- 168 Track and Field, Softball (3)
- 170 Flag, Football, Conditioning (3)
- 172 Tumbling, Rhythmic Activities (3)
- 173 Volleyball, Basketball (3)

Activity Courses (1-2 q.h.)

- 211 Swimming and Diving (1) OR
- 241 Emergency Water Safety (1) OR
- 295 Water Safety Instructor's Course (2)

Techniques Courses (5-6 q.h.)

- 301 Techniques of Teaching Dance (3)
- Prerequisites: 2 dance activity courses.

One of the following coaching techniques courses:

- 304 Techniques of Coaching Football (2)
- 305 Techniques of Coaching Basketball (2)
- 306 Techniques of Coaching Track and Cross Country (2)
- 307 Techniques of Coaching Softball and 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)
- 349 Techniques of Fitness Programming (3)

* Course may be used to satisfy certain general education requirement

PREREQUISITES FOR STUDENT TEACHING

HPER 222, 301, 309, 314, 317 (must have a "C" grade in each course).

- Five of six activity cores.
- One techniques of coaching course.

Biology

- 211, 212

DEVELOPMENTAL/ADAPTED PHYSICAL EDUCATION LICENSURE (For Physical Education Teaching majors only) 39 Q.H.

REQUIRED COURSES

HPER (27 q.h.)

- 315 Developmental/Adapted Physical Education (4)
- 351 Adapted Aquatics for Handicapped & Special Need

Population in Physical Education (3)

- 400G Perceptual-Motor Development (4)
- 435G Assessment in Adapted Physical Education (4)
- 436G Programming/Special Population I in Developmental/Adapted Physical Education (3)
- 437G Programming/Special Population II in Developmental/Adapted Physical Education (3)
- 438G Developmental/Adapted Physical Education Practicum (6)

Special Education (12 q.h.)

- 400G Education of Exceptional Children & Youth (4)
- 405G Student Management Systems (4)
- 420G Administrative Procedures (4)

COACHING LICENSURE - (Teaching Degree Required)

18-19 Q.H.

REQUIRED COURSES (18 q.h.)

- 214 Standard First Aid and Personal Safety (3)
- 251 Sports Science (3)
- 291 Prevention and Care of Athletic Injuries (3)
- 406G Coaching Practicum (40 lab hrs.) (3)
- Note: 251 is waived for students taking Biology 211 and 212, HPER 314 and 340.

Select 6-7 q.h. from the following:

- 304 Techniques of Coaching Football (2)
- 305 Techniques of Coaching Basketball (2)
- 306 Techniques of Coaching Track and Field Cross Country (2)
- 307 Techniques of Coaching Baseball and Softball (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)
- 349 Techniques of Fitness Programming (3)

B.S. MAJOR RECREATION AND LEISURE STUDIES

93-98 Q.H. (No Minor Required)

OPTION A - RECREATION AND LEISURE STUDIES (Non-Teaching)

CORE REQUIREMENTS (54-55 q.h.)

HPER (55 q.h.)

- 203 Recreation Programming (3)
- 229 Foundations of Recreation and Leisure Studies (3)
- 239 Outdoor Pursuits (3)
- 245 Therapeutic Recreation and Services (3)
- 292 Craft Activities (3)
- 302 Tourism/Eco-Tourism (3)
- 326 Organization and Administration of Recreation (3)
- 333 Wilderness Outfitting and Trip Planning (3)
- 344 Wilderness First Aid (3)
- 350 Legal and Financial Aspects of Recreation (3)
- 414 Recreational Leadership (3)
- 421 Outdoor Education (3)
- 426 Recreation Facilities and Area Design (3)
- 399 Internship (16)

Acct/BEOSA (3-4 q.h.)

- 201 Financial Principles of Accounting I (4) OR
- 205 Health/Recreation Office Management (3)

BIOLOGY/GEOGRAPHY (4 q.h.)

- 104 Conservation of the Environment (4) OR
- 203 Natural History (4) OR
- 270 Intro to the Geography of Tourism (4) OR
- 370 The Geography of Tourism: Advanced Study (4)

Music (3 q.h.)

- 324 Recreational Music (3)

Theatre and Dance (4 q.h.)

- 141 Oral Interpretation (4) OR
- 239 Creative Dramatics for Children (4)

Physical Education Activities (3 q.h.)

Students must take 3 credits of activity courses in addition to those taken for general education: 101, 102, 103, 105, 107, 113, 115, 117, 119, 120, 121, 124, 151, 152, 153 or 253, 190, 201, 207, 208 or 218, 209 or 211, 212, 215, 219, 220, 230, 232, 241, 295.

ELECTIVES (21-25 q.h.)

ART/MUSIC/MASS COMMUNICATION (6-8 q.h.)

- Art 114, 115, 118, 215, 220, 225, 260, 320
- Music 110, 116
- Mass Comm 110, 120, 130, 170, 175, 240, 260

BIOLOGY/GEOLOGY/THEATRE AND DANCE (7-9 q.h.)

- Biology 216, 217, 219, 312
- Geology 100, 200, 220
- Theatre and Dance 111, 201, 231

POLITICAL SCIENCE/PSYCHOLOGY (8 q.h.)

- Pol Science 221, 228
- Psychology 250, 302, 305, 325, 365

OPTION B - THERAPEUTIC RECREATION (Non-Teaching)

94-97 Q.H.

CORE REQUIREMENTS (52 q.h.)

HPER (41 q.h.)

- 229 Foundations of Recreation and Leisure Studies (3)
- 239 Outdoor Pursuits (3)
- 245 Therapeutic Recreation and Services (3)
- 302 Tourism/Eco-Tourism (3)
- 326 Organization and Administration of Recreation (3)
- 332 Leisure and Aging in Therapeutic Recreation (3)
- 342 Intervention Techniques in TR (3)
- 350 Legal and Financial Aspects of Recreation (3)
- 414 Recreational Leadership (3)
- 426 Recreation Facilities and Area Design (3)
- 468 Programming in Therapeutic Recreation (3)
- 475 Trends and Issues in Therapeutic Recreation (3)
- 399 Internship (16)

REQUIRED SUPPORT COURSES (25 q.h.)

BIOLOGY (8 q.h.)

- 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4)

HPER (9 q.h.)

- 315 Developmental/Adapted Physical Education (4)
- 340 Physiology of Exercise (5)

PSYCHOLOGY (8 q.h.)

- 250 Developmental Psychology (4)
- 420 Abnormal Psychology (4)

ADDITIONAL REQUIREMENTS WITH OPTION (17-20 q.h.)

Eight (8) credits must be taken from two of the following disciplines. No more than one course per discipline.

Counselor Education

- 220 Emotions and Behavior (4)

Psychology

- 303 Brain and Behavior (4) OR
- 305 Theories of Personalities (4) OR
- 325 Social Psychology (4) OR
- 414 Psychology of Mental Retardation

Sociology

- 210 Introduction to Criminal Justice (4) OR
- 212 The Family (4) OR
- 216 Social Problems (4) OR
- 440 Sociology of Dying and Death (4) OR
- 450 Sociology of Aging (4)

Six-eight (6-8) credits in the following two areas. Choose one course from Area A and one course from Area B.

A. Choose 3-4 credits from:

- ACCT 201 Financial Accounting Principles I (4) OR
- BEOSA 205 Health/Recreation Office Management (4)

B. Choose 3-4 credits from:

- HPER 303 Tests and Measurement (3) OR
- HPER 425 Assessment in Adapted PE (4) OR
- PSY 321 Statistics (4) OR
- SOC 376 Introduction to Social Research (4)

Choose 3-4 credits from the following:

- BIOL 171, 172, 173
- GEOG 270, 370
- HPER 203, 214, 240, 292, 344, 421, 444
- MUS 324

**B.S. MINOR
SCHOOL AND COMMUNITY HEALTH
(TEACHING)**

35-37 Q.H.

REQUIRED COURSES (29 q.h.)

HPER (25 q.h.)

- 127 Problems in Health/Wellness (4)
- 204 Personal and Community Health (4)
- 214 Standard First Aid & Personal Safety (3)
- 325 Program Planning in Health/Wellness (4)
- 425 Organization and Administration of Health Education (3)
- 411 Health Education Appraisal (3)
- 429 Community Health (4)

Biology (4 q.h.)

- 211 Anatomy and Physiology I (4)

ELECTIVES (6-8 q.h.)

- Biology 205, 206, 209, 310, 312
- Psychology 302, 325
- Sociology 212
- HPER 205, 206, 320, 354, 428, 431, 432

**B.S. MAJOR EXERCISE SCIENCE
(Non-Teaching)**

102-106 Q.H.

Students in Corporate Wellness and/or Cardiac Rehabilitation must maintain a 2.5 GPA in the major. Sports Medicine has additional admission requirements.

- OPTIONS: A - Corporate Wellness/Adult Fitness
 B - Cardiac Rehabilitation
 C - Sports Medicine (Athletic Training)

REQUIRED CORE COURSES (79-80 q.h.)

HPER (60 q.h.)

- 204 Personal and Community Health (4)
- 205 Nutrition and Weight Management (3)
- 214 Standard First Aid (3)
- 280 Psychology of Physical Activity and Sport (3)
- 291 Prevention and Care of Athletic Injuries (3)
- 303 Tests and Measurements (3)
- 314 Kinesiology (3)
- 340 Physiology of Exercise (5)
- 349 Techniques of Fitness Programming (3)
- 362 Exercise Leader Practicum (3)
- ** 399 Internship (Corporate or Clinical) (8)
- 445 Motor Learning (3)
- 451 Topics in Sports Medicine (3)
- 457 Principles and Practices of Exercise Testing and Prescription (3)
- 458 Laboratory Methods in Exercise Science (3)
- ** 459 Practicum in the University Wellness/Cardiac Rehabilitation/
Athletic Training Program (3)
- 470 Mechanical Analysis of Motor Skills (3)

Biology (12 q.h.)

- * 211 Anatomy and Physiology I (4)
- 212 Anatomy and Physiology II (4)
- 171 Medical Terminology A (2)
- 172 Medical Terminology B (2)

Sociology (3-4 q.h.)

- 444 Recreation for the Well Elderly (3) or
- 450 Sociology of Aging (4)

Counselor Education/Psychology (4 q.h.)

- 220 Emotions and Behavior (4) OR
- 431 Counseling and Clinical Psychology (4)

* Course may be used to satisfy certain general education requirement.

** Required for each option declared in Exercise Science and may not be double counted.

**OPTION A - CORPORATE WELLNESS/
ADULT FITNESS**

(Business Minor Encouraged)

23-24 Q.H.

- ACCT 201 Financial Principles of Accounting I (4) OR
 - BEOSA 205 Health/Recreation Office Management (3)
 - BUSA 110 Introduction to Business (4)
 - HPER 127 Problems in Health/Wellness (4)
 - 325 Program Planning in Health/Wellness (4)
 - PSY 298 Health and Wellness (4)
 - PSY 360 Psychology in Business and Industry (4)
- Must apply to the American College of Sports Medicine for written and practical National Certification Examination.

OPTION B - CARDIAC REHABILITATION

25 Q.H.

- NURS 392 Cardiac Risk Prevention (4)
 - HPER 127 Problems in Health/Wellness (4)
 - PSY 420 Abnormal Psychology (4)
 - PSY 421 Cognitive Behavior Therapy (4) OR
 - SOC 445 Reality Therapy (4)
 - SOC 405 Models of Intervention (4) OR
 - SOC 434 Medical Sociology (4)
 - HPER 456 Electrocardiography (3)
 - HPER 490 Independent Study: Cardiac Pharmacology (2)
- Must apply to the American College of Sports Medicine for written and practical National Certification Examination - Exercise Specialist.

**OPTION C - SPORTS MEDICINE
(ATHLETIC TRAINING)**

24 Q.H.

A special application process is required to enter this program. You must contact the Head Athletic Trainer before declaring this as your major. In addition to coursework requirements, 1500 hours of practical experience in sports medicine is required before application can be made for certification.

HPER

- 191 Introduction to Athletic Training (2)
 - 345 Emergency Response for the Professional Rescuer (3)
 - 391 Injury Recognition of the Upper Body (4)
 - 392 Injury Recognition of the Lower Body (4)
 - 393 Therapeutic Modalities (2)
 - 394 Therapeutic Exercise for Athletic Injuries (3)
 - 395 Medical Aspects of Athletic Training (3)
 - 492 Administration of Athletic Training (3)
- Must apply to the National Athletic Trainers Association for written and practical National Certification Examination - Athletic Trainer Certified.

*Course may be used to satisfy certain general education requirement.

**B.A. DANCE MINOR
(Co-Sponsored by THDA/HPER)**

38-40 Q.H.

REQUIRED COURSES (28 q.h.)

Theory (16 q.h.)

Biology (4 q.h.)

- * 211 Anatomy and Physiology I (4)

Theatre and Dance (12 q.h.)

- * 115 Dance Appreciation (4)
- 235 Stage Movement (4)
- 322 Dance Composition (4)

Technique/Activity (12 q.h.)

(Select a minimum of 12 q.h. from the list below, including at least three courses [7 q.h.] in either ballet or modern dance.)

HPER (12 q.h.)

- * 212 Jazz Dance I (1)
- 336 Jazz Dance II
- * 215 Modern Dance I (1)

- 246 Modern Dance II (3)
- 346 Modern Dance III (3)
- 446 Modern Dance IV (3)
- * 232 Ballet I (1)
- 248 Ballet II (3)
- 348 Ballet III (3)
- 448 Ballet IV (3)

(Three-credit technique courses [levels II, III, IV] may be repeated twice for credit.)

ELECTIVES (10-12 q.h.)

HPER

- 110 Introduction to Movement and Music (2)
 - * 126 Tap Dance (1)
 - * 138 Dance Theatre (1-3)
 - * 152 Fencing (1)
 - * 205 Nutrition and Weight Management (3)
 - * 220 American Country Dance (1)
 - * 230 Ballroom Dance (1)
 - 291 Prevention and Care of Athletic Injuries (3)
 - 301 Techniques of Teaching Rhythmic Dance (3)
 - 314 Kinesiology (3)
- (If not used above:)
- 246 Modern Dance II (3)

- 346 Modern Dance III (3)
- 446 Modern Dance IV (3)
- 248 Ballet II (3)
- 348 Ballet III (3)
- 448 Ballet IV (3)

THEATRE AND DANCE

- 137 Dance Repertory I (3)
- * 141 Oral Interpretation (4)
- 207 Introduction to Design (4)
- 231 Acting I (4)
- 237 Dance Repertory II (3)
- 337 Dance Repertory III (3)
- 437 Dance Repertory IV (3)

(Each Dance Repertory class may be repeated once for a total of 6 credits.)

* Course may be used to satisfy certain general education requirement.

Portfolio Requirement

Dance minors are required to document their development through maintaining video tapes and supporting written and visual materials and to submit for faculty review upon completion of coursework for the minor.

Special Education

Gildemeister Hall, Room 221, (507) 457-5535
Palmer (Chairperson), Long, F. Rocco, J. Rocco.

The Department of Special Education prepares professionals to identify, to plan, and to implement curriculum and instruction that will meet the unique needs of learners with mild handicaps in the full range of educational settings. The undergraduate programs in Special Education are designed to prepare professionals able to work effectively and directly with learners with special needs in instructional settings and indirectly serve learners with handicaps through collaboration with parents and other professionals.

The Department offers an undergraduate major leading to a B.S. in Special Education with Minnesota K-12 licensure in Learning Disabilities (LD) and/or Mild to Moderate Mental Handicaps (MMMH). The program is designed to enable Special Education majors to pursue a concurrent major in Elementary Education, although the Special Education Major may be taken as a single major or in conjunction with another teaching major or minor. **The Department strongly recommends the double major as the most comprehensive and appropriate preparation for a special educator.** Programs are more fully described in the Special Education Department STUDENT HANDBOOK.

Undergraduate Degree Program

The Special Education Program is a carefully designed Program of integrated and specifically sequenced coursework established to develop a firm liberal arts foundation through the WSU General Education Program requirements. Students receive a thorough introduction to the basic knowledge and skills needed by all educators in the College of Education Professional Education Sequence and specific knowledge and skills needed in the areas of the basic instruction of elementary and secondary content.

The specialized program in Special Education is arranged in three sequential phases. Each phase includes carefully coordinated practicum experiences designed to enable a field based application of the theory and skills presented in class. In Phase I, students receive a thorough grounding in the basic concepts, skills and requirements involved in the provision of special educational services to learners with handicaps within the least restrictive environment. Students receive their first formal, supervised opportunity to observe and participate in the provision of special educational instruction in a special education setting with learners who are mildly handicapped.

In Phase II, students focus on the specific characteristics and strategies used for teaching students with particular handicapping conditions and are given the opportunity to design, implement and evaluate instruction in collaboration with a team of peers and a supervisor. In Phase III, students serve as student teachers in both elementary and secondary classrooms serving students with the handicapping condition for which they are to be licensed. A course is taken in conjunction with the practicum which focuses on specific knowledge and techniques appropriate for that population. A Senior Seminar runs throughout the students final year in which the student has the opportunity to integrate and evaluate the content of the entire program and prepare for transition to a professional position as a special educator.

The Department has a strong commitment to its students, stressing collaboration between regular and special education, state-of-the-art, best practice techniques and ethical standards of professional practice.

The course requirements include:

GENERAL EDUCATION (60-68 q.h.) PROFESSIONAL EDUCATION 22 q.h.

- EDUC 300 Growth and Development (4)
- EDUC 301 Learning in the Classroom (4)
- EDUC 302 Professional Field Experience (2)
- EDUC 306 Curriculum and Evaluation (4)
- EDUC 308 Human Relations (4)
- EDUC 459 Professional Topics & Issues (4)

REGULAR (Elementary & Secondary) METHODS 17 q.h.

- MATH 110 Math for Elementary Teachers (4) OR
- EDUC 334 Teach. Math Elem. Sch. (4)
- HPER 204 Personal and Community Health (4)
- EDUC 328 Teaching Reading and Language Arts (5)
- EDUC 429 Secondary Reading and Teaching Strategies (4)*

SPECIAL EDUCATION 48 q.h.

(Practicum sequence in process of redesign)

Phase I

- SPED 400 Education of Exceptional Child/Youth (4)
- SPED 405 Student Management Systems (4)
- SPED 420 Administrative Procedures (4)
- SPED 410 Introduction to Assessment/Methods (4) +
- SPED 411 Practicum I (4) +

Phase II

- SPED 425 Mainstreaming (3)**
- SPED 430 Learning Characteristics of the Mildly Handicapped(4) +
- SPED 431 Practicum II (4) +

Phase III

Students may choose to pursue licenses in MMMH and/or LD.

MMMh Licensure

- SPED 440 Assess/Math MMMH (4) +
- SPED 441 Practicum III (MMMh) (12) +
- SPED 470 Senior Seminar (1)

LD Licensure

- SPED 445 Assess/Math LD (4) +
- SPED 446 Practicum III LD (12) +
- SPED 470 Senior Seminar LD (1)

* Not part of Elementary Education requirements

** Not required for double majors

+ Admission to Special Education required

Emphasis Area Requirement for Special Education Major

The Minnesota Board of Teaching requires completion of an in-depth academic component outside the College of Education. Areas approved for Special Education majors consist of 12 credits in one of the following six emphasis areas taken from General Education. Consult with advisor before beginning (especially double majors):

Foreign Languages

Choose from one area of German, Spanish or other language with advisor approval.

Spoken and Written Communication

- CMST 261 Public Speaking
- CMST 282 Communication Studies
- THDA 141 Oral Interpretation
- MCOM 100 Mass Media and Society

Human Environment

- CHEM 100 Chemistry Appreciation
- GEOL 101 Introduction to Geology
- BIOL 104 Conservation of the Environment
- PHYS 115 Physical Concepts of Mans Environment (Environmental Physics)

Computers/Math

- MATH 208 Fundamentals of Statistics
- MATH 221 Math Applications
- CS 210 Computers in Society
- PHIL 273 Inductive Reasoning

Geographic/Political Relationships

- GEOG 110 World Regional Geography
- GEOG 213 Cultural Geography
- ECON 202 Macroeconomics
- POLS 130 International Relations

Humans as Social Beings

- PSY 210 General Psychology
- PSY 298 Health and Wellness
- SOC 150 Human Society
- SOC 205 Social Interaction

Double Major with Elementary Education

Because of the increasing focus on integrating learners with handicaps into regular classrooms, students are strongly encouraged to take a double major in Special Education and Elementary or Secondary Education. Students choosing this option will be fully prepared and licensed to teach learners who are handicapped and nonhandicapped in either a regular education or special education setting and will be able to successfully collaborate with professionals from both fields to develop and implement the most appropriate and least restrictive education possible for learners with mild handicaps. Because of the significant overlap in coursework involved in the basic preparation for each profession, it is expected that the student can complete a double major, with careful planning and regular advisement, within the four years

typically required for an undergraduate program. It is necessary for a student to work carefully and regularly with faculty advisors from both Elementary Education and Special Education throughout the student's college career.

Beyond the requirements detailed above, the student double majoring in Elementary and Special Education must complete the following additional course requirements in order to qualify for Elementary licensure (52 q.h.):

- EDUC 321 Children's Literature (4)
- EDUC 329 Teaching Reading and Language Arts II (5)
- EDUC 333 Teaching Social Studies in the Elementary School (4)
- EDUC 335 Teaching Science and Environmental Education (4)
- EDUC 460 Elementary Student Teaching (16)
- ART 300 Elementary Art Education (4)
- HPER 309 Physical Education for Elementary Teachers (3)
- MUS 320 Music for Elementary Teachers (4)

Alternative Additional Majors and Minors

Students wishing to pursue a Secondary Education or other additional major should consult with a faculty advisor in the Special Education Department and in the department of the other major.

Students double majoring in Elementary Education and Special Education may fulfill the academic component requirement with a 20 credit concentration. See Education Department for approved concentrations.

- * Early Childhood Education
- * Prekindergarten Education
- * Early Childhood Family Education
- * Parent Education
- Psychology
- Sociology
- * Middle School subject area
- * Minors leading to teaching licensure

Admission procedures and requirements:

TO BE ADMITTED TO SPECIAL EDUCATION YOU MUST:

1. Be admitted to teacher education (see *Teacher Education Handbook*) which includes the following:
 - a. Complete 45 quarter hours of credit.
 - b. Earn a G.P.A. of 2.75 in all college coursework.
 - c. Complete the Pre-Professional Skills Test (PPST)(Application and test details are provided at the counseling office.)
 - d. a record of good citizenship
2. Earn a grade of "B" or better in English 110 and 115 or transfer equivalents and complete a writing clearance.
3. Submit a Special Education Department Application for Undergraduate Study to the Special Education office (Gildemeister 221)
4. Present evidence of admission to Teacher Education.

Students may enroll in 400, 405 and 420 without being admitted to a Special Education program.

Retention and Graduation Requirements:

Retention

To remain in good standing in the Special Education Program a student must meet all standards required for the Education majors under the Teacher Education Program requirements in this *Catalog*, the *WSU Effective Educator Handbook* and the department *STUDENT HANDBOOK*. To remain in the Special Education Program whether an Elementary Education major (double major) or a Special Education major, requirements include:

- Grades of C or better in each Special Education Course
- Cumulative g.p.a. of 2.75
- Attendance at quarterly preregistration mass advising sessions
- Regular individual contact with their major advisor(s) throughout their program
- Evidence of professionalism
- Pass Practica

Graduation

To graduate with a Bachelor of Science the student must:

- Meet all established General Education requirements as evaluated by the Registrar
- Complete All Professional Education and Special Education courses identified in the program requirements with grades of C or better in all Professional Education and Special Education courses.
- Have a cumulative g.p.a of 2.75 or higher and no fewer than 192 quarter credits.(See Graduation Checklist).

Practicum Admission

In order to be enrolled and placed at a practicum site students must submit formal application by the second Thursday in December of the academic year preceding the year in which each practicum is expected to be taken and meet the following criteria:

Practicum I (SpEd 411)

- Admission to the Special Education Program
- Concurrent enrollment in SpEd 410 Introduction to Assessment/Methods
- Application identifying completion of prerequisite courses (SpEd 400,405, Educ 300, 301, 302) submitted by the established and posted deadline
- Submission of a Personal Data Summary for the cooperating teacher
- Attendance at a preplacement meeting with cooperating teachers and University Practicum Supervisor
- Submission of a schedule of courses taken during the same quarter

Practicum II (SpEd 431 - School After School)

- Successful completion of Phase I
- Recommendation from University Supervisor for Practicum I
- Concurrent enrollment in Characteristics of the Mildly Handicapped SpEd 430

Practicum III (SpEd 441 or SpEd 446-student teaching)

- Successful completion of Phases I and II with recommendation from the University Supervisor
- Completion of all required Special Education coursework with grades of C or better
- Cumulative g.p.a. of 2.75 or better
- Submission of an updated Personal Data Form for the cooperating teachers.
- Attendance at a preplacement orientation meeting with cooperating teachers.

POST-BACCALAUREATE LICENSURE PROGRAMS

Students may seek initial licensure in Learning Disabilities and/or Mild to Moderate Mental Handicaps after completion of a bachelor's degree taking program requirements at either the graduate or undergraduate levels. Students entering with a bachelor's degree in a field of education and holding a valid Minnesota Teaching License may begin the program with the Special Education core. Each student's transcript must be reviewed by the Department to determine the need for additional course requirements dependent upon the field of current licensure.

The post-baccalaureate licensure programs in Special Education are built on the same foundation as the undergraduate degree programs. A valid, current Minnesota teaching license ensures that students have successfully met the general and professional education courses which serve as a foundation for the Special Education Core. Students entering without Minnesota licensure will be expected to meet the critical foundation requirements established for this program through additional coursework during their WSU program as determined in the review of their previous coursework and experience.

A licensure exemption sequence is available for persons with a bachelors degree outside of education. The Department of Special Education strongly encourages students to take post-baccalaureate licensure requirements at the graduate level. Please see an advisor before considering undergraduate level licensure. **See WSU Graduate Bulletin for graduate programs leading to a master's degree and/or licensure only.**

WORK EXPERIENCE COORDINATOR COURSES

Coursework for special education teacher licensure as Secondary Teacher-Coordinator of Work Experience Programs for the Handicapped consists, in part, of BEOSA 425 and 407, plus two independent study courses to be taken at Bemidji or Mankato State Universities. Current information is available by contacting the WSU Departments of Special Education or Business Education & Office Systems Administration.

College of Liberal Arts

Bonnie W. Buzza, Dean
Minne Hall, Room 206

Departments

Art
Communication Studies
English
Foreign Languages
History and Paralegal
Mass Communication
Music
Philosophy
Political Science
Psychology
Sociology and Social Work
Theatre and Dance

Special Programs: Honors Program

Degrees Offered

ASSOCIATE IN ARTS (2 Year)

General

BACHELOR OF ARTS (MAJORS)

Art
Communication
English
French
German
History
Mass Communication
Music
Political Science
Psychology
Sociology
Spanish (Co-op/SMC)
Theatre Arts

BACHELOR OF ARTS (MINORS)

Art
Communication
Cross Cultural Communication
Dance
English
French
Geography
German
History
Mass Communication
Music
Philosophy
Political Science
Psychology
Sociology: General
Sociology: Gerontology
Spanish (Co-op/SMC)
Speech Communication
Speech/Theatre Arts
Theatre Arts

BACHELOR OF SCIENCE (MAJORS)

Music/Business Emphasis
Paralegal
Social Work
Sociology: Criminal Justice

BACHELOR OF SCIENCE (TEACHING MAJORS)

Art
English
French
German
Music
Social Science
Spanish (Co-op/SMC)
Speech/Theatre Arts

BACHELOR OF SCIENCE (TEACHING MINORS)

English
French
German
Spanish
Speech/Theatre Arts

BACHELOR OF SCIENCE (NON-TEACHING MINOR)

Music

MASTER OF ARTS

English

MASTER OF SCIENCE

English

NOTE: See GRADUATE BULLETIN for graduate programs.

Mission

The basic mission of the College of Liberal Arts is to offer degree programs in the arts, humanities and social sciences, as well as in specialized professional and occupational areas. The College also seeks to provide a comprehensive base of liberal studies as the foundation of all degrees.

These two facets of the basic mission translate into the two major responsibilities of the faculty:

- 1) To provide a broad array of quality programs in the liberal arts and related professional fields.
- 2) To provide the majority of the general education curriculum to all WSU students.

The specific missions for the College of Liberal Arts are as follow:

- I. To develop a depth of knowledge in a primary Liberal Arts discipline.
- II. To develop breadth through knowledge and appreciation of the arts, humanities, and social sciences beyond one's primary discipline.
- III. To provide an intellectual, social and cultural atmosphere for the development of self-education and life-long learning.
- IV. To make individuals aware of the rights and responsibilities they have to themselves and to society.
- V. To prepare individuals to meet the career challenges of a rapidly changing society.
- VI. To contribute to the development of basic and applied knowledge in the fields of the Liberal Arts.

Career Opportunities

The opportunities for career education within the College of Liberal Arts are many and varied.

The B.A. degrees in all the disciplines in the college provide opportunities for employment or for preparation for advanced degree work in those areas.

B.S. (Teaching) degrees educate students for careers in teaching in art, music, speech/theatre, English, foreign languages, and social science.

Many departments offer specific professional preparation in such areas as criminal justice, mass communication, paralegal, pre-law, public administration and social work.

Equally important in career planning is the fact that a liberal arts education provides the student with career skills that are useful in many jobs not listed above, such as business, law, and medicine. These skills have general applicability and they will provide considerable vocational choice and career flexibility.

Internships

Most departments have internship opportunities which enable students to gain practical experience in their major discipline. Interested students should contact the appropriate department for information on internships.

Scholarships

In addition to general university scholarships, several departments have scholarships for students majoring in these areas. At present, such scholarships are available in art, music, sociology/social work, theatre, and forensics. Contact departments for details.

Art

Watkins Hall, Room 204, (507) 457-5395
Ricciotti (Chairperson), Park, Plummer, Schlawin, Schmidlapp

The Department of Art offers two degree programs: the Bachelor of Arts degree, which is primarily studio-oriented, and the Bachelor of Science degree in Art Teaching, which leads to eligibility for teacher certification in the State of Minnesota for grades K through twelve.

Within areas of study in the art curriculum, courses are numbered sequentially and must be taken accordingly. Virtually all art courses beyond the 100-level have prerequisites which must be fulfilled before subsequent classes may be taken (see Course Descriptions). During their first two years, students complete the required series of foundation courses which introduce them to basic visual problems. Preparing students for advanced work, these courses allow art majors to begin to identify their individual potentials for continued study.

During their final two years, students complete courses in specialized areas of the art curriculum. These are designed to offer more intensive experiences in art, based upon the student's capabilities and interests. Each successive course in a given specialty area builds upon earlier achievements; instruction tends to become more individualized as students are encouraged to begin a search for more personal means of expression.

Classroom instruction at all levels is enhanced by the changing series of exhibitions in Watkins Hall Gallery and by presentations by visiting gallery artists and lecturers. In addition, field trips to art museums and galleries in nearby cities are regularly scheduled by both faculty and the student Art Club, which majors and minors, as well as interested non-majors are urged to join.

Advising

Each student major is assigned an Art Faculty Advisor (students may select or change advisors), who assists in preparing the student's program of study; majors are obliged to consult with their advisors prior to registration each quarter. Suggested course programs for each Art degree for each quarter of the student's four-year residency are available from all Art Advisors, and from the Art office.

New students are encouraged to attend an advising and orientation meeting held in the Fall quarter each year. At this meeting information critical to a successful college career in Art is provided.

Transfer Students

Art majors transferring from other institutions must complete a minimum of 24 quarter hours in residence at WSU at the upper-division (300-400 level classes).

Minimum Grade-Point Averages

Although there is no minimum GPA to enter Art programs, in order to graduate with a major in art, BA students must earn a minimum grade of "C" in each studio art course in addition to a GPA of 2.50 in all studio and art history courses as well as a 2.50 overall GPA. Teaching majors in the BS program must maintain both a 2.75 overall GPA and a 2.75 GPA in all art history, studio, and art education courses.

Faculty

Over 60 percent of the liberal arts faculty have terminal degrees in their fields from prominent universities. Many are widely known for their scholarly and creative efforts as well as for their excellence as teachers.

Facilities

The majority of the liberal arts faculty offices and facilities are located in Minne Hall or in the Performing Arts Center. The Art Department is located in Watkins Hall and the Foreign Language Department is in Somsen Hall. The Mass Communication Department has additional facilities in Phelps Hall.

Junior Portfolio Review

To provide the Art faculty with a means of assessing the overall quality of student performance, Art majors in both degree programs during their third year of study shall submit for review a group of works completed thus far. Students neglecting to comply with the review shall not graduate. For more specific information on this requirement, majors should consult their advisors.

Senior Exhibitions

Each spring, capstone exhibitions showcasing the accomplishments of graduating seniors in both degree programs are held in Watkins Hall Gallery. The first of two shows includes work by all seniors. Participation in the second exhibition is competitive, with the Art faculty selecting several students on the basis of superior achievement. Each of these students shows a larger number of works than possible in the first exhibition.

Pass/No Credit Courses

The Pass/No Credit option is not available to Art majors and minors. Other students may elect this option for all 100-level classes and for additional courses as specified in the Course Descriptions. However, all prerequisites must be met before a student enrolls in a particular course.

B.A. MAJOR - ART

68 Q.H. (No Minor Required)

REQUIRED COURSES (44 q.h.)

- 118 Drawing I (4)
- 218 Drawing II (4)
- 114 2-D Design (4)
- 115 3-D Design (4)
- 309 Advanced Design (4)
- 228 Sculpture: Methods and Materials (4)
- 217 Painting I (4)
- 221 Art History I (4)
- 222 Art History II (4)
- 223 Art History III (4)
- 400-level Art History (4)

ELECTIVES (24 q.h.)

Elective credits must be divided equally between two of the specialized studio areas listed below, with three courses (12 q.h.) in each sequence. Art majors are reminded that they may register for Advanced Drawing (318) and other advanced (selected 400-level) courses for as many as four times, for a maximum of sixteen credits (see Course Descriptions). Required courses may not be applied to the sequences; therefore Art majors electing the Drawing, Painting, and Sculpture sequences must take additional quarters of the relevant course(s) as indicated below. Students may, in consultation with their advisor, elect a single six-course sequence in any of the following areas except Graphic Design and Printmaking. These long sequences shall include Independent Study (436) and instruction with more than one faculty member when possible.

The sequence areas and course numbers are:

Ceramics - 220, 320, 420
 Drawing - 318 (taken three times)
 Fibers - 225, 325, 425
 Graphic Design - 311, 312, 413
 Painting - 317, 417 (taken twice)
 Printmaking - 230, 330, 432
 Sculpture - 328, 428 (taken twice)

B.S. MAJOR - ART (TEACHING)

80 Q.H. (No Minor Required)

The teaching major, preparing graduates for Minnesota certification in Art (K-12), is offered in conjunction with the College of Education.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (68 q.h.)

114 2-D Design (4)
 115 3-D Design (4)
 309 Advanced Design (4)
 118 Drawing I (4)
 218 Drawing II (4)
 217 Painting I (4)
 220 Ceramics: Handbuilding (4)
 225 Fiber Structures (4)
 228 Sculpture: Methods and Materials (4)
 221 Art History I (4)
 222 Art History II (4)
 223 Art History III (4)
 400-level Art History with research paper (4)
 300 Elementary Art Education (4)
 410 Secondary Art Education (4)
 402G Psychology of Art and Art Education (4)
 412G Multi-Media Crafts for the Classroom (4)

ELECTIVES (12 q.h.)

Teaching majors must complete the twelve elective credits by taking a three-course sequence in one of the media areas listed below. Because required courses may not be applied to the sequences, majors electing the Ceramics, Drawing, Fibers, Painting, and Sculpture sequence must take additional quarters of the relevant class, as indicated. Advanced Drawing (318) and advanced (selected 400-level) courses may be taken for as many as four times, for a maximum of sixteen credits each (see Course Descriptions).

The sequence areas and course numbers are:

Ceramics - 320, 420 (taken twice)
 Drawing - 318 (taken three times)
 Fibers - 325, 425 (taken twice)
 Graphic Design - 311, 312, 413
 Painting - 317, 417 (taken twice)
 Printmaking - 230, 330, 432
 Sculpture - 328, 428 (taken twice)

B.A. MINOR - ART

36 Q.H.

REQUIRED COURSES (28 q.h.)

114 2-D Design (4)
 115 3-D Design OR 309 Advanced Design (4)
 118 Drawing I (4)
 218 Drawing II (4)
 221 Art History I (4)
 222 Art History II (4)
 223 Art History III (4)

ELECTIVES (8 q.h.)

Any art or art history course may be chosen to complete the eight quarter hours, providing prerequisites are met.

Communication Studies

Performing Arts Center, Room 215 (507) 457-5230
 Hatfield (Chairperson), Stephen Collie, Susan Collie, Kelley, Wilkinson.

The Department of Communication Studies (CMST) provides both academic and co-curricular experiences conducive to intellectual, professional, and personal growth. The importance of communication competence is increasingly recognized as necessary to success in personal and professional spheres.

The Department of Communication Studies offers majors and minors in Organizational Communication and Communication Studies, as well as a minor in Cross Cultural Communication. CMST also offers a teaching major and minor with the Theatre/Dance department. (The department is currently reviewing the Communication Studies major. Students are encouraged to stop by the CMST office in PAC 215 for additional curricular options.)

Graduates in Communication Studies are well prepared for employment in a service oriented economy. Recent graduates enjoy careers in a variety of fields including training & development, consulting, personnel, human resource development, sales and teaching. A significant number of graduates also attend graduate school in areas of communication, counseling, student personnel and law.

The Department supports active and successful co-curricular programs in individual events and debate. Scholarships are available to new students in these activities.

Communication Studies majors and minors are encouraged to join the Communication Club, a co-curricular group of students and faculty who meet regularly for academic discussions and social activities.

The department offers a Departmental Honors Program. Students with an overall GPA of 3.2 and a major GPA of 3.6 are encouraged to see the Department Chair for details.

Pass/No Credit Courses:

All courses except 191 and 499 may be taken on a pass/no credit basis. All courses taken to count for a CMST major or minor (except CMST 399) must be taken on a grade basis.

Requirements for Declaring a Communication Studies Major (includes student switching majors and transfer students)

- To declare a major in Communication Studies a student *must*:
1. Have completed 15 academic credit hours at Winona State, including CMST 191.
 2. Have an overall grade point average of 2.5
 3. Have an initial conference with a CMST advisor

Students declaring a major or minor in CMST should anticipate a minimum of **six academic quarters** (not including summer sessions) will be needed to complete the CMST course requirements in the required sequence.

Additional Graduation Requirements

1. A GPA of 2.5 must be earned in courses taken for a CMST major and no grade below a C will be accepted. These standards apply to both CMST courses and courses taken through other departments to fulfill CMST major requirements.
2. An overall GPA of 2.5 is required for internship registration.

Students majoring in Communication Studies are required to meet with their academic advisors quarterly.

Communication Studies Minors:

The Department of Communication Studies minors are designed especially for those students who recognize the importance of effective communication skills in their chosen careers. These minors should be of special interest to students majoring in Business, History, Mass Communication, Political Science, Psychology, and Sociology though students from all majors will find the course sequence for the minor beneficial. *Students minoring in CMST are required to seek out an advisor in the CMST Department and meet with that advisor on a quarterly basis.* Students majoring in Communication Studies may not minor in the department.

B.A. MAJOR - COMMUNICATION

64-104 Q.H.

Recommended General Education courses for communication majors:

(Note: These General Education courses may serve as prerequisites to electives in the major.)

- 110 BUSA - Introduction to Business (4)
- 201 Econ - Principles of Microeconomics (4)
- 103 Philosophy - Introductory Philosophy (4)
- 210 Psychology - General Psychology (4)
- 150 Sociology - Human Society (4)

ORGANIZATIONAL COMMUNICATION OPTION

102-104 Q.H. (No Minor Required)

Note: Students are responsible for meeting prerequisites as listed in course descriptions or obtaining permission of instructor.

Prerequisites: (8 q.h.)

- 282 Introduction to Communication Studies (4)
- 283 Introduction to Rhetorical Studies (4)

COMMUNICATION COURSES (44 q.h.)

- 196 Fundamentals of Interviewing (4)
- 261 Public Speaking (4)
- 280 Nonverbal Communication (4)
- 281 Crosscultural Communication (4)
- 371 Discussion and Small Group Dynamics (4)
- 387 Advanced Interpersonal Communication (4)
- 389 Persuasive Communication (4)
- 399 Internship (8)

Note: Students will be requested to share their experiences of the Internship through a number of possible forums.

- 485 Communication Theory (4)
- 486 Organizational Communication (4)

Capstone Course**Multi-Cultural Understanding (4 q.h.)**

Select one course:

- 285 CMST Native American Oratory (4)
- 286 CMST African-American Rhetoric (4)
- 381 CMST Advanced Crosscultural Communication (4)
- 499 CMST Independent Study (4)

Writing (8 q.h.)

Select two courses:

- 210 ENG Advanced Expository Writing (4)
- 439 ENG Technical Writing (4)
- 449 ENG Scientific Writing (4)
- 130 MCOM Newswriting (4) If not selected as MCOM elective.

Methods (4 q.h.)

Select one course:

- 376 SOC Introduction to Social Research (4)
- 208 STATS Fundamentals of Statistics (4)
- 279 STATS Statistics (4)
- 231 PSY Statistics (4)

Philosophy (4 q.h.)

- 331 PHIL Business Ethics (4)

Management (8 q.h.)

Select two courses:

- 375 MGMT Management of Human Resources (4)
- 463 MGMT Management Development (4)
- 467 MGMT Personnel Staffing and Evaluation (4)

- 475 MGMT Problems in Management of Human Resources (4)
- 490 MGMT Organizational and Leadership Dynamics (4)
- 440 BEOSA Training and Employee Development (4)
- 441 BEOSA Training Techniques and Media (4)

Psychology/Sociology (8 q.h.)

Select two courses:

- 325 PSY Social Psychology (4)
- 360 PSY Psych in Business and Industry (4)
- 425 PSY Organizational Psychology (4)
- 437 SOC Sociology of Large Scale Organizations (4)

Mass Communication (14-16 q.h.)

Select four courses: (No more than two 100-level)

- 100 MCOM Mass Media and Society (4)
- 110 MCOM Visual Communication (4)
- 120 MCOM Telecommunication (4)
- 130 MCOM Newswriting (4) If not selected as writing elective.
- 230 MCOM Newsgathering (4)
- 240 MCOM Public Relations (4)
- 330 MCOM Feature Writing (4)
- 331 MCOM News Editing
- 335 MCOM Media Graphics (4)
- 340 MCOM PR Cases (4)
- 345 MCOM Public Relations Writing (4)
- 347 MCOM PR Practicum (2)
- 400 MCOM Mass Comm Theory (4)
- 440 MCOM PR Campaigns (4)

Competency: Student must demonstrate word processing skills.

COMMUNICATION STUDIES OPTION (Minor Outside Communication Required)

64 Q.H.

Prerequisites: (8)

- 282 CMST Introduction to Communication Studies (4)
- 283 CMST Introduction to Rhetorical Studies (4)

REQUIRED COURSES (56 q.h.)**Communication Studies (36 q.h.)**

- 261 Public Speaking (4)
- 281 Crosscultural Communication (4)
- 371 Discussion and Small Group Dynamics (4)
- 375 Argumentation (4)
- 387 Advanced Interpersonal Communication (4)
- 389 Persuasive Communication (4)
- 391 Topics in Communication Studies (4)
- 486 Organizational Communication (4)

Capstone Course

- 485 Communication Theory (4)

Methods (4 q.h.)

- 376 SOC Introduction to Social Research (4)

Statistics (4 q.h.)

Select one course:

- 208 STATS Fundamentals of Statistics (4)
- 279 STATS Statistics (4)
- 231 PSY Statistics (4)

Writing (4 q.h.)

- 210 ENG Advanced Expository Writing (4)

ELECTIVES (8 q.h.)

Select two from any remaining communication courses-no more than one 100 level course.

Competency: Student must demonstrate word processing skills.

B.S. MAJOR SPEECH/THEATRE ARTS**(Co-op with Theatre/Dance)****(TEACHING)**

73 Q.H.

NOTE: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Teaching majors who fail to maintain an overall 2.5 GPA and a 2.75 GPA in the major or who receive a grade below a C in any major course will not be approved for student teaching or graduation.

PREREQUISITES

CMST 191 with a grade of C or better is a prerequisite for courses in this program; completion of English 110 and 115 is recommended before enrollment in major courses above the 100-level and required before enrollment in major courses above the 200-level; Education 150 or 202 is a prerequisite for CMST 491 and 492.

REQUIRED COURSES (61 q.h.)**Communication Studies (34 q.h.)**

- 051 Forensics Activities (3)
- 061 Debate Practicum (3)
- 261 Public Speaking (4)
- 282 Introduction to Communication Studies (4)
- 283 Introduction to Rhetorical Studies (4)
- 371 Discussion and Small Group Dynamics (4)
- 375 Argumentation (4)
- 485 Communication Theory (4)
- 491 Speech/Theatre Teaching Methods (2)
- 492 Coaching Forensics and Theatre (2)

Theatre/Dance (23 q.h.)

- 007 Theatre Practicum I (1)
- 008 Theatre Practicum II (1)
- 009 Theatre Practicum III (1)
- 141 Oral Interpretation I (4)
- 201 Play Production (4)
- 211 Survey of Dramatic Literature I (4)
- 212 Survey of Dramatic Literature II (4)
- 321 Directing I (4)

Mass Communication (4 q.h.)

- 100 Media and Society (4)

ELECTIVES (12 q.h.)

Any CMST or THDA course, except CMST 193, provided prerequisites have been met; Humanities 140, Approaches to Film (4); MCOM 101, Fundamentals of Broadcasting (4); MCOM 400, Mass Communication Theory (4); Psych 210, General Psychology (4); Psych 231, Statistics (4).

Note: Licensure requires competencies in two of the three co-curricular areas: Speech, Oral Interpretation or Theatre.

**B.A. MINOR
COMMUNICATION STUDIES**

32 Q.H.

Recommended pre-entry or co-entry general education courses:

- 110 BUSA Introduction to Business (4)
- 201 ECON Principles of Microeconomics (4)
- 120 PHIL Introductory Philosophy (4)
- 210 PSY General Psychology (4)
- 150 SOC Human Society (4)
- 208 STATS Fundamentals of Statistics (4)

REQUIRED COURSES (32 q.h.)**Prerequisites: (8 q.h.)**

- 282 Introduction to Communication Studies (4)
- 283 Introduction to Rhetorical Studies (4)

Communication Courses (24 q.h.)

- 261 Public Speaking (4)
- 371 Discussion and Small Group Dynamics (4)
- 387 Advanced Interpersonal Communication (4)
- 389 Persuasive Communication (4)
- 486 Organizational Communication (4)

Capstone Course

- 485 Communication Theory (4)

**B.A. MINOR
CROSSCULTURAL COMMUNICATION**

32 Q.H.

REQUIRED COURSES (24 q.h.)

- 281 CMST Crosscultural Communication (4)
- 282 CMST Introduction to Communication Studies (4) OR
- 283 CMST Introduction to Rhetorical Studies (4)
- 285 CMST Native American Oratory (4)
- 286 CMST African American Rhetoric (4)
- 381 CMST Advanced Crosscultural Communication (4)

Select one course:

- 499 CMST Independent Study (4) OR
- 400 IS International Studies Seminar (4)

Elective Courses (8 q.h.)Choose **either** in Intercultural Foundations or Area Studies.**INTERCULTURAL FOUNDATIONS (8 q.h.)**

- 211 GEOG Economic Geography (4)
- 213 GEOG Cultural Geography (4)
- 200 IS Introduction to International Studies (4)
- 340 SOC Social-Cultural Anthropology (4)

AREA STUDIES (8 q.h.)

Students must take both from the same area.

Far Eastern

- 193 CMST Chinese Communication Theory and Kinetics (4)
- 323 GEOG Geography of the Orient (4)
- 337 POLS Political Systems of the Far East (4)
- 338 POLS Political Systems of Southeast Asia (4)

Native American

- 151 ENG American Indian Literature (4)
- 310 HIST History of the American Indian (4)

European

- 332 POLS European Political Systems (4)
- 336 POLS Comparative Communist and Post-Communist Systems (4)
- 201 SOC Scandinavian Culture I (4)
- 202 SOC Scandinavian Culture II (4)

Latin American (only one 100 level course can be taken)

- 165 HIST Latin American History (4)
- 233 HIST The History of Mexico (4)
- 124 POLS Politics & Society in Latin America (4)
- 335 POLS Political Systems of Latin American Countries (4)

African (only one 100 level course can be taken)

- 224 GEOG Geography of Africa (4)
- 170 HIST African Civilization (4)
- 126 POLS Politics & Society in Sub. Saharan Africa (4)

Middle Eastern

- 233 GEOG Geography of the Middle East (4)
- 123 POLS Politics & Society in Mediterranean Middle East (4)
- 222 POLS Politics & Society in the Persian Gulf/Arabian (4)

**B.S. MINOR
SPEECH/THEATRE ARTS
(Co-op with Theatre/Dance)
(TEACHING)**

53 Q.H.

Note: Teaching major must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

PREREQUISITES

CMST 191 with a grade of C or better is a prerequisite for courses in this program; completion of English 110 and 115 is recommended before enrollment in major courses above the 100-level and required before enrollment in major courses above the 200-level; Education 150 or 202 is a prerequisite for CMST 491 and 492.

REQUIRED COURSES (53 q.h.)**Communication Studies (34 q.h.)**

- 051 Forensics Activities (3)
- 061 Debate Practicum (3)
- 261 Public Speaking (4)
- 282 Introduction to Communication Studies (4)
- 283 Introduction to Rhetorical Studies (4)
- 371 Discussion and Small Group Dynamics (4)
- 375 Argumentation (4)
- 485 Communication Theory (4)
- 491 Speech/Theatre Teaching Methods (2)
- 492 Coaching Forensics and Theatre (2)

Theatre/Dance (19 q.h.)

- 007 Theatre Practicum I (1)
- 008 Theatre Practicum II (1)
- 009 Theatre Practicum III (1)
- 141 Oral Interpretation I (4)
- 201 Play Production (4)
- 211 Survey of Dramatic Literature I (4) OR
- 212 Survey of Dramatic Literature II (4)
- 321 Directing I (4)

English

Minne Hall, Room 302, (507) 457-5440

D. Robinson (Chairperson), Adickes, Bennett, Carducci, K. Cowgill, DeGrazia, Dornier, Eddy, Forsythe, Gadow, Galbus, Grawe, G. Johnson, J.P. Johnson, Lund, Meeker, A. Nichols, J. Nichols, Raz.

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 students 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 and language study.

Students majoring in English should complete the lower-division requirements in English before registering for the upper-division courses.

Honors Program

The Department offers an English Honors Program. For details of the Program, see Secretary, Department of English, Minne 302.

Teaching Majors

Except in unusual circumstances, the English Department will recommend for student teaching only those students who have at least a 2.75 grade point average in all major courses and who have earned at least a B in each of the following courses: English 201, 210, and 402.

Prerequisites

Prerequisite to all major and minor programs in English: 110 College English I and 115 College English II, or English 112 Accelerated College English, and 201, Introduction to Literary Studies. Note: Non-English majors and minors must obtain the consent of the instructor before enrolling in any 300 or 400 level English course.

Pass/No Credit Courses

No courses in the Department except internships are open to declared English majors or minors on a Pass/No Credit basis. Students not majoring or minoring in English may take any course in the department on a Pass/No Credit basis **except** 105, 106, 107, 108, 110, 112, 115, 120, 121, 125, 131, 151, 223, 224, and H140.

B.A. MAJOR - ENGLISH

72 Q.H. (No Minor Required)

REQUIRED COURSES (44 q.h.)

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4) OR
- 310 Story Writing (4) OR
- 312 Poetry Writing (4)
- 223 Classical Mythology (4) OR
- 224 The Bible as Literature (4)
- 405 Chaucer (4)
- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)
- 418 Stylistics (4) OR
- 420 Introduction to Language Study (4)
- 447 Literary Criticism: Theory and Practice (4)

- 406 Studies in 16th Century Literature (4) OR
- 407 Studies in 17th Century Literature (4) OR
- 445 Studies in 18th Century Literature (4)

- 331 The British Novel (4) OR
- 435 Literature of the Romantic Era (4) OR
- 437 Victorian Literature (4)

- 316 The American Novel (4) OR
- 351 American Literature I (4) OR
- 352 American Literature II (4) OR
- 422 Emerson and Thoreau (4)

- 424 Modern Drama (4) OR
- 425 Modern British and American Prose (4) OR
- 432 European and Non-Western Literature (4) OR
- 450 Modern British and American Poetry (4)

ELECTIVES (28 q.h.)

Electives must be taken in English courses at the 200 level or above, including at least 16 hours in courses numbered 300 or above.

B.A. MAJOR

ENGLISH - WRITING OPTION

71-72 Q.H. (No Minor Required)

REQUIRED COURSES (43-44 q.h.)

Writing Courses - English (20 q.h.)

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4)

- 310 Story Writing (4) OR
- 312 Poetry Writing (4)

- 418 Stylistics (4)

- 439 Technical Writing (4) OR
- 449 Scientific Writing (4) OR
- 410 Creative Writing: Advanced Theory and Practice (4)

Writing Courses - Mass Communication/BEOSA (11-12 q.h.)

- 130 MCOM News Writing (4)
- 230 MCOM News Gathering (4)

- 330 MCOM Feature Writing (4) OR
- 332 BEOSA Business Report Writing (3)

Other English Courses (12 q.h.)

- 224 The Bible as Literature (4)
- 405 Chaucer (4) OR
- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)

- 425 Modern British and American Prose (4) OR
- 450 Modern British and American Poetry (4)

ELECTIVES (28 q.h.)

Electives must be taken in English courses at the 200 level or above, including at least 16 hours in courses numbered 300 or above.

B.A. MAJOR FIRST COMBINING MAJOR

52 Q.H.

This major may be taken only in combination with another full major, and students who fail to complete a second major must take one of the full majors listed in the catalog if they wish to major in English.

REQUIRED COURSES (24 q.h.)

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4) OR
- 310 Story Writing (4) OR
- 312 Poetry Writing (4)
- 223 Classical Mythology (4) OR
- 224 The Bible as Literature (4)
- 405 Chaucer (4) OR
- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)
- 418 Stylistics (4) OR
- 420 Introduction to Language Study (4)
- 447 Literary Criticism: Theory and Practice (4)

ELECTIVES (28 q.h.)

Electives must be taken from any English course numbered 300 or 400.

B.A. MAJOR SECOND COMBINING MAJOR — WRITING OPTION**52 Q.H.**

This major may be taken only in combination with another full major, and students who fail to complete a second major must take one of the full majors listed in the catalog if they wish to major in English.

REQUIRED COURSES (36 q.h.)**Writing Courses (24 q.h.)**

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4)
- 310 Story Writing (4) OR
- 312 Poetry Writing (4)
- 418 Stylistics (4)

- 439 Technical Writing (4) OR
- 449 Scientific Writing (4)

- 130 MCOM News Writing (4)

Other English Courses (12 q.h.)

- 224 The Bible as Literature (4)
- 405 Chaucer (4) OR
- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)
- 425 Modern British and American Prose (4) OR
- 450 Modern British and American Poetry (4)

ELECTIVES (16 q.h.)

Electives must be taken from English courses numbered 300 or 400.

B.S. MAJOR ENGLISH (TEACHING)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

72 Q.H. (No Minor Required)**REQUIRED COURSES (64 q.h.)****English (56 q.h.)**

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4)
- 402 Teaching Secondary English (4)
- 405 Chaucer (4)
- 418 Stylistics (4)
- 420 Introduction to Language Study (4)

- 432 European and Non-Western Literature (4)
- 447 Modern Literary Criticism (4)
- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)
- 406 Studies in 16th Century Literature (4) OR
- 407 Studies in 17th Century Literature (4) OR
- 445 Studies in 18th Century Literature (4)
- 435 Literature of the Romantic Era (4) OR
- 437 Victorian Literature (4)
- 316 The American Novel (4) OR
- 331 The British Novel (4)
- 351 American Literature I (4) OR
- 352 American Literature II (4) OR
- 422 Emerson and Thoreau (4)
- 425 Modern British and American Prose (4) OR
- 450 Modern British and American Poetry (4) OR
- 424 Modern Drama (4)

Communication and Theatre Arts (8 q.h.)

- 141 THDA Oral Interpretation (4)
- 261 CMST Public Speaking (4)

ELECTIVES (8 q.h.)

Electives must be taken in English courses at the 200 level or above.

B.S. MAJOR ENGLISH - WRITING OPTION (TEACHING)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

72 Q.H. (No Minor Required)**REQUIRED COURSES (64 q.h.)****Writing Courses - English (24 q.h.)**

- 201 Introduction to Literary Studies (4)
- 210 Advanced Expository Writing (4)

- 310 Story Writing (4) OR
- 312 Poetry Writing (4)

- 418 Stylistics (4)

- 439 Technical Writing (4) OR
- 449 Scientific Writing (4) OR
- 410 Creative Writing: Advanced Theory and Practice (4)

Writing Courses - Mass Communication (4 q.h.)

- 130 MCOM News Writing (4)

Other English Courses (32 q.h.)

- 316 The American Novel (4) OR
- 331 The British Novel (4)

- 351 American Literature I (4) OR
- 352 American Literature II (4) OR
- 422 Emerson and Thoreau (4)

- 402 Teaching Secondary English (4)
- 405 Chaucer (4)
- 420 Introduction to Language Study (4)

- 414 Shakespeare: Comedies and Histories (4) OR
- 417 Shakespeare: Tragedies (4)

- 424 Modern Drama (4) OR
- 425 Modern British and American Prose (4) OR
- 450 Modern British and American Poetry (4)

- 432 European and Non-Western Literature (4)

Communication and Theatre Arts (8 q.h.)

- 141 THDA Oral Interpretation (4)
261 CMST Public Speaking (4)

ELECTIVES (8 q.h.)

Electives must be taken in English courses at the 200 level or above.

B.S. MINOR ENGLISH: LANGUAGE ARTS (TEACHING)

35 Q.H.

(See Education Department for program requirements.)

B.A. MINOR ENGLISH

36 Q.H.

REQUIRED COURSES (20 q.h.)

- 210 Advanced Expository Writing (4) OR
310 Story Writing (4) OR
312 Poetry Writing (4)

414 Shakespeare: Comedies and Histories (4) OR
417 Shakespeare: Tragedies (4)

406 Studies in 16th Century Literature (4) OR
407 Studies in 17th Century Literature (4) OR
445 Studies in 18th Century Literature (4)

331 The British Novel (4) OR
435 Literature of the Romantic Era (4) OR
437 Victorian Literature (4)

316 The American Novel (4) OR
351 American Literature I (4) OR
352 American Literature II (4) OR
422 Emerson and Thoreau (4)

ELECTIVES (16 q.h.)

Electives must be chosen from English 201, 223, 224, or any English course numbered 300 and above.

B.S. MINOR ENGLISH (TEACHING)

36 Q.H.

REQUIRED COURSES (36 q.h.)

- 201 Introduction to Literary Studies (4)
210 Advanced Expository Writing (4)
402 Teaching Secondary English (4)
418 Stylistics (4)
420 Introduction to Language Study (4)
432 European and Non-Western Literature (4)
414 Shakespeare: Comedies and Histories (4) OR

- 417 Shakespeare: Tragedies (4)
425 Modern British and American Prose (4) OR
450 Modern British and American Poetry (4)

One advanced literature course selected from the following list: English 316, 331, 351, 352, 406, 407, 422, 435, 437, 445 (4 q.h.)

B.A. MINOR ENGLISH - CREATIVE WRITING OPTION

36 Q.H.

REQUIRED COURSES (22-24 q.h.)

- 201 Introduction to Literary Studies (4)
310 Story Writing (4)
312 Poetry Writing (4)
410 Creative Writing: Advanced Theory and Practice (4)
447 Literary Criticism: Theory and Practice (4)
461-2-3 Independent Study (2-4) (See department chair)

ELECTIVES (12 q.h.)**English**

- 210 Advanced Expository Writing (4)
413 Writer's Conference (2-4) or other credits earned through The Great River Writer's Conference
418 Stylistics (4)
425 Modern British and American Prose (4)
450 Modern British and American Poetry (4)
399 Internship (Publications work, etc.) (2-4)

Mass Communication (4 q.h.)

- 330 MCOM Feature Writing (4)

B.A. MINOR ENGLISH - WRITING OPTION

35-36 Q.H.

REQUIRED COURSES (20 q.h.)**Writing Courses - English (16 q.h.)**

- 201 Introduction To Literary Studies (4)
210 Advanced Expository Writing (4)
418 Stylistics (4)

- 439 Technical Writing (4) OR
449 Scientific Writing (4)

Writing Courses - Mass Communication (4 q.h.)

- 130 MCOM News Writing (4)

ELECTIVES (15-16 q.h.)

Electives must be chosen from:

- 230 MCOM News Gathering (4)
330 MCOM Feature Writing (4)
332 BEOSA Business Report Writing (3)
Any English course numbered 300 or above.

Foreign Languages

Somsen Hall, Room 319/457-5165
Mazur, (Chairperson), German-French-Polish; Frisk, French-Spanish;
Ramos, German-Spanish; Rois, French-Spanish; Tenenbaum, French-Spanish.

WSU Foreign Language Department classes are designed to develop proficiency in the four skills areas: listening, reading, writing and speaking. Their further goal is to develop an understanding and appreciation of individual foreign cultures. Students who enhance their occupational skills with linguistic and cultural training will increase their

opportunities for employment in multinational corporations, governmental agencies, humanitarian organizations and a variety of health professions.

The following offerings are available:

- Complete B.A./B.S. major/minor in French.
- Complete B.A./B.S. major/minor in German
- Complete B.A./B.S. major/minor in Spanish
- Occasional courses in Arabic, Chinese, Japanese, Polish or other languages (as warranted by demand and the availability of qualified instructors).

Bachelor of Teaching Degrees

The Foreign Language Department is authorized to recommend graduates for licensure in French, German, and Spanish (major and minor, grades 7-12). All coursework for the French and German degree is available on campus. Coursework for the Spanish major/minor will be available on campus in the fall of 1995 if staffing permits. Since the new Spanish program has been approved by the MSUB and HECB, it will replace the cooperative program in Spanish with St. Marys College as soon as the required advanced Spanish classes can be offered on a regular basis at W.S.U. Students already working on a Spanish degree at St. Marys College at the end of AY 1994-1995 will be allowed to complete their degree work there. A course in the Methods of Teaching Modern Foreign Languages is offered at WSU every other year. Education courses and student teaching are provided by the WSU Education Department.

Placement and Credit for Previous Language Study

Students who have studied a foreign language in high school are encouraged to enroll in WSU classes that are beyond the beginner's level. Generally, three years of foreign language study in high school corresponds to one year at the college level. By earning a grade of "A" or "B" in either 111, 112, 213, 214 or 215, students may obtain credits retroactively for 110 and/or sequel courses that were skipped (\$5 fee per credit).

Study Abroad

WSU students who wish to immerse themselves in a foreign culture and language for one or more academic quarters have the following options for credit:

- 1) study in Germany, France or Costa Rica - "Common Market" arrangement with St. Cloud State University.
- 2) study in Mexico - "Common Market" arrangement with Mankato State University.
- 3) study in Akita, Japan - arrangement available through WSU in cooperation with the Minnesota State University System.

Grade Point Average Requirements

- 1) Students must have a cumulative G.P.A. of 2.0 to graduate with a foreign language major/minor.
- 2) In addition, students must have a 2.0 average in the courses taken for the major/minor.
- 3) Students must have a cumulative G.P.A. of 2.75 to be admitted to teacher education.

Pass/No Credit Courses

All courses in the Department may be taken on a pass/no credit basis except for those applied to a major or minor. Elementary and intermediate courses (110, 111, 112, 213, 214, and 215) do not constitute a part of the major or minor; qualified students are encouraged to "test out" of any or all of these courses for a letter grade or P/NC (Credit By Examination).

B.A. MAJOR FRENCH

40 Q.H.

- 303 The French Press (4)
- 320 Phonetics and Pronunciation (4)
- 322 French Civilization and Culture (4)
- 324 Explication de Texte (4)
- 332 French Composition and Conversation I (4)
- 333 French Composition and Conversation II (4)
- 425 French Literature of the Middle Ages and the Renaissance(4)
- 426 Seventeenth and Eighteenth Century French Literature (4)
- 427 Nineteenth Century French Literature (4)
- 428 Twentieth Century French Literature (4)

B.S. MAJOR FRENCH (TEACHING)

44 Q.H.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

- 303 The French Press (4)
- 320 Phonetics and Pronunciation (4)
- 322 French Civilization and Culture (4)
- 324 Explication de Texte (4)
- 332 French Composition and Conversation I (4)
- 333 French Composition and Conversation II (4)
- 425 French Literature of the Middle Ages and the Renaissance(4)
- 426 Seventeenth and Eighteenth Century French Literature (4)
- 427 Nineteenth Century French Literature (4)
- 428 Twentieth Century French Literature (4)
- 430 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

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)
- 450 Individual Author(s) (4)

B.S. MAJOR (TEACHING) GERMAN

44 Q.H.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

- 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)
- 430 Methods of Teaching a Modern Foreign Language (4)
- 450 Individual Author(s) (4)

B.A. MAJOR SPANISH

40 Q.H.

Spanish major may be offered in the fall of 1995 if staffing permits.

REQUIRED COURSES (40 q.h.)

- 320 Spanish Linguistics (4)
- 332 Spanish Conversation and Composition (4)
- 333 Advanced Composition (4)
- 350 The Culture of Spain (4)
- 351 The Culture of Latin America (4)
- 360 Don Quijote (4)
- 425 Medieval through Golden Age Literature (4)
- 426 Modern & Contemporary Literature of Spain (4)
- 435 Colonial through 19th Century Latin American Literature (4)
- 436 Modern & Contemporary Latin American Literature (4)

B.S. MAJOR SPANISH (Teaching)

44 Q.H.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

- 320 Spanish Linguistics (4)
- 332 Spanish Conversation and Composition (4)
- 333 Advanced Composition (4)
- 350 The Culture of Spain (4)
- 351 The Culture of Latin America (4)
- 360 Don Quijote (4)
- 425 Medieval through Golden Age Literature (4)
- 426 Modern & Contemporary Literature of Spain (4)
- 435 Colonial through 19th Century Latin American Literature (4)
- 436 Modern & Contemporary Latin American Literature (4)
- 430 Methods of teaching a Modern Foreign Language (4)

B.A. MINOR FRENCH

24 Q.H.

- 320 Phonetics and Pronunciation (4)
- 322 French Civilization and Culture (4)
- 324 Explication de Texte (4)
- 332 French Composition and Conversation I (4)
- 426 Seventeenth and Eighteenth Century Literature (4)
- 427 Nineteenth Century French Literature (4)

B.S. MINOR FRENCH (Teaching)

36 Q.H.

- 320 Phonetics and Pronunciation (4)
- 322 French Civilization and Culture (4)
- 324 Explication de Texte (4)
- 332 French Composition and Conversation I (4)
- 333 French Composition and Conversation II (4)
- 426 Seventeenth and Eighteenth Century Literature (4)
- 427 Nineteenth Century French Literature (4)
- 428 Twentieth Century French Literature (4)
- 430 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MINOR GERMAN

24 Q.H.

- 320 Readings and Syntax (4)

- 322 German Civilization and Culture (4)
- 332 Conversation and Composition (4)
- 335 Contemporary Topics in the German Press (4)
- 410 Periods of German Literature I (4)
- 411 Periods of German Literature II (4)

B.S. MINOR (TEACHING) GERMAN

36 Q.H.

- 320 Readings and Syntax (4)
- 322 German Civilization and Culture (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)
- 430 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

B.A. MINOR SPANISH

24 Q.H.

- 320 Spanish Linguistics (4)
- 332 Spanish Conversation and Composition (4)
- 333 Advanced Composition (4)
- 350 The Culture of Spain (4) OR
- 351 The Culture of Latin America (4)
- 360 Don Quijote (4)
- 426 Modern & Contemporary Literature of Spain (4) OR
- 436 Modern & Contemporary Latin American Literature (4)

B.S. MINOR SPANISH (Teaching)

36 Q.H.

- 320 Spanish Linguistics (4)
- 332 Spanish Conversation and Composition (4)
- 333 Advanced Composition (4)
- 350 The Culture of Spain (4) OR
- 351 The Culture of Latin America (4)
- 360 Don Quijote (4)
- 426 Modern & Contemporary Literature of Spain (4) OR
- 436 Modern & Contemporary Latin American Literature (4)
- 430 Methods of Teaching a Modern Foreign Language (4)

See Education Department listings for Education Sequence and Student Teaching.

Geography

Minne Hall, Room 228, (507) 457-5420
Gerlach.

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, geographers work in such fields as education, urban and regional planning, government agencies, conservation, international business, tourism, cartography, international relations, etc.

B.A. MINOR GEOGRAPHY

32 Q.H.

REQUIRED COURSES (16 q.h.)**Geography**

- 211 Economic Geography
- 212 Physical Geography
- 213 Cultural Geography
- 450 Cartography

ELECTIVES (16 q.h.)

Eight credits must be chosen from courses 300 level or above. Geography 110 does not apply to the minor. A grade of "C" or better is required for any course used to complete the requirements of the minor. Four courses (16 q.h.) must be taken at Winona State University.

History

Minne Hall, Room 212, (507) 457-5400
Schmidt, (Chairperson), S. Byman, Henderson, Higham, Hyman,
Mishark, Preska, Sobiesk, Yard.

The Department offers a B.A. Major in History, and a B.A. Minor in History. The History Department also coordinates and administers the B.S. Paralegal Program that leads to careers in law, business and government. Moreover the Department advises pre-law students.

The History programs enable students to study diverse societies and cultures while enhancing their abilities to read critically, think clearly and write effectively. Both the major and minor require students to take courses in the histories of Europe and the United States, and to select from among the courses in the histories of Africa, Asia, and Latin America. Majors and minors also take courses at both the introductory and advanced levels, as well as the course in Historical Methods that instructs them in the mysteries of historical research, interpretation, and writing. In addition to the basic skills English composition requirement, majors complete English 210: Advanced Expository Writing to further improve their communication skills. As a capstone experience, majors will complete their course of study in a two-quarter, Senior Seminar that will enable them to reinforce, practice, and expand upon what they have learned. History programs, providing a broad range of academic experiences, enhance students' intellectual skills and understanding of the present, while promoting active, informed citizenship in a rapidly changing world.

The History programs form reliable preparation for nearly any career that prizes analytical ability, clear thinking and strong communication skills. The programs also form a solid basis for graduate study in History, and in other Liberal Arts fields. The Department strongly encourages students interested in graduate-level History to take courses in a modern foreign language.

NOTE: Survey courses need not be taken in chronological order. Check specific prerequisites for upper-level courses.

Pass/No Credit Courses

No History courses may be taken on a Pass/No Credit basis, with the exceptions of internships and institutes.

Additional Requirements

Course work below a grade of C in 300 and 400 level courses will not count toward completion of the History major or minor program.

NOTE: Transfer Students

For B.A. Major History - Transfer Students must complete at least 24 Q.H. of Winona State University History course work in addition to the Senior Seminars History 490-491. Transfer course work completed on P/NC basis will not be accepted for WSU History major or minor.

For B.A. Minor History - Transfer

Transfer students must complete at least 16 Q.H. of Winona State University History course work.

B.A. MAJOR HISTORY

72 Q.H. (NO Minor Required)

REQUIRED COURSES (48 q.h.)

Western Civilization Sequence (12 q.h.)

- 120 Western Civilization to 1500 (4)
- 121 Western Civilization 1500 to 1815 (4)
- 122 Western Civilization 1815 to Present (4)

Students may substitute 125 Classical History (4) for 120 Western Civilization to 1500 (4)

United States Sequence (12 q.h.)

- 230 American History to 1828 (4)
- 231 American History 1828-1900 (4)
- 232 American History 1900 to Present (4)

African, Asian and Latin America Sequence (8 q.h.)

Any two of the following:

- 123 Eastern Civilization (4)
- 165 Latin American History (4)
- 170 African Civilization (4)
- 233 Mexican History (4)

Additional English Requirement (4 q.h.)

- 210 Advanced Expository Writing (4)

(Note: that the General Education/Basic Skills requirement in Written Communication is the prerequisite for this course. To count toward completion of the History program, this course must be taken for a grade.)

Advanced History Required Courses (12 q.h.)

- 298 Historical Methods (4)
- 490-491 Senior Seminar (8)

Elective Courses at 300 or 400 Level (24 q.h.)

History majors must take 24 q.h. in History electives at the 300 and 400 levels. Electives are subject to an advisor's approval. Students must take at least 4 q.h. in each of the three sequence areas listed above, namely the European, United States, and African/Asian/Latin America areas. The Department encourages students to concentrate 16 q.h. in one sequence area. The courses 397: Topics in History and 499: Independent Readings in History will be counted in the sequence area the Department decides is appropriate. History majors may not count the paralegal specialty courses (History 370, 371, 372, 373, 374, 375, 376, 377, 380, 383) as electives in their History program.

NOTE: Students interested in teaching History at the high school level refer to:

B.S. MAJOR SOCIAL SCIENCE HISTORY OPTION (TEACHING)

95 Q.H.

(See Interdisciplinary Programs: Social Science)

B.A. MINOR HISTORY

40 Q.H.

REQUIRED COURSES (28 q.h.)

Western Civilization Sequence (8 q.h.)

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)

Students may substitute 125 Classical History (4) for 120 Western Civilization to 1500 (4).

United States Sequence (8 q.h.)

Any two of the following:

- 230 American History to 1828 (4)
- 231 American History 1828-1900 (4)
- 232 American History 1900 to Present (4)

African, Asian, Latin American Sequence (8 q.h.)

Any two of the following:

- 123 Eastern Civilization (4)
- 165 Latin American History (4)
- 170 African Civilization (4)
- 233 Mexican History (4)

Historical Methods Requirement (4 q.h.)

- 298 Historical Methods (4)

Elective Courses at 300 or 400 Level (12 q.h.)

Students must select the 300 and 400 level History courses with the approval of the History Department advisor. The Department encourages students to take all of the 12 q.h. at this level in one of the three sequence areas. History minors may not count the paralegal specialty courses (History 370, 371, 372, 373, 374, 375, 376, 377, 380, 383) as electives in their History program.

Pre-Law

Minne Hall, Room 212/457-5400
Dr. Peter Henderson, Advisor

University law schools require completion of a "bachelor's" 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.

Paralegal

Minne Hall, Room 212, (507) 457-5400
Dr. Peter Henderson, Program Director

The purpose of the Paralegal Program is to enable the student to develop professional skills 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.

A high school diploma and admission to Winona State University are required for admission to the Program. It is recommended that the candidate for admission be 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 Director of the Program.

The Winona State University Paralegal Program is approved by the American Bar Association.

There are four phases to the Paralegal Program:

Phase I - Prerequisites

These requirements partially fulfill the General Education requirements. Consult the Program Director for detailed information on the Paralegal prerequisites, the General Education Program, and Pass/No Credit courses.

Phase II - Interdisciplinary

Foundations at the beginning of Phase II students may elect an area of concentration to pursue. Options are: business administration, sociology, or multi-legal services.

Phase III - Foundations of Law

The legal specialty courses may be offered in a sequence other than as listed. Students will be advised by the Program Director on the proper sequence to follow. History 370, Legal Research, normally taken spring quarter of the sophomore year, must be taken first in the sequence.

Phase IV - Professional Specialization

A student chooses one of the three options offered. In addition to the core requirements for all options, a student must meet the option requirements for the option chosen.

Additional Course and G.P.A. Requirements

Students are required to have substantially completed their General Education requirements and Phase II requirements before they enroll in Legal Research. They must also have the approval of their academic advisor.

Except for the Paralegal Internship and Paralegal Institutes, no classes taken on a Pass/No Credit basis may be used to satisfy any specific course requirements of the Paralegal Program or for course work in the options. Except for Legal Research, transfer students may not substitute a 100 or 200 level legal specialty course taken at another school for a similar course of a 300 or 400 level at Winona State. All students will provide the Paralegal Program Director with a copy of their transcripts with recorded G.P.A.'s prior to enrolling in History 371.

Course work below a grade of C in legal specialty courses will not count toward completion of the Paralegal major.

B.S. MAJOR - PARALEGAL

192 Q.H. (No Minor Required)

CORE REQUIREMENTS FOR ALL OPTIONS ITEMS I, II, III

I. General Education Prerequisites: (70 q.h.)

Basic Skills: (18 q.h.)

- 110, 115 English Composition (8)
- 191 Speech Communication (4)
- 111 or 113 Mathematics (0-4)
- Physical Education Activity (2)

Humanities: (12 q.h.)

- *230 HIST American History I (4)
- *231 HIST American History II (4)
- One elective course other than History (4)

Natural Science: (12 q.h.)

- *117 BIOL Human Biology (4) and
 - *118 BIOL General Biology (4)
- Elective courses other than Biology (4)

Social Science: (12 q.h.)

- *150 SOC Human Society (4)
- *210 PSY General Psychology (4)
- *220 POLS American National Government (4)

Different Culture (8 q.h.)

Allied Studies: (8 q.h.)

Business and Multi-Legal Options

- *201 ACCT Financial Principles of Accounting I (4)
- *202 ACCT Financial Principles of Accounting II (4)

Sociology Option:

- *201 ACCT Principles of Accounting I (4)
 - *201 ECON Principles of Microeconomics (4)
- *These courses may be used to satisfy certain General Education requirements.

II. Interdisciplinary Foundations: (36 q.h.)

Biology (4 q.h.)

- 104 Conservation (4)

CTA (4 q.h.)

- 261 Public Speaking (4)

English (4 q.h.)

- 210 Advanced Composition I (4) OR
- 439 Technical Writing (4)

History (16 q.h.)

- 232 American History III (4)
- 365 American Legal History (4)
- 486 American Intellectual and Cultural History (4)
- 488 American Constitutional History (4)

Political Science (8 q.h.)

- 320 Constitutional Law (4)
- 420 Administrative Law (4)

III. History - Legal Specialty Courses (21 q.h.)

- 370 Legal Research (3)
- 371 Substantive Law & Ethics (3)
- 372 Legal Writing (3)
- 373 Adversary System - Civil (3)
- 374 Evidentiary Rules I (3)
- 375 Substantion Law and Ethics II (3)
- 376 Adversary System: Criminal Procedure (3)

IV. OPTIONS

A. BUSINESS ADMINISTRATION OPTION

192 Q.H.

Each student's program will depend on the area of specialization chosen: taxes, insurance, banking, corporations, labor relations, etc.

**CORE REQUIREMENTS PLUS
OPTION REQUIREMENTS (61 q.h.)**

Accounting (8 q.h.)

- 203 Managerial Accounting (4)
- 407 Intro to Taxation (4)

Business Administration (12 q.h.)

- 310 Business Law I (4)
- 311 Business Law II (4)
- 315 Insurance Law (4)

History (16 q.h.)

- 380 Paralegal Internship (16)

ELECTIVES (29 q.h.)

As approved by advisor.

B. SOCIOLOGY OPTION

192 Q.H.

Each student's program will depend on the area of specialization chosen: criminal and family law services, police work, social services, corrections and court services.

**CORE REQUIREMENTS PLUS
OPTION REQUIREMENTS (61 q.h.)**

Sociology (16 q.h.)

- 210 Introduction to Criminal Justice (4)
- 216 Social Problems (4)
- 375 Intro to Social Work (4)
- 376 Intro to Social Research (4)

History (16 q.h.)

- 380 Paralegal Internship (16)

ELECTIVES (33 q.h.)

As approved by advisor.

C. MULTI-LEGAL OPTION

192 Q.H.

A student choosing the multi-legal option is required to take all of the following courses in business administration, sociology, physics, and history.

**CORE REQUIREMENTS PLUS
OPTION REQUIREMENTS (61 q.h.)**

Accounting (4 q.h.)

- 203 Managerial Accounting (4)
- Management and Marketing (4 q.h.)**

- 310 Business Law I (4)

History (20 q.h.)

- 377 Practical Legal Investigation Techniques (4)
- 380 Paralegal Internship (16)

Physics (5 q.h.)

- 310 Science & Technology in Litigation (5)

Sociology (8 q.h.)

- 216 Social Problems (4)
- 376 Intro to Social Research (4)

ELECTIVES (24 q.h.)

As approved by advisor.

International Studies

Minne Hall, Room 128, (507) 457-5429
Forsythe (Director)

The International Studies Program is designed to address students' need to prepare themselves for a world that is increasingly inter-related economically, politically, and culturally. Through the International Studies Program, students will be able to locate information about existing opportunities for international exposure, to design an academic program that capitalizes on those opportunities, and to meet other students and faculty who share an interest in international issues.

Functions Of The Program

The International Studies Program is set up to serve all Winona State University students. Student participation can involve any of the following possibilities:

1. Academic Degrees: Students may be interested in major and minor programs that are designed with an international focus. Consult the International Studies Office during Fall Quarter to get information about these options.

2. Academic Opportunities: The International Studies Program will develop and disseminate information about ways in which students

can integrate opportunities for international exposure within and outside the classroom. Students can get assistance in selecting courses and in getting information about lectures, special events, workshops, study-discussion groups, or conferences. Students are encouraged to take advantage of the many valuable learning experiences available outside of the classroom.

3. Direct Experience: The International Studies Program will provide information and assistance to students interested in such direct experiences with other cultures as Study Abroad, contacts with international students, and internship-study programs.

International Studies Office

Students who are interested in any of these opportunities can get further information and develop contacts with other interested students through the International Studies Office, Minne 128.

International Studies Minor

The International Studies minor is offered by the International Studies Program and provides students with a broad spectrum of courses that are inter-disciplinary and cross-cultural. Combining the International Studies minor with a major field of study allows students to leave WSU with solid preparation in a specific field, along with the knowledge of and sensitivity to other cultures, that is increasingly needed in nearly all fields and careers.

B.A. MINOR INTERNATIONAL STUDIES

36-44 Q.H.

CORE REQUIREMENTS (8 q.h.)

- 200 IS Introduction to International Studies (4)
- 400 IS International Studies Seminar (4)

COMPARATIVE COURSES (8-16 q.h.)

Choose two from the following:

- 381 CTA Advanced Crosscultural and International Communication (4)
- 340 SOC Social Cultural Anthropology (4)
- 213 GEOG Cultural Geography (4)
- 130 POLS International Politics (4)

FOREIGN LANGUAGE (12 q.h.)

The 12 credits must be earned in one language. Students are required to complete at least the equivalent of the first year of university level foreign language. The language requirement can be fulfilled by the completion of 12 credits of language study at WSU or through proficiency evaluation - consult the Foreign Language Department. Languages currently offered at WSU are French, German, and Spanish.

ELECTIVES (8 q.h.)

Students select from approved advanced courses at the 300-400 level (particularly in the student's major discipline) that emphasize a comparative approach (examines a discipline or issue from a global or cross-cultural perspective) or area study specialization (examines a specific part of the world from a particular discipline).

Mass Communication

Phelps Hall, Room 126, (507) 457-5474
Pack, (Chairperson), Cramer, Daniel, Killion, Schwarze, Vivian.

Mass media are needed in a free society to inform, survey, protect and enlighten.

The mass communication faculty stresses the development of communicators with a strong sense of their responsibility in serving the community and all society. The faculty also provides practical experience in producing mass media content.

Practicing professionals are frequent department guests. Mass Communication students have many opportunities to put theory to practice in laboratories and cocurricular and extracurricular programs, including:

- KQAL, full-service departmental radio station.
- *Bravura*, is a laboratory publication with 17,000 circulation.
- Color television production facilities where students produce programs disseminated to 8,000 Winona area cable-subscribing households.
- Computerized reporting labs for writing projects, as well as access to computer-linked typesetting equipment at the Winona Daily News.
- *The Winonan*, the student-operated weekly campus newspaper. Students can be involved in campus chapters of the American Advertising Federation, the International Association of Business Communicators, the National Broadcasting Society (Alpha Epsilon Rho), the National Pree Photographers Association, and the Society for Collegiate Journalists.

Mass communication majors choose an option for their coursework in advertising, broadcasting, journalism, photojournalism or public relations.

The curriculum offers students opportunities to develop skills in oral, visual and written communication, to gain an understanding of communication law, ethics and theory, and to receive information and experience in an area of special interest.

Mass communication majors must earn a grade of "C" or better in all mass communication courses and in all additional courses taken to satisfy the requirements of a mass communication major. Mass

Communication minors must earn a grade of "C" or better in all mass communication courses and in all additional courses taken to satisfy the minor.

All mass communication majors must have a cumulative grade point average of 2.5 or higher to graduate.

To graduate from Winona State University with a mass communication degree in any option, a student transferring credits must satisfy requirements from the appropriate option, including a minimum of 12 credit hours earned at Winona State University in mass communication courses numbered 300 or above.

All courses taken toward the Mass Communication major requirements or Mass Communication minor requirements must be taken for "grade only" except internships.

B.A. MAJOR - MASS COMMUNICATION

62-64 Q.H. (Minor Required)

Mass communication majors choose *one* of five options for which the core requirements are the same.

ADVERTISING OPTION - 64 Q.H.

CORE REQUIREMENTS (28 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 300 Mass Media Law (4)
- 400 Mass Communication Theory (4)
- 405 Mass Media Issues and Ethics (4)

OPTION REQUIREMENTS (36 q.h.) REQUIRED COURSES (24 Q.H.)

- 260 Advertising (4)
- 335 Mass Media Graphics (4)
- 360 Advertising Copywriting (4)
- 361 Advertising Media Selection (4)
- 460 Advertising Campaigns (4)

Marketing (4 q.h.)

315 Principles of Marketing (4)

ELECTIVES (12 q.h.)

- 215 Photocommunication (4)
- 220 Broadcast Writing (4)
- 225 Radio Production (4)
- 226 TV Production Planning (4)
- 240 Public Relations (4)
- 319 Studio Photography (4)
- 320 TV Production Operations (4)
- 340 Public Relations Cases (4)
- 367 Advertising Practicum (4)
- 408 Research in Mass Media (4)
- Marketing
- 317 Consumer Behavior (4)

BROADCAST OPTION - 62 Q.H.

CORE REQUIREMENTS (28 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 300 Mass Media Law (4)
- 400 Mass Communication Theory (4)
- 405 Mass Media Issues and Ethics (4)

OPTION REQUIREMENTS (34 q.h.)

REQUIRED COURSES (30 q.h.)

- 220 Broadcast Writing (4)
- 225 Radio Production (4)
- 226 TV Production Planning (4)
- 320 TV Production Operations (4)
- 321 Topics in TV Production (4)
- 399 Internship (4)
- 420 Electronic Media Management (4)
- 327 Topics in Radio Production (2)

ELECTIVES (4 q.h.)

- 230 News Gathering (4)
- 240 Public Relations (4)
- 260 Advertising (4)
- 335 Mass Media Graphics (4)

JOURNALISM OPTION - 62-64 Q.H.

CORE REQUIREMENTS (28 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 300 Mass Media Law (4)
- 400 Mass Communication Theory (4)
- 405 Mass Media Issues and Ethics (4)

OPTION REQUIREMENTS (34-36 q.h.)

REQUIRED COURSES (14 q.h.)

- 230 News Gathering (4)
- 331 News Editing (4)
- 437 Newspaper Practicum (6)

ELECTIVES (20-22 q.h.)

- 215 Photocommunication (4)
- 220 Broadcast Writing (4)
- 226 TV Production Planning (4)
- 240 Public Relations (4)
- 305 Mass Media History (4)
- 310 Photojournalism (4)
- 317 Photojournalism Practicum (2)
- 330 Feature Writing (4)
- 335 Mass Media Graphics (4)
- 345 Public Relations Writing (4)
- 408 Research in Mass Media (4)
- 430 Specialized Reporting (4)
- 435 Reporting Public Affairs (2)

PHOTOJOURNALISM OPTION - 62-64 Q.H.

CORE REQUIREMENTS (28 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 300 Mass Media Law (4)
- 400 Mass Communication Theory (4)
- 405 Mass Media Issues and Ethics (4)

OPTION REQUIREMENTS (34 - 36 q.h.)

REQUIRED COURSES (22 q.h.)

- 215 Photocommunication (4)
- 310 Photojournalism (4)
- 317 Photojournalism Practicum (6)
- 319 Studio Photography (4)
- 419 Senior Seminar in Photojournalism (4)

ELECTIVES (12-14 q.h.)

- 226 TV Production Planning (4)
- 230 News Gathering (4)
- 240 Public Relations (4)
- 260 Advertising (4)
- 330 Feature Writing (4)
- 335 Mass Media Graphics (4)
- 408 Research in Mass Media (4)
- 437 Newspaper Practicum (2)

PUBLIC RELATIONS OPTION - 62 Q.H.

CORE REQUIREMENTS (28 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 300 Mass Media Law (4)
- 400 Mass Communication Theory (4)
- 405 Mass Media Issues and Ethics (4)

OPTION REQUIREMENTS (36 q.h.)

REQUIRED COURSES (28 q.h.)

- 230 News Gathering (4)
- 240 Public Relations (4)
- 331 News Editing (4)
- 335 Mass Media Graphics (4)
- 340 Public Relations Cases (4)
- 345 Public Relations Writing (4)
- 440 Public Relations Campaigns (4)

ELECTIVES (8 q.h.)

- 215 Photocommunication (4)
- 220 Broadcast Writing (4)
- 226 TV Production Planning (4)
- 260 Advertising (4)
- 330 Feature Writing (4)
- 360 Advertising Copy Writing (4)
- 408 Research in Mass Media (4)

B.A. MINOR - MASS COMMUNICATION

32 Q.H.

REQUIRED COURSES (20 q.h.)

- 100 Mass Media and Society (4)
- 110 Visual Communication (4)
- 120 Telecommunication (4)
- 130 News Writing (4)
- 400 Mass Communication Theory (4)

ELECTIVES (12 q.h.)

The student must select 12 hours of credit from other mass communication courses.

Music

Performing Arts Center, Room 146, (507) 457-5250

Mechell (Chairperson), Draayer, Hoch, Hungerford, Mendyk, Sovinec.

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.

Private Instruction

The courses denoted by Private Instruction in program requirements may be repeated at various levels of instruction.

Teaching Majors

Students majoring in Music Education (Teaching) must have both a 2.75 overall GPA and a 2.75 GPA in the major.

Pass/No Credit Courses

Any course may be taken on a pass/no credit basis with the consent of the Department except 321 and 324.

Concert Attendance 001:

All majors and Minors are required to register for this course.

Majors - 80% of concerts (12 quarters)

Minors - 40% of concerts (6 quarters)

B.A. MAJOR - MUSIC

65-124 Q.H. (No Minor Required)

OPTION A - 65 Q.H.

Option A is designed for the study of music within a liberal arts curriculum.

CORE REQUIREMENTS (38 q.h.)

201, 202, 203 Music Theory I, II, III (12)

204, 205, 206 Music Theory IV, V, VI (12)

250 Sight Singing (2)

301 Orchestration (3)

351 Music of the Middle Ages and Renaissance (3)

352 Music of the Baroque and Classic Periods (3)

353 Music of the Nineteenth and Twentieth Centuries (3)

OPTION REQUIREMENTS (21 q.h.)

241, 242, 243 Band, Orchestra, Choir (6)

491 Independent Study (3) Private Lessons (12)

ELECTIVES (6 q.h.)

Electives to be taken from areas of theory and/or history and literature.

OPTION B - 124 Q.H.

PERFORMANCE EMPHASIS

Students seeking acceptance into the program are required to demonstrate competence prior to formal admission. During the student's sophomore year, the student will be evaluated in performance excellence and scholastic achievement. Enrollment in studio instruction and ensemble participation is required throughout the entire program. For performance majors in voice, the study and use of foreign languages are considered essential.

CORE REQUIREMENTS (38 q.h.)

201, 202, 203 Music Theory I, II, III (12)

204, 205, 206 Music Theory IV, V, VI (12)

250 Sight Singing (2)

301 Orchestration (3)

351 Music of the Middle Ages and Renaissance (3)

352 Music of the Baroque and Classic Periods (3)

353 Music of the Nineteenth and Twentieth Centuries (3)

OPTION REQUIREMENTS (69 q.h.)

306 Conducting (3)

Private Lessons (42)

Ensemble (12)

Pedagogy and Literature (8)

Junior and Senior Recital (4)

ELECTIVES (17 q.h.)

Electives to be taken from areas of theory and/or history and literature.

B.S. MAJOR - MUSIC (TEACHING)

107 Q.H. (No Minor Required)

(Pending Board of Teaching Approval)

Attention: Degree requires 205 credits

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (107 q.h.)

*114 World Music (4)

201, 202, 203 Music Theory I, II, III (12)

204, 205, 206 Music Theory IV, V, VI (12)

241, 242, 243 Band, Orchestra, Choir (9)

Note: Substitution of up to 3 credits of 361 is permitted.

252 Jazz Improvisation (2)

301 Orchestration & Instrumentation (3)

306 Conducting (3)

311 Woodwind Methods (2)

312 String Methods (2)

313 Percussion Methods (2)

314 Brass Methods (2)

298 Introduction to Music Education (2)

322 Elementary Music Methods (4)

323 Secondary Music Methods (4)

332 Elementary Music Methods II (3)

351 Music of the Middle Ages and Renaissance (3)

352 Music of Baroque and Classic Periods (3)

353 Music of the Nineteenth and Twentieth Centuries (3)

406 Conducting II (2)

Private instruction in major instrument or voice (18)

Note: Majors are required three years' participation in the large ensemble of their performing/teaching specialization.

* Course may be used to satisfy certain general education requirement.

Guitar proficiency for B.S. in Education

(See Music Handbook)

Piano Proficiency for B.S. in Education

(See Music Handbook)

For Choral Emphasis:

- 415 Vocal Pedagogy (2)
- 422 Music Seminar on Choral Techniques and Materials (2)
- Private Instruction in Minor Applied Field (8)

For Instrumental Emphasis:

- 236 Voice Class (2)
- 341 Woodwind Methods II (2)
- 344 Brass Methods II (2)
- Private Instruction in Minor Applied Field (6)

General Education Required courses:

Physical Education

- HPER 212 Jazz Dance I (1)
- HPER 215 Modern Dance I (1)

Humanities

- THDA 115 Dance Appreciation (4)

**B.S. MAJOR MUSIC
BUSINESS EMPHASIS**

138 Q.H. (No Minor Required)

CORE REQUIREMENTS (85 q.h.)

- 201, 202, 203 Music Theory I, II, III (12)
- 204, 205, 206 Music Theory IV, V, VI (12)
- 241 or 242 or 243 Large Ensemble of Major (6)

Instrument or Voice

- 260 Series Studio Instruction Major Instrument or Voice (12)
- 261 Studio Instruction - Piano (4)
- 303 Electronic Music (2)
- 351 Music of the Middle Ages and Renaissance (3)
- 352 Music of the Baroque and Classic Periods (3)
- 353 Music of the Nineteenth and Twentieth Centuries (3)
- 399 Music Internship (16)
- 402 Form and Analysis (4)
- 491 Independent Study (8)

Music Elective (3 q.h.)

- Select one:
- 301 Orchestration and Instrumentation (3)
- 306 Conducting (3)

Music Electives (4 q.h.)

- Select two:
- 311 Woodwind Methods (2)
- 312 String Methods (2)
- 313 Percussion Methods (2)
- 314 Brass Methods (2)

Music Elective (2 q.h.)

Business Required (40 q.h.)

Accounting

- 201 Financial Principles of Accounting I (4)
- 202 Financial Principles of Accounting II (4)
- 203 Managerial Accounting (4)

Economics and Finance

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 360 Fundamentals of Business Finance (4)

Management and Marketing

- 207 Statistics for Business and Economics (4)
- 310 Business Law I (4)
- 315 Principles of Marketing (4)
- 370 Business Organization and Management (4)

Business Elective (4 q.h.)

- Select one:
- 320 Business Data Processing (4)
- 312 Business Computer Applications (4)
- 340 Microcomputers in Business (4)
- Any Computer Course (4)

B.A. MINOR - MUSIC

30 Q.H.

Proficiency in piano is expected of music minors. For students who can demonstrate this proficiency, the piano requirement will be waived and other studio offerings of the Music Department may be elected.

REQUIRED COURSES (24 q.h.)

- 201 Music Theory I (4)
- 202 Music Theory II (4)
- 203 Music Theory III (4)
- 241, 242, 243, Band Orchestra, Choir (6) (substitution of up to 6 credits of 361 permitted)
- 261 Piano (private lessons) (6)

ELECTIVES (6 q.h.)

Electives in Music must total 6 credits.

B.S. MINOR - MUSIC

37 Q.H.

Minor suggested for Elementary Education majors. WSU minor not for licensure.

Proficiency in piano is expected of music minors. For students who can demonstrate this proficiency the piano requirement will be waived and other studio 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 (8)
- (substitution of up to 3 credits of 361 permitted)
- 261 Piano (Studio Instruction) (6)
- 298 Introduction to Music Education (2)
- 306 Conducting (3)
- 322 or 323 Public School Music (3)

ELECTIVES (3 q.h.)

Electives in Music

Philosophy

Minne Hall, Room 329, (507) 457-5475

Possin (Chairperson), Hansen, Scheid

Philosophy is the examination of ideas and the rational evaluation of first principles. In addition to treating subject-matter areas of its own, philosophy cuts across other disciplines, providing foundational perspectives on them. Philosophy helps us to free ourselves from dogmatic or unreflective habits of mind. It instills habits of intellectual integrity, impartiality and critical evaluation. Philosophy enlarges our conception of what is possible and enriches our intellectual imagination. Accordingly, philosophy is an essential ingredient of any sound, general education.

The Philosophy Minor provides basic work in philosophy, including courses in the history of philosophy and in moral philosophy. The program also helps students develop basic intellectual skills, such as critical thinking, logical reasoning, and conceptual analysis — in short, it helps students learn to think for themselves. Emphasis is balanced between content and the cultivation of philosophical thinking.

Pass/No Credit Courses

Courses offered on a Pass/No Credit basis are designated in the course description.

B.A. MINOR PHILOSOPHY

24 Q.H.

REQUIRED COURSES (16 q.h.)

One of the following courses in logic:

- 110 Critical Thinking (4)
- 210 Inductive Reasoning (4)
- 250 Symbolic Logic (4)

One of the following courses in moral philosophy:

- 230 Moral Theory (4)
- 330 Biomedical Ethics (4)
- 331 Business Ethics (4)
- 332 Philosophy of Law (4)
- 401 Independent Readings in Philosophy, for appropriate readings (4)
- 430 Topics in Social and Political Philosophy (4)

One of the following courses in ancient philosophy:

- 201 Classical Philosophy (4)
- 202 Aristotle and Late Classical Philosophy (4)
- 401 Independent Readings in Philosophy, for appropriate readings (4)
- 460 Great Philosophers, for appropriate philosophers (4)

One of the following courses in the history of philosophy:

- 301 Early Modern Philosophy (4)
- 302 19th Century Philosophy (4)
- 303 20th Century Philosophy (4)
- 401 Independent Readings in Philosophy, for appropriate readings (4)
- 460 Great Philosophers, for appropriate philosophers (4)

ELECTIVES (8 q.h.)

Any two philosophy courses not used to satisfy the preceding requirements.

All courses for the Minor must be taken for grade.

Political Science and Public Administration

Minne Hall, Room 120, (507) 457-5500

Bromeland (Chairperson), Downs, El-Afandi, Grover, Lee.

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. The study of political science also provides a strong background for success in law school. This background is especially enhanced through the opportunity to acquire knowledge of legal subjects found within the public law sub-field.

In addition, Political Science courses contribute to a liberal education and other programs of the university 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 and better fulfill your professional career in social work, business, nursing, and as a paralegal.

International Studies

The International Studies option enables the student to concentrate his/her political science courses in the subfield of international relations. Students should work closely with a faculty advisor in selecting a minor and elective courses outside of the Political Science Department to complement the international studies option. Departments that offer minors which would complement this option include History, Economics, Foreign Languages, among others.

Pass/No Credit Courses

All courses may be taken on a pass/no credit basis. Courses taken on a PNC basis do not count towards majors or minors.

Courses offered by the department fall under one or more subfields of the discipline. Their distribution is as follows:

SUBFIELD AREA COURSES FOR ALL MAJOR/MINOR PROGRAMS

American Field

- 221 State and Local Government (4)
- 228 Intro to Public Administration (4)
- 310 Criminal Justice System (4)
- 315 American Political Thought (4)
- 320 Constitutional Law (4)
- 321 The American Presidency (4)
- 322 Political Parties and Pressure Groups (4)
- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 330 Race & American Politics (4)
- 333 Media & Politics (4)
- 341 Politics of Health Care (4)
- 340 Environmental Policy Analysis (4)
- 360 Congress and the Policy Process (4)
- 418 Organizational Theory (4)
- 420 Administrative Law (4)
- 425 Public Policy Analysis (4)
- 426 Public Budgeting (4)
- 428 Public Policy Making (4)
- 429 Public Policy Implementation (4)
- 430 Public Personnel Administration (4)

Comparative Subfield

- 123 Politics and Society in the Mediterranean Middle East (4)
- 124 Politics and Society in Latin America (4)
- 125 Politics & Society in Asia (4)
- 126 Politics and Society in Sub-Saharan Africa (4)
- 222 Politics and Society in Persian/Arabian Gulf (4)
- 235 Comparative Political Systems (4)
- 290 Comparative Politics/Third World (4)
- 332 European Political Systems (4)
- 335 Political Systems of Latin American Countries (4)
- 336 Comparative Communist and Post-Communist Systems (4)
- 337 Asian Political Systems (4)

- 338 Political Systems of Southeast Asia (4)
450 Politics of Revolution and Modernization (4)

International Subfield

- 130 Introduction to International Relations (4)
240 Politics of International Economic Relations (4)
346 International Law (4)
347 International Organization (4)
422 American Foreign Policy (4)
434 Foreign Policies of the Developing States (4)
460 North American Interrelations (4)
488 Issues in International Politics (4)

Public Law Subfield

- 310 Criminal Justice System (4)
320 Constitutional Law (4)
346 International Law (4)
347 International Organization (4)
420 Administrative Law (4)

Research and Methodology

- 280 Introduction to Political Research (4)
410 Political Analysis (4)

Theory Field

- 260 Development of Political Thought (4)
315 American Political Thought (4)
316 Medieval Political Theory (4)
325 Modern Political Theory (4)
415 Political Psychology (4)
418 Organizational Theory (4)
450 Politics of Revolution and Modernization (4)

B.A. MAJOR - POLITICAL SCIENCE

60-64 Q.H. (Minor Required)

OPTION A - GENERAL**REQUIRED COURSES (12 q.h.)**

- 220 American National Government (4)
280 Introduction to Political Research (4)
410 Political Analysis (4)

ELECTIVES (48 Q.H.)

Forty-eight credit hours with at least four quarter hours in each of the following areas: American Field; Comparative Field; Theory Field; Public Law Field; International Field. See preceding list of subfield area courses.

OPTION B - INTERNATIONAL STUDIES**REQUIRED COURSES (40 q.h.)**

- 130 Introduction to International Relations (4)
220 American Government and Politics (4)
240 Politics of International Economic Relations (4)

- 280 Introduction to Political Research (4)
346 International Law (4)
347 International Organizations (4)
410 Political Analysis (4)
422 American Foreign Policy (4)
434 Foreign Policies of the Developing States (4)
488 Issues in International Politics (4)

ELECTIVES (24 q.h.)

Three courses from the Comparative Field (12 q.h.) See list of comparative courses under the Subfield Area Courses above.

A total of 12 q.h. of other electives in Political Science, approved by the student's advisor.

B.A. MINOR - POLITICAL SCIENCE

28 Q.H.

REQUIRED COURSES (4 q.h.)

- 220 American Government and Politics (4)

ELECTIVES (24 q.h.)

Twenty-four quarter hours with at least four quarter hours in three of the four areas: American Field; Comparative Field; Theory Field; International Field. See preceding list of subfield area courses.

**INTERDISCIPLINARY PROGRAMS
PUBLIC ADMINISTRATION**

**B.S. MAJOR
PUBLIC ADMINISTRATION
GENERAL**
(See *Interdisciplinary Programs*)

**B.S. MAJOR
PUBLIC ADMINISTRATION
BUSINESS ADMINISTRATION**
(See *Interdisciplinary Programs*)

**B.S. MAJOR
PUBLIC ADMINISTRATION
HEALTH EDUCATION**
(See *Interdisciplinary Programs*)

**B.S. MAJOR
PUBLIC ADMINISTRATION
RECREATION ADMINISTRATION**
(See *Interdisciplinary Programs*)

**B.S. MINOR
PUBLIC ADMINISTRATION**
(See *Interdisciplinary Programs*)

Psychology

Phelps Hall, Room 231, (507) 457-5435
K. Williams (Chairperson), Deyo, Haugen, Kesler, Lane, Marmolejo, Miene, Sefkow, Soriano, J. Williams.

Psychology is the science of behavior. The department's goal is to foster students' understanding of the many factors which influence behavior, the methods employed by psychologists to identify such factors, and the means by which behavior can be modified. Students are attracted to the discipline because they wish to become professional psychologists, because they plan to pursue careers in fields which emphasize interpersonal skills or because they simply want to better understand themselves and others.

Those majoring in psychology may choose between two options, A or B. An understanding of human behavior is essential to many disciplines. Option A is attractive because its size readily allows students to combine a major in Psychology with one or more additional majors or minors. A student's career and/or graduate school opportunities are greatly enhanced by such multidisciplinary programs of study.

Option B is available for those who prefer to more exclusively concentrate their studies in psychology for an in-depth experience.

A student should consult with a Psychology Department advisor to plan a major in Psychology. The particular courses a student will take, along with their sequencing, depend upon his or her background, special interests and goals.

Career Options

The student majoring in psychology who does not plan on graduate study receives a liberal education and is qualified for a wide variety of vocations which involve an understanding of human behavior.

A student can prepare for graduate study in psychology by completing either option A or B. An advanced degree in psychology allows one to pursue many different kinds of careers; for example, clinical or counseling psychologist, child psychologist, school psychologist, industrial psychologist, rehabilitation counselor, experimental psychologist, college professor, etc.

Pass/No Credit Courses

Courses offered on a pass/no credit basis are designated in the course description.

Additional Graduation Requirements

A minimum WSU grade point average of 2.50 is required for graduation with a Psychology major. In addition for either option A or B major, a grade point average of 2.50 is required in all psychology courses. Psychology course grades with less than a C will not count towards either psychology major.

B.A. MAJOR - PSYCHOLOGY

45-73 Q.H.

OPTION A - 45 Q.H. (Minor Required)**CORE REQUIREMENTS (25 q.h.)**

- 210 General Psychology (4)
- 231 Statistics I or Mathematics 208 (4)
- 308 Experimental Psychology (5)
- 350 Psychological Testing and Measurement (4)
- 420 Abnormal Psychology (4)
- 434 History and Systems of Psychology (4)

ELECTIVES (20 q.h.)

Psychology electives to a total of 20 credits.

OPTION B - 73 Q.H. (No Minor Required)**CORE REQUIREMENTS (25 q.h.)**

- 210 General Psychology (4)
- 231 Statistics I or Mathematics 208 (4)
- 308 Experimental Psychology (5)
- 350 Psychological Testing and Measurement (4)
- 420 Abnormal Psychology (4)
- 434 History and Systems of Psychology (4)

OPTION REQUIREMENTS (16 q.h.)**Biology (4 q.h.)**

An approved course in the biological sciences such as 117, 118, 202, 241, 269, 308.

Mathematics and Statistics (4 q.h.)

An approved course in mathematics or advanced statistics such as: Mathematics 115, 120, 121, 122 or, Statistics 219, 279, 318, 409G, 411G, 412G.

Computer and Information Sciences (4 q.h.)

An approved computer language course such as 130, 231, 234.

English (4 q.h.)

An approved course in advanced writing such as 210, 439G, 449G, etc.

ELECTIVES (32 q.h.)

Psychology electives to total 32 q.h.

B.A. MINOR - PSYCHOLOGY

28 Q.H.

REQUIRED COURSES (4 q.h.)

- 210 General Psychology (4)

ELECTIVES (24 q.h.)

Psychology electives to a total of 24 q.h.

Honors in Psychology

Students have the option of completing additional requirements in order to graduate with honors in psychology. Those students who complete the requirements will have this noted on their transcript along with the title of their thesis. Students are responsible for applying to the department for participation in the departmental honors program by submitting a formal proposal to the department through their academic advisor and meeting all of the departmental requirements for graduation with honors in psychology. The requirements for honors in psychology are as follows. The student must:

1. Have a declared major in psychology.
2. Have and maintain a GPA of at least 3.5 overall (magna cum laude) and in psychology at the time of proposal submission.
3. Have successfully completed at least 25 Q.H. in psychology, including Psychology 308 before proposal submission.
4. Identify a WSU full-time psychology department faculty member who is willing to serve as a research advisor. No individual faculty member is required to participate in this program. It is the obligation of the student alone to obtain the consent of a faculty member to serve in this capacity.
5. Submit a formal research (empirical) proposal (APA format) to the Honors Research Review Committee for approval. The proposal must be approved prior to the students completion of 144 of the 192 credits required for graduation. That is, at least one academic year must be available for completion of the honors thesis. Honors theses may not involve collaborative student projects; they must be individual efforts. The psychology department will establish an Honors Research Review Committee made up of at least four full-time faculty members volunteering to serve in this capacity. This committee will be scheduled to meet on a monthly basis to consider pending proposals.
6. Work under the direction of his/her research advisor to complete in a timely fashion a project satisfactory to that advisor.
7. Write an acceptable honors research thesis (APA format). The Thesis must be completed no later than April 30 for students planning to graduate in May.
8. Present the results of the research at a national, regional, or local conference. If for reasons acceptable to the research advisor the student cannot meet this requirement the student will present the thesis research at a WSU psychology department/Psi Chi symposium.
9. Supply two bound copies of the thesis, one for the department, the other for the WSU library. The student is encouraged though not required to construct a poster presentation of the research for display in the department.

Sociology and Social Work

Minne Hall, Room 288, (507) 457-5420

Schwartz (Chairperson), Aldrich, Bublitz, Burdick, Collins, Ellenbecker, Flynt, Lombardi, Lontz, Reynolds, Stevens, Winnubst, Ylvisaker (Director of Social Work Program).

The departmental programs are designed to provide students with an understanding of basic principles of social behavior and knowledge of strategies for working with people. A student who has majored in this area is prepared for employment in social welfare, casework, correctional work, law enforcement, community organization, industrial relations, public relations, research, government, personnel and business, or for graduate study.

Pass/No Credit Courses

All courses must be taken for grade only. Only grades of "C" or better in courses offered in the department can be used to meet major and minor requirements.

**B.S. MAJOR - SOCIAL SCIENCE
HISTORY OPTION (TEACHING)**

(See Interdisciplinary Programs)

**B.S. MINOR - SOCIAL STUDIES OPTION
FOR ELEMENTARY TEACHERS**

(See Interdisciplinary Programs)

B.A. MAJOR -SOCIOLOGY

64 Q.H. (Minor Required)

Sociology examines how peoples social experiences shape their beliefs and behavior. As one of the social sciences, sociology also stresses the use of scientific research methods and theories to study human social behavior in a wide variety of settings. Thus, the sociology major is designed to provide multiple opportunities for students to study how larger social processes influence peoples thoughts and actions. The required courses are also designed to provide experience in building and testing theory as well as in collecting and evaluating data. Well-developed communication and research skills are highly valued in a variety of professions for which an education in sociology is desirable.

The program goals are: (1) to develop knowledge and skills in foundation areas of sociology (basic concepts, sociological theory, research methods and statistics); (2) to provide opportunities to apply the sociological perspective to asking, understanding and explaining sociological questions; (3) to provide knowledge in one or more specialized areas within sociology; (4) to develop an understanding of the internal diversity of U.S. society and its place within the international context; and (5) to develop an understanding of the nature and effects of social inequality.

The B.A. Sociology program is designed to contribute to the liberal arts education and entry level career or graduate preparation of students in fields such as human services, criminal justice, business, government, law, and public and private research. The program features the integration of classroom study with a supervised internship in a wide variety of placements.

Students wishing to major in sociology must apply for admission by meeting the following requirements:

- Complete a minimum of 48 quarter hours of course work with a minimum G.P.A. of 2.2 in the B.A. Sociology foundation courses (or transfer equivalent courses) with no grade less than a C prior to admission.
- Complete the program admission application form (including reference letter).
- Complete the program admission assessment instrument.

Retention in and graduation from the program requires meeting the following:

- Maintain a minimum, cumulative G.P.A. of 2.5 in all B.A. Sociology courses taken at W.S.U.
- Maintain and complete their student portfolio prior to graduation and at a level acceptable to their advisor.
- Participate in an exit interview with sociology faculty prior to graduation.
- Complete the program graduation assessment instrument.

Foundation courses to be completed prior to admission:

- * ENG 110 Composition I
- * ENG 115 Composition II
- * SOC 150 Human Society
- * CMST 191 Fundamental of Speech Communication
- * MATH/STAT 208 Fundamental of Statistics OR
PSY 231 Statistics I
SOC 376 Introduction to Social Research (Prerequisite: MATH/
STAT 208 or Psychology 231)

REQUIRED COURSES (28 q.h.)**Sociology (24 q.h.)**

- * 150 Human Society (4)
- 376 Introduction to Social Research (4)
- 377 Theory & Methods in Sociology (4)
- 378 Laboratory in Social Research (4)
- 385/460 Field Experience/Instruction (4)
- 499 Senior Seminar in Sociology (4)

Mathematics or Psychology (4 q.h.)

- 208 STAT Fundamental of Statistics OR
- 231 PSY Statistics I (4)

* These courses may be used to satisfy a general education requirement.

ELECTIVES (36 Q.H.)

Students will select an area of specialization from among the following: applied/clinical sociology, family studies, general sociology, gerontology, or organizations/institutions. Courses selected within the students chosen area must come from the 300 level and above, be selected in consultation with their advisor and contribute to meeting the goals of the sociology program and student portfolio requirement.

A maximum of eight (8) Q.H. of field experience or field instruction may be counted toward the major; an *additional* eight (8) Q.H. may be taken and counted as electives toward graduation.

B.S. MAJOR**SOCIOLOGY: CRIMINAL JUSTICE**

94 Q.H. (No Minor Required)

I. Admission Requirements

The B.S. Sociology Criminal Justice major is designed: 1) to prepare students for entry-level positions in criminal justice and 2) for entry into a number of graduate programs such as criminal justice, corrections, police administration, and other related disciplines. Students who wish to major in criminal justice must make application for admission into the program by obtaining a "Program Application Packet" from the Sociology/Social Work office in 228 Minne Hall. The Program Application Packet will include specific requirements and application procedures. In addition to completing an application form, submitting two letters of reference and participating in an admissions interview, each student is responsible for meeting the below requirements:

A. Program Course Prerequisites

1. Completion of a minimum of 48 quarter hours of course work with a minimum cumulative GPA of 2.00 for all courses taken at Winona State University.
2. Completion of English 110 and 115 with no grade lower than a C for either course; or completion of English 112 with a grade of B or higher.
3. Completion of the nine (9) foundation courses with a minimum GPA of 2.60 for the five courses and with no grade lower than a C.

B. Retention Requirements

Once admitted to the program, students must demonstrate acceptable progress in order to remain in good standing. "Acceptable" progress is defined by meeting the below retention requirements:

1. Students must maintain a 2.50 cumulative GPA for all courses taken within the Criminal Justice Program at Winona State University.
2. Students must maintain their portfolio at a level acceptable to their faculty advisor, and must complete their portfolio (representation of knowledge base and skills; i.e., research papers, report writing, videotapes, etc.) prior to graduation (consult with individual faculty advisors) and the portfolio requirement.

C. Foundation Courses-For Criminal Justice (30 q.h.)**Sociology (8 q.h.)**

- 150 Human Society (4)
- 210 Introduction to Criminal Justice (4)

Political Science (12 q.h.)

- 220 American Government and Politics (4)
- 221 State and Local Government (4)
- 228 Introduction to Public Administration (4)

Psychology (4 q.h.)

- Psychology 210 General Psychology (4)

Computer Science (2 q.h.)

- 155 Introduction to Computer Tools (2)

English (4 q.h.)

- 210 Advanced Expository Writing (4)

Core Courses for Criminal Justice (44 q.h.)**Mathematics/Psychology (4 q.h.)**

- 208 MATH Fundamentals of Statistics (4) OR
- 231 PSY Statistics (4)
- 315 Criminology (4)
- 376 Introduction to Social Research (4)

- 405 Models of Intervention (4)
- 414 Juvenile Delinquency (4)
- 418 Criminal Law and Procedure(4)
- 423 Race Relations and Minority Groups (4)
- 461 Criminal Justice Internship (16)

Track Specialization

Upon application to the Criminal Justice Program, students must select one or both of the specialized tracks below:

Law Enforcement - SCJL (20 q.h.)

Required (16 q.h.)

- 417 Operations and Procedures in Law Enforcement (4)
- 478 Seminar in Criminal Justice (4)
- 491 Crime Prevention (4)

Elective (8 q.h.)

- 420 Minnesota Criminal Code and P.O.S.T. Review* (4)

* (Required for P.O.S.T. Certification in Minnesota)

All students seeking licensure in the state of Minnesota must successfully complete Soc 420, Minnesota Criminal Code and POST Review, plus the summer skills component. Only students seeking licensure will be admitted to Soc 420.

Corrections - SCJC (20 q.h.)

Required (16 q.h.)

- 416 Corrections (4)
- 419 Offender Assessment (4)
- 445 Reality Therapy (4)
- 490 Correctional Administration (4)

Elective (4 q.h.)

Note: Students pursuing a career in law enforcement and intending to be licensed in Minnesota must meet specific P.O.S.T. requirements as approved by their academic advisors.

B.S. MAJOR (BSW) - SOCIAL WORK

96 Q.H. (No Minor Required)

This is a B.S.W. Program preparing students for beginning social work practice. The Program is fully accredited by the Council on Social Work Education. Employment in most states following graduation will require the graduate to take the State Board Licensing Examination.

Admission to the Bachelor of Social Work Program is a separate application process that takes place at the beginning of the junior year. Specific eligibility requirements in addition to the academic requirements for both admission and retention must be met. A Program admissions application packet is available for interested students in the Sociology/Social Work Department.

Required foundation courses are to be completed prior to application for the Professional Social Work Program. Students apply during Social Work 390. Students who have not met the Program requirements may be accepted conditionally, experience a delay in the necessary sequence of required courses.

Admission

Social Work faculty are available to assist prospective Social Workers with this process. Freshman and sophomore students interested in the Social Work major are advised to become well informed regarding the required lower level courses identified as the "foundation courses" for a social work major, several of which also meet the General Education requirements at WSU. Admission into the major is limited to a specific number of students at WSU and follows satisfactory completion of the "foundation courses." The prerequisite for Social Work 390 is Social Work 375 and the satisfactory completion of all other Social Work foundation courses. The prerequisite for Social Work 395 is the student's notification of admission into the Professional Social Work Program from the faculty.

Admission and Academic Standards

All foundation courses must be completed with a minimum grade of "C" and an overall grade point average of 2.5. In addition, admission to the Professional Social Work major calls for a satisfactory evaluation in Social Work 385, students must earn a C or better in all departmental course work taken to meet major requirements.

Social Work Student Association of Social Workers

Membership offers students the opportunity to organize and act on social issues of concern to students at the local level as well as at the state and national levels. Membership is strongly encouraged.

REQUIRED FOUNDATION COURSES (36 q.h.)

General Education Foundation Prerequisites (16 q.h.)

Social Sciences (12 q.h.)

Psychology (4)

- * 210 Gen. Psychology (4)

Economics (4 q.h.)

- * 201 Principles of Microeconomics (4) OR
- * 202 Principles of Macroeconomics (4)

Political Science (4 q.h.)

- * 103 Intro. to Political Science (4) OR
- * 220 American Government & Politics (4)

Natural Sciences (4 q.h.)

Biology

- * 117 Human Biology (4)

Remaining Foundation Prerequisites (16 q.h.)

Sociology

- 150 Human Society (4)
- 205 Social Interaction (4)

Psychology

- 250 Developmental Psychology (4)

Social Work

- 375 Intro. to Social Work (4)
- 385 Field Experience (4)

REQUIRED COURSES (60 Q.H.)

Statistics (4 q.h.)

- * 208 STAT Fundamentals of Statistics (4) OR
- 231 PSY Statistics (4)

Research (4 q.h.)

- 376 SOC Intro to Social Research (4)

Minorities (4 q.h.)

- 423 SOC Race Relations and Minority Groups (4)

Social Work (28 q.h.)

- 380 American Social Welfare Policy (4)
- 390 Social Work Methods I (4)
- 395 Social Work Methods II (4)
- 401 Social Work Methods III (4)
- 402 Social Welfare Policy Analysis (4)
- 404 Human Behavior in the Social Environment (4)
- 479 Seminar in Social Work (4)

Social Work Field (20 q.h.)

- 458 Pre Practicum (4)
- 462 Practicum (16)

* Course may be used to satisfy certain general education requirement.

NOTE: 458 and 462 are an extended application of practical experience within a social service agency. Restricted to senior Social Work majors. Students majoring in both Sociology: Criminal Justice and Social Work will be required to take 32 q.h. of practicum.

SCHOOL SOCIAL WORK LICENSURE REQUIREMENTS DEPARTMENT OF EDUCATION

Department of Education has certified the WSU-BSW Program.

COMPLETION OF THE BSW SOCIAL WORK MAJOR PLUS THE FOLLOWING:

REQUIRED COURSES

Social Work

- 403 Law and Social Work
- 454 Child Welfare

Special Education Course

- 400 Education of Exceptional Child/Youth

Education Course

- 459 Professional Topics and Issues

HPER Course

- 204 Personal and Community Health

FIELD PLACEMENT

16 credit placement required in school setting. The social work field instructor must also hold a license from the Department of Education.

NOTE: This is a special license in addition to the Social Work license and applies only in the State of Minnesota.

**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 and be selected from 300 level or above in Sociology and/or Social Work.

**B.A. MINOR - SOCIOLOGY:
GERONTOLOGY OPTION**

39-40 Q.H.

REQUIRED COURSES (28 q.h.)

Sociology (20 q.h.)

- 150 Human Society (4)
- 434 Medical Sociology (4)
- 435 Family Roles & Relationships (4)
- 440 Dying and Death (4)
- 450 Sociology of Aging (4)

Nursing students only are required to take Nurs. 410-Nursing Care for the Aged (3).

- 385 Field Experience (4 minimum)

Note: 385 is required for Sociology, Social Work, and all other students except nursing students. This course is not meant as a substitute for 460 Field Instruction. Equivalency credit may be granted; see coordinator of Sociology: Gerontology minor.

ELECTIVES (12 q.h.)

Recommended electives to be selected at the 300 level or above in consultation with an advisor.

Sociology

- 340 Social-Cultural Anthropology (4)
- 350 Population Analysis (4)
- 412 Sexuality in American Society (4)
- 421 Urban Sociology (4)
- 427 Social Change (4)
- 431 Social Class and Power (4)
- 437 Sociology of Large Scale Organizations (4)
- 465 Contemporary Issues in Dying and Death (4)
- 488 Health and Human Services Organizations (4)

Other electives may be considered. See the coordinator of the Sociology: Gerontology minor.

Theatre and Dance

Performing Arts Center, Room 215
(507) 457-5230

Bratt (Chair), Cohenour, Eastman, Fusillo.

The Department of Theatre and Dance provides both academic and co-curricular experiences conducive to intellectual, professional, artistic and personal growth.

The Department's liberal arts theatre major offers cognitive, creative, and practical classes in the areas of acting, directing, theatre history, design, and technical production and integrates the study of theory and history into performance. The program develops kinesthetic, cognitive, and creative understanding as well as skills (keen perception, imaginative problem solving, concentration, and respect for craft) which are important to original work in all fields.

The theatre minor trains students to produce and present material effectively through the medium of performance. In addition, the department co-sponsors with the HPER department a Dance minor which provides an opportunity for students in any discipline to use the dance experience to enhance body/mind integration and to access creative potentials through the art of movement.

In addition, the department cooperates with the Communication Studies department to train secondary Speech-Theatre teachers and offers active co-curricular programs in theatre and dance which are open to majors and non-majors alike.

The Department's majors find employment in a wide variety of occupations and are also successful in graduate school programs.

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

Pass/No Credit Courses

All courses except 499 may be taken on a pass/no credit basis, but courses taken to count in the THDA major or minor must be taken on a graded basis.

Theatre Majors

Theatre majors may minor in dance but may not minor in Theatre.

Additional Graduation Requirements

- a. A grade of C or better must be earned in each course taken for the major.
- b. A GPA of 2.5 must be earned in courses taken for a Theatre major.
- c. An overall GPA of 2.5 must be earned before a student will be allowed to register for an internship.

B.A. MAJOR - THEATRE

63 Q.H. (Minor Required)

Students majoring in Theatre will complete the core requirements plus the option requirements in one of two options.

PREREQUISITE (4 q.h.)

- HIST 121 Western Civilization 1500-1815 (4)

OPTION A - PERFORMANCE

CORE REQUIREMENTS (51 q.h.)

- 007 Theatre Practicum (1)
- 008 Theatre Practicum (1)
- 009 Theatre Practicum (1)
- 115 Dance Appreciation (4)
- 119 Playscript Analysis (4)
- 141 Oral Interpretation I (4)
- 207 Introduction to Design (4)
- 210 Theatre History (4)

- 211 Survey of Dramatic Literature I (4)
- 212 Survey of Dramatic Literature II (4)
- 231 Acting I (4)
- 235 Stage Movement (4)
- 414 ENG Shakespeare: Comedies and Histories (4) OR
- 417 ENG Shakespeare: Tragedies (4)
- 424 ENG Modern Drama (4)
- 495 Senior Seminar (4)

OPTION REQUIREMENTS (12 q.h.)

- 321 Directing I (4)
- 331 Acting II (4)
- 425 Directing II (4) OR
- 435 Acting Recital (4)

OPTION B - DESIGN**CORE REQUIREMENTS (51 q.h.)**

- 007 Theatre Practicum (1)
- 008 Theatre Practicum (1)
- 009 Theatre Practicum (1)
- 115 Dance Appreciation (4)
- 119 Playscript Analysis (4)
- 141 Oral Interpretation I (4)
- 207 Introduction to Design (4)
- 210 Theatre History (4)
- 211 Survey of Dramatic Literature I (4)
- 212 Survey of Dramatic Literature II (4)
- 231 Acting I (4)
- 235 Stage Movement (4)
- 414 ENG Shakespeare: Comedies and Histories (4) OR
- 417 ENG Shakespeare: Tragedies (4)
- 424 ENG Modern Drama (4)
- 495 Senior Seminar (4)

OPTION REQUIREMENTS (12 q.h.)**Art**

- 118 Drawing I (4) OR
- 218 Drawing II (4) OR
- 318 Advanced Drawing (4)

Theatre/Dance

- 307 Scene Design (4) OR
- 308 Stage Lighting (4)
- 405 Design Project (4)

B.S. MAJOR - SPEECH/THEATRE ARTS (Co-op with Communication Studies) (TEACHING)

73 Q.H.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Teaching majors who fail to maintain an overall 2.5 GPA and a 2.75 GPA in the major or who receive a grade below a C in any major course will not be approved for student teaching or graduation.

PREREQUISITES

CMST 191 with a grade of C or better is a prerequisite for courses in this program; completion of English 110 and 115 is recommended before enrollment in major courses above the 100-level and required before enrollment in major courses above the 200-level; Education 150 or 202 is a prerequisite for CMST 491 and 492.

REQUIRED COURSES (61 q.h.)**Communication Studies (36 q.h.)**

- 051 Forensics Activities (3)
- 061 Debate Practicum (3)
- 261 Public Speaking (4)

- 282 Introduction to Communication Studies (4)
- 283 Introduction to Rhetorical Studies (4)
- 371 Discussion and Small Group Dynamics (4)
- 375 Argumentation (4)
- 485 Communication Theory (4)
- 491 Speech/Theatre Teaching Methods (2)
- 492 Coaching Forensics and Theatre (2)

Theatre/Dance (23)

- 007 Theatre Practicum I (1)
- 008 Theatre Practicum II (1)
- 009 Theatre Practicum II (1)
- 141 Oral Interpretation I (4)
- 201 Play Production (4)
- 211 Survey of Dramatic Literature I (4)
- 212 Survey of Dramatic Literature II (4)
- 321 Directing I (4)

Mass Communication (4)

- 100 Media and Society (4)

ELECTIVES (12 q.h.)

Any CMST or THDA course, except CMST 193, provided prerequisites have been met; Humanities 140, Approaches to Film (4); MCOM 101, Fundamentals of Broadcasting (4); MCOM 400, Mass Communication Theory (4); Psych 210, General Psychology (4); Psych 231, Statistics (4).

Note: Licensure requires competencies in two of the three co-curricular areas: Speech, Oral Interpretation or Theatre.

B.A. MINOR - DANCE (THDA/HPER CO-OP)

38-40 Q.H.

REQUIRED COURSES (28 q.h.)**Theory (16 q.h.)****Biology (4 q.h.)**

- *211 Anatomy & Physiology I (4)

THDA (12 q.h.)

- *115 Dance Appreciation (4)
- 235 Stage Movement (4)
- 322 Dance Composition (4)

Technique/Activity (12 q.h.)

(Select a minimum of 12 q.h. from the list below, including at least three courses [7 q.h.] in either ballet or modern dance.)

HPER (12 q.h.)

- *212 Jazz Dance I (1)
- 336 Jazz Dance II (3)
- *215 Modern Dance I (1)
- 246 Modern Dance II (3)
- 346 Modern Dance III (3)
- 446 Modern Dance IV (3)
- *232 Ballet I (1)
- 248 Ballet II (3)
- 348 Ballet III (3)
- 448 Ballet IV (3)

(Three-credit technique courses [levels II, III, IV] may be repeated twice for credit.)

ELECTIVES (10-12 q.h.)**HPER**

- 110 Introduction to Movement and Music (2)
- *126 Tap Dance (1)
- *138 Dance Theatre (1-3)
- *152 Fencing (1)
- *205 Nutrition and Weight Management (3)
- *220 American Country Dance (1)
- *230 Ballroom Dance (1)
- 291 Prevention and Care of Athletic Injuries (3)
- 301 Techniques of Teaching Dance (3)

314 Kinesiology (3)

(If not used above:)

246 Modern Dance II (3)

346 Modern Dance III (3)

446 Modern Dance IV (3)

248 Ballet II (3)

348 Ballet III (3)

448 Ballet IV (3)

THEATRE AND DANCE

* 141 Oral Interpretation (4)

207 Introduction to Design (4)

137 Dance Repertory I (3)

231 Acting I (4)

237 Dance Repertory II (3)

337 Dance Repertory III (3)

437 Dance Repertory IV (3)

(Each Dance Repertory class may be repeated once for a total of 6 credits.)

*Courses may be used to satisfy certain general education requirement.

Portfolio Requirement

Dance minors are required to document their development by maintaining video tapes and supporting written and visual materials which are submitted for faculty review upon completion of coursework for the minor.

B.A. MINOR - THEATRE

32 Q.H.

REQUIRED COURSES (20 q.h.)

115 Dance Appreciation (4) OR

235 Stage Movement (4)

141 Oral Interpretation I

201 Play Production (4)

207 Introduction to Design (4)

290 Creativity Across the Curriculum (4)

ELECTIVES (12 q.h.)

Choose from theatre or dance courses in consultation with a member of the theatre faculty.

B.S. MINOR

SPEECH/THEATRE ARTS

(Co-op with Communication Studies)

(TEACHING)

49 Q.H.

PREREQUISITES

CMST 191 with a grade of C or better is a prerequisite for courses in this program; completion of English 110 and 115 is recommended before enrollment in minor courses above the 100-level and required before enrollment in minor courses above the 200-level; Education 150 or 202 is a prerequisite for CMST 491 and 492.

REQUIRED COURSES (49 q.h.)

Communication Studies (30 q.h.)

051 Forensics Activities (3)

061 Debate Practicum (3)

261 Public Speaking (4)

282 Introduction to Communication Studies (4)

283 Introduction to Rhetorical Studies (4)

371 Discussion and Small Group Dynamics (4)

375 Argumentation (4)

491 Speech/Theatre Teaching Methods (2)

492 Coaching Forensics/Theatre (2)

Theatre/Dance (19 q.h.)

007 Theatre Practicum I (1)

008 Theatre Practicum II (1)

009 Theatre Practicum III (1)

141 Oral Interpretation I (4)

201 Play Production (4)

211 Survey of Dramatic Literature I (4) OR

212 Survey of Dramatic Literature II (4)

321 Directing I (4)

College of Nursing and Health Sciences

Deans Office
Stark Hall 301A (507) 457-5122

Degrees Offered

BACHELOR OF SCIENCE:

Cytotechnology
Nursing
Generic Option
RN Option
Medical Technology

MASTER OF SCIENCE (See GRADUATE BULLETIN)

Nursing

Mission

Winona State University serves the strategic health corridor in southeastern Minnesota and western Wisconsin by providing quality programs in Nursing and Allied Health Sciences.

The primary purpose of the College is to provide high-quality education for professional careers in Nursing, Medical Technology, Cytotechnology, and to offer a basic foundation for graduate work in Physical Therapy and Nursing. Faculty are committed to preparing a liberally-educated person who can adapt to change in a highly-

technological and dynamic health care environment. The faculty are also dedicated to fostering and nurturing high-level intellectual curiosity and valuing cultural diversity in their students. Graduates are prepared to accept leadership roles in society. Graduates are also educated to make informed and responsible ethical choices and to help shape the future of society as well as their profession.

The College is committed:

- To provide quality, cost effective academic programs in liberal education.
- To encourage students to pursue lives of leadership and service to humankind.
- To stimulate the development of the whole person-body, mind, and spirit.
- To provide the opportunity for students and faculty to learn and grow together within a cooperative community.
- To respect diversity in student and faculty.

Career Opportunities

An increased awareness of health and wellness care coupled with advancing technology provides many opportunities in health care careers.

For health professionals, the growth area in jobs will be found in hospitals, home health care, nursing homes, out-patient facilities, and various forms of rehabilitation centers.

Cytotechnology

Stark Hall, Room 317, (507) 457-5275

Dr. Ronald L. Zwonitzer, Director of Allied Health Sciences. Adjunct faculty from affiliated medical centers: The Mayo Clinic (Rochester, MN); The Marshfield Clinic (Marshfield, WI).

The Cytotechnology Program at Winona State University is a four-year course of study leading to the Bachelor of Science in Cytotechnology. Freshmen Cytotechnology majors must consult with Dr. Ronald L. Zwonitzer soon after their arrival on campus. The first three years are spent in residence on the University campus where the student is provided with intensive instruction in the physical and biological sciences as well as a strong background in the liberal arts. The fourth year is spent in a true clinical setting at one of the University's affiliation sites. This phase of the program consists of intensive training in the actual specialty itself and takes place over a period of one calendar year. In order to be qualified for the clinical education phase, students will have completed three years (144 quarter hours) of the University degree program with a minimum grade point average of 3.00. Tuition will be assessed on a regular basis by Winona State University and students will be evaluated each quarter. Upon successful completion of the clinical program, the student will receive a certificate in cytology and is then eligible to write the National Registry Examination conducted by the American Society of Clinical Pathologists (ASCP). Following the completion of all University requirements, the student will be granted the degree of Bachelor of Science in Cytotechnology.

IT SHOULD BE NOTED THAT ACCEPTANCE INTO THE FOURTH YEAR OF THE PROGRAM 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 cytotechnologist. The latter is determined through a personal interview with appropriate officials associated with the approved schools of cytotechnology.

Students should consult with the program advisor prior to the beginning of each quarter. All student programs (schedules) must be approved by the Director of Allied Health Sciences each quarter.

B.S. MAJOR - CYTOTECHNOLOGY

192 Q.H. (No Minor Required)

REQUIRED COURSES

Major Area Courses (47-51 q.h.)

Biology 201 Human Gross Anatomy (5)
Biology 241 Principles of Biology I (5)
Biology 242 Principles of Biology II (5)
Biology 308 Cellular Biology (5)
Biology 310 Genetics (4)
Biology 311 Genetics Lab (1)
Biology 409 Microbiology (5)
Biology 470 Histology (4)
English 439 Technical Writing (4)
Chemistry 208 General, Organic & Biochemistry I (5)
OR
Chemistry 212 General Inorganic Chemistry I (5)
Chemistry 209 General, Organic & Biochemistry II (5)
OR
Chemistry 213 General Inorganic Chemistry II (5)
Chemistry 340 Organic Chemistry Survey (optional) (4)

MAJOR ELECTIVES (9-15 q.h.)

Biology 323 & 324 General Physiology I and II (10)
Biology 460 General Parasitology (4)
OR
Biology 445 Immunology (4)
OR
Biology 370 Embryology (5)

ADDITIONAL REQUIREMENTS (56)

- Mathematics 115 Precalculus I (4)
- Computer Science 115 Personal Computers (4)
- Clinical Education (to be completed at any approved clinical training site (48)
- Biology 481, 482, 483 Cytotechnology I, II, and III (12 Q.H. each)
- Biology 484, 485 Cytotechnology IV, V (6 Q.H. each)

GENERAL ELECTIVES

Any courses for which the student has had adequate preparation (prerequisites). Sufficient hours must be completed so that the total number of credit hours earned will total 192 credit hours. Medical Terminology is strongly suggested.

Medical Technology

Stark Hall, Room 317, (507) 457-5275

Zwonitzer, Director of Allied Health Science. Adjunct faculty from affiliated hospitals: United Hospital, St. Paul, MN; Community Memorial Hospital, Winona; VA Hospital, Iowa City, Iowa; Duke University Medical Center, Durham, NC; Edward Hines Jr. V.A. Hospital, Hines, IL; St. Paul-Ramsey Medical Center, St. Paul, MN; Iowa Methodist and Mercy Hospital, Des Moines, IA.

The medical Technology Program is a four-year course of instruction leading to the degree of Bachelor of Science in Medical Technology. Freshmen Medical Technology majors must consult with Dr. Ronald Zwonitzer soon after arrival on campus. 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. A minimum grade point average of 2.5 is required for admission to some affiliated programs; however, many now require 3.0. Students accepting an invitation for clinical training in medical technology from an approved institution will complete the training required for graduation at that institution. Tuition will be assessed on a quarterly basis by Winona State University 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 clinical fourth year, the student is graduated with the degree of Bachelor of Science with a major in Medical Technology.

Upon satisfactory completion of the program, the student will be eligible to apply for examination by two certifying agencies:

- National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
- Committee on Allied Health Education and Accreditation (CAHEA).

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 by the Director of Allied Sciences.

B.S. MAJOR - MEDICAL TECHNOLOGY

- Total credits required in Med-Tech major 105-108 Q.H.
- Total credits required in Gen Ed/HPER 60 Q.H.
- Total credits required in Clinical Education 48 Q.H.
- Total credits 213-216 Q.H.

Biology (51 q.h.)

- 201 Anatomy (5)
- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)
- 308 Cell Biology (5)
- 310 Genetics (4)
- 323 General Physiology I (5)
- 324 General Physiology II (5)
- 409 Microbiology (5)
- 443 Urinalysis (2)
- 444 Hematology (2)
- 445 Immunology (4)
- 460 Parasitology (4)

Chemistry (29 q.h.)

- *212 Inorganic Chemistry I (5)
- *213 Inorganic Chemistry II (5)
- 214 Inorganic Chemistry III (5)
- OR
- 426 Analytical Chemistry (5)
- 340 Organic Chemistry (4) (must be taken during Sophomore year)
- 400 Biochemistry (5)
- 425 Analytical Chemistry (5)

Mathematics (5-8 q.h.)

- *115 Precalculus I (4)
- *116 Precalculus II (4)

NOTE: Math 120, Precalculus, Functions and Graphs (5) may be substituted for 115 and 116

Physics (12 q.h.)

- *201, 202, 203 General Physics (12)

English (8 q.h.)

- 110, 115 English Composition I & II

* These courses may be used to satisfy certain general education requirements.

REQUIRED CLINICAL TRAINING (48 q.h.)

- Biology 450, 451, 452 Medical Terminology I,II,III (12 Q.H.)
- Biology 453, 454 Medical Terminology IV, V (6 Q.H. each)

Clinical training will be completed at an approved school of medical technology over a standard 12-month period, 48 q.h. minimum. Candidate should contact the Director of Allied Health Sciences for a complete listing of affiliated Med-Technology Schools.

Nursing

Stark Hall, Room 303, (507) 457-5120

Stejskal (Chairperson), Ballard, Blankenfeld, Davis, DelMonte, Frost, Gardner, Hatlevig, Hovelson, Johnson, Kern, Kilkus, Nicholls, Olsen, Orth, Pilon-Kacir, Seppanen, Smith, M., Smith, S., Thompson, Tripp, Welhaven, Wilke, Wunderlich.

The Nursing major offers a liberal education with a concentration of study in nursing. The curriculum is designed on a broad base of general education. Upper division liberal arts courses are taken concurrently with nursing courses for students on either the Winona or Rochester campus.

The nursing courses combine the theory and the practice of nursing. With guidance from the faculty, this combination provides opportunities for students to meet a variety of nursing needs for persons of all ages and in various settings.

Accreditation and Approval

The Nursing Program is accredited by the National League for Nursing and approved by the Minnesota Board of Nursing. Graduates are eligible to write the professional nurse licensure examination and to apply for Public Health Nursing Certification. A student may be eligible to apply for school nursing certification by taking specified electives required by the State Department of Education. Graduates are capable of giving professional nursing care in first-level nursing positions and have a base for graduate study.

Scholarships

A number of scholarships are available for nursing majors. Start inquiring about scholarships early in an academic year (many deadlines are in March). Apply for scholarships one academic year in advance (apply during the 1995-96 academic year if you want a scholarship for 1996-97; apply during the 1996-97 academic year for a 1997-98 scholarship). Scholarships are provided by individual benefactors, affiliating hospitals, professional and community organizations. A complete listing is available in the Nursing Office on either the Rochester or Winona campus. Students are also encouraged to contact agencies (hospitals, nursing homes, American Legion, VFW, etc.) in their home towns with regard to possible nursing scholarships. Also refer to the current undergraduate catalog for general information on scholarships, grants, and financial aid.

Location

The Nursing major is offered on both the Winona and Rochester campuses. Students are assigned to a campus when admitted to the nursing major for the junior and senior years. Campus assignment determines location of clinical facilities.

A variety of community facilities are utilized for clinical laboratory experiences for students in the nursing major. Students assigned to the Winona campus participate in clinical experiences at Winona Community Memorial Hospital and LaCrosse Gundersen-Lutheran Medical Center. Students assigned to the Rochester campus participate in clinical experiences at hospitals affiliated with the Mayo Medical Center. Both campuses also offer a wide variety of other clinical experiences as well: nursing homes, public health agencies, mental health agencies, to name a few.

Costs

Students are expected to provide their own transportation to all clinical experiences. The student must assume incidental costs including housing, professional liability insurance, health insurance, physical examination, uniforms, lab coat, name pin, and faculty-approved stethoscope. A skills lab user fee of \$20 will be charged for each course when the student is enrolled in N320, 340, 390, and 440. Costs that students incur to maintain their health (including but not limited to throat cultures, treatments, blood test, x-rays, doctors visits) are the sole responsibility of the student. Clinical agencies used for clinical experiences require a physical examination, professional liability

insurance, health insurance, yearly mantoux or chest x-ray, proof of rubella immunity by blood titer, hepatitis B vaccine, and CPR. CPR cards must show certification for infant, child, adult one-person and two-person resuscitation, and must be renewed yearly per agency requirements.

Initial book purchases for junior students can total \$500. Texts are used throughout the program.

Program Options

There are two options for the upper-division nursing major.

1. The **Generic Option** is two years of sequenced nursing courses for LPNs and students who are **not** licensed as registered nurses.
2. The **RN Option** is a flexible program for registered nurses pursuing a baccalaureate degree in nursing. RN Option nursing courses can be completed in one year.

Either of these options may be completed on a part-time basis.

Nursing majors may also obtain a major or minor in another academic area. A student must meet the requirements of the department offering the major or minor program and should seek advisement from that department.

Graduation requirements include the completion of WSU General Education Program requirements as well as all Nursing Program courses requirements. A total of 192 credits is needed to graduate from WSU; at least 96 of these credits must be from a four-year college. A formal application for graduation must be made no later than two quarters before the expected graduation quarter.

After graduation, Generic Option graduates must take and pass the National Council Licensure Examination (NCLEX) in order to obtain a Registered Nurse (RN) license. Generic Option students may apply for licensure and take the National Council Licensure Examination in the state of their choice.

RN Option

Thirty-two credits of the Nursing major (Nursing 302, 304, 306, 308) will be granted by transfer to RNs who have completed an Associate Degree in Nursing from a NLN accredited program. The National League for Nursing Mobility II Exam is used as a challenge for these credits for RN graduates of diploma schools or graduates of Associate Degree programs which are not NLN accredited. If all examinations are successfully completed, the thirty-two credits will be granted.

RN Option students must meet prerequisite requirements as outlined in the "Admission to Nursing Major" section which follows. All RN Option students must hold a current license to practice professional nursing issued by a state or territory of the U.S. A photocopy of the license must be submitted to the Nursing Department.

Graduation with Honors

The Nursing Department offers qualified students the opportunity to graduate with nursing honors.

This program is designed to provide eligible students an opportunity to participate in scholarly activity above and beyond the normal course of study provided within the Nursing Department. Students will have an opportunity to work closely with faculty advisors and pursue personal learning goals. We feel that this program will stimulate scholarly interest and give recognition to deserving students for their achievements.

A. Description

For graduation with Nursing Honors a student must:

1. Have completed the nursing major.
2. Have an overall GPA of 3.5.
3. Have a continuing GPA of 3.5 while in the Nursing Program.
4. Have completed an Honors project.

B. Eligibility

1. Junior status in the nursing major.
2. Have applied for and be accepted into the Nursing Honors Program during the fall quarter of the junior year.

3. Have completed N475 or equivalent prior to the senior year.
4. Maintain 3.5 GPA overall and in Nursing courses.

C. Process

After meeting eligibility requirements, student will complete the Honors in Nursing application form and proceed as follows:

1. Student must find a faculty member willing to serve as an honors advisor and another faculty member willing to serve as a second reader for the project. Advisors and readers must be tenure-track full-time WSU faculty members unless a waiver is obtained from the Honors Committee. Faculty members accept Honors students at their own discretion. It is not guaranteed that a student will be able to find a faculty advisor or second reader.
2. Student will take N475 Nursing Research during winter quarter of the junior year or summer before the senior year.
3. Student (with advisor) will prepare a scholarly proposal for the Honors project by the end of the junior year. A proposed time line for carrying out the project must also be developed with the advisor.
4. The student will submit her/his honors proposal to the Nursing Honors Committee for approval. The honors project should be a scholarly project with a research or clinical focus. The Honors Committee will determine if the student's proposal meets the criteria for a Nursing Honors project.
5. The student will carry out the honors project during the first two quarters of the senior year under the direction of the faculty advisor. Specific objectives for the project will be developed by the student and faculty advisor. A scholarly paper reporting or describing the results of the honors project must be completed by Spring Quarter of the senior year.
6. The student may register for up to 8 credits (N490 or N495G if offered) over the two year period if she/he so chooses to earn credits for work on honors project.
7. The student will be required to present her/his project in a seminar or meeting organized by the Honors Committee each spring.

D. Completion

Students who are admitted to the Nursing Honors Program and who successfully complete the process will upon graduation:

1. Have their official transcripts stamped with the words "Graduated with Honors in Nursing."
2. Have their graduation status (Honors in Nursing) indicated on the graduation program and mentioned during graduation ceremonies.

Admission to the Nursing Major

Application to the nursing major is a two-step process. The first step is admission to Winona State University. Contact the WSU Admissions Office for further information regarding application to the university.

The second step is application to the nursing major. This application process is usually done during a student's sophomore year. The number of students admitted to the upper-division nursing major is limited.

Students who have completed 8 out of 11 natural and social science prerequisite courses with a "C" or better by the end of WSU's winter quarter (or fall semester if on semester system at another institution) may apply for admission to the nursing program. The completed application must be turned in by the specified deadline (usually in March). Notification of admission to the nursing major is made early in spring quarter (mid-April). The nursing program will begin fall quarter of the following academic year. (ALL prerequisite courses must be completed with a grade of "C" or better before starting the nursing major in the fall.) Nursing advisors are available to assist with this application process.

Admission and Academic Standards

1. A cumulative grade point average of 2.75 is required for acceptance into the nursing major.
2. A student who receives two or more "Ds" or lower in prerequisite nursing courses will *not* be considered for admission to the nursing major.
3. The cumulative GPA for admission to the nursing major will be calculated on the last five years of college work. However, all grades for nursing prerequisite courses must be "C" or better no matter when taken.

Priority consideration for admission to the nursing major will be given to students who:

1. were admitted as freshmen to WSU or a formal 2+2 program with WSU;
2. who maintain a cumulative 3.0 grade point average; and
3. who meet all other admissions criteria.

Note: For the purposes of the admission process, "freshmen" students are defined as students who are admitted to WSU with no more than 20 college credits. PSRO credits are excluded from this 20 credit limit. This "priority consideration" **only** applies to students who are applying to the nursing major for the **first** time and who have **sophomore status** at the time of application to the major. This policy is subject to change as it is reviewed by the nursing faculty on a yearly basis.

Minimal Standards

1. A grade of "C" or above must be achieved in each required nursing course. Grades less than "C" constitute a failure in the nursing major. In courses with a clinical laboratory component, one must pass theory and clinical to pass the course. Students must adhere to the University standards for retention and scholarship as stated in the current undergraduate catalog.
2. A level of health is maintained that does not interfere with the student's ability to function adequately and safely in the nursing major. The student is expected to seek appropriate professional assistance as needed. The faculty may recommend the need for assistance, a leave of absence, and/or withdrawal from the program.
3. The student follows the ETHICAL RESPONSIBILITIES as outlined in the Handbook for Undergraduate Nursing Students.

Withdrawal

Withdrawal from a nursing course and/or the University must be completed according to Winona State University guidelines as stated in the catalog.

Progression Policies:

1. No nursing course may be repeated more than once due to withdrawal or grade less than "C." No theory exams can be retaken. Students who fail or withdraw from a course (theory or clinical) will be able to continue part-time in the nursing major if they have satisfied progression policies and as space allows.
2. Persons will not be allowed to continue in the nursing program if they have failed or withdrawn for academic reasons from the same nursing course more than once or from two different nursing courses over more than one quarter.
3. Students may be dismissed from a course for breach of ethical responsibilities. See current undergraduate catalog and the Handbook for Undergraduate Nursing Students. A student dismissed for such a violation will not be allowed to continue in any clinical nursing course that quarter, will be dropped from the nursing major at the end of the quarter, and will not be re-admitted to the major.
4. Students who were once admitted to the nursing program and completed at least one nursing course and are not currently enrolled in the nursing major have one year from the date of withdrawal/failure to file a progression plan approved by the department chairperson or designated faculty member or RN coordinator (for RN Option Students). After one year, the student must reapply for admission to the nursing major.
5. All students are assigned to a clinical rotation sequence. If students vary from the assigned plan, space in clinical courses cannot be assured.
6. All part-time students must file a written progression plan that has been approved by the department chairperson or designated faculty member, or the RN Coordinator (for RN Option students).
7. Students who change from full-time to part-time status in the nursing major for academic or personal reasons must file a progression plan developed with the assistance of their academic advisor and approved by the department chairperson or designated faculty member, or the RN Coordinator (for RN Option students). This plan is based on space availability in clinical courses and completion of prerequisites for courses.
8. The grade of "incomplete" (I) may be granted at the discretion of the course instructor in special cases where, for reasons beyond

the student's control, all course assignments were not finished, but the student was passing in all other aspects (refer to current undergraduate catalog). For courses that are prerequisite to subsequent nursing courses, the "incomplete" must be resolved by the second week of the next quarter.

A student may receive credit by examination and/or demonstration of competence for courses or parts of courses in the Generic and RN Options. Faculty permission is needed for some course challenges.

MINNESOTA STUDENT NURSING ASSOCIATION

Membership is available at the local, state, and national levels. This organization focuses on nursing student issues and problems. Freshman and sophomore nursing students are welcome and encouraged to join this pre-professional organization for student nurses.

Nursing faculty fully support the activities of this organization. The MNSA office is located in room 314, Stark Hall. Names of current officers are posted on the Nursing Department bulletin boards in Winona and Rochester.

B.S. MAJOR NURSING

144 Q.H. (No Minor Required)

PREREQUISITES/REQUIRED COURSES (66 q.h.)

* Courses with asterisks may be used to satisfy certain general education requirements.

All prerequisite and required courses must be taken for letter grade.

Natural Sciences

Biology (20 q.h.)

- 206 Normal Nutrition (4)
- 209 Microbiology (4)
- 211 Anatomy and Physiology 1 (4)
- 212 Anatomy and Physiology 2 (4)
- 213 Anatomy and Physiology 3 (4)

Chemistry (10 q.h.)

*208, *209 General, Organic, and Biochemistry (5 q.h. each)

or

*212, *213 General Inorganic Chemistry (5 q.h. each)

Social Sciences

Psychology (8 q.h.)

- *210 General Psychology (4)
- 250 Developmental Psychology (4)

Sociology (8 q.h.)

- *150 Human Society (4)
- *212 The Family (4)

English (4 q.h.)

*115 College English II (English 110 is a prerequisite)

ADDITIONAL NURSING MAJOR REQUIREMENTS TO BE COMPLETED BEFORE GRADUATION

* Math 208 Fundamentals of Statistics (4) OR
Psy 231 Statistics (Note: This course does not fulfill a general education requirement).

Note: Either Statistics course MUST be completed BEFORE enrolling in N475 Research in Nursing.

Psych 420 Abnormal Psychology (4)
Upper division electives (300-400 level courses) (8)

ELECTIVES (8 q.h.)

Eight credits of upper division electives (300-400 level) are required for the nursing major. These can be selected from the following offerings of the Nursing Department or from other upper division department offerings. Electives can be taken as letter grades *or* Pass/No Credit if the courses are offered on a P/NC basis.

*N260 Women's Health Issue: Making a Decision (4) (May be used under Allied Studies in General Education)

- 392 Cardiac Risk Prevention (4)
- 410 Nursing Care of the Aged (4)
- 412 Critical Care Nursing (4)
- 422 Principles of Operating Room Nursing (4)
- 480 Holistic Approaches to Healing (3)
- 490 Independent Study in Nursing (1-3)
- 495 Seminar (1-3)
- 496GFeminist Perspectives in Nursing (3)

GENERIC OPTION - 78 Q.H.

Required courses must be taken for letter grade.

REQUIRED COURSES

- 310 Nurse-Client Interaction (3)
- 320 Nursing Process (8)
- 330 Nursing and Health Problems (4)
- 340 Nursing Practice: Health Restoration I (8)
- 360 Pharmacology: Nursing Applications (2)
- 375 The Holistic Person (2)
- 380 Junior Seminar (2)
- 390 Nursing Practice: Health Attainment (6)
- 400 Nursing Practice: The Child and Family (4)
- 420 Nursing Practice: Mental Health (4)
- 430 Nursing Practice: The Childbearing Family (4)
- 440 Nursing Practice: Health Restoration II (6)
- 445 Nursing Practice: Health Assessment (4)
- 450 Nursing Practice: Health Maintenance (6)
- 465 Professional Practice Issues (3)
- 470 Nursing Leadership (9)
- 475 Research in Nursing (3)

RN OPTION - 78 Q.H.

Required courses must be taken for letter grade.

REQUIRED COURSES

- 302 Care of the Adult Client (8; Exam)
- 304 Care of the Client during Childbearing (8; Exam)
- 306 Care of the Child (8; Exam)
- 308 Care of the Child with Mental Disorder (8; Exam)
- 325 Basic Concepts for Professional Nursing (2)
- 365 Accountability in Nursing Practice (4)
- 375 The Holistic Person (2)
- 385 Nursing Practice: Life Processes (8)
- 435 Nursing and Health Care Delivery (4)
- 445 Nursing Practice: Health Assessment (4)
- 455 Nursing Practice: Continuity of Care (8)
- 465 Professional Practice Issues (3)
- 475 Research in Nursing (3)
- 485 Nursing Practice: Community Health Nursing (8)

Pre-Physical Therapy

Stark Hall, Room 317, (507) 457-5275
Dr. Ronald Zwonitzer, Director of Allied Health Sciences

The College of Nursing and Allied Health Sciences recognizes the changing character of physical therapy training programs across the country. Therefore, the College suggests that all students interested in physical therapy as a career option should obtain a four-year baccalaureate degree in Biology with Allied Health Option. The four-year biology degree program is described under Biology Department programs

elsewhere in the University's general catalog. The Biology major provides the student with extensive training in both the life and physical sciences as well as mathematics. With the Biology major, the student is eligible to apply to certificate programs as well as master's level programs. No minor is required.

Students interested in this career option will have Dr. Ronald L. Zwonitzer as their academic advisor. They should meet with Dr. Zwonitzer as soon as possible after their arrival on campus.

College of Science and Engineering

Dennis N. Nielsen, Dean
Stark Hall 201A (507) 457-5585

Departments

Biology
Chemistry
Computer Science
Engineering
Geology
Mathematics and Statistics
Physics

Degrees Offered

BACHELOR OF ARTS (MAJOR)

Mathematics

BACHELOR OF ARTS (MINORS)

Biology
Mathematics

BACHELOR OF ENGINEERING (MAJOR)

Composite Materials Engineering

BACHELOR OF SCIENCE (MAJORS)

Biology
Chemistry
Computer Science
Geology
Mathematics
Statistics
Management Information Systems (MIS)
Physics
Production-Operations Management (POM)

BACHELOR OF SCIENCE (MINORS)

Aviation
Chemistry
Computer Science
Electronics
Environmental Interpretation
Geology
Mathematics
Statistics
Physics
Quality and Productivity

BACHELOR OF SCIENCE (TEACHING MAJORS)

Chemistry/Physical Science
Earth Science
Life Science
Mathematics
Middle School Science
Physics/Physical Science

BACHELOR OF SCIENCE (TEACHING MINOR)

Mathematics

Mission

The basic mission of the College of Science and Engineering is to provide high quality undergraduate education and degrees in science, engineering and mathematics in order to meet the needs of students at Winona State University. In fulfilling that mission, the College of Science and Engineering offers many four-year curriculums leading to the Bachelor of Arts, Bachelor of Science or Bachelor of Engineering degrees.

The College of Science and Engineering also serves those students who intend to transfer to other institutions for professional programs or post-graduate study after meeting some or all of their preprofessional requirements at Winona State University.

Research and Community Service

The College of Science and Engineering supports student and faculty research, industrial interaction and community service. To further these goals, the following are supported by the College.

Southeast Minnesota Analytical Service (SEMAS)

The SEMAS was developed to serve the needs of local and regional cities, counties, businesses and corporations who need analytical testing of water, industrial products and chemicals. Chemistry majors work in the SEMAS as laboratory technicians and assistants.

Center for Applied Statistics and Process Improvement (CASPI)

The mission of CASPI is to provide instructional courses, workshops and seminars in applied statistics and process improvement for both the public and private sector. The Center also provides consulting services to local and regional companies.

Composite Materials Technology Center (COMTEC)

The Center was established in order to support local and regional companies who need quality assurance testing of manufacturing materials and products. The Center also serves as a working laboratory for students and faculty engaged in engineering research.

Educational Technology Center (ETC)

The central mission of the center is to train educators in the use of educational technology to enhance interactive learning. The center supports not only WSU faculty and teacher education majors, but also local and regional K-12 schools. It is organized within the Physics Department.

Large River Studies Center (LRSC)

The center, administered through the Department of Biology, was established to provide students with the opportunity to conduct research on large river ecosystems and associated bodies of water. The center is also responsible for disseminating information about the upper Mississippi River and other large river ecosystems to the local, regional, and scientific communities.

Southeastern Minnesota Water Resources Center

The center, administered through the Department of Geology, facilitates the continuing development and implementation of water resource planning in the service region of WSU. The center gathers, stores and processes data related to groundwater and surface water, and makes those data available to governmental agencies throughout the southeastern part of the state.

Internships

Students are encouraged to include internships as part of their course of study. Internships provide valuable work experience with potential employers such as governmental agencies or corporations. Most internships are taken in a student's senior year under the supervision of a WSU faculty member.

Program Prerequisites

All degree programs in the College of Science and Engineering assume that students have taken proper college preparatory courses in high school including at least three years of mathematics. It is also recommended that students have at least one year each of high school biology, chemistry and physics. High school science and mathematics deficiencies can be remedied by taking equivalent courses at Winona State University during the student's academic career.

Biology

Pasteur Hall, Room 215, (507) 457-5270
Zwonitzer (Chairperson), Berg, Brako, Dapkus, Delong, Essar, Jefferson, Mundahl, Ragsdale, Reuter, Richardson, Thompson.

A student choosing to study Biology at Winona State University may choose one of three Options (Allied Health, Cell and Molecular, or Ecology) in the Biology Major. Each of these options leads to a B.S. degree. In addition, a student may choose the Life Science Major, a program which is intended for students wishing to teach at the secondary level. All three of the Options within the Biology Major allow for many career opportunities. One opportunity is to use the B.S. degree to work as a laboratory or field technician. A second opportunity is to use the B.S. degree to gain admittance to graduate studies in disciplines such as biology, biochemistry, medicine, dentistry and veterinary medicine. A third opportunity is to use the B.S. degree to gain industrial placement in the rapidly expanding bio-industrial and allied health areas. Although the Life Science Major is specifically designed for teaching, the degree has sufficient breadth and flexibility to allow many of the same career options as the Biology Major.

Freshman in all the various biology majors start with three quarters of Principles of Biology, a year-long course covering the breadth of biology. As sophomores, the students take General Ecology, Cell Biology and Genetics. Once this six-course sequence is completed, students begin to take course work which is specific for their chosen option or major. All the upper division elective courses in the department require, as prerequisites, the six courses of the freshman/sophomore core. There is also a common core of chemistry, physics and mathematics in all the options and majors which facilitates change of major or option within the department.

The Biology Department sponsors a Biology Minor and six pre-professional programs including Pre-Dentistry, Pre-Medicine, Pre-Veterinary Medicine, Pre-Mortuary Science, Pre-Optometry, and Pre-Podiatry. (See Special Academic Programs.) The requirements for the various Biology Options and Majors are not necessarily identical with requirements for admission to graduate schools. For example, students expecting to attend graduate/medical/veterinary school or those interested in industrial placement should take one year of calculus, at least one course in computer science, three quarters of organic chemistry and two quarters of biochemistry. Internships are encouraged.

Students interested in careers in physical therapy are advised to plan on receiving a four-year baccalaureate degree under the Allied Health Option of the Biology Major. Most physical therapy programs now give only the graduate M.S. degree and thus require a college B.S. degree for admission.

Students interested in medical technology or cytotechnology should see listings under College of Nursing and Health Sciences.

Pass/No Credit Courses

Biology 117, 118, 400 and all graduate courses must be taken for grade only. All biology majors and minors must take all required and elective courses for grade only. Biology courses other than 117, 118 or 400 can be taken by students in other majors on a pass/no credit basis.

B.S. MAJOR IN BIOLOGY: ALLIED HEALTH OPTION

104-107 Q.H. (No Minor Required)

REQUIRED COURSES (73 Q.H.)

Core Courses (30 q.h.)

- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)
- 243 Principles of Biology III (5)
- 312 General Ecology (5)
- 308 Cell Biology (5)
- 310 Genetics (4)

(Note: The core courses should be taken in the specific sequence (241, 242, 243, 312, 308, 310) beginning fall quarter of the freshman year. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in preceding courses to be admitted into the subsequent courses.)

ALLIED HEALTH OPTION REQUIREMENTS (15 q.h.)

- 201 Human Anatomy
- 323 General Physiology
- 324 General Physiology

OPTION ELECTIVES (28 q.h.)

Courses totaling 28 quarter hours to be chosen from any Biology Elective listed below. Biology 399 will not count toward any biology major.

OTHER REQUIREMENTS (31-34 q.h.)

Chemistry (14 q.h.)

- * 212, *213 Principles of Chemistry I, II; (10)
- 340 Organic Chemistry (4)
- Note: Organic Chemistry 350 and 351 may be substituted for 340.

Mathematics (5-8 q.h.)

- * 115 Pre-Calculus I (4)
- * 116 Pre-Calculus II (4)
- Note: *120 Pre-Calculus Functions and Graphs (5) may be substituted for 115 and 116.

Physics (12 q.h.)

- * 201, 202, 203 (12) General Physics I, II & III
- Note: College Physics I, II & III; 221, 222, 223 may be substituted for General Physics I, II & III; 201, 202, 203.
- * Course may be used to satisfy certain general education requirements.

B.S. MAJOR IN BIOLOGY: CELL AND MOLECULAR OPTION

101-104 Q.H. (No Minor Required)

REQUIRED COURSES (69 q.h.)

CORE COURSES (29 q.h.)

- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)
- 243 Principles of Biology III (5)
- 312 General Ecology (5)
- 308 Cell Biology (5)
- 310 Genetics (4)

(Note: The core courses should be taken in the specific sequence (241, 242, 243, 312, 308, 310) beginning fall quarter of the freshman year. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in preceding courses to be admitted into the subsequent courses.)

CELL AND MOLECULAR OPTION REQUIREMENTS (14 q.h.)

- 400 Chemistry (Biochemistry) (5)
- 401 Chemistry (Biochemistry) (5)
- 430 Molecular Biology (4)

OPTION ELECTIVES (26 q.h.)

Courses totaling 26 quarter hours to be chosen from any Biology Electives listed below. Biology 399 will not count toward any biology major.

OTHER REQUIREMENTS (31-34 q.h.)**Chemistry (14 q.h.)**

- * 212, *213 Principles of Chemistry I, II (10)

(Note: It is recommended that students in this option also take Chemistry 214)

340 Organic Chemistry (4)

Note: It is recommended that students in this option take Chemistry 350, 351, and 352 instead of Chemistry 340)

Mathematics (5-8 q.h.)

- * 115 Pre-Calculus I (4)

- * 116 Pre-Calculus II (4)

Note: *120 Pre-Calculus Functions and Graphs (5) may be substituted for 115 and 116.

(Note: It is recommended that students intending to pursue graduate studies should take Calculus 121, 122, 123 and/or Biometry 305)

Physics (12 q.h.)

- * 201, 202, 203 General Physics I, II & III (12)

Note: College Physics I, II & III; 221, 222, 223 may be substituted for General Physics I, II & III; 201, 202, 203.

- * Course may be used to satisfy certain general education requirements.

B.S. MAJOR IN BIOLOGY: ECOLOGY OPTION**101-104 Q.H. (No Minor Required)****REQUIRED COURSES (69 q.h.)****CORE COURSES (29 q.h.)**

241 Principles of Biology I (5)

242 Principles of Biology II (5)

243 Principles of Biology III (5)

312 General Ecology (5)

308 Cell Biology (5)

310 Genetics (4)

(Note: The core courses should be taken in the specific sequence (241, 242, 243, 312, 308, 310) beginning fall quarter of the freshman year. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in preceding courses to be admitted into the subsequent courses.)

ECOLOGY OPTION REQUIREMENTS (12 q.h.)

315 Environmental Biology (4)

319 Vertebrate Biology (4)

350 Plant Taxonomy (4)

Note: 318 Invertebrate Biology (4) may be substituted for 319

OPTION ELECTIVES (28 q.h.)

Courses totaling 28 quarter hours to be chosen from any Biology Elective listed below. Biology 399 will not count toward any biology major.

OTHER REQUIREMENTS (31-34 q.h.)**Chemistry (14 q.h.)**

- * 212, *213 Principles of Chemistry I, II (10)

340 Organic Chemistry (4)

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

Mathematics (5-8 q.h.)

- * 115 Pre-Calculus I (4)

- * 116 Pre-Calculus II (4)

Note: *120 Pre-Calculus Functions and Graphs (5) may be substituted for 115 and 116.

Physics (12 q.h.)

- * 201, 202, 203 General Physics I, II & III (12)

Note: College Physics I, II & III; 221, 222, 223 may be substituted for General Physics I, II & III; 201, 202, 203.

- * Course may be used to satisfy certain general education requirement.

BIOLOGY ELECTIVES

The courses listed below may be used to satisfy elective requirements in any option of the Biology Major, the Life Science Major or the Biology Minor. If a major or option requires one of these courses, the course can not also serve as an elective.

201 Human Anatomy (5)

290 Comparative Anatomy (4)

303 Survey of Plants (4)

305 (Mathematics 305) Biometry (4)

309 Developmental Biology (4)

311 Genetics Laboratory (1)

314 Plant Physiology (4)

315 Environmental Biology (4)

318 Invertebrate Biology (4)

319 Vertebrate Biology (4)

320 Ornithology (4)

323 General Physiology (5)

324 General Physiology (5)

330 Plant Evolution (4)

335 Plant Ecology (4)

340 Virology (3)

350 Plant Taxonomy (4)

360 Entomology (4)

370 Embryology (4)

380 Evolution (4)

393 Eukaryotic Cell Culture (5)

400 Individual Problems in Biology (1-4)

400 (Chemistry 400) Biochemistry I (5)

401 (Chemistry 401) Biochemistry II (5)

409 General Microbiology (4)

410 Membrane Biology (4)

415 Ecology of Large Rivers (4)

420 Limnology (4)

423 Ecosystems Analysis (4)

424 Biogeography (4)

425 G Animal Behavior (4)

427 Advanced Topics in Biology (1-5)

430 Molecular Biology (4)

431 Molecular Biology Laboratory (4)

433 (Psychology 433) Neuroscience (4)

440 Animal Physiology (4)

445 Immunology (4)

460 Parasitology (4)

455 Analytical Techniques (4)

470 Histology (4)

495 Seminar in Biology (1)

496 Undergraduate Thesis (1)

499 Student Research (4)

B.S. MAJOR - LIFE SCIENCE (Teaching)**88-91 Q.H. Plus Professional Education Sequence**

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Students majoring in Biology: Life Science must have both a 2.75 overall GPA and 2.5 GPA or higher in the major.

REQUIRED COURSES (34 q.h.)

241 Principles of Biology I (5)

242 Principles of Biology II (5)

243 Principles of Biology III (5)

312 General Ecology (5)

308 Cell Biology (5)

310 Genetics (4)

315 Environmental Biology (4)

Philosophy 280 (Philosophy of Science) will count as an elective for the Life Science major.

(Note: The core courses should be taken in the specific sequence (241, 242, 243, 312, 308, 310) beginning fall quarter of the freshman year. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in preceding courses to be admitted into the subsequent courses).

LIFE SCIENCE MAJOR ELECTIVES (15 q.h.)

At least 15 credits of approved elective courses to be chosen from any Biology Elective listed above. Biology 399 will not count toward any biology major. It is strongly recommended that the elective requirements be fulfilled by courses from at least four of the five categories listed below:

Anatomy

- 201 Anatomy (5)
- 290 Comparative Vertebrate Anatomy (5)
- 319 Vertebrate Biology (4)

Systematics

- 317 Invertebrate Biology (4)
- 320 Ornithology (4)
- 350 Plant Taxonomy (4)
- 360 Entomology (4)

Microbiology

- 409 General Microbiology (4)

Botany

- 303 Survey of Plants (5)
- 314 Plant Physiology (4)
- 350 Plant Taxonomy (4)

Philosophy of Science

- 240 (Philosophy 280) Philosophy of Science (4)

Students desiring a state license to teach must also take the Professional Education sequence from the Education Department and should carefully choose electives with the aid of the Life Science Advisor (Dr. Dapkus) to insure broad knowledge and skill in biology.

OTHER REQUIREMENTS (39-42 q.h.)**Chemistry (14 q.h.)**

- * 212, *213 Principles of Chemistry I, II (10)
- 340 Organic Chemistry (4)
- Note: Organic Chemistry 350 and 351 may be substituted for 340.

Geology (4 Q.H.)

- 102 Introduction to Geology II (4)

Mathematics (5-8 Q.H.)

- * 115 Pre-Calculus I (4)
- * 116 Pre-Calculus II (4)
- Note: *120 Pre-Calculus Functions and Graphs (5) may be substituted for 115 and 116.

Physics (16 Q.H.)

- * 201, 202, 203 General Physics I, II & III (12)
- 311 Science Teaching Methods (4)
- Note: College Physics I, II & III; 221, 222, 223 may be substituted for General Physics I, II & III; 201, 202, 203.
- * Course may be used to satisfy certain general education requirement.

Honors in Biology Program

Philosophy: Any science can be described as having two major aspects: 1) an organized body of knowledge and 2) a formal way of adding new information to the existing body of knowledge. Thus, science is related to method and process and it is not merely a collection of factual information. The Biology Department at WSU believes that students who desire advanced careers in biology need significant experiences which involve them directly in an intimate and meaningful process of biological inquiry. The Honors in Biology Program is designed to provide this enhanced opportunity to eligible biology majors.

Student Benefits: Students participating in the Honors in Biology Program will receive a number of benefits which will enhance their academic careers and which will improve their likelihood of success in the field of biology. These benefits include:

- 1) the opportunity for extensive "one on one" research direction under one or more biology department faculty members. The research activity allows students and faculty to become very well acquainted.

- 2) the ability of a faculty member to write highly specific and individual letters of recommendation on behalf of the student. These strong, distinctive letters will greatly improve the student's chances of acceptance into various graduate, medical, dental, physical therapy or other training programs. The letters will also improve the student's chances of gaining employment after their college career.
- 3) the opportunity of the student to actually practice the process of real biological science. This research opportunity is the mark of a high quality science education at a selective institution.
- 4) the opportunity to satisfy biology elective requirements by taking Biology 499 (Undergraduate Research) for 4 credits.
- 5) the opportunity to satisfy biology elective requirements by taking up to 2 credits of Biology 495 (Seminar in Biology).
- 6) the opportunity to apply for and to possibly receive a modest stipend from the department.

Eligibility: To be eligible for the Honors in Biology Program, a student must:

- 1) be a Biology (any Option) or a Life Science Major,
- 2) have completed the biology core sequence (Principles of Biology I, II and III, Ecology, Cell Biology and Genetics),
- 3) have a 3.0 GPA both overall and within the major,
- 4) identify a WSU faculty member who is willing to serve as a research advisor to the student,
- 5) apply for and be granted admission into the Honors in Biology Program by the Biology Department Honors Committee.

Participation: Students who are accepted into the Honors in Biology Program will be expected to:

- 1) maintain a 3.0 GPA both overall and within the major,
- 2) work diligently and consistently on their long term research project under the direct guidance of their research advisor for a minimum of three academic quarters,
- 3) participate in the Biology Seminar Course,
- 4) write an acceptable Honors Thesis describing the research,
- 5) give a short (20 minute) seminar describing the research to fellow Honors Students and faculty,
- 6) present their research at a regional undergraduate research symposium.

Completion: Students who are admitted into the Program and who successfully complete the process will, upon graduation:

- 1) have their official transcripts stamped with the words "Graduated with Honors in Biology", and,
- 2) have their transcript show the title of honors thesis, and,
- 3) have their graduation status (Honors in Biology) indicated on the graduation program and mentioned during the graduation ceremonies.

B.A. MINOR BIOLOGY

44 Q.H.

PREREQUISITES

- 115 Mathematics or equivalent

REQUIRED COURSES (29 q.h.)**Biology (15)**

- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)
- 243 Principles of Biology III (5)

Chemistry (14)

- 212 Principles of Chemistry I (5)
- 213 Principles of Chemistry II (5)
- 340 Organic Chemistry (4)
- Note 350 and 351 Organic Chemistry may be substituted for 340.

ELECTIVES (15 q.h.)

Any course (required or elective) listed with the B.S. Biology Major in any of the three options.

Chemistry

Pasteur Hall, Room 312, (507) 457-5290

Ng (Chairperson), Dunbar, Foss, Miertschin, Rislove, Scholsky, Svingen, Witt.

The Department offers two bachelor of science majors to prepare students to enter business, industry, professional schools and graduate schools in chemistry. Students in these programs have ample opportunity for part-time employment in work related to chemistry either in the department or in local industry. They are encouraged to become involved in research being carried on by members of the Department in preparation and characterization of novel inorganic compounds, synthesis and study of pyrroles, porphyrins and metalloporphyrins, analytical work for local industries and government, thermodynamic, kinetic, and quantum mechanical studies of multi-component systems, toxicology and drug metabolism, computer applications in chemistry, and synthesis, characterization, and applications of polymers. The Department is home to the Southeastern Minnesota Analytical Service (SEMAS), which provides educational opportunities through part-time employment.

In addition, the B.S. Physical Science Major is offered for students wishing to teach chemistry (or chemistry and physics or physical sciences). The major meets Minnesota requirements. Wisconsin certification requires minor modifications. Students preparing for certification in other states should consult with the department chairperson to learn of any necessary modifications.

The department also offers four minors in chemistry, including one in biochemistry.

Certification

The American Chemical Society (A.C.S.) has examined all aspects of the Department of Chemistry and has approved its overall program. A student completing the B.S. Chemistry Major, Option B will be "certified" by the A.C.S.

Pass/No Credit Courses

Undergraduate students may elect any chemistry course on a pass/no credit basis. Students majoring or minoring in chemistry may not count P/N/C courses toward the Chemistry major or minor.

B.S. MAJOR - PHYSICAL SCIENCE (TEACHING)

92 Q.H. (No Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

A 2.50 G.P.A. or higher in the courses of this major is a requirement for successful completion.

Chemistry (29 q.h.)

- 212, 213, 214 Principles of Chemistry I, II, III (15)
- 350 Principles of Organic Chemistry I (5) PLUS 9 q.h. of electives from the chemistry electives below OR
- 212, 213, 214 Principles of Chemistry I, II, III (15)
- 340 Organic Chemistry (4) PLUS
- 360 Chemical Information (1) OR
- 427 Topics in Instrumental Chemistry (1)
- PLUS 9 q.h. of electives from the chemistry electives below.

Mathematics (15 q.h.)

- * 125, *126, *127 Calculus I, II, III (15)
- Note: students not prepared to take Math 125 should take Math 120 or Math 115 and 116

Physics (33 q.h.)

- 201, 202, 203 General Physics I, II, III (12)
- 340 Modern Physics (5)

311 Science Teaching Methods (4) PLUS 12 q.h. electives from physics electives below. OR

221, 222, 223 College Physics I, II, III (15)

311 Science Teaching Methods (4)

340 Modern Physics (5) PLUS 9 q.h. of electives from physics electives below.

ELECTIVES (15 q.h.)

Choose electives in chemistry or physics.

Chemistry

351, 360, 361, 400, 412, 413, 425, 427, 431, 450, 465

Physics

302, 326, 328, 329, 330, 332, 333, 345, 350, 370, 400, 420, 425, 430, 431

OR Engineering 205, 225, 316, 345, 350, 360

* These courses may be used to satisfy certain general education requirements.

WISCONSIN CERTIFICATION REQUIREMENTS FOR CHEMICAL 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 (4)
- Geology Elective (4)
- Biological Science Elective (4)

B.S. MAJOR CHEMISTRY

94-113 Q.H.

CHEMISTRY - OPTION A

94-102 Q.H. (Minor Required)

CORE REQUIREMENTS (92-100 q.h.)

Chemistry (62 q.h.)

- 212, 213, 214 Principles of Chemistry (15)
- 350, 351, 352 Principles of Organic Chemistry (15)
- 360, 361, 362 Chemical Information (3)
- 412, 413, 414, 415, 416 Physical Chemistry I, II, III and Lab (13)
- 425, 426 Analytical Chemistry (10)
- 450 Advanced Inorganic Chemistry I (5)
- 475 Seminar in Chemistry (1)

Note: Students should begin the math and chemistry sequences at the same time.

Mathematics (15-23 q.h.)

- * 115, *116 Precalculus I and Precalculus II (8)
- * 125, *126, *127 Calculus I, II, III (15)
- Note: College Algebra & Trigonometry 120 (5) may be substituted for 115 and 116; or, these courses may be omitted if a student has otherwise met the prerequisite for 125.

Physics (15 q.h.)

- * 221, 222, 223 College Physics I, II, III (15)
- * Course may be used to satisfy certain general education requirement.

ELECTIVES (2 q.h.)

Chemistry electives

CHEMISTRY - OPTION B

(American Chemical Society certification will be given to students completing this option.)

105-113 Q.H. (No Minor Required)

CORE REQUIREMENTS (92-100 q.h.)**Chemistry (62 q.h.)**

- 212, 213, 214 Principles of Chemistry (15)
- 350, 351, 352 Principles of Organic Chemistry (15)
- 360, 361, 362 Chemical Information (3)
- 412, 413, 414, 415, 416 Physical Chemistry I, II, III and Lab (13)
- 425, 426 Analytical Chemistry (10)
- 450 Advanced Inorganic Chemistry I (5)
- 475 Seminar in Chemistry (1)

Note: Students should begin the math and chemistry sequences at the same time.

Mathematics (15-23 q.h.)

- * 115, *116 Precalculus I and Precalculus II (8)
- * 125, *126, *127 Calculus I, II, III (15)

Note: Precalculus, Functions and Graphs 120 (5) may be substituted for 115 and 116; or, these courses may be omitted if a student has otherwise met the prerequisite for 125.

Physics (15 q.h.)

- * 221, 222, 223 College Physics I, II, III (15)
- * Course may be used to satisfy certain general education requirement.

OPTION REQUIREMENTS (6 q.h.)

- 430 Individual Problems in Chemistry (3)
- 451 Advanced Inorganic Chemistry II (3)

CHEMISTRY ELECTIVES (7 q.h.)

Chemistry 401, 410, 420, 428, 447, 470, 472

Note: Other suggested electives: computer programming, biology, geology, German and keyboarding.

B.S. MINOR**CHEMISTRY - OPTION A**

40-48 Q.H.

REQUIRED COURSES (38-46 q.h.)**Chemistry (33 q.h.)**

- 212, 213, 214 Principles of Chemistry (15)
- 350, 351 Organic Chemistry (10)
- 412 Physical Chemistry (3)
- 425 Analytical Chemistry (5)

Mathematics (5-13 q.h.)

- * 115 Precalculus I(4)
- * 116 Precalculus II (4)
- * 125 Calculus (5)

Note: 220 Precalculus, Functions and Graphs (5) may be substituted for 215 and 216; or, these courses may be omitted if a student has otherwise met the prerequisite for 225.

- * Courses may be used to satisfy certain general education requirement.

ELECTIVES (2 q.h.)

Chemistry electives

B.S. MINOR**CHEMISTRY - OPTION B**

34-35 Q.H.

REQUIRED COURSES (34-35 q.h.)**Chemistry (34-35 q.h.)**

- 212, 213, 214 Principles of Chemistry (15)
- 350, 351 Organic Chemistry (9-10)
- 400, 401 Biochemistry (10)

Note: 340 Organic Chemistry Survey (4) may be substituted for 350.

It is recommended that a student elect at least one mathematics course.

B.S. MINOR BIOCHEMISTRY

48-53 Q.H.

Required Courses (48-53 q.h.)**Chemistry (43-53 q.h.)**

- 212, 213, 214 Principles of Chemistry I, II, III (15)
- 350, 351, 352 Principles of Organic Chemistry (14-15)
- 400, 401, 402* Biochemistry (14-15)
- (Note: 340 Organic Chemistry (4) may be substituted for 350 Principles of Organic Chemistry I (5).)
- * Biology 430 (4) may be substituted for 402 Biochemistry (5).

Mathematics (5-8 q.h.)

- 115, 116 Precalculus I, II (8)
- (Note: 120 Precalculus, Functions and Graphs (5) may be substituted for 115 and 116 (8).)

Computer Science

Watkins Hall, Room 103, (507) 457-5385
Cichanowski (Chairperson), Bunce, Debnath, Gegg-Harrison, Iyengar, Lundak, Ouellette, Schumacher, Stroebel, Wobig.

The Computer Science Department offers courses in computer science and computer science education which are designed to give the student an understanding of and appreciation for both theoretical and applied computer science. Students will be prepared for careers in industry, education, or further study at the graduate level.

Scheduling Recommendations

Incoming freshmen and transfer students should consult a CS advisor before registering.

Entrance Requirements

All students applying for entrance to a Computer Science major shall have completed the following courses with a C grade or better in each and shall have a minimum GPA of 2.25 for the three courses.

Courses:

CS 234 Algorithms and Problem Solving I (4)

CS 250 Algorithms and Problem Solving II (4)

Math 218 Discrete Mathematics

Applicants must have a minimum overall GPA of 2.5.

In addition to these requirements, the student must meet with a Department advisor and complete a Department major application form.

Before acceptance into a Computer Science major, all students will have provisional status and will be assigned advisors in the same way as students who are accepted majors. Students interested in becoming a Computer Science major should ask to be assigned an advisor as soon as possible.

Graduation Requirements

1. Students must have an overall GPA of at least 2.5. The cumulative GPA for all CS major and minor requirements and electives must be at least 2.5, and each course must be completed with a grade of "C" or better (except CS 155 and CS 491).

2. At least 24 credit hours from non-core course requirements or electives at or above 300 level must be earned from Winona State University. Courses taken through the Minnesota State University Common Market Program do not satisfy this requirement.

MIS Graduation Requirements

1. At least 24 credit hours of major course requirements or electives must be earned in residence from Winona State University. Courses taken through the common market do not meet this residency requirement.

2. MIS students must meet both the Computer Science entrance requirements and complete the Computer Science Department application form and the College of Business entrance requirements.

3. MIS students must have an overall GPA of at least 2.5. The cumulative GPA for all courses used to meet MIS requirements or electives must be at least 2.5. Each course used to meet a MIS requirement or elective must be completed with a grade of "C" or better (except CS 491).

Course Repetition Policy

A student will be allowed to attempt a particular computer science course at most three times. Each time the name of a student appears on the final grade roster of a course will be considered an attempt.

Graduation with CS Honors

For graduation with CS Honors a student must

- A. Have completed one of the following majors:
 - Computer Science
 - Computer Information Systems
 - Management Information Systems
- B. Have an overall GPA of 3.0
- C. Have a WSU CS GPA of 3.25
- D. Have completed an honors project or thesis
 1. Student must find a faculty member willing to serve as an honors advisor. The student must also find a second reader for the project/thesis. Advisors and readers must be regular WSU faculty members unless a waiver is obtained from the honors committee. An advisor may only oversee a maximum of 3 honors students at a time.
 2. With the advisor, the student will prepare and submit a proposal to the department's honors committee.
 3. Once the project is approved, the student will complete the project/thesis and present it to the advisor and the second reader.
 4. The accepted project/thesis must be presented in an open colloquium.
 5. A copy of the project/thesis must be submitted to the department library.

Prerequisites

The prerequisites for computer science courses must be met with a C grade or better. Students who have not met the prerequisites with a grade of C or better before the start of the course will be dropped from that class.

Pass/No Credit Courses

All major/minor required and elective courses must be taken for a letter grade, except CS 155 Intro to CS Tools and CS 491 Practicum.

Rochester Center

All of the CS department's majors and the minor are available through the 2 + 2 Program at the Rochester Center.

Swedish Exchange Program

Winona State University Computer Science students have available to them an exchange program with the University College of Boras in Sweden. WSU students spend fall semester (late August until Christmas) of their junior or senior year in Sweden. Swedish students spend spring and first summer session at WSU.

While in Sweden WSU students take the following courses which are taught in English:

- I. Sweden - The Land and People; Language, Society, and Culture.
- II. Consequences of Computer-based Systems on Man and Society
- III. Information systems in Swedish Companies.
- IV. Prototyping and CASE Tools.

Successful completion of the Exchange Program satisfies a student's Different Culture General Education Requirement.

B.S. MAJOR - COMPUTER SCIENCE

97-98 Q.H. (No Minor Required)

OPTION A & B COMPUTER SCIENCE

CORE (34 q.h.)

Option A & B**CS**

- 150 An Overview of Computer Science (4)
- 155 Introduction to CS Tools (2)
- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 340 Data Structures I (4)
- 341 Data Structures II (4)
- 351 Intro to Assembler & Architecture (4)
- 375 Software Engineering (4)

Mathematics

- 218 Introduction to Discrete Mathematics (4)

OPTION A REQUIREMENTS (35 q.h.)**CS**

- 376 Operating Systems (4)
- 415 Higher-Level Languages (4)
- 416 Functional Programming Concepts (4) OR
- 417 Object Oriented Languages (4)
- 435 Theory of Computation (4)

Mathematics

- * 125 Calculus I (5)
- * 126 Calculus II (5)

Statistics

- 279 Statistics (4) OR
- 318 Probability (4)

Physics

- 332 Computer Organization (5)

OPTION A ELECTIVES (28 q.h.)**CS**

- 301 Discrete Structures for Computer Science (4)
- 312 Microcomputer Organization (4)
- 385 Applied Database Management Systems (4)
- 412 Networking and Telecommunications (4)
- 413 Advanced Networking (4)
- 416 Functional Programming Concepts (4)
- 417 Object Oriented Programming Languages (4)
- 418 Logic Programming Concepts (4)
- 420 Computer Architecture (4)
- 425 Numerical Analysis I (4)
- 426 Numerical Analysis II (4)
- 430 Computer Graphics (4)
- 445 Artificial Intelligence (4)
- 448 Expert Systems (4)
- 450 Compilers (4)
- 465 Topics: Computing Theory (1-4)
- 466 Topics: Gen Computing Applications (1-4)
- 475 Design & Analysis of Algorithms (4)
- 476 Distributed System: Concepts and Design (4)
- 485 Database Systems Design (4)
- **491 Practicum in Computer Science (8)

Physics

- 333 Microprocessor Electronics (4)
- * Course may be used to satisfy certain general education requirement.
- **Only 4 credits may be applied to major or minor.

OPTION B - COMPUTER INFORMATION SYSTEMS

98 Q.H. (No Minor Required)

OPTION B REQUIREMENTS (48 q.h.)**CS**

- 233 Structured COBOL Programming (4)
- 240 Advanced COBOL and File Processing (4)
- 370 Systems Analysis (4)
- 385 Applied Database Management Systems (4)

Math

- * 122 Calculus for Non-Math Majors (4)

Statistics

- * 208 Fundamentals of Statistics (4) OR
- 207 BA Statistics for Business I (4)

Accounting

- * 201 Financial Accounting Principles I (4)
- * 202 Financial Accounting Principles II (4)
- * 203 Managerial Accounting (4)

Economics

- * 201 Principles of Microeconomics (4)

Management

- 370 Business, Organization and Management (4)

Marketing

- 315 Principles of Marketing (4)

OPTION B ELECTIVES (16 Q.H.)**CS**

- 301 Discrete Structures for Computer Science (4)
- 312 Microcomputer Organization (4)
- 376 Operating Systems (4)
- 412 Networking and Telecommunications (4)
- 413 Advanced Networking (4)
- 415 Higher-Level Languages
- 435 Theory of Computation (4)
- 445 Artificial Intelligence (4)
- 448 Expert Systems (4)
- 466 Topics: General Computing Appl. (1-4)
- 467 Topics: Info Systems Applications (1-4)
- 470 Systems Design with CASE Tools (4)
- 475 Design & Analysis of Algorithms (4)
- 485 Database Systems Design (4)
- **491 Practicum in Computer Science (8)
- * Course may be used to satisfy certain General Education requirement.
- **Only 4 credits may be applied to major or minor.

B.S. MAJOR MANAGEMENT INFORMATION SYSTEMS

116-126 Q.H.

(No Minor Required)

REQUIRED COURSES (104-114 q.h.)**Computer Science (32)**

- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 233 Structured COBOL (4)
- 240 Advanced COBOL & File Processing (4)
- 340 Data Structures I (4)
- 370 Systems Analysis (4)
- 375 Software Engineering (4)
- 385 Applied Database Management Systems (4)

Accounting (12)

- 201 Financial Accounting Principles I (4)
- 202 Financial Accounting Principles II (4)
- 203 Managerial Accounting (4)

Business Administration (20)

- 310 Business Law I (4)
- 362 Management Information Systems (4)
- 419 Fundamentals of Management Science (4)
- 462 Management Decision Support Systems (4)
- 498 Business Policies (4)

BEOSA (4)

- 333 Business Communication (4)

Economics (8)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)

Finance (4)

- 360 Fundamentals of Business Finance (4)

Mathematics (8-10)

- 218 Introduction to Discrete Mathematics (4)
- 121 Introductory Math with Applications OR
- 122 Calculus for Non-Math Majors (4) OR
- 125 & 126 Calculus I, II (10)

Marketing (4)

- 315 Principles of Marketing (4)

Management (4)

- 370 Business Organization & Management (4)

One of the following statistics sequences (8-12)

- BA 207 Statistics for Business I AND
- BA 335 Statistics for Business II (8) OR
- STATS 279 Statistics AND
- STATS 410 Analysis of Variance AND
- STATS 411 Multiple Regression (12)

ELECTIVES (12 q.h.)

Choose three from the following: (12)

Computer Science

- 312 Microcomputer Organization (4)
- 341 Data Structures II (4)
- 351 Introduction to Assembler and Architecture (4)
- 412 Networking and Telecommunications (4)
- 413 Advanced Networking and Telecommunications (4)
- 415 Higher-Level Languages (4)
- 417 Object Oriented Programming Languages (4)
- 448 Expert Systems (4)
- 467 Topics: Information Systems Applications (1-4)
- 470 System Design with CASE Tools (4)
- 485 Database Systems Design (4)
- * 491 Practicum in Computer Science (8)

Accounting

- 301 Intermediate Accounting I (4)
- 350 Accounting Systems (4)
- 440 Cost Accounting I (4)

Business Administration

- 200 Microcomputers in Business (4)
- 312 Business Computer Applications (4)
- 329 Computer Law (4)
- 330 Production/Operations Management (4)
- * 399 Internship Problem (4)
- 422 BUSA Computer-Aided Modeling for MS/OR (4)
- 461 BUSA Management of Telecommunications in Business Environment (4)
- 482 BUSA Management of Information Technology in Practice (4)
- 492 Advanced Topics in MIS (4)

Economics

- 425 Managerial Economics (4)

Finance

- 463 Financial Management (4)

* Only four credits may be counted toward the major

**B.S. MINOR - COMPUTER SCIENCE
38 Q.H.****REQUIRED COURSES (26 q.h.)****Computer Science**

- 150 An Overview of Computer Science (4)
- 155 Introduction to CS Tools (2)
- 234 Algorithms and Problem Solving I (4)
- 250 Algorithms and Problem Solving II (4)
- 340 Data Structures I (4)
- 351 Intro to Assembler and Architecture (4)

Mathematics

- 218 Introduction to Discrete Mathematics (4)

ELECTIVES (12 q.h.)

Chosen from CS courses in CS major requirements or electives.

Engineering

Stark Hall, Room 203, (507) 457-5685
Dennehy (Chairperson), Abdel-Magid, Grami, Parsi, Snedrud

The Department of Engineering, located within the Miller Brothers School of Engineering, offers the Bachelor of Engineering degree in Composite Materials Engineering. Composites represent a new group of manufactured materials. These lightweight materials with high strength and stiffness are formed by combining reinforcing fibers in a polymer, ceramic or metal matrix. Over the past two decades the use of composites has grown significantly in the following industries: aerospace, automotive, biotechnology, construction, electronics, marine and sporting goods. The future demand will be great for people educated in the engineering of composite materials.

The Composite Materials Engineering Program at Winona State University has been developed to meet the engineering needs of the composites industry, and is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). Graduates from this program will be prepared to practice engineering at a professional level and enter the composites industry directly into positions that provide opportunities for professional growth. Graduates will also be prepared to enter graduate level programs in composite materials and other related engineering disciplines.

The Composite Materials Engineering Program offers two options within the major. The mechanical option includes courses concentrating on the design, analysis and manufacture of composite structures. The chemical option offers courses focusing on the development, processing and chemistry of the materials used in composites including the fibers, matrices and fiber/matrix systems. The program is the first undergraduate composite materials engineering program in the United States.

High School Preparation

Recommended high school preparation includes two years of algebra, one year of geometry, one-half year of trigonometry, one-half year of college algebra, as well as one year each of physics and chemistry. Without this background it is unlikely a student will complete the degree requirements in four years.

Admission to the Program

Admission to the Composite Materials Engineering Major will be considered after completing 8 quarter hours of English composition, 4 quarter hours of speech communication and a minimum of 71 quarter hours of required lower division engineering, physics, mathematics, chemistry and computer science courses. Admission to the Composite Materials Engineering Major is selective and is determined by the Engineering Admissions Committee. To be considered for admission the applicant must have obtained a grade of C or higher in the required courses and have an overall GPA of 2.5, as well as a GPA of 2.5 in the required courses. These courses can be taken at Winona State University or transferred from other institutions. Courses with grades below "C" or courses with pass/fail or no credit will not be accepted in transfer. Students will not be allowed to enroll in upper division 300- and 400-level engineering courses until either admitted into the major or by obtaining special permission from their Department of Engineering major advisor.

Probation Policy

Students who have been admitted into the major will be placed on probation if their GPA in the preceding quarter in courses required for the major falls below 2.0 or if they do not complete at least one course in the major each quarter. Students will be disqualified from the major if

they were on probation for two consecutive quarters or for three non-consecutive quarters after admission to major. Petition for reinstatement will be considered by the Department of Engineering Chairperson.

Because composite materials engineering is a rapidly developing field, students must consult with their Department of Engineering major advisor for current program requirements.

BACHELOR OF ENGINEERING MAJOR - COMPOSITE MATERIALS ENGINEERING

156 Q.H. (No Minor Required)

CORE REQUIREMENTS (136 q.h.)

Lower Division (71 q.h.)

Mathematics (24 q.h.)

- 125 Calculus I (5)
- 126 Calculus II (5)
- 127 Calculus III (5)
- 329 Multivariable Calculus (5)
- 330 Differential Equations (4)

Chemistry (10 q.h.)

- 212 Principles of Chemistry I (5)
- 213 Principles of Chemistry II (5)

Physics (19 q.h.)

- 221 College Physics I (5)
- 222 College Physics II (5)
- 223 College Physics III (5)
- 302 Electrical Circuits and System (4)

Computer Science (4 q.h.)

- 231 Introduction to Fortran (4)

Engineering (14 q.h.)

- 205 Engineering Graphics (2)
- 225 Statics (4)
- 345 Thermodynamics I (4)
- 360 Strength of Materials (4)

Upper Division (65 q.h.)

Chemistry (3 q.h.)

- 410 Polymer Chemistry (3)

Mathematics (4 q.h.)

- 425 Numerical Analysis I (4)

Physics (4 q.h.)

- 420 Analog and Digital Control (4)

Engineering (54 q.h.)

- 316 Properties of Materials (4)
- 346 Thermodynamics II (4)
- 375 Fluid Dynamics (4)
- 376 Heat and Mass Transfer (5)
- 377 Transport Phenomena Laboratory (2)
- 391 Kinetics and Reactor Design (4)
- 392 Engineering Composites Materials I (4)
- 393 Engineering Composites Materials II (4)
- 415 Composites Manufacturing I (4)
- 416 Composites Manufacturing II (4)
- 447 Process Design Project I (4)
- 448 Process Design Project II (4)
- 483 Mechanical Characterization Laboratory (2)
- 484 Composite Characterization Techniques (4)
- 499 A&B Seminar (1)

Required Options (20.q.h.)

(Choose One)

I. Mechanical Option (20 q.h.)

Engineering

- 350 Dynamics (4)
- 482 Mechanics of Composites (4)

Chemistry (4)

- 340 Survey of Organic Chemistry (4)

Technical Electives (8 q.h.)

- Engr 445 Computer Integrated Manufacturing (4)
- Engr 460 Introduction to Finite Element Analysis (4)
- Engr 485 Advanced Microscopic Techniques (4)
- Engr 495 Independent Study (1)-(4)
- Math 417 Linear Algebra (4)
- Phys 330 Electronics (4)
- Stat 303 Introduction to Engineering Statistics (4)
- Stat 311 Industrial Design of Experiments (4)

2. Chemical Option (20 q.h.)

Chemistry

- 350 Organic Chemistry I (5)
- 351 Organic Chemistry II (5)

Technical Electives (10 q.h.)

- Engr 465 Polymer Processing (4)
- Engr 475 Rheology (4)
- Engr 485 Advanced Microscopic Techniques (4)
- Engr 495 Independent Study (1)-(4)
- Chem 425 Analytical Chem I (5)
- Chem 426 Analytical Chem II (5)
- Stat 303 Introduction to Engineering Statistics (4)
- Stat 311 Industrial Design of Experiments (4)

GENERAL EDUCATION REQUIREMENTS

The general education component of the Bachelor of Engineering degree requires both breadth and depth in the course selection. Breadth is achieved by requiring 8 quarter hours of courses each from the **Humanities, Social Sciences, and Different Culture** categories, in addition to the 12 quarter hours of Basic Skills courses. Depth is achieved by requiring that **two courses be taken from the same department in two of the three categories**. In the third category, students may combine any general education courses approved for that area (see General Education Requirements-Undergraduate Students).

I. Basic Skills

- A. Written Communication (8 q.h.)
 - English 110 College English I
 - English 115 College English II
- B. Oral Communication (4 q.h.)
 - Comm 191 Fundamentals of Speech Communication

II. Humanities (8 q.h.)

The courses can be taken from the departments listed in the HUMANITIES section under the "General Education Requirements-Undergraduate Students" except the following which are *excluded*:

Theatre and Dance	Foreign Languages
001 Theatre Activities	200 Exploratory Foreign Language
Communication Studies	250 Origins and Development of German Culture
196 Fundamentals of Interviewing	

Humanities

- 140 Approaches to Film

III. Social Sciences (8 q.h.)

The courses can be taken from the departments listed in the SOCIAL SCIENCES under the "General Education Requirements-Undergraduate Students" except the following which are *excluded*:

Philosophy

- 240 Philosophy of Science

IV. Different Culture (8 q.h.)

The courses can be taken from the departments listed in the DIFFERENT CULTURE under the "General Education Requirements-Undergraduate Students" except the following which are *excluded*:

English

- 105 Eng: Non-Native Speakers/Listening
- 106 Eng: Non-Native Speakers/Reading and Writing I
- 107 Eng: Non-Native Speakers/Reading and Writing II

NOTE: Students receiving credit by exam or CLEP may apply those credits toward fulfillment of the general education requirement, but must take an equal number of credit hours of elective courses from the approved undergraduate general education list. All general education classes must be taken on a grade-only basis.

GENERALIZED CLASS SCHEDULE

* Mechanical Option

** Chemical Option

Freshman Year

Fall (18 q.h.)

Chem 212 Principles of Chemistry I (5)
Eng 110 College English I (4)
Math 125 Calculus I (5)
Gen. Educ. (4)

Winter (16 q.h.)

Chem 213 Principles of Chemistry II (5)
Eng 115 College English II (4)
Engr 205 Engineering Graphics (2)
Math 126 Calculus II (5)

Spring (18 q.h.)

CS 231 Introduction to Fortran (4)
CMST 191 Fundamentals of Speech Communication (4)
Math 127 Calculus III (5)
Phys 221 College Physics I (5)

Sophomore Year

Fall (14-19 q.h.)

Chem 350** Organic Chemistry I (5)
Engr 225 Statics (4)
Math 329 Multivariable Calculus (5)
Phys 222 College Physics II (5)

Winter (14-17 q.h.)

Chem 340* Survey of Organic Chemistry (4)
Chem 351** Organic Chemistry II (5)
Engr 350* Dynamics (4)
Math 330 Differential Equations (4)
Phys 223 College Physics III (5)

Spring (16 q.h.)

Engr 345 Thermodynamics I (4)
Engr 360 Strength of Materials (4)
Phys 302 Electrical Circuits and System (4)
Gen. Educ. (4)

Junior Year

Fall (15 q.h.)

Chem 410 Polymer Chemistry (3)
Engr 316 Properties of Materials (4)
Engr 346 Thermodynamics II (4)
Engr 375 Fluid Dynamics (4)

Winter (17 q.h.)

Engr 376 Heat and Mass Transfer (5)
Engr 392 Engineering Composites Materials I (4)
Phys 420 Analog and Digital Control (4)
Gen. Educ. (4)

Spring (15-18 q.h.)

Engr 377 Transport Phenomena Laboratory (2)
Engr 391 Kinetics and Reactor Design (4)
Engr 393 Engineering Composites Materials II (4)
Mech. Elec.* (4)
Chem. Elec.** (5)
Gen. Educ.* (4)

Senior Year

Fall (14 q.h.)

Engr 415 Composites Manufacturing I (4)
Engr 483 Mechanical Characterization Laboratory (2)
Engr 482* Mechanics of Composites (4)
Math 425 Numerical Analysis I (4)
Gen. Educ.** (4)

Winter (16 q.h.)

Engr 416 Composites Manufacturing II (4)
Engr 447 Process Design Project I (4)
Engr 484 Composite Characterization Techniques (4)
Engr 499 "A" Seminar(0)
Gen. Educ. (4)

Spring (13-14 q.h.)

Engr 448 Process Design Project II (4)
Engr 499 "B" Seminar (1)
Mech. Elec.* (4)
Chem. Elec.** (5)
Gen. Educ. (4)

Geology

Pasteur Hall, Room 114-F, (507) 457-5260
Jannik (Chairperson), Bayer, Donovan,
Meyers.

Geology is the study of the Earth - its composition, structure, processes, and history. Geologists use the outdoors as a laboratory, where studies of rocks, landforms, and earth processes enable the geologist to decipher earth history.

The Department of Geology at Winona State University offers the Bachelor of Science program for students planning graduate studies and professional careers in geology, and the Bachelor of Science program for prospective teachers of Earth Science. Field excursions and practical laboratory experience are integral to most courses. Majors pursue studies enriched with closely related disciplines of mathematics, chemistry, and physics. Students preparing for teaching will also take courses in astronomy, meteorology, oceanography, and education.

The Department offers an **Honors Program** for qualified students, and **research and internship opportunities** are also available. Alumni of the Department have established an endowed fund, making **academic scholarships** available to qualified students.

Academic programs of the Department of Geology are **approved by the American Institute of Professional Geologists.**

Career Opportunities

Employment opportunities in the geosciences described by the Geological Society of America for the 1990's are vastly increased over those of the 1980's. Federal and state regulatory legislation regarding waste disposal and its relationship to clean water and clean air has greatly increased employment opportunities for geologists. Many new positions are created each year with consulting firms, industries, and state and local governmental agencies. These positions are being filled by persons with bachelors and masters degrees, but the majority of employers prefer graduates with the M.S. Hiring in the petroleum industry has stabilized. Graduates with master's degrees have the best opportunities. The aging of the faculties of colleges and universities is beginning to result in employment opportunities for geologists in higher education. Now is an excellent time to begin preparations for such a career, and interested students should plan to attain a Ph.D. degree. Earth Science teachers will be needed in most regions of the United States according to most national teacher-employment surveys. Most Earth Science teachers are employed in secondary schools where Earth Science is usually a required component of the science curriculum.

Pass/No credit courses

All courses in geology that fulfill the general education requirements of the university, and those used to fulfill requirements of majors and minors, **must be taken for grade only.**

B.S. MAJOR - EARTH SCIENCE (TEACHING)

100 Q.H. (plus professional education sequence)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (92 q.h.)**Geology (40 q.h.)**

- 101 Introduction to Geology I (4)
- 102 Introduction to Geology II (4)
- 200 Oceanography (4)
- 220 Astronomy I (4)
- 221 Astronomy II (4)
- 230 Meteorology (4)
- 250 Mineralogy I (4)
- 251 Mineralogy II (4)
- 320 Igneous and Metamorphic Petrology (4)
- 350 Invertebrate Paleontology (4)

Biology (14 q.h.)

- 104 Conservation (4)
- 241 Principles of Biology I (5)
- 242 Principles of Biology II (5)

Chemistry (10 q.h.)

- *212 Principles of Chemistry I (5)
- *213 Principles of Chemistry II (5)

Note: 214 Principles of Chemistry III (5) is strongly recommended.

Mathematics (8 q.h.)

- 115, 116 Precalculus I, II (8)

Note: Math 120 may substitute for Math 115 and 116.

Computer Science (4 q.h.)

- 130 Intro. to BASIC programming (4)

Physics (16 q.h.)

- *201 General Physics I (4)
- 202 General Physics II (4)
- 203 General Physics III (4)
- 311 Teaching of Physical Science in the Secondary Schools (4)

*Course may be used to satisfy certain general education requirement.

ELECTIVES (8 q.h.)**Geology**

May be chosen from any of the departmental course offerings 200 level and above.

B.S. MAJOR - GEOLOGY

90-108 Q.H.

CORE REQUIREMENTS (37 q.h.)

(FOR ALL OPTIONS)

Geology

- 101 Introduction to Geology I (4)
- 102 Introduction to Geology II (4)
- 250, 251 Mineralogy I, II (8)
- 315 Geomorphology (4)
- 320 Ign. and Met. Petrology (4)
- 321 Sedimentary Petrology (4)
- 380 Structural Geology (4)
- 475 Earth Science Seminar (1)
- 480 Geological Field Techniques (4)

Note: **Majors in all options are urged to take a geology summer field camp** prior to graduation which will satisfy the core requirement Geology 480.

OPTION A - 90 q.h.

(Minor Required)

(Designed for students planning to attend graduate school)

CORE REQUIREMENTS (37 q.h.)

See listing above

OPTION REQUIREMENTS (45 q.h.)**Chemistry (15 q.h.)**

- *212, *213, 214 Principles of Chemistry I, II, III (15)

Mathematics (15 q.h.)

- *125, *126, *127 Calculus I, II, III (15)

Physics (15 q.h.)

- *221, 222, 223 College Physics I, II, III (15)

*Course may be used to satisfy certain general education requirement.

ELECTIVES (8 q.h.)**Geology**

Select from:

- 200 Oceanography (4)
- 325 Environmental Geology (4)
- 330 Quaternary and Glacial Geology (4)
- 350 Invertebrate Paleontology (4)
- 370 GIS and Imaging Techniques (4)
- 385 Regional Geology (4)
- 400 Individual Research Problems (1-4)
- *404 Current Topics in Geology (1-4)
- 410 Economic Geology (4)
- 414 Sedimentology (4)
- 415 Stratigraphy (4)
- 420 Hydrogeology (4)
- 421 Applied Hydrogeology (4)
- 425 Exploration Geophysics (4)
- 430 Principles of Geochemistry (4)

*Topic must be approved for credit in major by department chairperson.

OPTION B - 103-108 q.h.

(No Minor Required)

(Designed for students desiring to pursue a career with the B.S. degree)

CORE REQUIREMENTS (37 q.h.)

See listing above

OPTION REQUIREMENTS (56-61 q.h.)**Geology (16 q.h.)**

- 350 Invertebrate Paleontology (4)
- 414 Sedimentology (4)
- 415 Stratigraphy (4)
- 425 Exploration Geophysics (4) OR
- 430 Principles of Geochemistry (4)

Chemistry (15 q.h.)

- *212, *213, 214 Principles of Chemistry I, II, III (15)

Mathematics and Statistics, and Computer Science (13-15 q.h.)

- *Math 125 Calculus I (5)

PLUS TWO of the following:

- *Math 126 Calculus II (5)
- *Math 127 Calculus III (5)
- *Stat 208 Fundamentals of Statistics (4)
- Stat 279 Statistics (4)
- Comp. Sci. 231 Intro. to FORTRAN

Physics (12-15 q.h.)

- *201, 202, 203 General Physics I, II, III (12) OR
 - *221, 222, 223 College Physics I, II, III (15)
- *Course may be used to satisfy certain general education requirement.

ELECTIVES (10 q.h.)

Elect from the listing for Option A, except for Geology courses listed under option requirements for Option B.

B.S. MAJOR - OPTION C - 102-108 q.h.**HYDROGEOLOGY**

(Designed for students desiring a career in hydrogeology or environmental geology)

CORE REQUIREMENTS (37 q.h.)

See listing above.

OPTION REQUIREMENTS (65-71 q.h.)**Geology (21-24 q.h.)**

- 325 Environmental Geology (4)
- 399 Geology Internship (1-4) OR
- 400 Individual Research Problems (1-4)
- 414 Sedimentology (4)
- 420 Hydrogeology (4)
- 421 Applied Hydrogeology (4)
- 425 Exploration Geophysics (4) OR
- 430 Principles of Geochemistry (4)

Chemistry (14-15 q.h.)

- * 212, *213 Principles of Chemistry I, II (10)
- 340 Organic Chemistry Survey (4) OR
- 350 Organic Chemistry (5)

Physics (8-10 q.h.)

- * 201, 202 General Physics I, II (8) OR
- * 221, 222 College Physics I, II (10)

Mathematics and Statistics (14 q.h.)

- Math *125, *126 Calculus I, II (10)
- Stat 208 Fundamentals of Statistics (4)

OR

- Stat 279 Statistics (4)

Computer Science (4 q.h.)

- 231 Introduction to FORTRAN (4)

English/Business (4 q.h.)

- 449 Scientific Writing (English) (4) OR
- 333 Business Communications (Business) (4)

- * Course may be used to satisfy certain general education requirement.

B.S. MINOR - GEOLOGY

38 Q.H.

REQUIRED COURSES (30 q.h.)**Geology (20 q.h.)**

- 101 Introduction to Geology I (4)
- 102 Introduction to Geology II (4)
- 250, 251 Mineralogy I, II (8)
- 320 Ign. and Met. Petrology (4)

Chemistry (10 q.h.)

- * 212, *213 Principles of Chemistry I, II (10)
- * These courses may be used to satisfy certain general education requirements

ELECTIVES (8 q.h.)**Geology**

Select from 300 or 400-level geology courses except for Geology 399

Mathematics and Statistics

Gildemeister Hall, Room 322, (507) 457-5370

Suman (Chairperson), Anderson, Arteaga, Blumberg, Bunce, Debnath, Deppa, Gardiner, Gross, Jarvinen, Ouellette, Pascual, Quella, Quinn, Sloan, Smith, Urion, VanDeWater

The Department of Mathematics and Statistics offers major programs in mathematics, mathematics education, statistics, and production and operations management. Minor programs are offered in mathematics, statistics, mathematics education (elementary and secondary teaching), and quality and productivity management. A useful feature of departmental programs is the commonality of a required core of courses allowing students to change majors within the department or to coordinate a double major program with relative ease during the first two years of coursework. The best choice of courses beyond the core depends upon career plans (industry, graduate school, professional school, teaching, government, finance, insurance, etc.) and students should consult departmental faculty advisors as early as possible.

The mathematics major (**B.A. Major - Mathematics**) is specifically designed to support a wide range of student interests. Whether the goal is to complement coursework in another discipline, to obtain an education leading to a position in industry or in government, or to prepare for future graduate work, students can find options within the mathematics major (**Tracks A - D**) to suit these needs.

The mathematics teaching major (**B.S. Major - Mathematics**) is designed to prepare students for a career in teaching mathematics in Grades 7-12. This major may be taken by itself (**Option B**) or may be taken in conjunction with another major or minor (**Option A**). Other important options for students in the mathematics education program are to obtain middle school licensure, to complete an additional major or minor program which grants licensure in that subject also, and/or to complete an athletic coaching certification program. All these options have important advantages regarding future employability.

The statistics major (**B.S. Major - Mathematics Option C**) provides students with both a solid background in mathematics as well as experiences with statistical theories, techniques, and software. The statistics faculty have experience in the application of statistics to

diverse areas such as quality control, industrial experimental design, clinical trials, and the social sciences. Because statistics is applicable in a wide variety of fields, a minor or second major in statistics is a good choice for students majoring in the biological and earth sciences, business, economics, sociology, psychology, etc.

The POM major (**B.S. Major - Production and Operations Management**) is a program administered jointly by the Department of Business Administration and the Department of Mathematics and Statistics. Production and operations are two of the main functions of many businesses. The focus of this program is to provide the expertise necessary to manage these vital parts of today's businesses. The main areas contributing to the major are management, mathematics, statistics, accounting, finance, and economics.

Careers in the Mathematical Sciences

There are opportunities for graduates with a mathematics major in industry as part of a development or research team and in government service. However, graduates who complete a double major including mathematics find themselves in significantly greater demand than if they had completed either major singly. Track A (Major with minor) is specifically designed to accommodate this employment trend.

Current job placement for students with a mathematics teaching major remains strong and projections indicate this will continue for the next decade. With a degree in secondary mathematics education, career opportunities also exist in insurance companies, business, government, and the armed services. With appropriate choices of elective courses, a mathematics teaching major would be qualified for graduate studies in a number of fields including mathematics, statistics, actuarial science, mathematics education, educational psychology, and business. Elementary education majors who complete a mathematics minor will also find themselves in greater demand due to increased emphasis on mathematics skills in Grades K-6.

The job market for statistics majors is very solid with some projections indicating that the demand for statisticians will double over the next decade. In statistics, opportunities for professional employment

exist in industry, medical research, government agencies, and several areas of business. Statistics majors can also find future careers in actuarial science.

Honors in Mathematics and Statistics

A departmental honors program is available to qualified majors in the Department of Mathematics and Statistics. Students completing the departmental honors program will graduate with honors in the Department of Mathematics and Statistics.

Credit By Exam Courses

A student may receive credit by examination for only those courses listed below. A student is allowed only one attempt per course.
MATH: 113, 115, 116, 120, 121-123, 125-127, 217, 218, 329
STAT: 208, 279, 318, 409, 418, 419

Pass/No Credit

MATH 111 and 113 must be taken for a grade. STAT 492 must be taken for pass/no credit. Any other course not required nor elected for a major or minor may be taken on a pass/no credit basis.

Prerequisites

The prerequisites for courses in the Department of Mathematics and Statistics must be met with a C grade or better or by consent of instructor.

Transfer Credit

No credit will be given for a grade below a C for mathematics, mathematics education, or statistics courses taken at other institutions.

B.A. MAJOR - MATHEMATICS

60-92 Q.H.

The B.A. program in mathematics begins by providing students with instruction in the basic techniques, applications, and theories of mathematics. Consequently, all B.A. mathematics major programs require courses listed under the heading **MATHEMATICS CORE**. Beyond this core, students may choose from a variety of options which are designed to allow for a program which complements another major (**Major with Minor**), prepares for future graduate work (**Graduate School Mathematics**), provides coursework that is specific to the needs of industry (**Applied Mathematics**), or allows students to experience a significant cross-section of coursework in the mathematical sciences (**Broad Spectrum Mathematics**).

Students currently majoring or planning to major in other disciplines are strongly urged to consider the **Major with Minor** program as a useful means of preparing for professional exams, such as the MCAT, as a way of creating an undergraduate program which sets the student apart from others in that discipline when competing for future employment, and as a way of increasing options for future graduate work.

Although students are asked to declare a track at the time they declare a mathematics major, future changes and substitutions within the tracks may be considered by the department. Students should consult with their advisor.

Students must earn a grade of C or higher in all required departmental courses.

MATHEMATICS CORE

(48 Q.H.)

(Required in all 4 tracks)

Mathematics (44 q.h.)

125-127 Calculus I-III (15)

217 Linear Algebra I (4)

218 Introduction to Discrete Mathematics (4)

316 Foundations of Mathematics (4)

317 Abstract Algebra (4)

329 Multivariable Calculus (5)

330 Differential Equations I (4)

460 Advanced Calculus I (4)

Statistics (4 Q.H.)

279 Statistics (4)

TRACK A - MAJOR WITH MINOR MATHEMATICS TRACK

60 Q.H. (Minor Required)

Mathematics Core (48 q.h.)

Mathematics/Statistics (12 Q.H.)

12 Q.H. of elective coursework in MATH or STAT courses numbered 310 or above or in coursework offered outside the department with a significant mathematical/statistical component. Such courses must be approved by the Department of Mathematics and Statistics.

TRACK B - APPLIED MATHEMATICS TRACK

92 Q.H. (No Minor Required)

Mathematics Core (48 q.h.)

Mathematics (36 q.h.)

331 Differential E

331 Differential Equations II (4)

417 Linear Algebra II (4)

425 Numerical Analysis I (4)

432 Theory of Complex Variables (4)

440 Operations Research I (4)

441 Operations Research II (4)

461-462 Advanced Calculus II-III (8)

488 Mathematics Projects (Applied Interdisciplinary Topic) (4)

Computer Science (4 Q.H.)

234 Algorithms and Problem Solving I (4)

OR advisor approved programming course

Statistics (4 Q.H.)

318 Probability (4)

TRACK C - BROAD SPECTRUM MATHEMATICS TRACK

76-84 Q.H. (No Minor Required)

Mathematics Core (48 q.h.)

Mathematics (12 Q.H.)

357 Number Theory (4)

408 History of Mathematics (4)

440 Operations Research I: Linear Programming (4) OR

441 Operations Research II: Modeling (4)

Mathematics Education (4 Q.H.)

322 Modern Geometry (4)

Additional courses chosen so as to complete three of the following sequences (12-24 Q.H.)

MATH 217,417 Linear Algebra I and II

MATH 330-331 Differential Equations I-II

MATH 440,441 Operations Research I: Linear Programming

Operations Research II: Modeling

MATH 425-426 Numerical Analysis I-II

MATH 460-461 Advanced Calculus I-II

MATH 462,470 Advanced Calculus III and Real Analysis

STAT 418-419 Introduction to Mathematical Statistics I-II

TRACK D - GRADUATE SCHOOL MATHEMATICS TRACK

86 Q.H. (No Minor Required)

Mathematics Core (48 q.h.)

Mathematics (30 Q.H.)

417 Linear Algebra II (4)

432 Theory of Complex Variables (4)

440 Operations Research I: Linear Programming (4) OR

441 Operations Research II: Modeling (4)

445 Introduction to Topology (4)

- 461-462 Advanced Calculus II-III (8)
 470 Real Analysis (4)
 489 Special Topics (Mathematics Seminar) (2 @ 1 credit) (2)

Computer Science (4 Q.H.)

- 234 Algorithms and Problem Solving I (4)
 OR advisor approved programming course

Statistics (4 Q.H.)

- 318 Probability (4)

B.S. MAJOR - MATHEMATICS**OPTION A - (TEACHING)**

63 Q.H. (Minor Required)

OPTION B - (TEACHING)

86 Q.H. (No Minor Required)

Mathematics Teaching Majors

The mathematics teaching major prepares students for the teaching of mathematics in Grades 7-12. This program is administered through the Department of Mathematics and Statistics and the College of Education. As such, majors must satisfy requirements of and be admitted to the College of Education in addition to satisfying the requirements of the Department of Mathematics and Statistics. The College of Education course requirements are listed under the heading **PROFESSIONAL EDUCATION SEQUENCE**.

To satisfy the requirements of the Department of Mathematics and Statistics all students in the mathematics teaching program are required to take the courses listed under the heading **MATHEMATICS TEACHING CORE**. Beyond this students must complete either **OPTION A** or **OPTION B**. Option A carries the requirement that students complete a minor in addition to this major. In selecting a minor, students may consider minor programs which also offer teaching certification in that discipline. Option B does not require a minor and allows students to take additional coursework in mathematics, mathematics education, and statistics.

Admission to the Mathematics Teaching Major

All students applying for entrance to a mathematics teaching major shall have completed the following three courses with a C grade or better in each course and shall have a minimum grade point average of 2.30 for the three courses:

- MATH 125 Calculus I
 MATH 217 Linear Algebra I
 MATH 218 Introduction to Discrete Mathematics

Students interested in a mathematics teaching major should contact the Department of Mathematics and Statistics for more information, provisional status, and an advisor.

Student Teaching Requirements

To receive departmental recommendation for student teaching a student must: (1) have completed at least 39 credits in the declared major, (2) have a grade of C or better in each of the courses comprising the 39 credits, (3) have achieved a 2.75 GPA in all courses completed in the declared major, as well as a 2.75 overall GPA and (4) meet the requirements from the College of Education. MTED 320 must be completed and completion of MTED 420 is highly recommended prior to student teaching.

Additional Graduation Requirements

A grade of C or better must be earned in each course taken in the mathematics teaching major. A 2.75 overall GPA and a 2.75 GPA must be earned in all courses taken in the mathematics teaching major.

PROFESSIONAL EDUCATION SEQUENCE

Students in the mathematics teaching majors are required to complete the following professional education sequence offered through the College of Education. These courses are usually started with the ED 300-302 block. Before enrolling in any of the education courses, students must be admitted to the College of Education.

Education (42 q.h.)

- 300 Growth and Development (4)
 301 Learning in the Classroom (4)
 302 Professional Field Experience (2)
 306 Curriculum and Evaluation (4)
 308 Human Resources (4)
 429 Secondary Reading and Teaching Strategies (4)
 459 Professional Topics and Issues (4)
 460-465 Student Teaching (16)

HPER (3 q.h.)

- 204 Personal and Community Health (3)

Note: A grade of "B" or better is required in ENG 110 and 115 before enrollment in any Education courses. A grade of "B" or better in ENG 112 may be substituted in place of ENG 110 and 115.

MATHEMATICS TEACHING CORE

(59 q.h.)

(Required for both Options A and B)

Mathematics (39 Q.H.)

- 125-127 Calculus I-III (15)
 217 Linear Algebra I (4)
 218 Introduction to Discrete Mathematics (4)
 316 Foundations of Mathematics (4)
 317 Abstract Algebra (4)
 357 Number Theory (4)
 408 History of Mathematics (4)

Mathematics Education (12 Q.H.)

- 320 Teaching of Mathematics in the Secondary Schools I (4)
 322 Modern Geometry (4)
 420 Teaching of Mathematics in the Secondary Schools II (4)

Statistics (8 Q.H.)

- 279 Statistics (4)
 318 Probability (4)

OPTION A - (TEACHING)

63 Q.H. (Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Mathematics Teaching Core (59 q.h.)**Mathematics (4 Q.H.)**

- 417 Linear Algebra II (4) OR
 460 Advanced Calculus I (4)

OPTION B - (TEACHING)

86 Q.H. (No Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (78 q.h.)**Mathematics Teaching Core (59 q.h.)****Mathematics (13 Q.H.)**

- 329 Multivariable Calculus (5)
 330 Differential Equations I (4)
 460 Advanced Calculus I (4)

Mathematics Education (4 Q.H.)

- 489 Special Topics (4)

Statistics (2 Q.H.)

- 219 Exploratory Data Analysis (2)

ELECTIVES (8 q.h.)

Students must complete 8 Q.H. of coursework selected from MATH, MTED or STAT courses numbered 310 or above. At least 4 Q.H. must be from a MATH course numbered 410 or above. At most 3 credits may be taken from MTED 489 and MTED 490.

B.S. MAJOR - MATHEMATICS**OPTION C - (STATISTICS)**

82-88 Q.H. (No Minor Required)

Statistics Option

The B.S. program in statistics begins by providing students with instruction in the basic techniques, applications, and theories of mathematics and statistics. All students in the statistics program are required to take the courses listed under the heading **REQUIRED COURSES**. Beyond these required classes students may choose courses to meet their specific needs.

Students majoring in statistics are required to complete a statistics project under the supervision of a faculty member. This provides students the opportunity to work with a faculty member on a consulting project or research problem. For students planning to attend graduate school the research project is recommended. Internship opportunities also exist for students in the statistics program. Recent graduates have completed internships at the Mayo Clinic, insurance companies, local industry and non-profit organizations. Both consulting projects and internships are good choices for students seeking employment upon graduation.

Students who are interested in business or industrial applications of statistics might consider the fields of actuarial science or quality control. Specific information about these two fields follows the required coursework for the statistics major.

REQUIRED COURSES (70-76 q.h.)**Mathematics (32 Q.H.)**

- 125-127 Calculus I-III (15)
- 217 Linear Algebra I (4)
- 218 Introduction to Discrete Mathematics (4)
- 316 Foundations of Mathematics (4)
- 329 Multivariable Calculus (5)

Computer Science (4 Q.H.)

- 231 FORTRAN for Engineering and Science (4)

Statistics (34-40 Q.H.)

- 279 Statistics (4)
- 318 Probability (4)
- 411 Applied Statistics: Multiple Regression (4)
- 412 Applied Statistics: Analysis of Variance (4)
- 418-419 Introduction to Mathematical Statistics I-II (8)
- 488 Statistics Projects (2-8)

[Two of the following six courses]

- STAT 403 Nonparametric Statistics (4)
- STAT 409 Design of Samples and Surveys (4)
- STAT 415 Multivariate Analysis (4)
- STAT 466 Stochastic Processes (4)
- STAT 479 Statistical Computing (4)
- FIN 335 Forecasting Methods (4)

ELECTIVES (12 q.h.)

To be chosen in consultation with an advisor from MATH or STAT courses numbered 310 or above or STAT 219. Students may also choose classes with a significant mathematical/statistical component offered outside the department. These courses must be approved by the Department of Mathematics and Statistics.

Actuarial Science

Actuaries use quantitative skills to analyze and plan for future financial situations. About two-thirds of all actuaries are employed in the insurance industry. Actuaries assess risk and make sure that the insurance company charges a fair price to assume that risk. An increasing number of actuaries work in consulting where they advise companies specializing in the areas of financial services, risk management and health care.

Actuaries need broad-based business skills. Therefore students interested in a career as an actuary is strongly recommended to include the following as part of their coursework.

General Education Courses

- ECON 201 Microeconomics (4)
- ECON 202 Macroeconomics (4)
- ACCT 201 Principles of Accounting I (4)

Other Suggested Courses

- BUSA 200 (4) or a course which covers microcomputer use with emphasis on spreadsheets
- FIN 351 Risk Management and Insurance (4)

Major Electives

- FIN 335 Forecasting Methods
- MATH 425-426 Numerical Analysis I-II (8)
- MATH 440 Operations Research I (4)
- MATH 441 Operations Research II (4)

To become a certified actuary candidates must pass a series of examinations that are administered by the Society of Actuaries (SOA). Several examinations can be successfully completed while the student is still in college. In fact, some companies only hire candidates that have successfully completed the first two actuarial examinations. Below is a list of courses needed for each of the examinations.

Exam 100 Calculus and Linear Algebra

- MATH 125-127, 217, and 329

Exam 110 Probability and Statistics

- STAT 279 (or equivalent), 318, 418 and 419

Exam 120 Applied Statistical Methods

- STAT 411 and FIN 335

Exam 130 Operations Research

- MATH 440-441

Exam 135 Numerical Methods

- MATH 425-426

Quality Control

There is a great need today for a work force proficient in the principles and practices of quality control. In order to prepare for employment in this area a student may pursue a major in Statistics or in Production and Operations Management (POM) or a minor in Quality and Productivity (QPM). The POM and QPM programs are jointly administered by the Department of Business Administration and the Department of Mathematics and Statistics. These programs prepare students for the modern business world by offering a strong background in current management philosophy and quantitative methods. Most students complete internships in industry under faculty supervision.

Students pursuing any major who are interested in the area of quality control should consider preparing themselves for the ASQC (American Society for Quality Control) certification examinations. These examinations are nationally recognized and greatly enhance employment opportunities. Courses in the Department of Mathematics and Statistics that will help students prepare for these examinations are:

Certified Mechanical Inspector

- MATH 122 OR 125, STAT 279, 310

Certified Quality Engineer

- MATH 122 OR 125, STAT 279, 310-311, 318, 411-412

Certified Reliability Engineer

- MATH 125-127, STAT 279, 310-311, 318, 466

Certified Quality Auditor

- MATH 122 OR 125, STAT 279, 310

B.S. MAJOR - PRODUCTION AND OPERATIONS MANAGEMENT

112 Q.H.

REQUIRED COURSES (100-106 q.h.)**Accounting (12 Q.H.)**

- 201 Principles of Accounting I (4)
- 202 Principles of Accounting II (4)
- 440 Cost Accounting (4)

Business Administration (16 Q.H.)

- 310 Business Law I (4)
- 330 Production and Operations Management (4)
- 419 Fundamentals of Management Science (4)
- 498 Business Policies (4)

Economics (8 Q.H.)

- 201 Principles of Economics I (4)
- 202 Principles of Economics II (4)

Finance (8 Q.H.)

- 335 Forecasting Methods (4)
- 360 Fundamentals of Business Finance (4)

Mathematics (4-10 Q.H.)

- 122 Calculus for Non-Mathematics Majors (4) OR
- 125 Calculus I (5) AND
- 126 Calculus II (5)

Management (4 Q.H.)

- 370 Business Organization and Management (4)

Marketing (4 Q.H.)

- 315 Principles of Marketing (4)

Production Operation Management (20 Q.H.)

- 431 Production Planning and Control (4)
- 432 Management of Technological Changes (4)
- 433 Quality and Productivity Management (4)
- 439 Current Topics in POM (4)
- 440 Cases in POM (4)

Statistics (20 Q.H.)

- 279 Statistics (4)
- 310 Statistical Quality Control (4)
- 311 Industrial Design of Experiments (4)
- 411 Applied Statistics: Multiple Regression (4)
- 412 Applied Statistics: Analysis of Variance (4)

One of the following:

- BUSA 312 Business Computer Applications I (4) OR
- CS 231 FORTRAN for Engineering and Science (4) OR
- CS 234 Algorithms and Problem Solving I (4)

ELECTIVES (12 q.h.)

Select 12 credits of 300-400 level courses in Business, Computer Science, Mathematics and Statistics. Suggested courses:

BEOSA

- 333 Business Communication (4)

Business Administration

- 362 Management of Information Systems (4)
- 399 Internship Problems (4)
- 422 Computer Aided Modeling in MS/OR (4)
- 462 Management Decision Support Systems (4)
- 492 Advanced Topics in MIS (4)

Management

- 375 Management of Human Resources (4)
- 380 International Labor Relations (4)
- 467 Personnel Staffing & Evaluation (4)
- 490 Organization & Leadership Dynamics (4)

Mathematics

- 440 Operations Research I: Linear Programming (4)

Statistics

- 409 Design of Samples and Surveys (4)
- 488 Statistics Projects (2-4)
- 492 Practicum in Statistics (4-8)

B.A. MINOR - MATHEMATICS

(34 Q.H.)

REQUIRED COURSES (23 q.h.)**Mathematics (23 Q.H.)**

- 125-127 Calculus I-III (15)
- 217 Linear Algebra I (4)
- 218 Introduction to Discrete Mathematics (4)

ELECTIVES (11 q.h.)

Electives may be chosen from MATH or STAT courses numbered 300 or above or STAT 279. However no more than 4 Q.H. may be counted from STAT courses.

B.S. MINOR - MATHEMATICS

(37-41 Q.H.)

OPTION A - (SECONDARY TEACHING)

(41 Q.H.)

REQUIRED COURSES (41 q.h.)**Mathematics (27 Q.H.)**

- 125-127 Calculus I-III (15)
- 217 Linear Algebra I (4)
- 218 Introduction to Discrete Mathematics (4)
- 316 Foundations of Mathematics (4)

Mathematics Education (12 Q.H.)

- 320 Teaching Mathematics in the Secondary Schools (4)
- 322 Modern Geometry (4)
- 420 Teaching Mathematics in the Secondary Schools II (4)

Statistics (2 Q.H.)

- 219 Exploratory Data Analysis (2)

Note: For certification the Professional Education Sequence is also required.

OPTION B - (ELEMENTARY TEACHING)

(37 q.h.)

Minor suggested for elementary education majors. Minor is approved for Minnesota Middle School Licensure Program.

REQUIRED COURSES (29 q.h.)**Education (3 Q.H.)**

- 434 Remedial Mathematics Methods (3)

Mathematics (12 Q.H.)

- 115 Precalculus I (4)
- 217 Linear Algebra I (4)
- 218 Introduction to Discrete Mathematics (4)

Mathematics Education (8 Q.H.)

- 120 Mathematics for Elementary Teachers II (4)
- 201 Geometry for Elementary Teachers (4)

Statistics (6 Q.H.)

- 208 Fundamentals of Statistics (4)
- 219 Exploratory Data Analysis (2)

ELECTIVES (8 q.h.)

Electives must be selected in consultation with an advisor in the Department of Mathematics and Statistics. Possible electives include MATH 116, 121, 122, 125, 126, 316 and STAT 309. For additional courses students should consult their advisor.

CONCENTRATION - MATHEMATICS**(ELEMENTARY TEACHING)**

See Education Section for listing.

B.S. MINOR - MATHEMATICS**OPTION C - STATISTICS**

32-33 Q.H.

The B.S. minor in Statistics may be taken by either teaching or non-teaching degree candidates however this is not a certifiable minor for teaching.

REQUIRED COURSES (24-25 q.h.)**Mathematics (12-13 Q.H.)**

- 115 Precalculus I (4) OR
- 121 Introduction to Mathematics with Applications (4)
- 122 Calculus for Non-Mathematics Majors (4) OR
- 126 Calculus II (5)
- 123 Matrix Algebra and Linear Programming (4) OR
- 217 Linear Algebra I (4)

Statistics (12 Q.H.)

- STAT 208 Fundamentals of Statistics (4) OR
- STAT 279 Statistics (4) OR
- STAT 305 Biometry (4) OR
- BUSA 207 Statistics for Business and Economics I (4) OR
- PSY 231 Statistics I (4)

(Two of the following eight courses)

- STAT 403 Nonparametric Statistics (4)
- STAT 409 Design of Samples and Surveys (4)
- STAT 411 Applied Statistics: Multiple Regression (4)
- STAT 412 Applied Statistics: Analysis of Variance (4)
- STAT 415 Multivariate Analysis (4)
- STAT 466 Stochastic Processes (4)
- STAT 479 Statistical Computing (4)
- FIN 335 Forecasting Methods (4)

ELECTIVES (8 q.h.)

Select 8 credits from Group I and Group II (At most 4 credits from Group II)

Group I - Statistics

- STAT 318 Probability (4)
- STAT 403 Nonparametric Statistics* (4)
- STAT 409 Design of Samples and Surveys* (4)
- STAT 411 Applied Statistics: Multiple Regression* (4)
- STAT 412 Applied Statistics: Analysis of Variance* (4)
- STAT 415 Multivariate Analysis* (4)
- STAT 418 Mathematical Statistics I (4)
- STAT 419 Mathematical Statistics II (4)
- STAT 466 Stochastic Processes* (4)
- STAT 479 Statistical Computing* (4)
- FIN 335 Forecasting Methods* (4)

* Can be used as an Elective Course if not used as a Required Course

Group II - Application Areas**Biology**

- 310 Genetics (5)
- 312 General Ecology (5)

Marketing

- 316 Marketing Research (4)

Political Science

- 410 Political Analysis (4)

Psychology

- 308 Experimental Psychology (5)
- 350 Psychological Testing and Measurement (4)

Sociology

- 376 Introduction to Social Research (4)
- 476 Laboratory in Social Research (4)

Statistics**(Industry)**

- 310 Statistical Quality Control (4)
- 311 Industrial Design of Experiments (4)

(Other)

- 219 Exploratory Data Analysis (2)
- 309 Intermediate Statistics (4)
- 450 Epidemiology (4)
- 488 Statistics Projects (2-8)

B.S. MINOR - QUALITY AND PRODUCTIVITY MANAGEMENT**36 Q.H.****Statistics (16 q.h.)**

- STAT 208 Fundamentals of Statistics (4) OR
- STAT 279 Statistics (4) OR
- BUSA 207 Statistics for Business and Economics I (4)
- STAT 310 Statistical Quality Control (4)
- STAT 311 Industrial Design of Experiments (4)
- STAT 411 Applied Statistics: Multiple Regression (4) OR
- STAT 412 Applied Statistics: Analysis of Variance (4)

Production and Operations Management (20 q.h.)

- POM 330 Production/Operations Management (4)
- POM 431 Production and Planning Control (4)
- POM 432 Management of Technological Changes in Manufacturing Systems (4)
- POM 433 Quality and Productivity Management (4)
- POM 439 Current Topics in POM (4)

Physics

Pasteur Hall, Room 114, (507) 457-5260
Bloom (Chairperson), Battaglini, Bolon,
Hamerski, Otto, Shields, Tobin.

The Department of Physics provides quality undergraduate instruction to meet the needs and special interests of those students who wish to acquire an understanding and appreciation of physics. A knowledge of physics provides a basis for creative careers in many areas of engineering and technology. Physicists find employment in teaching, research and development, and management.

The B.S. Physics major provides three options. Option I is the traditional physics major, designed principally for those students who wish to pursue graduate study in physics and related fields. Option II is a major designed for those students who wish to work in the nuclear power industry; while Option III is for those who have interests in electronics engineering. Many students in Option III take additional course work in computer science.

The Physics department offers two teaching majors. The B.S. in Physical Science is a Minnesota certified teaching major for high school physics and chemistry. The B.S. in Middle School Science is a Minnesota certified teaching major for teaching science in grades 5 through 9.

The Physics department also offers minors in Physics, Aviation, and Electronics. The aviation minor in conjunction with majors in business management or computer science is certified by the FAA as an Airway

Science curriculum. The Airway Science curriculum is listed in the Special Academic Program section of this catalog.

Pass No Credit Courses

Any course not required for a major or minor may be taken on a pass/no credit basis.

Honors in Physics Program**Philosophy**

The physics faculty believe that experience in the process of doing science, that is, conducting research, is invaluable for students who wish to pursue advanced degrees in physics. It is important that students be familiar not only with the body of knowledge that physics encompasses but also with the procedures of scientific inquiry used to advance this body of knowledge.

Student Benefits

Students will benefit from the experience of planning, conducting and completing a coherent undergraduate research project. They will add to their skills and understanding in a particular area of physics and will practice communicating their results to their peers and the physics community. Successful completion of this project will enhance their

opportunities for admission to graduate school or for scientific employment following graduation.

Eligibility: To be accepted into the Honors in Physics program, a student must:

1. be a physics or physical science major
2. have completed 30 quarter hours of physics
3. have at least a 3.0 GPA both overall and within the major
4. identify a WSU faculty member who is willing to serve as a research advisor
5. apply to the physics department for admission to the program

Participation: Students who are accepted into the program will be expected to:

1. maintain a 3.0 GPA overall and within the major
2. make steady progress toward the goals of their research program
3. write an acceptable Honors Thesis describing the research
4. give a seminar describing the research to fellow Honors Students and faculty
5. present the results of their research study at an appropriate regional meeting

Completion: Students who successfully complete the Honors in Physics program will, upon graduation:

1. have their official transcripts stamped with the words "Graduated with Honors in Physics"
2. have the title of their honors thesis indicated on their transcript
3. have their graduation status (Honors in Physics) acknowledged on the graduation program and during the graduation ceremonies

B.S. MAJOR - OPTION I - PHYSICS

104 Q.H. (No Minor Required)

REQUIRED COURSES (85 q.h.)

Physics (61 q.h.)

- 221, 222, 223, College Physics I, II, III (15)
- 330 Electronics (5)
- 340 Modern Physics (5)
- 345 Thermodynamics (4)
- 350, 405 Mechanics I, II (8)
- 370 Optics (4)
- 430, 431 Electromagnetic Theory I, II (8)
- 435 Statistical Physics (4)
- 451 Quantum Mechanics (4)
- 460, 461 Advanced Laboratory I, II (4)

Mathematics (24 q.h.)

- *125, *126, *127 Calculus I, II, III (15)
 - 329 Multivariable Calculus (5)
 - 330 Differential Equations I (4)
- Note: Students not prepared to take Math 125 should take Math 120 or Math 115 and 116.

*Courses may be used to satisfy certain general education requirement.

ELECTIVES (19 q.h.)

Electives must be selected from the following. No more than 8 q.h. may be selected from Mathematics.

- Physics 332, 333, 400, 404, 420, 425, 440, 441, 490
- Mathematics 331, 425, 426, 432

Recommended Course Sequence - Option I

Because most of the upper division physics courses are offered on an alternate year basis, students should follow this physics course sequence:

	Fall	Winter	Spring
Freshman			Physics 221
Sophomore	Physics 222	Physics 223	Physics 340
Junior (95-96)	Physics 345 Physics 332*	Physics 350 Physics 420* Physics 425**	Physics 405 Physics 435 Physics 333* Physics 328*

Junior (96-97)	Physics 330 Physics 332* Physics 451 Physics 333* Physics 328*	Physics 430 Physics 420*	Physics 431 Physics 370
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Senior (95-96)	Physics 345	Physics 350 Physics 425** Physics 435 Physics 460	Physics 405 Physics 461
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Senior (96-97)	Physics 451	Physics 430 Physics 330 Physics 370	Physics 431 Physics 461 Physics 460
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(*Elective choice, offered yearly. **Elective choice, offered bi-yearly.)

B.S. MAJOR OPTION II - APPLIED NUCLEAR SCIENCE

85 Q.H. (No Minor Required)

Physics (37 q.h.)

- 221, 222, 223 College Physics I, II, III (15)
- 330 Electronics (5)
- 345 Thermodynamics (4)
- 399 Internship (8)
- 404 Nuclear Radiation Physics (5)

Chemistry (5 q.h.)

- * 212 Principles of Chemistry I (5)

Mathematics (10 q.h.)

- * 125, *126 Calculus I, II (10)

Note: Students not prepared to take Math 125 should take Math 120 or Math 115 and 116.

* Courses may be used to satisfy certain general education requirement.

Electives (33 q.h.)

Physics

- 400 Seminars (may be repeated for credit)
- Nuclear Instrumentation & Control (4)
- Reactor Theory I (3)
- Reactor Theory II (3)
- Reactor Theory III (3)
- 440 Math Methods in Physics I (4)
- 441 Math Methods in Physics II (4)

Engineering

- 316 Properties of Materials (4)
- 346 Thermodynamics II (4)
- 375 Fluid Mechanics (4)
- 376 Heat and Mass Transfer (4)

B.S. MAJOR OPTION III-ELECTRONICS

108 Q.H. (No Minor Required)

REQUIRED COURSES (98 q.h.)

Physics (60 q.h.)

- 221, 222, 223, College Physics I, II, III (15)
- 328 Electrical Circuits I (5)
- 330 Electronics (5)
- 332 Computer Organization (5)
- 333 Microprocessor Electronics (5)
- 340 Modern Physics (5)
- 420 Analog and Digital Control (4)
- 425 Physics of Semiconductors (4)
- 430 Electromagnetic Theory I (4)
- 431 Electromagnetic Theory II (4)
- 460, 461 Advanced Laboratory I, II (4)

Chemistry (10 q.h.)

- * 212, *213 Principles of Chemistry I, II (10)

Mathematics (24 q.h.)

- * 125, *126, *127 Calculus I, II, III (15)
- 329 Multivariable Calculus (5)
- 330 Differential Equations I (4)

Computer Science (4 q.h.)

- 231 Intro to Fortran (4)

*Courses may be used to satisfy certain general education requirement.

ELECTIVES (10 q.h.)

Electives must be chosen from the following: Physics 329, 345, 350, 370, 399 (Internship), 404, 405, 435, 440, 451, 490

B.S. MAJOR - MIDDLE SCHOOL SCIENCE (TEACHING)

78-81 Q.H. (No Minor Required)

REQUIRED COURSES (78-81 q.h.)**Biology (24 q.h.)**

- * 117 Human Biology (4)
- * 201 Anatomy (5)
- * 241, *242, *243 Principles of Biology I, II, III (15)

Geology/Earth Science (24 q.h.)

- * 101, *102 Introduction to Geology I, II (8)
- * 200 Oceanography (4)
- * 220 Astronomy I (4)
- * 230 Meteorology (4)
- Geology Elective (4)

Physics (16-19 q.h.)

- * 201, 202, 203 General Physics I, II, III (12)
- 311 Science Teaching Methods (4)

OR

- * 221, 222, 223 College Physics I, II, III (15)
- 311 Science Teaching Methods (4)

Chemistry (14 q.h.)

- * 212, *213 Principles of Chemistry I, II (10)
- 340 Organic Chemistry Survey (4)

Note: Students who have not had the equivalent of Math 115 and 116 in high school will be required to take Math 115 and 116 (or Math 120) before enrolling in Physics 201.

* Courses may be used to satisfy certain general education requirement.

B.S. MAJOR - PHYSICAL SCIENCE (TEACHING)

92 Q.H. (No Minor Required)

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

Students majoring in Physical Science (Teaching) must have both a 2.75 overall GPA and 2.5 GPA or higher in the major.

Chemistry (29 q.h.)

- 212, 213, 214 Principles of Chemistry I, II, III (15)
- 350 Organic Chemistry I (5)

PLUS 9 Q.H. of electives from the chemistry electives below OR

- 212, 213, 214 Principles of Chemistry I, II, III (15)
- 340 Organic Chemistry Survey (4) PLUS
- 360 Chemical Literature (1) OR
- 427 Topics in Instrumental Chemistry (1)

PLUS 9 q.h. of electives from the chemistry electives below.

Mathematics (15 q.h.)

- * 125, *126, *127 Calculus I,II,III (15)

Note: Students not prepared to take Math 125 should take Math 120 or Math 115 and 116

Physics (33 q.h.)

- 201, 202, 203 General Physics I,II,III (12)
- 340 Modern Physics (5)
- 311 Science Teaching Methods (4)

PLUS 12 q.h. electives from physics electives below OR

- 221, 222, 223 College Physics I,II,III (15)
- 311 Science Teaching Methods (4)
- 340 Modern Physics (5)

PLUS 9 q.h. of electives from physics electives below.**ELECTIVES (15 q.h.)**

Choose electives in chemistry or physics

Chemistry

- 351, 360, 361, 400, 412, 413, 425, 427, 431, 450, 465

Physics

- 302, 328, 329, 330, 332, 333, 345, 350, 370, 400, 405, 420, 425, 430, 431, 435, 451

OR Engineering 205, 225, 316, 345, 350, 360

* Courses may be used to satisfy certain general education requirement.

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. Other requirements for Wisconsin Certification:

- Biology 104 (4)
- Geology Elective (4)
- Biological Science Elective (4)

B.S. MINOR PHYSICS

50 Q.H.

REQUIRED COURSES (30 q.h.)**Physics (12-15 q.h.)**

- 201, 202, 203 General Physics I,II,III (12) OR
- 221, 222, 223 College Physics I, II, III (15)

Mathematics (15 q.h.)

- 125, 126, 127 Calculus I, II, III (15)

Note: Students not prepared to take Math 225 should take Math 120 or Math 115 and 116.

ELECTIVES (20-23 q.h.)

Electives must be chosen from the following: Physics 328, 329, 330, 332, 333, 340, 345, 350, 370, 400, 404, 405, 420, 425, 430, 431, 435, 451, 460, 461

B.S. MINOR - ELECTRONICS

50 Q.H.

REQUIRED COURSES (42-45 q.h.)**Physics (27-30 q.h.)**

- 201, 202, 203 General Physics I, II, III (12) OR
- 221, 222, 223 College Physics I, II, III (15)
- 330 Electronics (5)
- 332 Computer Organization (5)
- 333 Microprocessor Electronics (5)

Mathematics (15 q.h.)

- 125, 126, 127 Calculus I, II, III (15)

Note: Students not prepared to take Math 125 should take Math 120 or Math 115 and 116.

ELECTIVES (5-8 q.h.)

Electives must be chosen from the following: Physics 328, 329, 399 (Internship), 420, 425, 430, 460, 461, 490

B.S. MINOR - AIRWAY SCIENCE/AVIATION

36 Q.H.

REQUIRED COURSES (36 q.h.)**Physics (12 q.h.)**

- 201, 202, 203 General Physics I, II, III (12)

Mathematics (4 q.h.)

- 122 Calculus for Non-Mathematics Majors (4)

Note: Students not prepared to take Math 122 should take Math 115 or 121.

Management and Marketing (4 q.h.)

- 310 Business Law

Aviation (16 q.h.)

- 200 Fundamentals of Aviation (6)
- 383 Air Traffic Control (4)
- 387 Flight Safety (4)
- 388 Legislative and Legal Aspect of Aviation (2)

Note: For a complete listing of the FAA approved Airway Science program, see the Special Academic Programs section of this catalog.

Interdisciplinary Programs

Individualized Study Major

Somsen Hall, Room 109, (507) 457-5080
Erickson (Chairperson), Christensen

This program allows a student to pursue individualized academic interests and personal/professional goals within the framework of an academically sound Bachelor of Arts degree program. It is an excellent alternative for the mature student who wants to build on past experience and design his or her own degree program for current or future needs. It offers the student a great deal of flexibility and allows for intellectual growth in a variety of academic areas.

Individualized majors are advised by the Adult, Continuing Education and Extension Department faculty. When declaring the major, students must submit a statement of their goals and objectives for the individualized major which will be reviewed by the ACEED advisor and retained in the student's file.

B.A. MAJOR

76 upper division (300 and 400 level) Q.H.

It is expected that all course prerequisites will be completed. Students may declare one minor within the requirements of this major. A maximum of 12 credits applying to the major may be taken on a P/NC basis. All other Winona State University policies apply.

Requirements:

Students will complete the standard WSU general education program, 76 upper division credits, electives to reach a minimum of 192 credits, and will have on file a statement of goals and objectives for the major.

B.A. MAJOR - INDIVIDUALIZED STUDY: AVIATION MAINTENANCE MANAGEMENT OPTION

(For students who have completed the aviation maintenance program at Red Wing/Winona Technical College.)

Pasteur Hall, Room 114D (507)457-5260
Dr. George Bolon (advisor)

This option will prepare students to manage systems and technicians within the aviation maintenance industry. Graduates with this option will meet the needs of air carriers, the federal government, and commercial aviation. **OPEN ONLY TO STUDENTS WHO HAVE COMPLETED THE AVIATION MAINTENANCE PROGRAM AT**

RED WING/WINONA TECHNICAL COLLEGE. SIXTY (60) CREDITS WILL TRANSFER FROM THE TECHNICAL COLLEGE APPLICABLE ONLY TOWARD THIS OPTION.

There are five or six aspects to this degree program (1) general education, (2) management core, (3) advanced aviation courses, (4) computer understanding and application, (5) upper division electives and (6) additional requirements for certification eligibility.

1. General Education

Basic Skills (14-18 crs.)
Humanities (12 crs.)
Natural Science (12 crs.)
Math 122
Physics 201, 202
Social Science (12 crs.)
Psych 210
Econ 201
Elective

Different Culture (8 crs.)

Allied Studies (6 crs.)

2. Management (20 crs.)

Bus. Admin. 310 Business Law I
Management 370 Business Org. & Mgt.
Management 375 Human Resource Mgt.
Management 467 Pers. Staffing & Evaluation
Management 490 Org. & Leadership Dynamics

3. Aviation (16 crs.)

Physics 200 Fundamentals of Aviation
Physics 383 Air Traffic Control
Physics 387 Flight Safety
Physics 388 Legislative and Legal Aspects

4. Computer Application (12 crs.)

C.S. 130 or B.A. 312
Any C.S. Electives and/or Bus. Admin. 200

5. Upper Division Electives (22-26 crs.)

6. Additional Requirements for Certification Eligibility (13 crs.)

Stat 208 or Bus. Admin. 207
Physics 203
Chem 212

*Non-eligible certification Program Variable Total 192-202 credits of which 60 credits transfer from WTC, 56 credits Upper Division WSU. Eligible Certification Program Variable Total 203-215 credits of which 60 credits transfer from WTC, 56 credits Upper Division WSU & 13 credits additional requirements.

Public Administration

Minne Hall, Room 120, (507) 457-5500

The Bachelor of Science major in Public Administration is designed to prepare the student for a career in administration at the local, state, and national levels of government. In addition, this major will provide the student with an academic foundation to do further work at the graduate level in the field of public administration, law school, and public policy. See the Department of Political Science for additional information and advising.

Prerequisites:

- * 210 General Psychology (4)
- * Course may be used to satisfy a general education requirement.

B.S. MAJOR - PUBLIC ADMINISTRATION

100-116 Q.H. (No Minor Required)

OPTION A - GENERAL PUBLIC ADMINISTRATION

100 Q.H.

CORE REQUIREMENTS (52-64 q.h.)

Accounting (4 q.h.)

201 Financial Principles of Accounting I (4)

Economics and Finance (8 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)

Political Science (36-48 q.h.)

- 220 American Government and Politics (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 280 Introduction to Political Research (4)
- 320 Constitutional Law (4)
- 410 Political Analysis (4)
- 416 Internship (4-16)
- 420 Administrative Law (4)
- 426 Public Budgeting (4)

Psychology (4)

- 425 Organizational Psychology (4)

OPTION REQUIREMENTS (36-48 q.h.)**Prerequisite:** *150 Human Society (4)

* Course may be used to satisfy a general education requirement.

A minimum of 8 q.h. is required from each of the following categories.

Economics and Finance (8 q.h. minimum)

- 302 Intermediate Microeconomics Analysis (4)
- 303 Intermediate Macroeconomics Analysis (4)
- 320 Business-Government Relations (4)
- 400 Public Finance: Taxation (4)
- 404 International Trade (4)
- 415 Economic Development (4)
- 420 Labor Economics (4)
- 425 Managerial Economics (4)
- 444 Public Finance: Expenditures and the Deficit (4)

Political Science (8 q.h. minimum)

- 315 American Political Thought (4)
- 322 American Political Parties and Pressure Groups (4)
- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 340 Environmental Policy Analysis (4)
- 360 Congress and the Policy Process (4)
- 421 The American Presidency (4)
- 425 Public Policy Analysis (4)
- 428 Public Policy Making (4)
- 429 Public Policy Implementation (4)
- 430 Public Personnel Administration (4)
- 499 Seminar in Political Science (4) (when applicable)

Sociology (8 q.h. minimum)

- 205 Social Interaction (4)
- 421 Urban Sociology (4)
- 425 Collective Behavior & Social Movements (4)
- 427 Social Change (4)
- 428 Small Town & Non-Metro Regions (4)
- 430 Political Sociology (4)
- 431 Social Class & Power (4)
- 438 Organizational Change (4)
- 488 Health & Human Services Organizations (4)

Accounting, Business, Finance (8 q.h. minimum)

See prerequisites for specific courses.

- 203 Acctg.-Managerial Accounting (4)
- 350 Acctg.-Accounting Systems (4)
- 310 BusAd.-Business Law I (4)
- 312 BusAd.-Business Computer Applications I (4)
- 340 BusAd.-Microcomputers in Business (4)
- 456 BusAd.-Labor Law & Legislation (4)
- 360 Fin.-Fundamentals of Business Finance (4)
- 362 Management Information Systems (4)
- 370 Business Organization and Management (4)
- 375 Mgmt.-Management of Human Resources (4)
- 380 Mgmt.-International Labor Relations (4)
- 462 Management Decision Support Systems (4)
- 463 Management Development (4)
- 465 Mgmt.-Collective Bargaining (4)

ELECTIVES (4-16 q.h.)

To complete the total credit hour requirement for the major, students may use any of the courses listed above. Additionally, the following communication courses may be used to meet the total credit hour requirement.

Communication

- 371 Discussion and Small Group Dynamics (4)
- 287 Interpersonal Speech Communication (4)

See advisor for other courses that may apply.

OPTION B - BUSINESS ADMINISTRATION

104-116 Q.H.

CORE REQUIREMENTS (52-64 q.h.)**Accounting (4 q.h.)**

- 201 Financial Principles of Accounting I (4)

Economics and Finance (8 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)

Political Science (36-48 q.h.)

- 220 American Government and Politics (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 280 Introduction to Political Research (4)
- 320 Constitutional Law (4)
- 410 Political Analysis (4)
- 416 Internship (4-16)
- 420 Administrative Law (4)
- 426 Public Budgeting (4)

Psychology (4)

- 425 Organizational Psychology (4)

OPTION REQUIREMENTS (52 q.h.)**Accounting (4 q.h.)**

- 202 Financial Principles of Accounting II (4)

Economics and Finance (12 q.h.)

- 320 Business-Government Relations (4)
- 420 Labor Economics (4)
- 425 Managerial Economics (4)

Business Administration and Marketing (4 q.h.)

- 310 Business Law (4)

OTHER (16 q.h.)

Select 16 q.h. from the following:

Accounting

- 345 Governmental and Other Not-For-Profit Accounting (4)

Economics and Finance

- 302 Intermediate Microeconomics Analysis (4)
- 303 Intermediate Macroeconomics Analysis (4)
- 360 Fundamentals of Business Finance (4)
- 400 Public Finance: Taxation (4)
- 404 International Trade
- 410 Regional Economics (4)
- 415 Economic Development (4)
- 444 Public Finance: Expenditures and the Deficit (4)

Business Administration and Marketing

- 311 Business Law II (4)
- 312 Business Computer Applications I (4)
- 340 Microcomputers in Business (4)
- 315 Principles of Marketing (4)
- 362 Management Information System (4)
- 370 Business Organization and Management (4)
- 375 Management of Human Resources (4)
- 419 Fundamentals of Management Science (4)
- 456 Labor Law & Legislation (4)
- 461 Personnel Compensation (4)
- 462 Management Decision Support Systems (4)
- 465 Collective Bargaining (4)
- 475 Problems in Management of Human Resources (4)
- 490 Organization and Leadership Dynamics (4)

ELECTIVES (16 q.h.)

- Political Science electives (8 q.h. minimum)
- Sociology electives (8 q.h. minimum)
- For courses that will apply see course listings under Option A.

OPTION C - HEALTH EDUCATION

103-115 Q.H.

CORE REQUIREMENTS (52-64 q.h.)

Accounting (4 q.h.)

- 201 Financial Principles of Accounting I (4)

Economics and Finance (8 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)

Political Science (36-48 q.h.)

- 220 American Government and Politics (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 280 Introduction to Political Research (4)
- 320 Constitutional Law (4)
- 410 Political Analysis (4)
- 416 Internship (4-16)
- 420 Administrative Law (4)
- 426 Public Budgeting (4)

Psychology (4)

- 425 Organizational Psychology (4)

OPTION REQUIREMENTS (51 q.h.)

HPER (23 q.h.)

- 127 Problems in Health (4)
- 214 Standard First Aid (3)
- 429 Public Health (4)

Choose 12 q.h. from the following:

- 125 Personal Health for Majors and Minors (5)
- 225 Curriculum and Methods of Health Education (4)
- 325 Organization & Administration of Health Education (3)
- 428 Health Science Laboratory Techniques (3)
- 432 Health Seminar (1)

ELECTIVES (28 q.h.)

A minimum of:

- Political Science 8 q.h.
- Business Administration OR Economics 4 q.h.
- Sociology 4 q.h.

For courses that will apply, see Option A.

**OPTION D - RECREATION
ADMINISTRATION**

103-115 Q.H.

CORE REQUIREMENTS (52-64 q.h.)

Accounting (4 q.h.)

- 201 Financial Principles of Accounting I (4)

Economics and Finance (8 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)

Political Science (36-48 q.h.)

- 220 American Government and Politics (4)
- 221 State and Local Government (4)
- 228 Public Administration (4)
- 280 Introduction to Political Research (4)
- 320 Constitutional Law (4)
- 410 Political Analysis (4)
- 416 Internship (4-16)
- 420 Administrative Law (4)
- 426 Public Budgeting (4)

Psychology (4)

- 425 Organizational Psychology (4)

OPTION REQUIREMENTS (51 q.h.)

HPER (22 q.h.)

- 214 Standard First Aid (3)
- 229 Intro to Principles & Philosophy of Recreation and Leisure (3)
- 326 Organization & Administration of Recreation and Leisure (3)
- 350 Legal and Financial Aspects of Recreation (3)
- 414 Recreational Leadership (3)
- 426 Planning & Maintenance of Parks and Recreational Facilities (4)
- 465 Therapeutic Recreation and Services (3)

BEOSA (3 q.h.)

- 205 Health/Recreation Office Management (3)

ELECTIVES (26 q.h.)

A minimum of:

- Political Science 8 q.h.
- Business Administration OR Economics-4 q.h.
- Sociology 4 q.h.

For courses that will apply, see course listings under Option A.

B.S. MINOR - PUBLIC ADMINISTRATION

44-58 Q.H.

REQUIRED COURSES (32-44 q.h.)

Political Science (12 q.h.)

- 220 American National Government (4)
- 221 State and Local Government (4)
- 228 Intro to Public Administration (4)

Select 4 q.h. from the following:

- 280 Introduction to Political Research
- 320 Constitutional Law (4)
- 324 Urban Planning (4)
- 329 Intergovernmental Relations (4)
- 340 Environmental Policy Analysis (4)
- 410 Political Analysis (4)
- 430 Administrative Law (4)
- 499 Seminar (when applicable) (1-4)

Internship (4-16 q.h.)

- 416 Internship in Political Science

Psychology (4 q.h.)

- Prerequisite: *210 General Psychology
- 425 Organizational Psychology (4)

Sociology (8 q.h.)

- Prerequisite: *150 Human Society

- 205 Social Interaction (4)
- 350 Population Analysis (4)
- 421 Urban Sociology (4)
- 438 Organizational Change (4)
- 488 Health and Human Services Organizations (4)
- 430 Political Sociology (4)
- 437 Sociology of Large Organizations (4)

* Course may be used to satisfy certain general education requirement.

Business (12-16 q.h.)

The student may choose either Option 1 or Option 2.

Option 1 Business Administration - (12 q.h.)

- 201 Acctg.-Financial Principles of Accounting I (4)
- 350 Acctg.-Accounting Systems (4)
- 340 Acctg.-Governmental and Other Not-for-Profit Accounting (4)
- 375 Mgmt.-Management of Human Resources (4) OR
- 465 Mgmt.-Collective Bargaining (4)

Select 4 q.h. from the following:

- 203 Acctg.-Managerial Accounting (4)
- 310 BusAd.-Business Law I (4)
- 312 BusAd.-Business Computer Applications I (4)
- 340 BusAd.-Microcomputers in Business (4)
- 456 BusAd.-Labor Law & Legislation (4)

Option 2 Economics (16 q.h.)

- 201 Principles of Microeconomics (4)
- 202 Principles of Macroeconomics (4)
- 375 Mgmt.-Management of Human Resources (4) OR
- 465 Mgmt.-Collective Bargaining (4)

Select one course from the following:

- 303 Econ.-Intermediate Macroeconomics Analysis (4)
- 320 Econ.-Business-Government Relations (4)
- 400 Econ.-Public Finance: Taxation (4)
- 420 Econ.-Labor Economics (4)
- 425 Econ.-Managerial Economics (4)
- 456 BusAd.-Labor Law & Legislation (4)
- 465 Mgmt.-Collective Bargaining (4)

Social Science/History

Minne Hall, Room 212, (507) 457-5400
Alexander Yard, Program Director

The Social Science/History interdisciplinary programs are designed for prospective teachers. WSU established the major program to meet secondary social studies teacher certification requirements for the state of Minnesota.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

The minor program listed below is available only to students training as elementary-level teachers who wish to pursue a social studies minor.

Pass/No Credit Courses

Courses taken at either W.S.U. or another institution on a Pass/No Credit basis will not count toward fulfillment of the major or minor program requirements.

Grade and G.P.A. Requirements

Course work must receive a grade of "C" or better to count toward fulfillment of the major or minor program requirements. Students must achieve a G.P.A. in program courses of 2.75 or better to successfully complete the major or the minor.

B.S. MAJOR - SOCIAL SCIENCE/ HISTORY (TEACHING)

(Secondary Social Studies Teaching)
120 Q.H.

Note: Teaching majors must take all courses in the Professional Education sequence in addition to courses in the content area. Refer to these requirements in the Effective Educator Handbook or the Education Department section of this catalog.

REQUIRED COURSES (100 q.h.)**Economics (12 q.h.)**

- *201 Principles of Microeconomics (4)
- *202 Principles of Macroeconomics (4)
- *203 Principles of Economics III (4)

Geography (16 q.h.)

- *110 World Regional Geography (4)
- 211 Economic Geography (4)
- *212 Physical Geography (4)
- *213 Cultural Geography (4)

History (24 q.h.)

- *120 Western Civilization to 1500 (4)
- *121 Western Civilization 1500-1815 (4)
- *122 Western Civilization 1815-Present (4)
- *230 American History to 1828 (4)
- *231 American History 1828-1900 (4)
- *232 American History 1900-Present (4)

Political Science (12 q.h.)

- *103 Introduction to Political Science (4)
- *130 Introduction to International Relations (4)
- *220 American Government and Politics (4)

Psychology (4-8 q.h.)

- *210 General Psychology (4)
- 325 Social Psychology (4) OR
- 205 SOC Social Interaction (4)

Sociology (8-12 q.h.)

- *150 Human Society (4)
- 205 Social Interaction (4) OR
- 325 PSY Social Psychology (4)
- 340 Social-Cultural Anthropology (4)

*Course may be used to satisfy certain general education requirement.

Research Methods (8 q.h.)

History 298 Historical Methods (4)

Select one of the following:

- Political Science 280 Introduction to Political Research (4) OR
- Psychology 308 Experimental Psychology (4) OR
- Sociology 376 Introduction to Sociological Research (4)

Different Culture (8 q.h.)

Note: Students in the program must take a "Different Culture" History course and a Social Science course focused on the same culture and region. Students can use these courses to fulfill both program and General Education/Different Culture requirements. Complete two courses in one of the following areas:

ASIA

- History 123 Eastern Civilization (4) AND
- Geography 223 Geography of the Orient (4)

LATIN AMERICA

- History 165 Latin American History (4)
- AND one of the following:
- Geography 225 Geography of Latin America (4)
- Political Science 124 Politics and Society in Latin America (4)

AFRICA

- History 170 African Civilization (4)
- AND one of the following:
- Geography 224 Geography of Africa (4)
- Political Science 126 Politics and Society in Sub-Saharan Africa (4)

Education (4 q.h.)

- 331 Teaching Social Studies in Secondary Schools

ELECTIVES (20 q.h.)

Students will complete a concentration of 20 q.h. at the 300 or 400 levels in one of the following disciplines: Economics, Geography, History, Political Science, Psychology or Sociology. The course selections are subject to program director approval.

B.S. MINOR - SOCIAL STUDIES FOR ELEMENTARY TEACHERS

Note: This minor program is open only to students enrolled in the Elementary Education major program that the Department of Education offers.

40 Q.H.

REQUIRED COURSES (36 q.h.)**Economics (4 q.h.)**

Select one of the following:

- 102 Introduction to Economics (4) OR
- 201 Principles of Microeconomics (4) OR
- 202 Principles of Macroeconomics (4)

Geography (8 q.h.)

- 110 World Regional Geography (4)
- 213 Cultural Geography (4)

History (12 q.h.)

Select one of the following, three-course sequences:

- 120-121-122 Western Civilization (4 q.h. each) OR

230-231-232 American History (4 q.h. each)

Political Science (4 q.h.)

220 American Government and Politics (4)

Psychology (4 q.h.)

210 General Psychology (4)

Sociology (4 q.h.)

150 Human Society (4)

ELECTIVES (4 q.h.)

Select 4 quarter hours of course work in Economics, Geography, Political Science, Sociology, or Psychology.

Special Academic Programs

Two-Year Programs

In addition to baccalaureate and graduate degree programs, Winona State University offers a variety of short-term programs including one-year non-degree programs, two-year associate degree programs and pre-professional 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 Fifth Year post-baccalaureate program in teacher education which is designed for classroom teachers not planning to enter a master's degree program.

GENERAL ASSOCIATE IN ARTS CURRICULUM

96 Q.H.

All candidates for the General Associate in Arts must complete the following:

I. Basic Skills

- A. Written Communication (8 Q.H.)
 - English 110
 - English 115
- B. Oral Communication (0-4 Q.H.)
 - CTA 191 or Exam
- C. Mathematics (0-4 Q.H.)
 - *Mathematics 111 Contemporary Mathematics (4) or
 - Mathematics 113 Intermediate Algebra (4) or successful completion of a written examination or successful completion of a 100** level General Education mathematics (MATH) course. Note: Credits for MATH 113 are non-degree credits and will not count towards total credits for graduation.
- D. Physical Education Activities (2 Q.H.)

II. Humanities (12 Q.H.-2 depts.)**III. Natural Science (12 Q.H.-2 depts.)**

(one lab course required)

IV. Social Science (12 Q.H.-2 depts.)**V. Different Culture (8 Q.H.)****VI. Allied Studies (6 Q.H.)**

In addition to the General Education requirements, students must select electives to complete the 96 credits required for the degree.

F.A.A. AIRWAY SCIENCE CERTIFICATION PROGRAM

203-211 Q.H.

Pasteur Hall, Room 114A (507) 457-5264

Dr. George Bolon, Advisor

The Federal Aviation Administration (FAA) along with the aviation industry has recognized the need for a cadre of well-qualified men and women to support the national air-space system of the future. Therefore, the FAA has initiated the Airway Science curriculum as a method of preparing the next generation of aviation technicians, managers, and aircraft crew members.

Winona State University has been approved by the FAA as an Airway Science University and presently offers the Airway Science Computer Science and the Airway Science Management Curriculums. The students in these curriculums will receive a B.S. in Computer Science with a Physics/Airway Science Aviation minor or a B.S. in Business Management with a Physics/Airway Science/Aviation minor. The transcript will indicate that the student has fulfilled the Airway Science Curriculum.

AIRWAY SCIENCE CORE

FAA Airway Science Curriculum requirements are subject to change by the Federal Aviation Administration. Therefore this catalog printing may not show the latest requirements-See Airway Science faculty advisor.

GENERAL STUDIES (44 q.h.)**Required Courses (24 q.h.)****English (8 q.h.)**

110, 115 Freshman Composition I, II (8)

Psychology (4 q.h.)

210 General Psychology (4)

Communication Studies (4 q.h.)

191 Introduction to Speech Communication (4)

Humanities (12 q.h.)

Electives from the approved General Education courses for Humanities

History (4 q.h.)

+122 Western Civilization: 1815 to Present (4)

Electives (16 q.h.)**Economics and Finance (12 q.h.)**

- +201 Principles of Microeconomics (4)
- +202 Principles of Macroeconomics (4)
- +203 Principles of Economics III (4)

Political Science (4 q.h.)

+103 Introduction to Political Science (4)

Note: The WSU General Education Different Culture requirement of 8 q.h. must also be met.

MATH, SCIENCE, TECHNICAL CORE

(37 q.h.)

Required Courses (16 q.h.)**Mathematics (4 q.h.)**

122 Calculus for Non-Mathematics Majors (4)

Note: Computer science majors are required to take Math 218, 125, and 126.

Physics (12 q.h.)

201, 202, 203 General Physics I, II, III (12)

Electives (21 q.h.)**Chemistry (5 q.h.)**

+212 General Inorganic Chemistry (5)

Geology (4 q.h.)

+230 Meteorology (4)

Geography (4 q.h.)

+212 Physical Geography (4)

Mathematics (8 q.h.)

See advisor for specific recommendations.

MANAGEMENT CORE (24 Q.H.)**Required Courses (24 q.h.)****Management and Marketing (24 q.h.)**

207 Statistics for Business and Economics (4)

310 Business Law (4)

370 Business Organization and Management (4)

375 Management of Human Resources (4)

467 Personnel Staffing and Evaluation (4)

490 Organization and Leadership Dynamics (4)

COMPUTER SCIENCE CORE (12 q.h.)**Required courses (4 q.h.)****Computer Science (4 q.h.)**

130 Introduction to BASIC Programming (4) OR

Management and Marketing (4 q.h.)

312 Business Computer Applications I (4)

Electives (8 q.h.)**Computer Science (4-8 q.h.)**

+210 Computers in Society (4)

+312 Introduction to Microcomputers (4) OR

Management and Marketing (4-0 q.h.)

+200 Microcomputers in Business (4)

Note: Computer Science majors will take C.S. 150 and 234 instead of 130 and 210.

AVIATION CORE (16 q.h.)**Aviation (16 q.h.)**

200 Fundamentals of Aviation (6)

383 Air Traffic Control (4)

387 Flight Safety (4)

388 Legislative and Legal Aspect of Aviation (2)

AIRWAY COMPUTER SCIENCE OPTION¹**Computer Science (60 q.h.)****Required Courses (50 q.h.)**

155 Introduction to Computer Science Tools (2)

250 Algorithms and Problem Solving (4)

312 Microcomputer Organization (4)

340, 341 Data Structures I, II (8)

351 Introduction to Assembler & Architecture (4)

370 System Analysis (4) OR

375 Software Engineering (4)

376 Operating Systems (4)

412 Networking/Telecommunication (4) OR

450 Compilers (4)

415 Higher Level Languages (4)

420 Computer Architecture (4)

425 Numerical Analysis I (4)

466 Topics: General Computing Applications (4) OR

485 Database System Design (4)

Electives (10 q.h.)

301 Discrete Structures (4)

385 Applied Data Base (4)

413 Advanced Networking (4)

426 Numerical Analysis II (4)

430 Computer Graphics (4)

445 Artificial Intelligence (4)

448 Expert Systems (4)

AIRWAY SCIENCE MANAGEMENT OPTION (60 q.h.)**Required Courses (33 q.h.)****Sociology and Social Work (4 q.h.)**

150 Human Society

Psychology (4 q.h.)

305 Theories of Personality (4)

Communication Studies (4 q.h.)

387 Advanced Interpersonal Speech (4)

Management and Marketing (12 q.h.)

419 Fundamentals of Management Science (4)

465 Collective Bargaining (4)

498 Business Policies (4)

Aviation (9 q.h.)

381 Corporate Operations (3)

382 Airline Operations (3)

384 Airport Operations (3)

Electives (27 q.h.)**Communication Studies (8 q.h.)**

+284 Communication Theory (4)

+486 Organization Communication (4)

Management and Marketing (19 q.h.)

See Advisors for proper selection of electives.

+ Indicates courses that are preferred electives and may be substituted with other approved courses. See the Aviation advisors for specific recommendations.

University Honors Program

Phelps Hall, Room 116, (507) 457-5435
Kristi Lane, Director

The Honors Program provides its students with a liberal education tailored to the abilities and interests of talented students. It is a program to which the high potential student may apply as an entering freshman, as a transfer student, or as an enrolled student. The Honors Program offers courses that have a multidisciplinary focus within the framework of humanities, natural sciences, and social sciences. The Program keeps class size small in order to facilitate learning by participation, discussion, and integration of knowledge from multiple sources. We are a community of faculty and students seeking to develop the potential of the Honors student. Successful completion of the Honors Program gives graduates enhanced prospects for successful career placement and graduate school admission.

ADMISSIONS ENTERING FRESHMEN

Freshmen may apply for admission to the program if they meet two of these three criteria:

1. High school GPA of 3.5 or above
2. High school rank of 90th percentile or above
3. ACT composite score of 26 or above

A freshman may also apply for admission, if he or she meets one of these two criteria:

1. ACT composite score of 29 or above
2. ACT English score of 26 or above

ENROLLED UPPERCLASSMEN

Upperclassmen may apply for admission to the program, if they meet one of these three criteria:

1. College GPA of 3.25 or above
2. ACT composite score of 29 or above
3. ACT English score of 26 or above

TRANSFER STUDENTS

Transfer students may apply for admission, if they meet one of the criteria for enrolled upperclassmen.

REQUIREMENTS

(28 Q.H. Minimum)

Students should complete 4 of the following 6 courses. Students formally accepted for admission to the University Honors Program will be expected to complete at least one of these courses in each of their first two years.

CORE COURSES (12 Q.H.)

Students should complete each of these courses:

- 201 Thought and Culture
- 202 Classics in Social Thought
- 203 Great Ideas in the History of Science and Mathematics

SPECIAL SEMINARS (4 Q.H.)

Complete at least one of these seminars:

- 251 Seminar in Humanities
- 252 Seminar in Social Thought
- 253 Seminar in the History of Science and Mathematics

"H" COURSES (6-8 Q.H.)

Complete at least two "H" courses:

Students should take designated "H" courses and "H" contract courses to extend an interest into a field related to their own or to intensify an interest within their own field. "H" courses may include those designated by individual departments as well as the contract courses.

SENIOR PROJECT (4 Q.H.)

Complete at least one independent study course:

The students should take an independent study course to complete the senior project with a written paper and an oral presentation. Further information about the Senior Project is available from the Honors Office.

RECOGNITION

A graduating student who completes the program with an overall college GPA of 3.75 or above is graduated from the University "Summo Cum Honore" instead of "Summa Cum Laude." A student completing the program with a GPA of 3.50 to 3.74 is graduated "Magno Cum Honore" instead of "Magna Cum Laude." A student with a GPA of 3.25 to 3.49 is graduated, "Cum Honore" instead of "Cum Laude."

Course Descriptions

Students may use courses in the Honors Program to satisfy some requirements for the General Education Program. Honors 201 and 251 apply to the humanities requirement; Honors 202 and 252 apply to the social sciences requirement; Honors 203 and 253 apply to the natural sciences requirement.

Students not in the program may take any honors course if they have either a 3.25 GPA or permission of the instructor. These students will be expected to meet the standards of the course, however.

Core Courses

Core courses are variable content courses and a course number (201, 202, 203) may be repeated for credit provided that the content changes (e.g., 201 The Western: America's Myth, and 201 Women in Rural America could both be taken for credit). Core courses are 1-4 credit hours.

201 Thought and Culture - 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 vary with each offering. For example: "The Literature of Moral Dilemma," "The Crisis of Modern Consciousness," "The Roots of Western Thought." 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 vary with each offering. For example, "The Viability of Democracy," "The American Community," "The Literature of Sexuality." 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 vary with each offering. For example, "The Copernican Revolution," "The Idea of Evolution," "The Concept of Disease." Grade only.

SPECIAL SEMINARS

Special seminars are variable content courses and a course number (251, 252, 253) may be repeated for credit provided that the content changes. Seminar courses are 1-4 credit hours.

251, 252, and 253 special Seminars in the Humanities, Social Thought, and the History of Science and Mathematics - 4 Q.H.

Special seminars concentrate on specialized topics within one of these three areas. These seminars place emphasis on student initiative and presentation. The topics are specialized in that their range is narrower than the topics of the core courses. A high degree of technical expertise is not required. One seminar offered each year on a rotating basis. Prerequisite: Admission into the Program or consent of instructor. Grade only.

DESIGNATED "H" COURSES

Courses Listed by Regular Departments and Cross-listed as Honors Courses - 3-4 Q.H.

These courses are intended to extend the interest of students into fields related to their own. Students may enroll in a designated course for honors credit only if the course is outside the requirements for their majors.

"H" CONTRACT COURSES

Courses Listed by Regular Departments for which Students Contract to Fulfill Requirements in a More Individualized Manner 3-4 Q.H.

These courses are intended to intensify the interest of students in their field. To earn an "H" students must complete the standard portion of the course as well as completing additional work described in the contract. Prerequisite: Consent of instructor.

SENIOR PROJECT

Independent Study Courses Listed by Regular Departments - 4 Q.H.

Independent study courses listed by departments allow students to undertake senior research projects or research-oriented internships. These courses serve to strengthen research skills of students in their majors. Advice and approval of two instructors required.

Internship Program

Internship programs are available in all departments by arrangement with the department chairperson. Many departments offer internship experiences with credit and, in some instances, with remuneration. See internship reference under departmental course descriptions for specific limitations.

399 General Internship - 1-16 Q.H.

Specific details regarding the course are contained in internship program statements for the departments using it. The cumulative GPA requirement is determined by each department. There is a limit of 16 internship

credits per quarter and 24 internship credits in total which may apply toward a degree program. Exception: in cases where combined internship credits in a major and/or minor program combination will exceed 24 credits, a maximum of 32 credits may be applied toward graduation. 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.

Pre-Professional Sequences

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-DENTAL HYGIENE

Stark Hall, Room 317, (507) 457-5275

Dr. Ronald L. Zwonitzer, Advisor

Program custom designed to meet preliminary or basic sciences of the University of Minnesota, University of Minnesota-Duluth, Mankato State University, Normandale Community College, and RCC/Minnesota Riverland Technical College.

PRE-DENTISTRY

Stark Hall, Room 317, (507)457-5275

Dr. Ronald L. Zwonitzer, Advisor

RECOMMENDED COURSES

This program 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. Most entering dental student have a Bachelors Degree. Students planning to enter dental schools other than the U of M should consult those catalogs. All pre-dentistry students are encouraged to consult with the advisor to help plan their program since most pre-dental students who choose biology as their major follow either the Allied Health or Cell-Molecular Option as described under the Biology Department programs.

110, 115 English (8)

210 or 239 English (4)(upper division English Literature course)

118 Speech (4)

201, 201, 203 Physics (12)

212, 213, 214 Chemistry (15)

115, 116 Math or 120 (5-8)

241, 242, 243 Biology (15)

319 Biology (5)

290 Biology (5)

350, 351 Organic Chemistry (10)

210, 250 Psychology (8)

Elective Courses should be chosen to give the student a broad liberal education within the limits of time available. Electives from the following areas are suggested: sculpturing, biochemistry, human anatomy, histology, accounting, computer science, 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. The profile of the 1991 dental school freshman shows 55% have Biology majors, with an overall GPA of 3.19, a science GPA of 3.10, and average DAT scores of 16.1 for academics and 16.01 for PAT.

PRE-ENGINEERING

93-103 Q.H.

Stark Hall, Room 203, (507) 457-5685

Department of Engineering, Advisor

Students without a strong background in higher level algebra are advised to enroll in the Math 115 and Math 116 precalculus course sequence or Math 120 before Math 125. Students should enroll in the physics sequence in the Spring quarter of their freshman year.

RECOMMENDED COURSES (73 Q.H.)

ENG 110, ENG 115 English Composition (8)

MATH 125, MATH 126, MATH 127 Calculus I, II, III (15)

MATH 329 Multivariable Calculus (3)

MATH 330 Differential Equations (4)

PHYS 221, PHYS 222, PHYS 223 College Physics I, II, III (15)

ENGR 225 Statics (4)

ENGR 345 Thermodynamics I (4)

ENGR 360 Strength of Materials (4)

CHEM 212, CHEM 213 Principles of Chemistry I, II (10)

CS 231 Introduction to Fortran (4)

TECHNICAL ELECTIVES (8-15 Q.H.)

Consult advisor for specific recommendations.

Engineering

- 205 Engineering Graphics (2)
- 350 Dynamics (4)

Chemistry

- 214 Principles of Chemistry III (5)
- 350, 351, 352 Organic Chemistry I, II, III (15)

Mathematics and Statistics

- 279 Statistics (4)
- 303 Introduction to Engineering Statistics (4)

Physics

- 302 Electrical Circuits and System (4)
- 328, 329 Electrical Circuits and Measurements I, II (10)
- 330 Electronics (5)

GENERAL EDUCATION ELECTIVES (12-20 Q.H.)

Consult advisor for specific recommendations.

PRE-LAW

Minne Hall, Room 212, (507) 457-5400

Dr. Peter Henderson, 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.

PRE-MEDICINE (ALLOPATHIC AND OSTEOPATHIC)

136 Q.H.

Stark Hall, Room 317, (507)457-5275

Dr. Ronald L. Zwonitzer, Advisor

Pasteur Hall, Room 312A, (507) 457-5291

Dr. Bruce A. Svingen, Advisor (for pre-medicine with a chemistry major)

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. In the Biology Department, most pre-med students choose the Cell and Molecular Option. In the Chemistry Department, most pre-med students choose option A. 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 schools in the U.S. These same requirements are applicable to osteopathic schools. Pre-med students should seek advice from one of the pre-med advisor and 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. MCAT application and AMCAS packets are available through Dr. Zwonitzer.

RECOMMENDED COURSES

English, Chemistry, and Biology sequences should be taken during the Freshman year.

- 110, 115, and one upper division course English (12)
- 241, 242, 243 Biology (15)
- 212, 213, 214 Chemistry (15)
- 115, 116, (OR 120) 125, 126 Math (15-18)
- 350, 351, 352 Organic Chemistry (15)
- 201, 202, 203 or 221, 222, 223 Physics (12)
- 425G Analytical Chemistry (5)

- 400, 401 Biochemistry (10)
- 210, 250 Psychology (8)
- 300-400 level Humanities (4)
- 300-400 level Psychology (4)

**OTHER COURSES TO COMPLETE
REQUIRED CREDIT**

Consult with your major advisor for those courses necessary for completion of the B.S. or B.A.

PRE-MORTUARY SCIENCE

Stark Hall, Room 317, (507)457-5275

Dr. Ronald L. Zwonitzer, Advisor

Course of study to be designed according to the professional school chosen by the student. Two years minimum.

PRE-OPTOMETRY

Stark Hall, Room 317, (507)457-5275

Dr. Ronald L. Zwonitzer, Advisor

Course of study to be designed according to the graduate school chosen by the student. Three years minimum.* OAT is required for admission to a professional school and is usually given in February and October.

*Most students pursue a Biology major in either the Allied Health or Cell-Molecular Option.

PRE-PHARMACY

Pasteur Hall, Room 312E, (507) 457-5295

Dr. David J. Rislove, Advisor

REQUIRED COURSES (90 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 planning to attend other schools should consult the respective catalogs.

- Biology 241, 242 (10) OR 241, 201, 209 (14)
- Chemistry 212, 213, 214, 350, 351, 352, (30)
- English 110, 115 (8) OR CMST 191 and either 110 or 115
- Economics 201 (4)
- Mathematics 125, 126 (10)
- Physics 201, 202, 203 (12) OR 221, 222, 223 (15)
- Psychology 210 (4)
- Sociology 150 (4)

Additional elective courses must be chosen from the social sciences and the humanities. See advisor for recommendations on these electives and on additional courses in the natural sciences. A total of at least 90 Q.H. is required. Students not meeting the prerequisites for Mathematics 125 will have to take Math 115 and 116, or Math 120 (5-8 Q.H.). Students exempted from English 110 and 115 must elect higher level English courses or Speech 191. See advisor for PCAT and pharmacy career information.

PRE-PODIATRY

Stark Hall, Room 317, (507)457-5275

Dr. Ronald L. Zwonitzer, Advisor

Course of study to be designed according to the graduate school chosen by the student. Most pre-podiatry students follow the pre-med curriculum which is a major in biology with either the Allied Health or Cell-Molecular Option.

PRE-VETERINARY MEDICINE

94 Q.H.

Pasteur Hall, Room 232, (507)457-5855

Dr. Emmanuel Brako, Advisor

This program is designed for entry into the University of Minnesota College of Veterinary Medicine. All applicants must have completed at least three year's college work. A degree in Biology or Chemistry fits best with the required courses, but other degrees are acceptable.

Students planning to apply to other schools of veterinary medicine should consult the entrance requirements of that college. They should meet early with Dr. Brako to plan out their program of courses.

REQUIRED COURSES (78 q.h.)

These courses fulfill the entrance requirements of the University of Minnesota School of Veterinary Medicine. They do not constitute a degree. For degree requirements, see biology or chemistry listings.

- 110, 115 English (8)
- 201, 202, 203 Physics (12)
- 241, 242, 243, 310, 409 Biology (24)
- 215 Mathematics (4)
- 212, 213, 214, 350, 351, 400 Chemistry (30)

Women's Studies Program

Minne Hall, 134 (507)457-2370
Colette Hyman, Director

Womens Studies at Winona State is a multidisciplinary program that looks at the lives and experiences of women through many different disciplines—history, art, psychology, economics and public health among others. Womens Studies students explore the way in which gender shapes womens and mens experiences in various global cultures. They also consider how cultural differences affect womens lives within multicultural societies.

The Womens Studies Program is committed to integrating classroom and community. Womens Studies students apply feminist theories and analyses to current social issues, and develop the skills necessary for citizenship through a Field Experience with a community organization or agency.

The Women's Studies Program sponsors and coordinates campus opportunities that promote understanding and awareness of women's perspectives and gender-related issues among WSU students and faculty. The program centralizes information relevant to Women's Studies opportunities at WSU, and provides students and faculty convenient access to and use of that information.

The program focuses on three major objectives:

- centralization of information about existing opportunities for exploring and addressing gender issues.
- coordination and administration of Women's Studies course offerings.
- guidance and leadership in the process of integrating gender issues into the WSU curriculum.

The Women's Studies Program functions for and with all segments of Winona State University, including Adult, Continuing Education and Extension, the Rochester campus and the larger Winona community. The program operates in the two following areas:

Academic Opportunities - the program offers a Women's Studies minor which is composed of various courses that focus on women and/or gender. The program identifies and promotes additional academic opportunities for all students and faculty interested in expanding their knowledge of women's and gender issues.

Campus and Community Events - the program works with campus constituencies in developing and planning workshops, lectures, performances and other events related to women's issues.

B.A. WOMEN STUDIES MINOR 36 Q.H.

CORE REQUIREMENTS (16-20 q.h.)

- 148 Introduction to Women's Studies (4)
- 348 Topics in Women's Studies (4)
- 448 Senior Seminar in Women's Studies (4)
- 473 Field Experience in Womens Studies (4-8)

ELECTIVES (16 Q.H.)

Chemistry 425 is recommended by the University of Minnesota Veterinary School. Sixteen (16) elective credits to be chosen from the following areas with no more than 8 credits or two courses from any one area: economics (recommended), speech (recommended), geography, history, political science, psychology, sociology, art, literature, music, humanities.*

*Additional courses are required for students not earning a Bachelor's Degree at WSU. See University of Minnesota Bulletin.

CORE DISCIPLINARY COURSES (8-12 q.h.)

Choose two or three courses from the following:

Art

252 A Survey of Women Artists

Business Educ Office Systems Administration

350 Quality of Work Life (4)

History

316 Women in US History to 1890 (4)

317 Women in US History 1890 to Present (4)

Nursing

260 Women's Health Issues (4)

Psychology

275 Psychology of Women (4-5)

424 Women and Mental Health (4)

ELECTIVES (5-8 q.h.)

Choose electives from courses not used above and from list of courses approved for Women's Studies credit. See Women's Studies Program Director for updated list.

COURSE DESCRIPTIONS

148 Introduction to Women's Studies - 4 Q.H.

An introduction to the interdisciplinary study of women and gender in society. The course, which is team-taught by faculty from different disciplines, examines women's social roles and contributions, and gender as an organizing category of human experience, in various social groups, cultures and areas of the globe. The course also introduces students to the concepts and skills of citizenship and social action.

320 Independent Readings in Womens Studies - 1-4 Q.H.

The exact nature of this course will be determined by the needs of the student. The student must have written consent of the instructor. Prerequisites: WOMS 148 and declared Womens Studies minor. Offered quarterly.

348 Topics in Women's Studies - 4 Q.H.

In-depth study of topics of current interest in the field of Women's Studies. With different topics, course may be repeated to a maximum of eight credits. Prerequisites: WS 148 or permission of instructor. Offered yearly.

448 Senior Seminar in Women's Studies - 4 Q.H.

Research on selected Women's Studies topics; or community-based learning experience relevant to Women's Studies. Students will report to class on their progress during the quarter. Prerequisites: WS 148 and WS minor status. Offered yearly.

473 Field Experience in Womens Studies - 4-8 Q.H.

The Field Experience gives students an opportunity to explore gender-related issues and the gender dimension of social issues through experience outside the classroom; to integrate practical experience with analyses of gender developed in Womens Studies courses; and to develop the skills and knowledge necessary to act effectively as citizens of their communities. Prerequisites: WOMS 148, 348. Permission of instructor, declared Womens Studies minor.

Course Descriptions

Accounting

Course Descriptions

201 Financial Accounting Principles I - 4 Q.H.

Theory of double entry accounting including journalizing, ledger posting and preparation of financial statements for service and merchandising business organized as sole proprietorships, partnerships or corporations. Prerequisite: Math 113 or equivalent.

202 Financial Accounting Principles II - 4 Q.H.

A continuation of 201 which shows the study of assets and liabilities, owners' equity, cash flow, financial statement analysis, long-term debt. Prerequisite: Acct. 201.

203 Managerial Accounting - 4 Q.H.

The study of managerial accounting principles including cost behavior, job order costing, process costing, cost-volume-profit relationships, contribution costing, standard costs, relevant costs, and budgets. Prerequisite: Acct. 202.

301 Intermediate Accounting I - 4 Q.H.

Major emphasis on financial accounting. Review of basic financial statements. Development of accounting principles and procedures related to current assets and time value of money. Prerequisite: Acct. 202. Not open to freshmen.

302 Intermediate Accounting II - 4 Q.H.

Development of accounting principles and procedures related to liabilities, noncurrent assets, and owner's equity. Prerequisite: Acct. 301.

303 Intermediate Accounting III - 4 Q.H.

Development of accounting principles and procedures related to revenue recognition, and special areas, including pensions and leases. Prerequisite: Acct. 302.

327 Topics and Issues in Accounting - 1-4 Q.H.

An analysis of current topics issues relevant to the milieu of Accounting. The subject matter to be offered each quarter will be announced in advance by the department. May be repeated as topics change. Prerequisite: Consent of instructor.

345 Governmental and Other Not-For-Profit Accounting - 4 Q.H.

This course is designed to analyze the funds and account groups used by state and local units of government. Also covered are accounting methods and procedures used by hospitals, colleges and universities, voluntary health and welfare organizations, and other not-for-profit organizations. Prerequisite: Acct. 202.

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: Acct. 302; any one of the following courses: BA 312, BA 200, BA 362, CS 231, or CS 232; or consent of instructor.

398 Internship - 1-12 Q.H.

Credits will not be counted in Accounting major, but as general elective credits. Prerequisite: Concurrent enrollment in Acct. 399. P/NC only.

399 Internship Problem - 4 Q.H.

Prerequisite: Minimum 2.50 GPA and consent of instructor. The student should have substantially completed the College of Business core courses, Intermediate Accounting III, and other specific accounting courses depending on the type of internship. See the Department Internship Coordinator for specific requirements. Grade only. Credits may be counted as nonaccounting business electives or as general elective credits.

407G Introduction to Taxation - 4 Q.H.

A study of the history of taxation, the formation and application of Federal tax law, and the basic methods and procedures of tax research. The course emphasizes the individual income tax, but also introduces the student to the taxes applicable to other entities. Tax preparation using

the micro computer is also a significant component of the course.

Prerequisite: Acct. 202, Econ. 202. Grade only.

409G Advanced Taxation - 4 Q.H.

A study of the Federal tax law applicable to C-corporations, S-corporation, partnerships, estates and trusts. In addition to income tax law, the course also addresses the major issues relating to the transfer of property through gifts and the estate. Methods and procedures of tax research are also stressed in the course. Prerequisite: Acct. 407. Grade only.

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: Acct. 303, BA 200, BA 207.

413 Auditing II - 4 Q.H.

Practical application of auditing procedures to the use of comprehensive practice set worked by students. In-depth analysis of auditing procedures as applied in specific areas. Prerequisite: Acct. 411.

425G Tax Planning - 4 Q.H.

This survey course provides an overview of the tax laws and their interrelationships in a way that has proven interesting, enlightening, and profitable to taxpayers, managers, tax planners, and defenders. Prerequisite: Acct. 407 or consent of instructor.

429G International Taxation - 4 Q.H.

This course focuses on the complex tax issues involved in transnational transactions. It addresses major tax treaties, jurisdictional issues, problems of tracing income flow, and fluctuations in currency valuations and other pertinent subject matter. Prerequisite: Econ 202.

440 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: Acct. 202, Econ. 201.

441G Cost Accounting II - 4 Q.H.

An in-depth study of advanced topics in cost planning and control. A review of cost accounting literature and research. Prerequisites: Acct. 440, BA 335.

442 Advanced Accounting - 4 Q.H.

The course includes the study of business combinations resulting from acquisitions of assets or stock, foreign currency transactions and partnership accounting. Knowledge of the material covered in Accounting 301 and 302 is required and knowledge of the material covered in Accounting 303 is strongly recommended. Prerequisite: Acct. 302.

443 Advanced Financial Accounting Topics - 4 Q.H.

A study of selected financial accounting topics including SEC regulations, bankruptcy, trusts and estates, reporting for segments and interim financial periods, and branch accounting. Prerequisite: Acct. 303.

446 Accounting Theory - 4 Q.H.

A study of the foundations, statements, analyses, and evolution of the various accounting theories including those by the FASB, 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. Prerequisite: Acct. 303.

480G Independent Studies in Accounting - 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.

Art

Course Descriptions

109 Introduction to Art - 4 Q.H.

Non-chronological investigation of the forms, expressive languages, functions, and contexts of the visual arts throughout history and the present. Cultural values and differences involving Western and some non-Western regions, and issues of gender, race, and ethnicity are among the concerns of the course. Offered quarterly. P/NC option.

114 Two-Dimensional Design - 4 Q.H.

Introduction to fundamental design concepts in the art process. Experiments and problems in abstract compositions. Offered quarterly. P/NC Option.

115 Three-Dimensional Design - 4 Q.H.

Foundation experience in manipulating materials in three-dimensional space. Broad range of basic materials, tools, and techniques used to solve problems in creating objects and spaces. Offered twice yearly. P/NC Option non-majors.

118 Drawing I - 4 Q.H.

An examination of fundamental concepts while acquiring basic studio skills in the art of drawing. This course develops visual perception, aesthetic judgment and good studio practice. For majors and non-majors. Offered quarterly, P/NC Option.

212 Watercolor I - 4 Q.H.

An introduction to painting with watercolor and other water soluble materials, used singly or in combination. Prerequisite: 118. Offered yearly. P/NC Option.

213 Watercolor II - 4 Q.H.

Continued experimentation with water soluble media with emphasis on personal development. Prerequisite: 212. 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: 114 recommended. May be repeated up to 6 credits. Offered quarterly.

217 Painting I - 4 Q.H.

Beginning studio practice in the use of oil and/or acrylic media. Students will explore basic problems of form and space on a two-dimensional surface using traditional and contemporary methods. Visual analysis of historic and contemporary artists work, used extensively in this course, is designed to broaden and facilitate the examination of form and technique in painting. Offered twice yearly. P/NC Option.

218 Drawing II - 4 Q.H.

Continued experience in drawing with emphasis upon thematic problems and the human figure in a variety of media. Prerequisite: 118. Offered yearly.

220 Ceramics: Handbuilding - 4 Q.H.

Introduction to ceramics with an emphasis on clay materials and handbuilding techniques. Both vessel and sculptural concepts are explored with the aid of slides, lectures, demonstrations, and critiques. Prerequisite: 115. Offered fall and spring quarter.

221 Art History I - 4 Q.H.

The first in a three course series surveying the History of Art. ART 221 begins with Prehistoric times and concludes with the early Christian era. Emphasis on the foundations of Western Art. No prerequisites. Offered yearly, fall quarter.

222 Art History II - 4 Q.H.

The second in the art survey series: European art during the Middle Ages and the Renaissance. Emphasis on the styles and schools of the major regions and on major artists and monuments. Prerequisite: 221 or consent of instructor. Offered yearly, winter quarter.

223 Art History III - 4 Q.H.

The third in the art survey series: the Baroque period through the Revolutionary era, concluding with Modern and contemporary art. Emphasis on major artists, styles, and movements. Prerequisite: 222 or consent of instructor. Offered yearly, spring quarter.

224 American Art - 4 Q.H.

Survey of the visual arts in the United States from the Colonial era through the Great Depression. Emphasis on the emergence and evolution of American artistic traditions as indicative of national experience. No prerequisites. Offered alternate years.

225 Fiber Structures - 4 Q.H.

Introduction to off-loom constructions with emphasis upon the student's artistic expression; feltmaking, basic weaving, paper making, and basketry. Prerequisite: 114. Offered yearly. P/NC Option.

228 Sculpture: Methods and Materials - 4 Q.H.

Introduction to sculpture: students work from nature and the model using traditional techniques. Sculptural concepts also explored through abstract problems with the aid of slides, demonstrations, and critiques. Prerequisite: 115. Offered fall and spring quarters.

230 Printmaking I - 4 Q.H.

Introduction to printmaking and the creation of multiple images. Experimental techniques, conceptualization and studio practice are emphasized. Prerequisites: 114, 118. Offered yearly, fall quarter.

252 Survey of Women Artists - 4 Q.H.

Lecture/discussion course surveying the history of European and American women artists from the 12th century to the present. Social and cultural environments for women in each era are considered, as well as individual artists contributions to the history of art. A research paper is required. No Pre-requisites. Offered alternate years.

260 Introduction to the Graphic Arts - 4 Q.H.

Lecture/studio course in printed communication, examining the history, methods/processes and recent technological developments of the graphic arts. Exercises, projects and field trips supplement reading assignments and discussions. Offered yearly.

300 Elementary Art Education - 4 Q.H.

Theories, processes and philosophy in visual arts education for prospective elementary classroom teachers are explored; experience with art processes and classroom procedures to develop potential teachers' artistic sensitivity, skills, and thinking. Art 109 strongly recommended; junior or senior standing. Student must be admitted to Teacher Education Program in order to register. Offered quarterly.

309 Advanced Design - 4 Q.H.

Design concepts are refined through exploration of diverse art methods and materials. Students perform critical/formal analyses and develop advanced visual design strategies. Prerequisites: 114 and 115. Offered yearly.

311 Graphic Design I - 4 Q.H.

Introduction to traditional concepts and practices of graphic design. Materials/techniques, layout and the elements of advertising design are examined. Fundamentals, skills, and creative thinking are emphasized in a series of exercises and problems. Prerequisites: 114, 118 (218 recommended). Offered yearly.

312 Graphic Design II - 4 Q.H.

Continuing 311, this course examines more thoroughly the elements of graphic design (i.e., type, color, art) and their application to advertising. Layout and production are emphasized. Projects become more extensive and individualized. Prerequisites: 311 (260 recommended). Offered yearly.

317 Painting II - 4 Q.H.

Continued intensive studio practice in oil and/or acrylic media, designed to expand and develop the students skill and understanding in working with representational and abstract problems of form. Students are encouraged to initiate work in an individual direction in painting and to engage in an ongoing study of relevant historic and contemporary works, as well as emerging trends. Prerequisites: 217, 218 or consent of instructor. Offered twice yearly. P/NC Option.

318 Advanced Drawing - 4 Q.H.

An advanced course in figure drawing designed to fulfill the need for personalized, artistic expression. Prerequisite: 218. Repeatable to a maximum of 16 credits. Offered yearly.

320 Ceramics: Wheelthrowing - 4 Q.H.

Development of wheel-throwing skills applied to the aesthetics of utilitarian and vessel forms. Emphasis on glaze materials and firing techniques. Slides, lectures, demonstrations, and critiques supplement studio work. Prerequisite: 115. Offered winter quarter.

325 Fibers: Threads and Textiles - 4 Q.H.

Emphasis is upon the individual student's artistic expression using fibers, threads and textiles. Experiments with weaving on a loom. Conceptual and multi-media approaches are encouraged. Prerequisites: 114 (115 recommended). Offered yearly.

326 Fibers Workshop - 1-4 Q.H.

Individual constructions in fibers with a design emphasis in the area as named in the specific title. Student should check with the art department for specifics in each course offering.

328 Sculpture: Contemporary Approaches - 4 Q.H.

Concentration on abstract sculpture employing stone-carving as well as welding and other metal fabrication techniques. Formal and conceptual sculptural issues explored with the aid of slides, discussions, and critiques. Prerequisite: 115. Offered winter quarter.

330 Printmaking II - 4 Q.H.

Water-based serigraphy (screenprinting) processes. Conceptual and technical development are emphasized. Prerequisites: 114, 118. Offered yearly, winter quarter.

399 Internship - Credit hours to be arranged by a faculty member - maximum 16 credits. Prerequisite: junior standing. P/NC Only. Work-related experience in appropriate settings such as museums, commercial offices or studios, or public relations offices. May be used as a general art elective.

402G The Psychology of Art and Art Education - 4 Q.H.

Exploration of topics related to human behavior and the production/appreciation of visual art forms in view of prospective art teachers' understanding of the subject of art and effective instruction for K-12 learners. Theories of perception, learning and the creative processes are examined as they pertain to: visual thinking, aesthetic perception and judgment, artistic motivation, art concept learning, formal and semantic organization, artistic styles, cognitive development, instructional strategies, art teacher-learner dynamics, learning environment, evaluation of learning, and mediumization process in studio art. Prerequisite: 109 recommended, 300 and junior standing. Offered alternate years.

410 Secondary Art Education - 4 Q.H.

An examination of programs in art education at the secondary level, consideration of problems related to teaching art in high school, review of research findings and the designing of exemplary programs in secondary art. Prerequisites: 300 and junior standing. Offered yearly.

412G Multi-Media Crafts for the Classroom - 4 Q.H.

An intensive and extensive art education laboratory experience affording the prospective art teacher opportunities to become familiar with advanced art studio processes that produce craft outcomes across several media, including contemporary and experimental media. The learning content extends beyond the basic crafts processes introduced in Art 300. Prerequisites: Art 300. Offered alternate years.

413 Graphic Design III - 4 Q.H.

Advanced problems in graphic design requiring portfolio preparation. Conceptualization, computer application, illustration, and layout/production skills are emphasized. High level of individual development expected. Prerequisite: 312. Offered yearly.

417 Advanced Painting - 4 Q.H.

Continued intensive studio practice aimed at formal and technical proficiency in the use of paint. Students work to establish a meaningful direction in their painting, as they begin to identify individual interests concerning form and content. Students engage in an ongoing study of relevant artists work, stylistic directions of the modern era, and other recent trends including combined media. Preparation and exhibition of completed work will be addressed at this level. Prerequisite: 317. May be repeated up to 12 additional credits. Offered yearly.

420 Advanced Ceramics - 4 Q.H.

Development of the student's personal direction and expression through the ceramic medium. Increased involvement in clay body composition, glaze formulation, and firing techniques. Slides, critiques, and readings in contemporary criticism supplement textbook reading. Prerequisites: 220 and 320. Offered spring quarter. May be repeated to a maximum of 16 credits.

425 Advanced Fibers Studio - 4 Q.H.

Individual interpretations in the choice of media and techniques with emphasis upon the advancement of artistic expression. Prerequisites: 225 and 325. Offered yearly. May be repeated up to 12 additional credits.

428 Advanced Sculpture - 4 Q.H.

Personal direction and expression are developed using any appropriate sculptural medium. Hot metal casting techniques are explored. Slides, critiques, and readings in contemporary criticism contribute to the production of a cohesive body of work. Pre-requisites: 228 and 328. Offered fall and spring quarters. May be repeated up to 12 additional credits.

432 Printmaking III - 4 Q.H.

Introduction to stone lithography, using a variety of techniques in traditional planographic process. Advanced conceptualization and drawing skills are required. Prerequisite: 218. Offered irregularly.

436 Independent Study - 2-6 Q.H.

To be arranged with instructor in studio, art history, or art education. Repeatable to a maximum of 16 credits. Pre-requisites: to be determined by the instructor; junior standing. The permission signature of the instructor and the departmental stamp is required in order to register. Offered quarterly.

437 Italian Renaissance Art - 4 Q.H.

The painting and sculpture of Italy from the late Gothic era to about 1600. The various schools, as well as the innovations and achievements of individual masters are emphasized. A research paper is required. Prerequisite: 222. Offered alternate years.

438 Modern European Art - 4 Q.H.

The rise of European modernism in painting and sculpture, beginning in the 1880s and '90s in Paris. Continues with the climactic period across Europe around World War I, and concludes with the stylistic reactions of the interwar years. A research paper is required. Prerequisite: 223. Offered yearly.

439 Art since 1945 - 4 Q.H.

Emphasis on the American contributions to the modernism of the post World War II era, and on the stylistic pluralism and post-modernism making the end of the 20th century. A research paper is required. Prerequisite: 223. Offered alternate years.

444 Senior Art Seminar - 2 Q.H.

A team teaching approach to a thorough examination of the directions and implications of contemporary art forms. Open only to graduating seniors.

Biology

Course Descriptions

104 Conservation of the Environment - 4 Q.H.

Problems in the wise use of renewable resources (air, water, soil, forest, wildlife). Lecture only. 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. 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. Offered quarterly.

171 Medical Terminology A - 2 Q.H.

Introduction to the scientific language as it specifically applies to the field of medicine and allied professions. Topics covered include the following body systems: Cardiovascular System; Musculoskeletal System; Integumentary System; and the Genitourinary System. Grade only, no prerequisites, offered quarterly, tape course.

172 Medical Terminology B - 2 Q.H.

Introduction to the scientific language as it specifically applies to the field of medicine and allied professions. Topics covered include the following body systems: Nervous System; Respiratory System, Digestive System, and Special Senses. Grade only, no prerequisites, offered quarterly, tape course.

173 Medical Terminology C - 2 Q.H.

Introduction to the scientific language as it specifically applies to the field of medicine and allied professions. Topics covered include the following body systems: Endocrine System; Hemic/Lymphatic Systems; Numbers, Amounts, Positions and Colors; and Miscellaneous Words & Medical Specialties. Grade only, no prerequisites, offered quarterly, tape course.

201 Human 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. Prerequisites: Chemistry 212, 213 and Biology 241, 242. Lecture and Laboratory. Offered once yearly.

203 Natural History - 4 Q.H.

Ecology, life history, behavior and identification of plants and animals in local habitats, including forests, prairies, lakes and streams. Lecture, laboratory and field trips. Offered one or more times a year.

206 Normal Nutrition - 4 Q.H.

Basic principles of nutrition and the application to needs of individuals at different age levels. Prerequisites: Chemistry 208, 209, and Biology 211, 212 or equivalent. Offered yearly.

209 Microbiology - 4 Q.H.

Introduction to microbiology including study of prokaryotic, eukaryotic and viral micro-organisms important to human health, microbial growth, microbial control, microbial nutrition and microbial cultivation. Lecture and Laboratory. Prerequisites: Chemistry 208 and 209 or 212 and 213 or equivalent. Offered yearly.

211 Anatomy and Physiology I - 4 Q.H.

First of three quarter sequence for students in Nursing and Health, Physical Education and Recreation. Introduction to the structure and function of the human body. Includes anatomical terminology, basics of chemistry, cytology and histology along with skeletal system anatomy and physiology. One two hour laboratory and three hours of lecture. Offered yearly.

212 Anatomy and Physiology II - 4 Q.H.

This lecture and laboratory course is the second of a three-quarter sequence to introduce the structure and function of the human body for students in Nursing and Health, Physical Education, and Recreation. Includes the muscular, nervous, endocrine, and cardiovascular systems. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 212 to be admitted into 213. Prerequisite: Biology 211. Offered yearly.

213 Anatomy and Physiology III - 4 Q.H.

This lecture and laboratory course is the third of a three-quarter sequence to introduce the structure and function of the human body for Nursing students. Includes the immune, respiratory, digestive, urinary, and reproductive systems; nutrition and metabolism; homeostasis; pregnancy; and human development. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 211 to be admitted into 212. Prerequisites: Biology 211 and 212. Offered yearly.

216 Local Flora - 2 Q. H.

A study of the local wildflowers emphasizing their identification. Wild flower structure, reproduction and ecology are also covered. Non-biology majors course. Lecture, laboratory and field trips. Offered according to demand.

217 Trees and Shrubs - 2 Q.H.

A study of local trees and shrubs for the elementary education major or non-biology major or minor. Lecture, laboratory and field work. Offered according to demand.

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 according to demand.

241 Principles of Biology I - 5 Q.H.

First of a three course sequence intended for biology majors. Introduces the basic life processes at the molecular, cellular, tissue and organismic levels. Also includes transcription, translation, mitosis and Mendelian genetics. Lecture and laboratory. Offered yearly during Fall quarter.

242 Principles of Biology II - 5 Q.H.

Second of a three course sequence intended for biology majors which introduces students to the ways in which various organisms (animals, plants, microorganisms) deal with common problems such as nutrition, gas exchange, internal transport, regulation of fluids, chemical communication, nervous communication and development. Prerequisite: Biology 241. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 241 to be admitted into 242. Lecture and laboratory. Offered yearly during Winter quarter.

243 Principles of Biology III - 5 Q.H.

Third of a three course sequence intended for biology majors which introduces the student to the interactions between various organisms and the environment and then continues with a survey of the diversity on earth. Prerequisites: Biology 242. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 242 to be admitted into 243. Lecture and laboratory. Offered yearly during Spring quarter.

269 Human Reproduction - 4 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.

303 Survey of Plants - 4 Q.H.

A taxonomic and morphological overview of the plant and fungi kingdoms, emphasizing the non-Angiosperms. Lecture and laboratory. Prerequisite: Biology 308, 310, 312. Offered according to demand.

308 Cell Biology - 5 Q.H.

A study of the cell as a biological unit. Analysis of ultra-structure, macromolecular organization and function of cell components in plants and animals is emphasized. Lecture and laboratory. Prerequisites: Biology 241, 242, 243, 312, Chemistry 340. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 312 to be admitted into 308. Offered yearly.

309 Developmental Biology - 4 Q.H.

A study of the mechanisms of the sequence changes that occur within organelles, cells, tissues, organs and organ systems of plants and animals during their life spans. Lecture and laboratory. Prerequisites: Biology 308, 310, and 312. Offered yearly.

310 Genetics - 4 Q.H.

A survey of the principles of Mendelian, molecular, cytological, population and human genetics. Lecture and laboratory. Prerequisites: Biology 241, 242, 243, 308, and 312. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 308 to be admitted into 310. Offered yearly.

311 Genetics Laboratory - 1 Q.H.

An optional laboratory to accompany Genetics 310. Includes experiments from classical, molecular and cytogenetics. Prerequisite: Concurrent enrollment in Genetics 310 and permission of instructor.

312 General Ecology - 5 Q.H.

Relationships of animals and plants to their environments. Lecture, laboratory and field trips. Prerequisites: Biology 241, 242, 243. Unless a waiver is obtained from the appropriate instructor, students must earn a "C" or better in 243 to be admitted in 312. Offered yearly.

314 Plant Physiology - 4 Q.H.

Principles of absorption, conduction, transpiration, photosynthesis, respiration, growth and reproduction in plants. Prerequisites: Biology 308, 310, and 312. Chemistry 340 or 351. Lecture and laboratory. Offered according to demand.

315 Environmental Biology - 4 Q.H.

A study of man's impacts on his natural environment. Modern conservation measures and habitat management procedures are treated in depth. Lecture, laboratory and field work. Prerequisite: Biology 308, 310 and 312. Offered yearly.

318 Invertebrate Biology - 4 Q.H.

Survey of invertebrate animals. Emphasis on structure, function, evolution and ecology of the major invertebrate groups. Lecture and laboratory. Prerequisites: Biology 308, 310, and 312. Offered alternate years.

319 Vertebrate Biology - 4 Q.H.

A study of the structure, function, evolution and taxonomy of all the groups of vertebrates. Lecture and laboratory. Prerequisite: Biology 308, 310, and 312. Offered alternate years.

320 Ornithology - 4 Q.H.

Structure, classification, behavior, distribution and identification of birds. Lecture, laboratory and field work. Prerequisite: Biology 308, 310, and 312. Offered alternate years.

323 General Physiology - 5 Q.H.

First of two-quarter sequence. Lecture, 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. Prerequisite: Biology 201, Chemistry 208 and 209 or 212 and 213. Offered yearly.

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 and 213. 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. Zwonitzer four weeks prior to registration. May be repeated for credit. Offered quarterly. P/N/C only.

335 Plant Ecology - 4 Q.H.

Study of the environmental, physiological and morphological aspects of plant biology. Includes lecture, laboratory and field experiences. Prerequisites: Biology 308, 310 and 312. Offered yearly.

340 Virology - 3 Q.H.

Basic properties of viruses, beginning with bacteriophages, and following with animal viruses. Includes viral structure, assays, replication, diseases, genetic properties, mechanisms of interaction with cells, viral oncogenesis, and interference with viral multiplication. Lecture only. Prerequisites: Biology 308, 310, and 312. Offered yearly.

350 Plant Taxonomy - 4 Q.H.

An introduction to the principles and practices of plant systematic and the identification and classification of Angiosperms, with special emphasis on local flora. Plant collections and skill in identification are required. Offered yearly. Prerequisite: Biology 308, 310, and 312. Lecture, laboratory and field trips.

360 Entomology - 4 Q.H.

Morphology, classification, life histories, distributions, and economic importance of insects. Individual collections are made. Lecture, laboratory. Prerequisite: Biology 308, 310, and 312. Offered according to demand.

380 Evolution - 4 Q.H.

Overview of principles and processes of biological evolution with emphasis on selection, variation and macroevolution. Prerequisite: Biology 308, 310, and 312. Offered according to demand.

393 Eukaryotic Cell Culture - 5 Q.H.

Introduction to basic and specialized techniques of eukaryotic cell culture. Techniques include aseptic technique, in vitro cell cultivation, cell enumeration, viability determination, hybridoma technique for monoclonal antibody production, cryopreservation, and cell cloning. Prerequisites: Biology 308, 310, and 312. Lecture and Laboratory. Offered yearly.

399 Internship - 1-16 Q.H.

Supervised experiences at a government, industrial, or research institution. Credits will not replace other required or elective courses in

the Biology major, but will count as general elective credit. May be repeated up to 16 Q.H. P/N/C but up to 4 Q.H. may be taken for letter grade. Prerequisite: completion of required Biology courses. Offered quarterly.

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.

409 General Microbiology - 5 Q.H.

The anatomy, physiology, biochemistry, genetics, taxonomy, and ecology of microorganisms, especially bacteria; applications to agriculture, medicine, and industry. Lecture and Laboratory. Prerequisites: Biology 308, 310, and 312. Chemistry 340. Offered yearly.

410 Membrane Biology - 4 Q.H.

Study of the structure and function of biological membranes. Includes detailed discussions of membrane preparations, membrane components, the roles membrane carbohydrates, membrane transport and membrane bioenergetics. Lecture and Laboratory. Prerequisites: Biology 308, 310, and 312. Chemistry 340. Offered according to demand.

415 Ecology of Large Rivers - 4 Q.H.

Examination of the geological, physical, chemical, and biological characteristics of large river ecosystems. Includes review of several river systems with comparisons to the Upper Mississippi River. Lecture only. Prerequisites: Biology 308, 310, and 312 or consent of the instructor. Offered according to demand. P/N/C Option available for non-Biology majors/minors only.

420 Limnology - 4 Q.H.

Analysis of the geological, physical, chemical and biological aspects of inland waters. Lecture, laboratory and field work. Prerequisites: Biology 308, 310, and 312, Chemistry 213 or consent of instructor. Offered yearly.

423 Ecosystem Analysis - 4 Q.H.

Analytical approach to understanding structural, functional and temporal characteristics of selected ecosystems. Lecture and laboratory. Prerequisite: Biology 308, 310, and 312. Offered according to demand.

424 Biogeography - 4 Q.H.

A study of the dynamics of ranges and distribution changes of plants and animals on earth, with emphasis on the evolutionary, ecological, geological, and climatic influences on dispersal, extinction, and diversification. Prerequisite: Biology 308, 310, and 312. Offered alternate years.

425G Animal Behavior - 4 Q.H.

A study of how and why animals behave in the ways they do. Special attention is given to the observation and description of behavior and to the ensuing questions of immediate causation, development, evolution and function of behavior. Lecture and demonstration. Prerequisites: Biology 308, 310, and 312. Offered alternate years.

427 Advanced Topics in Biology - 1-5 Q.H.

In-depth study of an emerging field or relevant issue of special interest to faculty or advanced students of biology. Lecture only, or lecture and lab. Topic announced in advance. May be repeated for credit as topics change. Prerequisites: Biology 308, 310, and 312. Offered according to demand and staffing availability.

430 Molecular Biology - 4 Q.H.

A study of the molecular details of DNA replication, DNA transcription and RNA translation to protein. Includes study of restriction enzymes, cloning vectors, cloning, genetic recombination and the techniques which are the basis of biotechnology. Lecture only. Prerequisites: Biology 308, 310, and 312; Chemistry 340. Offered yearly.

431 Molecular Biology Laboratory - 4 Q.H.

An intensive laboratory course introducing modern methods and instrumentation in molecular biology. Selected exercises in recombinant DNA technology, including DNA isolation, restriction enzyme analysis, gene cloning, and Southern hybridization. Offered yearly. Prerequisite: Biology 430 or concurrent enrollment. Consent of instructor required.

440 Animal Physiology - 4 Q.H.

This experimentally-based lecture and laboratory course is designed to provide an understanding of physiological principles at the cellular and tissue levels, focusing on concepts and properties which are widely shared across the animal kingdom. Students critique research proposals

and reports and will design, carry out, and report an experiment of their selection. Prerequisites: Biology 308, 310, and 312; Chemistry 340 or 350. Offered yearly.

443 Urinalysis - 2 Q.H.

An introduction to the clinical study of human urine for students majoring in Medical Technology. The topics included are physiology, methodologies and test performance as well as clinical significance in the areas of urinalysis, cerebrospinal fluids, body fluids and gastric analysis. Does not satisfy an elective requirement for any biology major or minor. Grade only. Prerequisite: Biology 308, 310 and Chemistry 340. Offered yearly.

444 Hematology - 2 Q.H.

The study of blood and blood forming tissues for students majoring in Medical Technology. Topics covered include red and white cell morphology, origins, functions and the nature and importance of platelets to homeostasis. Does not satisfy an elective requirement for any biology major or minor. Grade only. Prerequisite: Biology 308, 310 and Chemistry 340. Offered yearly.

445G Immunology - 4 Q.H.

An introduction to the theory and practice of modern immunology. Emphasis on the immune response in humans. Biology 308 and 310, Chemistry 212 and 213. Offered yearly.

450, 451, 452 Medical Technology I, II, and III (12 Q.H. each)

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, 454 Medical Technology IV and V (6 Q.H. each)

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.

460G 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: Biology 308, 310 and Chemistry 340. 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 microtechniques and histochemistry and the analysis of electromicrographs. Lecture and laboratory. Prerequisites: Biology 308 310, and Chemistry 212 & 213. Offered yearly.

481, 482, 483 Cytotechnology I, II, and III - (12 Q.H. each)

Cytotechnology clinical education. Courses and content to be determined by the Program Director, Educational Coordinator and staff of the affiliated clinical education facility. Prerequisite: Cytotechnology Major with senior standing. Offered yearly. Letter grade only.

484, 485 Cytotechnology IV and V - (6 Q.H. each)

Cytotechnology clinical education. Courses and content to be determined by the Program Director, Educational Coordinator and staff of the affiliated clinical education facility. Prerequisite: Cytotechnology Major with senior standing. Offered yearly. Letter grade only.

495 Seminar in Biology - 1 Q.H.

Students prepare an in-depth written paper and/or an oral presentation based on original biological literature, and learn to access and use scientific data bases. May be taken twice for credit. Senior standing or permission of instructor required. Offered quarterly.

496 Undergraduate Thesis - 1 Q.H.

Students who have completed an extensive undergraduate research project (such as the projects completed by students in the Biology Department Honors Program) are given the opportunity to work closely with a professor in writing and editing their own undergraduate thesis. The finished thesis is expected to be an example of excellent collegiate scholarship and writing in scientific style. The manuscript will correctly use and cite appropriate current literature. Offered according to student demand. Prerequisite: consent of instructor.

499 Student Research - 4 Q.H.

An opportunity for an advanced biology student to work with a faculty member on an independent research project. Written report on results of research required. Prerequisites: Biology 308, 310, 312 and consent of instructor. Offered quarterly.

Business Administration

Course Descriptions

101 Introduction to Law and the Legal Process - 4 Q.H.

A study of law as part of a liberal education. Included are historical background, court systems and jurisdiction, criminal and civil procedure, common law, statutory law, administrative law and remedies. Not open to those having 15 or more credits in business.

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.

200 Microcomputers in Business - 4 Q.H.

An introduction to some of the more commonly used software packages for business decision-making. Spreadsheet, business graphics, database, and integrated software will be introduced.

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 221 or consent of instructor.

310 Business Law I - 4 Q.H.

Legal background, contracts, agency, torts, sales and commercial paper.

311 Business Law II - 4 Q.H.

Partnerships, corporations, bankruptcy, secured transactions, real and personal property, trusts and estates, antitrust, securities, insurance, trademark, copyright, and consumer protection. Prerequisite: BUSA 310 or consent of instructor.

312 Business Computer Programming - 4 Q.H.

A structured approach to business systems development and programming using 3GL/4GL. Problem solving techniques with emphasis on business applications, including sequential and random access file processing.

315 Insurance Law - 4 Q.H.

A study of the sources of insurance law. Analysis of the contractual relationships as to, the scope of the obligations of the parties, risks covered, performance and termination. Areas of insurance included are casualty liability, auto and group insurance among others. Prerequisite: BUSA 310.

320 Transnational Business Transactions Law - 4 Q.H.

A study of a variety of transnational business transactions and applicable legal regulations. Prerequisite: BUSA 310.

322 Business Application Programming/Development - 4 Q.H.

Business application programming using advanced programming tools, such as C/C++. Complex business decision problem-solving through design and development of business application programs. Structured program design and development concepts, and business decision problem analysis are emphasized.

325 Consumer Law - 4 Q.H.

A study of the major issues affecting consumers. Included are sales practices, warranties, advertising, credit extension, rates and disclosure requirements, collections, and remedies. Prerequisite: BUSA 310.

327 Topics and Issues in Business - 1-4 Q.H.

An analysis of current topics issues relevant to the milieu of Business. The subject matter to be offered each quarter will be announced in advance by the department. May be repeated as topics change.

328 Business and the Future - 4 Q.H.

Using World Future Society materials, a combination of lectures, student presentations and discussion tries to stimulate a time-frame for strategic planning, longer than what is traditional for American managers, to enhance competitiveness, stimulate creative thinking and innovation, and in so doing, to broaden horizons and career potential of graduates. Prerequisite: Junior or senior status or consent of instructor.

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: BUSA 207 or consent of instructor.

342 Advanced Business Computer Applications - 4 Q.H.

The focus of this course is on the development and management of business database systems. It provides the theoretical concepts as well as practical approaches to planning, development, test and documentation of business database systems. Project planning and control approach is used to relate database administration to information systems management. Students are required to develop, implement, and evaluate a business database system. Prerequisites: BUSA 312, 340 or consent.

362 Management Information Systems - 4 Q.H.

An introduction to basic concepts of Management Information Systems design, implementation and control. Application of computer-based MIS and decision models to business and management situations and problems. Prerequisites: BUSA 200 or consent of instructor.

372 Fundamentals of Management Science - 4 Q.H.

Quantitative analysis of management decision-making problems using a systematic and scientific approach, in particular, application of quantitative and decision models including Linear and dynamic programming, distribution and network models, inventory models, queuing theory, markov analysis and simulation. Prerequisites: 335 or consent of instructor.

398 Internship - 1-12 Q.H.

Credits will not be counted in Business Administration major, but as general elective credits. Prerequisite: Concurrent enrollment in BUSA 399. P/NC only.

399 Internship Problem - 4 Q.H.

Prerequisite: Courses that must be completed prior to an internship vary by program. See department for list of requirements. 2.5 G.P.A. Grade only.

422 Computer-Aided Modeling for MS/OR - 4 Q.H.

This course provides a set of computer-based modeling and problem solving techniques applied to topics covered most frequently in OR/MS. The theoretical discussions as well as application procedures of various models are presented through the analysis of cases in different aspects of OR/MS fields. The major focus of the course is on the application of computer-aided tools to complex decision problem modeling and analysis process. Prerequisite: BUSA 372.

430 Real Estate Law - 4 Q.H.

Any analysis of the legal system and real property, including the transfer of real estate, land use and regulation and financing of the real estate transaction. Prerequisite: BA 311.

460 Health Law: Applications - 4 Q.H.

A discussion of the issues of concern to the health care professional including regulation of health care quality through licensure, institutional quality control programs and the tort system; access to health care; control of health care costs through regulation, competition, and antitrust; respect for personhood in the professional-patient relationship. Prerequisite: BUSA 310.

461 Management of Telecommunications in Business Environment - 4 Q.H.

This course provides an understanding of basic concepts involved in management of data communications, teleprocessing, and networks. Topics covered in this course include a review of the history of data communications and communications networks, fundamental principles of managing data and voice communications and network security. Various commercial products are surveyed. The necessity of managing the telecommunications in business is emphasized and the issues in applying telecommunications in corporate environments are discussed. Also, the effects of regulatory environment in telecommunications industry is covered. Prerequisite: BUSA 362.

462 Management Decision Support Systems - 4 Q.H.

This course focuses on complex management decision activities which require extensive use of information. It explores the application of computer-based management decision support systems to not only operational and control decisions but also to strategic and planning managerial decision-making activities. Prerequisite: BUSA 362, and BUSA 372.

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.

482 Management of Information Technology in Practice - 4 Q.H.

This course introduces students to the current issues in information technologies mainly through case analysis. Different methods of dealing with the issues involved are discussed. Various systems in information technology are presented. The importance of management control is emphasized and multinational IT is covered also. Prerequisite: BUSA 362.

491 Seminar in Business Law - 4 Q.H.

An advanced analysis of current legal issues. Focus of the course to be determined by the instructor and announced in class schedule. Senior standing. Enrollment limited.

492 Topics in MIS - 4 Q.H.

The major focus of this course is on the advanced and complex concepts of Information Systems Management. The objective is to provide perspective for adapting to information systems technology. Key conceptual frameworks of MIS is presented to support management of information systems resources. Prerequisite: BUSA 362.

495 Expert Systems - 4 Q.H.

This course provides a basic understanding of the expert systems field and its application to business. Business expert systems will be developed using expert system shell. Prerequisite: BA 362.

498 Strategic Management - 4 Q.H.

An advanced, integrative course for senior business administration majors. Uses cases to stress interrelationships of all functional areas, organization life stages, strategy development and policy formation. Prerequisite: completion of core requirements or senior standing.

Health Administration**320 Proseminar in Health Care Administration - 2 Q.H.**

A study of the roles and functions of management as applied in health care. Explanations of knowledge, skills, education, and credentialing needed by managers in health care services; differences in various industry segments and from management in traditional lines of business; relationships to other health-related professionals. Must be taken prior to registration for any health administration core course. Prerequisite: Permission of instructor.

405 Long Term Care Systems Management - 4 Q.H.

An explanation and examination of the principles of organizational management and administration in the long term care setting. Prerequisites: HADM 320, SOC 434, and SOC 450.

425 Introduction to Ambulatory Care Systems Management - 4 Q.H.

An introduction to health care delivery in the ambulatory care setting. Explanation and examination of ambulatory care services and programs. Prerequisites: HADM 320, Administrative core.

475 Health Services Administration and Strategic Planning - 4 Q.H.

Concepts and principles of health services administration concerning the effective and efficient management of organizational resources in key functional areas. Strategic planning in health service organizations including methods of internal and external analysis, formulating and implementing strategy, establishing strategic objectives and performance targets, etc. Prerequisites: Senior standing, Health Administration major, the administrative core and the health care core.

490 Health Administration Practicum - 4-8 Q.H.

This course gives the student direct experience in the actual health care systems administration environment under the supervision of an experienced health system administrator. The course is project oriented to specific problem areas in either personnel administration, supply management, medical/legal requirements, or financial management. Prerequisites: Senior standing, and all core courses.

495 Current Topics in Health Services Administration - 4 Q.H.

Explanation and examination of current topics and trends in the field of health services administration. Prerequisite: HADM 320. May be repeated for maximum of 8 q.h. credits.

Management**315 Supervisory Management - 4 Q.H.**

Quality and Productivity are achieved in the work group under the direction of the supervisor. This course examines the fundamental skills required of a supervisor. An elective course for beginning supervisors or managers. Prerequisite: ACCT 203 and ECON 201 or consent of instructor.

323 Purchasing - 4 Q.H.

A study of purchasing management. Includes objectives, procedures, organization, ordering techniques, inventory control, vendor selection, price, equipment procurement, legal aspects, make or buy, and purchasing department reports. Prerequisite: MKTG 315. Grade only.

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. Prerequisites: ACCT 201, ECON 201; or for non-business majors, consent of instructor.

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. Prerequisites: ACCT 201, ECON 201, MGMT 370; or for non-business majors, consent of instructor.

380 International Labor Relations - 4 Q.H.

A study of foreign labor movements and analysis of current and historical problems confronting labor movements. Grade only. Prerequisites: ACCT 201; ECON 201, 202; MGMT 370, 375 or consent of instructor.

427 Small Business Management - 4 Q.H.

Explore, investigate and analyze small businesses and their management practices. Develop business plans and feasibility studies of small business. Study all operational and managerial aspects of small business operations. Extensive usage of case study methods. Prerequisites: BUSA 207, MGMT 370 or consent of instructor.

461 Personnel Compensation - 4 Q.H.

Issues, theories, and policies in the areas of wage and salary administration and employee compensation. Prerequisites: ACCT 201; ECON 201, 202 and MGMT 370, 375 or consent of instructor.

463 Management Development - 4 Q.H.

This course will focus on management development and its applications in organizations. It will cover the basics of development including determination if a development problem exists, needs assessment, establishing objectives, choice of development techniques, evaluations of programs and means for successful implementation in an organization. Prerequisite: MGMT 370 and 375 or consent of instructor.

465 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: ACCT 201, ECON 201, 202, MGMT 370, 375, or consent of instructor. Recommended but not required, ECON 420.

467 Personnel Staffing and Evaluation - 4 Q.H.

Examination of personnel staffing and evaluation including EEO and Affirmative Action requirements. Areas covered will include recruitment, selection, job analysis, and performance appraisal. Prerequisites: ACCT 201, ECON 201, BUSA 207, MGMT 370, 375, or consent of instructor.

469 Labor Relations Legislation - 4 Q.H.

Examination of Taft-Hartley Act and its scope, court decisions and legislation governing the establishment and control of collective bargaining, problems of industrial conflict, and other areas of government control impacting union and nonunion organizations. Prerequisites: MGMT 370, 375 or consent of instructor.

470 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.

471 International Business - 4 Q.H.

A study of how managing abroad differs from managing at home, from both strategic and operations oriented perspective.

475 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: ACCT 201, ECON 201, MGMT 370, 375 or consent of instructor.

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. 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. 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 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. Limit of 12 credits of independent study per program.

490 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: ACCT 201, ECON 201, MGMT 370, 375, or consent of the instructor.

495 Managing for Quality - 4 Q.H.

An overview of the philosophy and principles of Total Quality Management (TQM), in general, and of Deming's approach in particular. Many of the most important contributors to the quality literature and movement are studied within the historical context of the development of Quality Management philosophy, methods and technology. An overview of the basic tools and methods of TQM is given with applications. Prerequisites: BUSA 330, MGMT 370 and Senior Standing; or consent of instructor.

496 Quality Improvement Methods - 4 Q.H.

The course is an adaptation of Deming's Plan-Do-Study-Act cycle. It reviews Deming's basic quality principles and uses 20 quality tools in a project which is completed as a team. It is a team based, hands-on, skill-oriented course. Pre-requisites: BA 207, MGMT 370 or consent of instructor.

Production and Operations Management**330 Production/Operations Management - 4 Q.H.**

An analytical approach to manufacturing and service organizations: plant location and layout, inventory management, production and project planning and control, and quality control. Prerequisite: BUSA 207.

431 Production Planning and Control - 4 Q.H.

Study of computer-based systems and procedures for production planning and control in operations management. Primary emphasis is on developing a general model for manufacturing, planning and control systems. Prerequisite: BA 330.

432 Management of Technological Changes - 4 Q.H.

This course addresses issues relevant to the management of technological changes in manufacturing. Recent advancement in computerization and automation of manufacturing process necessitates a system's view of manufacturing. A perspective manager needs to be equipped with a basic knowledge of these technological changes. Prerequisite: POM 431.

433 Quality and Productivity Management - 4 Q.H.

Study of the principles of quality and productivity management is the main subject of the course. The emphasis is on the new and advanced concept which are recently developed in U.S. and abroad. Prerequisite: POM 431.

439 Current Topics in POM - 4 Q.H.

Production and Operations Management is a growing field. Any business organization needs to pay attention to the management of its operating resources. Many experts relate the Japanese successes to the careful management of operating resources. This course will explore some of the latest techniques and concepts in POM. The topics will obviously be changed from year to year as the field advances into new era of technological improvement. Prerequisite: POM 431.

440 Cases in Production & Operations Management - 4 Q.H.

This course is an application of the production operations management's principles in real life situations. This is done through analysis of cases in different aspects of the field. Most of the case analyses require model building and computer analysis of the model. Prerequisite: POM 431.

Business Education and Office Systems Administration

Course Descriptions

107 Introduction to Word/Information Processing - 2 Q.H.

For all students. Knowledge and application of word processing for personal use. Basic proficiency will be developed on microcomputers. Offered yearly. P/NC option.

201 Keyboarding - 3 Q.H.

Beginning keyboarding proficiency as a basic communication skill for hard copy production keyboarding mastery; proofreading and skill building; including letter formats, manuscripts, and tabulations. Offered quarterly. P/NC option.

202 Word Processing - 2 Q.H.

Problem solving and production using word processing software. Prerequisite: BEOSA 201 or equivalent. Offered yearly. P/NC Option.

203 Document Production - 4 Q.H.

Advanced production problems with speed and technique development using word processing software. Prerequisite: BEOSA 202 or equivalent. 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 roles as health and recreation managers. Offered yearly.

206 Administrative Procedures - 4 Q.H.

Administrative/secretarial procedures and methods for implementing the administrative support function.

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.

218 Job Search Strategies - 3 Q.H.

An examination of job search strategies with emphasis on the written and oral communications necessary to market one's potentials. Special focus on developing a competitive resume; effective job application correspondence and interviewing techniques. Offered quarterly. P/NC Option.

320 Business Information Processing - 2-4 Q.H.

The fundamental concepts of data bases and spreadsheets. Provides a vocabulary and understanding of computers in business, including business applications software. Offered yearly. P/NC Option.

330 Integrated Information System Applications - 4 Q.H.

Foundations of information processing for text/data communications. Introduces basic terminology and concepts of processing input, storage, and retrieval. Includes information processing functions, procedures, and input/output equipment. Includes software applications. Prerequisite: BEOSA 202 or equivalent. 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 Communications - 4 Q.H.

The application of a functional writing style to produce effective business communications: short reports, memoranda, and correspondence. Includes basics of communications management, automating communications, multi-cultural communications, and a systems approach to written communications. Prerequisite: English 115 or instructor approval. Offered quarterly. P/NC Option.

334 Business Organization for Information Management - 4 Q.H.

A study of business structure and function related to the planning, controlling, organizing and leadership activities of the administrative systems manager. Offered yearly. P/NC option.

335 Information Resource Management - 4 Q.H.

Emphasis on the management of traditional and automated records systems including control policies and procedures, forms design, micrographic systems, computer output microfilm, and legal retention requirements. Offered yearly. P/NC Option.

336 Information Services Seminar - 1 Q.H.

A series of seminars to include such topics as time management, office layout, interpersonal office relations, microcomputer applications in the office, active listening, and applied problem solving. P/NC Option.

340 Publication Design - 4 Q.H.

Use of personal computers and minicomputer for concepts and proficiencies for developing desktop publishing. Prerequisite: BEOSA 203 or equivalent. Offered yearly. P/NC option.

350 Quality of Work Life - 4 Q.H.

Focuses on a quality of work life approach to gender equity in organizations. Examines professional/interpersonal dynamics with organizational cultures, human resource values, and politics. Includes leadership styles, assertive skills, personnel policies/practices, gender-related communication styles, and career enhancement strategies. An experiential approach to attitudinal and professional development. Offered alternate years. P/NC Option.

360 Interpersonal Business Relations - 4 Q.H.

Confronting and coping with interpersonal problems specific to the business/office environment. Focus is on strategies for managing productive work relationships. Includes leadership styles, power and authority, listening and feedback skills, conflict resolution, relating to minority groups, and multi-cultural business relationships. Offered yearly. P/NC option.

397 Information Services Internship - 4-8 Q.H.

Practical administrative management work experience in a supervised office setting. Contact BEOSA department chairperson for requirements. Applies to Office Systems Administration major requirements. P/NC Only.

398 Training and Development Internship - 3 Q.H.

An on-the-job supervised work experience in training and development. Contact BEOSA department chairperson for requirements. Offered quarterly. P/NC only.

399 General Internship 1-8 Q.H.

On-the-job supervised work experience in office systems administration. Credit applies to general electives, not to Office Systems Administration major credits/requirements. Contact BEOSA department chairperson for requirements. Offered quarterly. P/NC Only.

402 Basic Business Teaching Methods - 2 Q.H.

A course for business teacher preparation in the methods and materials of basic business education. Focuses on the refinement of teaching abilities and competencies required in the teaching of business law, consumer education, general business, and economics. Offered alternate years. Open only to BEOSA Department majors/minors. Recommended prerequisites: Education 301, 302.

403 Keyboarding Teaching Methods - 2 Q.H.

A study of teaching strategies for keyboarding instruction. Teaching practices will be related to theories of learning and the psychology of skill-building. Techniques of planning, classroom management, motivation, evaluation, grading, and the utilization of keyboarding software packages. Offered alternate years. Open only to BEOSA Department Majors/Minors. Recommended prerequisites: Education 301, 302.

404 Office Education Teaching Methods - 2 Q.H.

A study of methods, materials, strategies, and theories related to teaching office education subjects. Emphasis will be placed on planning, testing, grading, and teaching procedures as they relate to the electronic office. Offered alternate years. Open only to BEOSA Department majors/minors. Recommended prerequisites: Education 301, 302.

405 Accounting Teaching Methods - 2 Q.H.

A study of strategies for teaching accounting. Teaching practices are related to theories of learning and include specific techniques of classroom management, motivation, planning, evaluation, grading, and utilization of accounting software packages. Offered alternate years. Open only to BEOSA Department majors/minors. Recommended prerequisites: Education 301, 302.

410G Administrative Communication - 4 Q.H.

Leadership communication for personnel at all organizational levels. A balanced emphasis between written and spoken communication includes such topics as persuasive proposals, routine managerial communications, case analysis and writing, meeting management, reporting, the visual briefing, multi-media and communications technology, and communications management. Prerequisites: English 115, CMST 191 or instructor approval. Offered yearly.

433 Personnel Management for Information Systems - 4 Q.H.

Principles of office personnel management for providing administrative support services in organizations. Administrative policies and procedures applied to such areas as employee motivation, office personnel problems, performance appraisal, delegation, and administrative systems analysis. Emphasis on the effective management of administrative support personnel and personnel policies. Offered yearly. P/NC Option.

434 Word/Information Processing for Paralegals - 4 Q.H.

Knowledge of word/information processing in the paralegal profession. Includes word processing spreadsheets, and legal data base applications. Prerequisite: basic keyboarding proficiency. Offered yearly. Grade only. Not open to BEOSA majors.

435 Information Systems Management - 4 Q.H.

The study of effective management for the information function in organizations. Focuses on the feasibility, design, justification, implementation, and evaluation of administrative information systems. Includes integrated systems, ergonomics, telecommunications management, managing change, approaches to office automation, and selecting hardware/software. Prerequisites: BEOSA 330. Offered yearly. P/NC option.

440G Training and Employee Development - 4 Q.H.

An overview of the training and development field with an emphasis on the systems approach to training program design. Focuses on the key phases of training program development: preassessment, needs analysis, design implementation, and evaluation. Includes the principles of instructional design using the experiential learning approach. Offered yearly.

441G Training Techniques and Media - 4 Q.H.

Instructional techniques, methods, and multi-media to use for effective employer-based learning delivery systems. Topics include trainer/learner styles, training structures and formats, instructional presentation skills, training aids and technology, and computer-based training. A skills-based approach to effective training for adult learners. Offered alternate years.

470G Seminar in Training and Education for Business - 1-4 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 Training and Education for 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.

Vocational Licensure Courses**100 Introduction to Vocational-Technical 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, advising and counseling students. P/NC only.

302 Methods of Instruction in Vocational-Technical Teaching - 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.

400 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.

401 Evaluation of Student Performance in Vocational-Technical 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.

407 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.

425 Principles and Practice of Vocational-Technical Education - 3 Q.H.

Initial course in the vocational education sequence: trends, history and leaders in vocational education.

426 Course Development in Vocational-Technical Education - 3 Q.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/her teaching area.

Chemistry

Course Descriptions

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 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 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 yearly.

109 Introduction to Organic and Polymer Chemistry - 4 Q.H.

An introduction to the chemistry of organic compounds, monomers and polymers derived from hydrocarbons and functionalized compounds. Topics on polymers will be presented as the respective units in basic organic chemistry are covered. Three lecture and two laboratory hours per week. Prerequisite: Chemistry 108. Not open to students expecting to take chemistry 340, 350, or 410.

204 Unified Science - 4 Q.H.

Physical and chemical aspects of nature. Designed for elementary education majors and others interested in a basic laboratory course. Not open to majors and minors in any of the sciences. Two hours lecture, four hours laboratory. Pre-requisite: Chemistry 100. Offered irregularly.

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, and 214 Principles of Chemistry I, II, and III - each 5 Q.H.

A study in depth of the principles of chemistry including atomic structure, the chemical bond, solutions, thermodynamics, kinetics, and solubility, acid-base, oxidation-reduction, and complex ion equilibrium. Organic species are used, when appropriate, throughout the courses, and a short unit on organic chemistry is included. Laboratory work includes basic qualitative and quantitative analysis. Prerequisite: high school intermediate algebra or concurrent registration in Mathematics 013 or in a higher-numbered mathematics course. Offered yearly.

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 irregularly.

340 Organic Chemistry - 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 Principles of 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 irregularly.

360, 361, 362 Chemical Information - Each 1 Q.H.

Finding chemical information by on- and off-line searching of data bases by computer and by hand-searching print-form reference works such as *Chemical Abstracts*, dictionaries, encyclopedias, index serials, formularies, treatises and review serials. Lecture topics will also include units on patents, institutional publications, and the primary periodical literature. Chemistry 362 includes the preparation of a bibliography on a chemical topic using exhaustive manual and computer searching of the world's chemical literature. Prerequisite: for 360, credit or concurrent registration in Chemistry 340 or 350; for 361, Chemistry 360; for 362, Chemistry 361. Offered yearly.

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.

400, 401, 402 Biochemistry - Each 5 Q.H.

Introduction to the biochemistry of living organisms; emphasis on the structure and function of proteins, carbohydrates, lipids, nucleic acids; enzymatic catalysis, thermodynamics, control and integration of metabolic processes; nucleotide metabolism and expression and transmission of genetic information. Prerequisite: for 400, Chemistry 350 or 340 and 413 (or permission of instructor); for 401, Chemistry 400; for 402, Chemistry 401. Offered yearly.

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 340 or 351 and 412 or Engineering 345 - Thermodynamics I. Offered twice yearly.

411 Synthesis and Characteristics of Polymers - 3 Q.H.

Fundamental, "hands-on" methods of polymer synthesis including bulk, solution, emulsion and suspension polymerization. Synthesized materials will be purified and characterized utilizing wet chemical and instrumental techniques. Instrumental methods will include thermal and mechanical analysis, infrared and chromatographic analysis, viscometry, and microscopy. Pre-requisite: Chemistry 410. Grade only. Offered every two years.

412 Physical Chemistry I - 3 Q.H.

States of Matter and Equation of States. Thermodynamics of one component and multi-component systems. Equilibria. Computer applications. Prerequisites: One year each of college chemistry and physics, and credit or concurrent enrollment in 125 Calculus. Offered yearly.

413 Physical Chemistry II - 3 Q.H.

Chemical Kinetics: rate laws, mechanisms, temperature-dependence, catalysis. Quantum mechanics and spectroscopy. Prerequisite: Chemistry 412. Offered yearly.

414 Physical Chemistry Laboratory - 2 Q.H.

Experiments accompanying Physical Chemistry 413 (including experiments dealing with concepts introduced in Chemistry 412). Laboratory work should be taken concurrently with 413 but can be taken following successful completion of the course. Prerequisite: Chemistry 412. Offered yearly.

415 Physical Chemistry III - 3 Q.H.

Boltzmann's distribution. Theories of reaction rates: collision model, transition state theory, diffusion & activation-controlled reactions, quantum mechanical tunneling, isotope effects. Properties of multi-component solutions. Electrochemistry. Statistical Mechanics. Prerequisite: Chemistry 413. Offered yearly.

416 Physical Chemistry Laboratory - 2 Q.H.

Experiments accompanying Chemistry 415 (including experiments dealing with concepts introduced in Chemistry 412 and 413). Laboratory work should be taken concurrently with Chemistry 415 but can be taken following successful completion of the course. Prerequisite: Chemistry 413. Offered yearly.

417 Intermediate Polymer Chemistry - 3 Q.H.

A continuation of Chemistry 410, this course is designed for students who wish to master a greater understanding of fundamental polymer science. Topics include synthetic methods, characterization techniques and structure/property relationships. Pre-requisite: Chemistry 410. Grade only. 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 two years.

425, 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 spectrophotometric methods. Chemistry 426 covers the instrumental methods of: UV-vis, emission, and AA spectroscopy, electrical methods, and gas and liquid chromatography. Prerequisite: for 425, one year of chemistry; for 426, Chemistry 425 and 413. Offered yearly.

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.

428 Chemical Separations - 4 Q.H.

A lecture and laboratory course addressing problems encountered in separating chemical species on both the analytical and production scale. Both theory and practice will be considered. Prerequisite: Chemistry 425. Offered every three years.

430 Individual Problems in Chemistry - 1-4 Q.H.

An opportunity for the qualified advanced undergraduate to work independently on chemical research under the direction of a chemistry faculty member. A careful write-up of results is required. Time arranged. Prerequisite: 20 quarter hours in chemistry and 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.

431 Guided Study in Teaching Chemistry - 1-4 Q.H.

An opportunity for the qualified teaching candidate to obtain practical knowledge and experience in techniques of planning and safely presenting chemical lecture demonstrations and in planning and safely carrying out student laboratory exercises. Prerequisites: one year of university chemistry; junior or senior standing. May be repeated to a total of 4 credits. Credits may not be applied toward "electives" category of other programs in chemistry. One credit offered each quarter by arrangement.

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. Offered every three years.

439 Biochemistry of Drug Metabolism - 3 Q.H.

An advanced elective that emphasizes the qualitative and quantitative chemistry of drug metabolism. Topics covered include pharmacokinetics and pharmacodynamics, drug absorption, distribution and excretion, phase I and phase II biotransformation, principles of therapeutics, and toxicology. Prerequisites: Chemistry 401 or Chemistry 209 and permission of the instructor. Offered every three 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 352 and 413. Offered every three years.

450 Advanced Inorganic Chemistry I - 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: Chemistry 413. Offered yearly.

451 Advanced Inorganic Chemistry II - 3 Q.H.

A continuation of the treatment of theoretical and descriptive inorganic chemistry introduced in Chemistry 450. Prerequisite: Chemistry 415 and 450. Offered yearly.

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. Prerequisite: one quarter of organic chemistry. Offered every three years.

470G Isotope, Nuclear and Radiochemistry - 3 Q.H.

Introduction and basic treatment of the nucleus with emphasis on concepts in chemistry. Interactions of radiation with matter. Nuclear structure, stabilities and associated radioactive decay processes. Applications in nuclear reactors, particle accelerators, and medical therapies. Prerequisite: Chemistry 413. Offered every two years.

472 Quantum Chemistry and Spectroscopy - 3 Q.H.

Description of quantum mechanics and application to spectroscopy of atoms and molecules. Discussion of spectroscopic techniques includes detailed derivations of microwave, infra-red, Raman, electronic, NMR, and ESR spectra. Perturbation Theory and Group Theory are introduced to determine structure of polyatomic molecules. Prerequisite: Chemistry 413. 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.

Communication Studies

Course Descriptions

051 Forensics Activities - 1-2 Q.H.

Concentrated laboratory course in a specific area of speech, closely coordinated with the W.S.U. Forensics program. May be repeated for a total of 8 Q.H. Prerequisite: 191. Offered quarterly.

061, 062, 063, 064 Debate Practicum I, II, III, IV - Each 3 Q.H.

Extensive practice in debating, in depth research of national debate topics, and travel to weekend intercollegiate debate tournaments. Offered yearly during winter quarter. May be repeated up to a total of 12 credits, no more than 6 which may be counted for electives in CMST major or minor. Prerequisite: Permission of instructor. Course Requirements: Participate in regular debate meetings during fall quarter AND intercollegiate debate during winter quarter.

090 Speech Activities - 1-2 Q.H.

A concentrated laboratory course in a specific area of speech, closely coordinated with an instructor's current project. May be taken for a total of 4 Q.H. Offered yearly.

191 Fundamentals of Speech Communication - 4 Q.H.

Students develop interpersonal, small group, and public speaking skills as well as understanding of basic communication principles. Offered quarterly.

193 Chinese Communication Theory and Kinetics - 4 Q.H.

Comparison of verbal and nonverbal Chinese communication theory and practice. Interrelations of meaning in Chinese culture examined through readings, relaxation exercises, and the movement of Tai Chi. Offered yearly.

196 Fundamentals of Interviewing - 4 Q.H.

The interview as a form of two-person communication. Emphasis on skills and strategies of interviewer and interviewee in a variety of situations (survey, journalistic, helping, employment, etc.). Course tailored to meet specific needs of students. Prerequisite: 191. Offered yearly, fall quarter.

261 Public Speaking - 4 Q.H.

Selection and organization of materials and delivery of common types of speeches; listening skills. Prerequisite: 191. Offered quarterly.

280 Nonverbal Communication - 4 Q.H.

Theory and application. Emphasis on developmental perspectives of nonverbal communication and the various classes of nonverbal messages. Prerequisite: 191. Offered yearly.

281 Crosscultural Communication - 4 Q.H.

Investigates cultural differences influencing communication. Principles of communication theory and practice applied to crosscultural communication situations including subcultures within the U.S. as well as other cultures of the world. Prerequisite: 191. Offered quarterly.

282 Introduction to Communication Studies - 4 Q.H.

Provides an overview of the basic communication theories applicable to a number of communication contexts (including small groups, interpersonal, organizational). This course moves beyond CMST 191 by emphasizing theories instead of skills. Prerequisite: CMST 191. Offered yearly.

283 Introduction to Rhetorical Studies - 4 Q.H.

Provides an introduction to the study of rhetoric and public address. The primary focus of the course is on the manner in which people use communication to influence the behavior of others. It includes a broad survey of rhetorical theorists from Plato to the post modernists. Prerequisite: CMST 191. Offered yearly.

285 Native American Oratory - 4 Q.H.

Examines in chronological order American Indian oratory. Included are speeches by Indians from first contact with whites to contemporary rhetoric. The statesmanship and oratorical ability of these Indian leaders and the problems they faced from 1750-1910 will be emphasized. Offered yearly. Prerequisite: CMST 191.

286 African-American Rhetoric - 4 Q.H.

A study of the history of African-American rhetoric from Negro oratory in the anti-slavery societies through post civil war, black power, and contemporary orations. Offered yearly. Prerequisite: CMST 191.

288 Intrapersonal Speech Communication - 4 Q.H.

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: 191. Offered alternate years.

371 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 upon small group theory. Prerequisite: 191, 282, 283 or permission of instructor for non-majors. Offered yearly.

375 Argumentation - 4 Q.H.

The study of "reason-giving" as a process for decision-making and the creation of social knowledge. Participants in the class use research, discussion, and practice in argumentative speaking and writing to develop critical thinking skills. Offered yearly. Prerequisite: 282, 283, or permission of instructor for non majors.

381 Advanced Crosscultural and International Communication - 4 Q.H.

Continuation of CMST 281, but emphasizes how to handle communication breakdowns that occur because of different cultural norms, customs, attitudes and values. Valuable to those who plan to study, travel or work abroad. Prerequisite: CMST 281. Offered alternate years.

387 Advanced Interpersonal Communication - 4 Q.H.

Designed to promote effective interpersonal communication through the studies of theories of self perception, relationship development and relationship deterioration. Topics include conflict management, gender issues in communication, individual communication styles, and maintaining relationships. Prerequisites: 191, 282, 283 or permission of instructor for non-majors. Offered yearly.

389 Persuasive Communication - 4 Q.H.

Introduces students to the theory and practice of persuasion and social influence. Source, message, receiver, and environmental factors will be studied and their effects upon the persuasive process analyzed. Preparation of persuasive messages and campaigns required. Prerequisite: 191, 282, 283 or permission of instructor for non majors. Offered yearly.

391 Topics in Communication Studies - 4 Q.H.

An in-depth topic specific course. Topics vary and are announced spring quarter of the preceding year. Prerequisite: CMST 282 or permission of instructor for non majors. May be repeated with different topics. Offered yearly.

392 Topics in Rhetorical Studies - 4 Q.H.

An in-depth study of topics of concern in rhetoric and public address. Topics vary and will be announced spring quarter of the preceding year. Prerequisite: CMST 283 or permission of the instructor for non majors. May be repeated with different topics. Offered yearly.

399 Internship - 1-16 Q.H.

Supervised work experience designed by advisor, student, and employer. P/NC. Prerequisite: consent of instructor and an overall minimum GPA of 2.5. Offered on demand.

461G Great American Speeches - 4 Q.H.

History and analysis of great American speeches. Prerequisites: 261, 282, 283 or permission of instructor for non majors. Offered alternate years.

484G Classical Rhetoric - 4 Q.H.

Seminar studies of development, changes, refinements in the heritage of rhetoric from Pericles to Seneca. Prerequisite: CMST 191, 283 or permission of instructor for non majors. Offered on demand.

485 Communication Theory - 4 Q.H.

Study of human communications theory; verbal and nonverbal signals, codes, and networks in the context of interpersonal, small group, and mass media communication. Prerequisites: completion of 200 & 300 level courses in major and minor sequences, and CMST 486. Offered yearly.

486 Organizational Communication - 4 Q.H.

Designed particularly for communications majors, prospective teachers and those planning a business career. Facilitates understanding and promotes better communication in organizations. Emphasizes role of internal and external messages in the process of organizing, climate formation, culture and action. Prerequisite: 191, 282, 283 or permission of instructor for non-majors. Offered yearly.

491 Speech/Theatre Teaching Methods - 2 Q.H.

Assists prospective teachers in exploring the techniques common to the classroom presentation of their subject and to offer some alternatives. Prerequisite: Education 150 or Education 202; CMST 282 and 283. Offered alternate years.

492 Coaching Forensics and Theatre - 2 Q.H.

Intensive involvement in co-curricular speech and theatre activities including organization and management of festivals and tournaments. Prerequisite: Education 150 or Education 202; CMST 282 and 283. Offered alternate years.

499G Independent Studies in CMST - 1-8 Q.H.

Offers the advanced student an opportunity to study independently in an area of special interest to the student. May be repeated for a total of 8 quarter hours. Prerequisite: permission of instructor. Offered on demand.

Computer Science

Course Descriptions

115 Using Personal Computers - 4 Q.H.

This course is designed to provide a student with a broad overview of uses of personal computers (microcomputers). Included are hands-on experiences with the LOGO programming language; selection of hardware; and use of software packages such as spreadsheets, data files, database management, statistics, personal management, education, and entertainment. Prerequisite: none.

130 Intro to BASIC Programming - 4 Q.H.

An introductory course in computer programming utilizing the BASIC language. Intended for students in the life and social sciences, business, psychology and other disciplines. Prerequisite: none.

150 An Overview of Computer Science - 4 Q.H.

Course is designed for Computer Science majors and others who desire a survey of the field of Computer Science. The student will be introduced to the concept of what a computer is, information representations, algorithms, system software, artificial languages, databases, A.I., software engineering, networking and telecommunications, graphics, numerical analysis, formal grammars, computability, ethics and other social issues. Prerequisite: Math 115 or equivalent.

155 Introduction to CS Tools - 2 Q.H.

Course will allow students to develop basic skills in the use of the hardware and software used in the Computer Science curriculum. Pass/no credit only.

210 Computers in Society - 4 Q.H.

An introductory non-technical survey of computer systems and a study of the social impact of computers. Course does not count for major or minor elective credit. Prerequisite: none.

231 FORTRAN for Engineering and Science - 4 Q.H.

An introduction to computer programming using the FORTRAN language with a structured approach. Programming applications will be taken from mathematics, engineering, and other scientific areas. Prerequisite: MATH 115 or equivalent. Offered yearly. This course is not applicable to the Computer Science majors or minor.

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. Prerequisite: none. Offered according to demand.

233 Structured COBOL Programming - 4 Q.H.

An in-depth study of structured program design utilizing the COBOL language. Topics include structured design, sequential file processing, and direct file processing. Prerequisite: CS 234.

234 Algorithms and Problem Solving I - 4 Q.H.

Course is designed for Computer Science majors to introduce the major concepts of algorithm design and problem solving. Emphasis will be on algorithm development, analysis, and refinement, programming strategies, elements of programming, data types, data structures, and top-down program development. Various practical applications of problem solving will be demonstrated. Includes formal labs. Prerequisites for CS Option A and B: CS 150, CS 155 or equivalent. For other majors: CS 155 or consent of instructor.

240 Advanced COBOL and File Processing - 4 Q.H.

Emphasizes the advanced features of COBOL such as indexing, sorting, report writer, and file organization and processing. Emphasis is on sophistication, economy and efficiency of program design and execution. Prerequisite: CS 233.

250 Algorithms and Problem Solving II - 4 Q.H.

Problem solving techniques with elementary data structures such as sets, records and dynamic data structures and pointer variables. Introduces recursive problem solving, searching, sorting, file manipulation, numeric and non-numeric computation, and basic computer organization. Includes formal labs. Prerequisites: CS 234 and Math 218 (or concurrent with Math 218) or consent of instructor.

297 RPG Programming - 4 Q.H.

A course in the RPG language. The specific orientation will be toward RPG as it is used on IBM mid-range hardware. Applications will be taken from its use in a day-to-day professional programming environment and in report generation. Prerequisite: Consent of instructor.

298 UNIX & C Programming - 4 Q.H.

A survey of the C Language and UNIX operating system. Topics include syntax of the languages, usage conventions, accepted practices, history and philosophy. UNIX commands will be compared to commands of other operating systems. May not be used to meet major/minor electives. Prerequisite: Consent of instructor. Offered according to demand.

CS 299 Special Topics - 1-4 Q.H.

This course is intended to treat "special" topics at the sophomore level. This course will be offered in response to requests from local groups or industry. This course may not be used to meet major or minor requirements. (May be repeated for credit.) Prerequisite: Consent of instructor.

301 Discrete Structures for Computer Science - 4 Q.H.

Provides the formal logic necessary for students to reason through problems, solutions and program designs. Also provides an introduction to abstract objects and the relationships involved in the structure of these objects. By using these structures in computer science related applications, students are also introduced to algorithms, algorithmic thinking and the complexity of algorithms. Topics covered include sets, trees, formal logic and program correctness along with algorithms, algorithm complexity and recursive algorithms. Prerequisites: (CS 234 or CS 232 or CS 231) and Math 218.

312 Microcomputer Organization - 4 Q.H.

This course will examine microcomputers; what they are and what they can and cannot do; what is available in terms of models, equipment and cost. It also provides formal labs in organizing hardware, installing hardware and software, and programming microcomputers. Prerequisite: CS 250.

340 Data Structures I - 4 Q.H.

Basic concepts of data storage and memory utilization. Linear lists, stacks, queues, linked lists, and trees. Emphasis is on data abstraction and complexity analysis of algorithms. Prerequisite: CS 250 and MATH 218.

341 Data Structures II - 4 Q.H.

Studies will include trees, graphs, sorting and searching, symbol tables, hash coding, organizations of large data files, and data bases. Prerequisite: CS 340.

351 Introduction to Assembler and Architecture - 4 Q.H.

Components of a programming system. Introduction to machine language structures and computer architecture. Topics include: Von Neumann Model; data representation; macros; input/output; and subroutine linkage. Prerequisite: CS 250.

370 Systems Analysis - 4 Q.H.

The analysis of computer/management information systems. Topics include system development life cycle and the accompanying analysis/design tools. A systematic and analytical approach to systems planning with focus on current topics and methodology. Prerequisite: CS 250 or consent of instructor.

375 Software Engineering - 4 Q.H.

Principles and techniques for methodical construction of quality software. Topics include software development process models with special emphasis on Waterfall model, software requirements specifications, formal specification techniques, design methodologies, cohesion, coupling, theory of control flow, code analysis and maintainability, software complexity metrics, and testing and validation techniques. Prerequisite: CS 340.

376 Operating Systems - 4 Q.H.

An overview of operating systems. Topics include concurrent processes, scheduling, deadlocks, memory management, file and directory organizations and protection/security. Prerequisites: CS 340 and CS 351.

385 Applied Database Management Systems - 4 Q.H.

A study of basic Database Management Systems (DBMS) concepts. Topics include DBMS Models—Relational, Network and Hierarchical; study of query languages; and study of existing DBMS. Prerequisite: CS 340.

399 Special Topics - 1-4 Q.H.

This course is intended to treat "special" topics at the junior level. It is anticipated that this course will be offered in response to requests from local groups or industry. This course may not be used to meet major or minor requirements. (May be repeated for credit.) Prerequisite: Consent of instructor.

412 Networking and Telecommunications - 4 Q.H.

This course studies telecommunications and computer networks. It begins by discussing data communications, computer interfaces, transmission media and error detection and correction. Wide area, metropolitan and local area networks will be studied in the context of the International Standards Organization/OSI Model. Emphasis will be placed on the physical, data link, network, transport and session layers. Prerequisites: CS 250 and one 300 level CS course.

413 Advanced Networking and Communications - 4 Q.H.

Advanced topics in computer networking and telecommunications will be studied. Emphasis will be on the Transport and Application levels of the OSI Model. Course will emphasize a networking lab. Students will gain experience with a protocol stack such as TCP/IP or OSI. Prerequisite: CS 412. Offered yearly.

415 Higher-Level Languages - 4 Q.H.

Principles of design and implementation of higher level programming languages. Classes and generations of languages will be covered. Topics include syntax, semantics, implementation issues, and specific features and strengths of languages. Languages such as FORTRAN, Algo., Pascal, ADA, LISP and Prolog will be discussed. Prerequisite: CS 340.

416 Functional Programming Concepts - 4 Q.H.

Introduction to the theoretical foundations of functional programming. Topics include lambda calculus, program transformation, implementation of functional programming systems, and forward and backward chaining. A functional programming language such as LISP will be covered in detail. Prerequisite: CS 415.

417 Object Oriented Programming Languages - 4 Q.H.

Introduces the motivation, foundation, and application of object oriented programming. Topics include models of object oriented programming languages, issues in object oriented programming, communication and

synchronization, co-routines, data abstraction, and applications in distributed computing. Object oriented languages such as C++, Smalltalk or Modula-3 will be covered in detail. Prerequisite: CS 415.

418 Logic Programming Concepts - 4 Q.H.

Introduction to the theoretical foundations of logic programming. Topics include predicate calculus, unification, resolution, negation, automated theorem proving, and application of logic programming. A logic programming language such as Prolog will be covered in detail. Prerequisite: CS 415. Offered alternate years.

420 Computer Architecture - 4 Q.H.

Models of computing systems will be studied. These include the Von Neumann Model, multiprocessors, vector processors, and others. Additionally, the components of these models will be examined. Topics include the memory hierarchy, input/output systems, and pipelining. Prerequisite: CS 351.

425G, 426G Numerical Analysis I, II - Each 4 Q.H.

Numerical solution of equations, numerical interpolation, differentiation, and integration, numerical linear algebra, and numerical solution of differential equations. The first course places emphasis on algorithms and related software while the second emphasizes analysis of numerical algorithms. Same as Math 425G and 426G. Students may not receive credit for both CS 425 and MATH 425 or CS 426 and MATH 426. Prerequisite: (CS 231 or CS 232 or CS 234) and MATH 329. Alternate years.

430 Computer Graphics - 4 Q.H.

A study of computer graphics. Includes display devices, transformation, graphics package design and picture structure. Prerequisite: CS 340.

435 Theory of Computation - 4 Q.H.

This course will explore theoretical foundations of computer science. Topics include finite state automata and regular sets, context-free grammars and languages, pushdown automata, Chomsky hierarchy, Turing machines and uncomputability. Prerequisites: CS 340, and Junior or Senior standing.

445 Artificial Intelligence - 4 Q.H.

A survey of the tools and theoretical constructs of artificial intelligence as implemented on computers. Emphasis on the importance of good representations to model various kinds of intelligence. Topics include resolution theorem proving, heuristic and algorithmic search, game playing, natural language processing and expert systems. Prerequisite: CS 341 and Junior or Senior status.

448 Expert Systems - 4 Q.H.

An introduction to expert systems (E.S.) methods. Topics include declarative programming; knowledge representation in rules, in semantic nets, in frames and using blackboards; E.S. tools; E.S. development cycle and case studies. Prerequisite: CS 340.

450 Compilers - 4 Q.H.

A study of basic concepts of compiler design. Topics include lexical analysis, syntax analysis, and techniques of parsing, modern top-down and bottom-up parsing techniques, syntax directed translation, code generation, optimization, and fault monitoring. Prerequisite: CS 351 and (CS 435 or CS 415).

465 Topics: Computing Theory - 1-4 Q.H.

Topics will be selected from automata theory, the Turing Machine, combinatorics, etc. An in-depth view of a specific concept of computing will be covered. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit. According to demand.

466 Topics: General Computing Applications - 1-4 Q.H.

Topics will be selected from general computing application areas. An in-depth view of a specific problem or technique will be given. Topics may include statistical problems, the Simplex model, 0/1 knapsack, Divide and Conquer, etc. Prerequisite: Junior or Senior standing and consent of instructor. May be repeated for credit. According to demand.

467 Topics: Information System Applications - 1-4 Q.H.

Topics will be selected from specific information systems or management information systems applications and are oriented towards the user. Topics will include linear programming, statistical packages, inventory systems, decision support, the transportation problem, project scheduling, queueing models, forecasting, and discrete simulation. Prerequisite: Junior or senior standing and consent of instructor. May be repeated for credit. According to demand.

470 System Design with CASE/Tools - 4 Q.H.

System design with CASE tools: translation of a logical design with E-R diagrams, data flow diagrams, data dictionary and algorithm descriptions into a physical system design. Students will work in small groups using CASE tools to design and generate the code for a system project. Offered yearly.

475 Design and Analysis of Computer Algorithms - 4 Q.H.

Concepts and techniques of design efficiency and complexity of algorithms. Topics include principles of algorithm design (divide and conquer, backtracking, dynamic programming, greedy and local search); graph, numerical, pattern matching, and parallel algorithms; P, NP and NP - complete problems. Prerequisite: CS 341.

476 Distributed Systems: Concepts and Design - 4 Q.H.

Introduction to the theory and design principles used in the construction of distributed computer systems. Study of architectural foundations of networked systems, file servers and transportation handling, and security issues. Case studies of specific distributed systems. Prerequisite: CS 376. Offered yearly.

481 Computer Applications - 1-4 Q.H.

This is intended to be an off campus course. The computer applications to be covered will be determined by the requesting group or company in conjunction with the computer science faculty. (Not open to computer science majors/minors.) May be repeated for credit. According to demand.

485 Database Systems Design - 4 Q.H.

The design and development of Database Management Systems. Topics include relational database operations and implementation, query language development, normalization, database file management, deadlock handling, security and integrity problems, and distributed DBMS. Prerequisite: CS 385.

490 Independent Problems in Computer Science - 1-6 Q.H.

An opportunity to continue the study of selected topics. Prerequisite: Consent of instructor. Offered according to demand.

491 Practicum in Computer Science - 8 Q.H.

Provides the student with practical experience and training. Students work a minimum of 200 hours in a computer installation under the supervision of a computer science professional. Students planning to take this course must register with the practicum coordinator at least 2 quarters prior to the quarter in which they intend to start the practicum. Prerequisites: (1) Declared CS, CIS or MIS major. (2) Junior or Senior status. (3) CS or CIS majors must have completed the core and option requirements for their major. MIS majors must have completed all required courses in the MIS major. (4) Four hours or less equivalency credit for previous work. (5) Written permission of the coordinator. Pass/No Credit only. Only 4 Q.H. apply to CS, CIS or MIS majors.

Computer Science Education**321 Computers in the Mathematics Curriculum - 3 Q.H.**

This course is designed to provide the future mathematics teacher with a broad overview of the uses of computers in the mathematics curriculum. The major emphasis is on selecting and evaluating courseware; using teacher utilities; role of programming and computer literacy in the mathematics curriculum. Prerequisite: MATH 126 and junior or senior standing. (A computer programming course is advised.) Offered according to demand.

452G Computer Applications in Elementary Education - 4 Q.H.

This course is specifically designed for pre-service and in-service elementary classroom teachers for the purpose of exploring selected areas of microcomputer applications in Elementary Education. The major goal of the course for each student will be the acquisition of a positive attitude in the use of the microcomputer as a teaching tool by developing confidence in using the microcomputer as a tool. To accomplish this goal, the student will have direct experiences with computer assisted instruction (CAI), computer managed instruction (CMI), information retrieval, programming languages, software evaluations, and elementary computer literacy curriculums. Prerequisites: EDUC 300, 301, 302. Offered according to demand.

480G Computer Workshop - 1-3 Q.H.

Emphasis on using microcomputers in education. Topics will be selected from multimedia, authoring languages, LOGO (including turtle graphics), computer assisted instruction (CAI), computer managed instruction (CMI), information retrieval, text editing, educational software/courseware packages, software evaluation, computer curriculums, classroom organization, and computer literacy. Prerequisite: Consent of instructor. Can be repeated for credit. Offered according to demand.

481 Computer Applications - 1-4 Q.H.

This is intended to be an off campus course. The computer applications to be covered will be determined by the requesting group or school district with the computer science faculty. (Not open to computer science majors/minors.) May be repeated for credit. Offered according to demand.

489G Special Topics - 1-4 Q.H.

Experiences in computer science and computer science education for teachers of grades K-12. Prerequisite: Consent of instructor. Offered according to demand.

Counselor Education**Course Descriptions****200 Career/Life Decision-Making - 3 Q.H.**

This course will give students an opportunity to explore choices related to their college careers and to learn decision-making skills relevant to longer-term career/life planning issues. P/NC only. Offered as needed.

220 Emotions and Behavior - 4 Q.H.

A study of the emotions and their effect on the behavior of the individual. Emphasis is placed on the management of feelings through constructive expression. P/NC option. Offered quarterly.

430 Helping Skills - 4 Q.H.

This course will present an introduction to both individual and group counseling concepts, strategies, and processes. The emphasis will be on personal skill-building and the development of an understanding of the counselor's functions and responsibilities. Grade only. Offered as needed. Prerequisite: 48 Q.H. credits or consent of instructor.

431G Chemical Dependency: Causes and Symptoms - 1-3 Q.H.

This course will focus on research and related information regarding the causes of chemical dependency. Grade only. Offered as needed. Prerequisite: CE 430 or consent of instructor.

432G Chemical Dependency Assessment - 1-3 Q.H.

This course looks at the assessment tools necessary 1) to identify the

pre-chemically dependent person so that preventative steps may be taken and 2) to detect the chemically dependent person at the earliest possible point so that intervention and treatment might occur when they are likely to be most effective. Grade only. Offered as needed. Prerequisite: CE 430 or consent of instructor.

434G Special Populations in Chemical Dependency - 1-3 Q.H.

Special populations within chemical dependency counseling (e.g. women, adolescents, the aging) will be addressed specifically because of their unique issues related to chemical dependency, P/NC option. Offered as needed. Prerequisites: CE 430 or consent of instructor.

435G Minority Issues for Helping Professionals - 1-3 Q.H.

This course is designed to aid professionals in exploring and working through such concepts as oppression, cultural assimilation and cultural pluralism. The emphasis is on American minorities from a cross-cultural perspective. Grade only. Offered as needed. Prerequisite: CE 430 or consent of instructor.

495G 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.

Economics and Finance

Course Descriptions

Economics

201 Principles of Microeconomics - 4 Q.H.

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. General Education math requirement recommended.

202 Principles of Macroeconomics - 4 Q.H.

National income analysis; aggregate demand and supply; money banking; business cycles, monetary and fiscal policy. No prerequisite. General Education math requirement recommended.

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.

302 Intermediate Microeconomics - 4 Q.H.

The 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.

303 Intermediate Macroeconomics - 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.

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. Prerequisites: Busa 207 or Stat 279, Econ. 202.

315 Environmental and Natural Resource Economics - 4 Q.H.

An introduction to the economics of natural resource management and environmental quality. Theory and policy in the use of nonrenewable and renewable resources, and pollution. Current issues in those areas will be featured. Prerequisite: Econ 201.

320 Business-Government Relations - 4 Q.H.

Government regulation of business including anti-trust legislation, consumer and investor protection and public enterprise. Prerequisite: Econ. 201.

398 Internship - 1-12 Q.H.

Credits will not be counted in Economics major, but as general elective credit. Prerequisite: Concurrent enrollment in Econ. 399. P/NC only.

399 Internship Problem - 4 Q.H.

Prerequisite: Junior status in Economics major, 2.5 G.P.A. and consent of instructor. Grade only.

400 Public Finance: Taxation - 4 Q.H.

Structure and economic effects of U.S. tax revenue sources such as the personal income tax and corporate income tax. Current issues in taxation; principles of economic incidence and optimal taxation. Prerequisites: Econ. 201, 202 or consent of instructor.

404 International Economics - 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, exchange rate determination, and balance of payments adjustments. Prerequisites: Econ. 201, 202.

405 Monetary Theory and Policy - 4 Q.H.

The theory and practice of monetary policy in a modern market economy. This includes the microeconomic foundations of the demand for assets, including money; the interrelationships between nonmonetary assets, money and rates of return; the ability of central banks to manipulate the supply of money; and the roles of private and public debt in monetary policy. Prerequisite: Econ. 303 or 304. Grade only.

415 International 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. Prerequisites: Econ. 201, 202.

420 Labor Economics - 4 Q.H.

Economic theory relating to labor markets. Wage theory, bargaining models and contemporary labor issues considered. Prerequisites: Econ. 201, 202 or consent of instructor.

425 Managerial Economics - 4 Q.H.

Application of economic theory and related decision-making methods of problems faced by business firms. Prerequisites: Econ. 201, 202, or consent of instructor.

440 Industrial Organization - 4 Q.H.

A theoretical and empirical study of the economic structure, conduct, and performance of industry. Topics include concentration, scale economies, entry barriers, and collusive oligopoly practices. Topics are used to judge industrial performance relative to societal goals. Prerequisite: Econ. 201.

444 Public Finance: Expenditures and the Deficit - 4 Q.H.

A practical and theoretical approach to public expenditures. The theory of public goods; use of benefit cost analysis; analysis of major spending programs; and the effect of the deficit on economic activity. Prerequisites: Econ. 201, 202 or consent of instructor.

450 Health Economics - 4 Q.H.

In depth analysis of the market for health care services, including the demand for health services, the supply of such services, alternative delivery modes, financing by individuals, government and third party payers. Health care policy at the federal, state and local level will be evaluated. Prerequisites: Econ. 201, 202; Busa 207 or Stat 279. Grade only.

480 Independent Studies in Economics - 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.

499 Seminar in Economics - 4 Q.H.

Advanced analysis of economic method and problems. Specific focus of course is arranged by the instructor. May be taken twice. Prerequisites: Econ. 302 and 303.

Finance

201 Introduction to Finance - 4 Q.H.

An introduction to the financial system in the U.S., including the role of the banking system in controlling the supply of money and interest rates, a primer on corporate finance and investments, both long-term and short-term, and an introductory discussion of other financial activities, including federal government financing, state and local, consumer financing, agricultural, and international finance. Not open to those having 20 or more credits in business.

335 Forecasting Methods - 4 Q.H.

A study of the techniques and processes used in business forecasting. Primary emphasis is on univariate time series. Techniques studied include simple smoothing methods, decomposition methods, Box-Jenkins ARIMA method, and regression. Prerequisite: Stat 309. Grade only.

340 SAS Applications in Business - 1 Q.H.

A series of short courses in the effective use of the SAS System in a mainframe environment. Alternative course topics include basic data handling, regression analysis, forecasting techniques, survey tabulation and analysis, etc. Requires completion of several project assignments. May be repeated as topics change. Prerequisite: Stat 309. Grade only.

360 Corporate Finance - 4 Q.H.

A course dealing with financial management problems of the business enterprise. Emphasis on problems of capital budgeting, current asset management, and sources and techniques of long and short-term financing. Prerequisites: Econ. 201, 202; Acct. 201, 202; Stat 279 or its equivalent. Math requirement of student's major. Grade only.

371 Principles of Real Estate - 4 Q.H.

Survey of real estate principles and practices, the economic environment, law, brokerage, management, appraisal, finance, investment, taxation and development. Prerequisites: Econ. 201, 202. Grade only.

377 Investments - 4 Q.H.

Investment policies affecting the individual and institutional investor. Includes the analysis and management of stocks, bonds, mutual funds, and other investments, and the nature of security markets. Prerequisites: Fin 360, Mathematics requirement of student's major. Grade only.

398 Internship - 1-12 Q.H.

Credits will not be counted in Finance major, but as general elective credit. Prerequisite: Concurrent enrollment in Finance 399. P/NC only.

399 Internship Problem - 4 Q.H.

Prerequisite: Completion of Business Core, 2.5 G.P.A. and consent of instructor. Grade only.

404 Commercial Bank Management - 4 Q.H.

An analysis of financial management issues of commercial banks and other financial institutions, including institution performance, investments, asset/liability strategies, management of liquidity, securities, loans and other assets, and capital, deposits and other sources of funds. Prerequisite: Fin 360. Grade only.

420 Applications of Financial Management for Health Care Organizations - 4 Q.H.

Examination and explanation of financial management concepts that began in the traditional fee for service and charity philosophies and have evolved into the public sector, tax-exempt sector, and investor-owned sector. Prerequisites: Econ 201, 202, 450; Acct 201, 202, 203; Hadm 320.

421 Institutional Investment and Financial Markets - 4 Q.H.

A study of portfolio management decision-making in this age of innovative global financial markets, new financial instruments, and instantaneous worldwide communications. Prerequisites: Fin 360, Econ 303. Grade only.

422 Portfolio Theory and Management - 4 Q.H.

An in-depth investigation of modern concepts of asset ownership, risk and the reduction of risk through portfolio construction. Prerequisites: Fin 377, Computer requirement of student's major. Grade only.

440 International Finance - 4 Q.H.

This course provides a comprehensive introduction to the world of financial management as it applies to multinational corporations and other firms that engage in international transactions. Topics include the nature of the international financial system, foreign exchange management, investment financing, and risk management issues of concern to international businesses. Prerequisite: Fin 360. Grade only.

463 Cases in Financial Management - 4 Q.H.

Case 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. Prerequisites: Computer requirement of student's major; Fin 360. Grade only.

471 Real Estate Finance - 4 Q.H.

The structure and operation of the primary and secondary mortgage markets, instruments, techniques and strategies in financing real property investments. Prerequisite: Fin 360. Grade only.

473 Real Estate Investment - 4 Q.H.

Development of the feasibility process, the major tool used in analysis of investment opportunities, with a view to determining highest and best use. Topics include market analysis, cash flow analysis, tax considerations, investment performance, risk analysis, and passive investments in real estate. Prerequisite: Fin 360. Grade only.

480 Independent Studies in Finance - 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. Grade only.

Education

Course Descriptions

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.

120 Parenting - 4 Q.H.

A social, emotional, physical, and intellectual development of children from birth to adolescence is outlined. Parenting strategies for coping with some of the common problems that arise in childrearing will be discussed. Offered yearly.

150 Introductory Field Experience - 2 Q.H.

A general elective Teaching Assistant experience at a selected school level for either an introductory experience in the classroom or an additional Teaching Assistant 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 Director in the Education Department upon availability of official quarterly class schedule prior to pre-registration.

300 Growth and Development - 4 Q.H.

A study of typical and atypical human growth and development from early childhood through lifespan. Offered quarterly.

301 Learning in the Classroom - 4 Q.H.

Nature of learning theory, retention, transfer, motivation, and intelligence as they relate to the teaching-learning process of typical and atypical students. Offered quarterly.

302 Professional Field Experience - 2 Q.H.

A required period of actual classroom participation as a Teaching Assistant. Offered quarterly. P/NC Only. NOTE: Persons enrolling in Ed. 302 must schedule arrangements with the Field Experience Director in the Education Department upon availability of official quarterly class schedule prior to pre-registration. Taken concurrently with Ed. 300 or 301, whichever is taken first.

306 Curriculum and Evaluation - 4 Q.H.

Principles of curriculum formation including writing of behavioral objectives, unit planning and daily lesson planning. Evaluation techniques to determine achievement of objectives through teacher made

tests, standardized tests and observation techniques as well as statistics of measurement, specialized measurement instruments, and interpretation. Offered quarterly. Prerequisites: EDUC 300, 301, 302.

308 Human Relations - 4 Q.H.

A basic course in human relations for education majors. The course takes a laboratory and a directed study approach in areas such as communication, group interaction, trust, interpersonal relationships and the study of minorities and ethnic groups. Offered quarterly. P/NC option to non-Education majors. Prerequisites: EDUC 300, 301, 302.

321 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. Prerequisites: Ed. 300, 301, 302.

328 Teaching Reading and Language Arts I (Primary) - 5 Q.H.

Emphasis is on reading and other communication skills, readiness and the integration of decoding and encoding concepts, skills and instructional techniques into a single curriculum for grades 1-3. (Junior or Senior status required.) Offered quarterly. Includes field component. Prerequisites: EDUC 300, 301, 302.

329 Teaching Reading and Language Arts II - 5 Q.H.

Emphasis is on study skills, vocabulary development skills, comprehension, diagnosis, evaluation and reporting. Attention will be given to grade placement of skills in the total curriculum (grades 1-6) and their application in content areas. (Junior or Senior status required.) Offered quarterly. Prerequisites: EDUC 328.

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. Prerequisite: Ed. 300, 301 and 302. Offered yearly.

333 Teaching Social Studies in the Elementary School - 4 Q.H.

Development of teaching competencies in small group instruction, guiding student inquiry and conducting discovery lessons. Curriculum materials are studied and evaluated for use in the elementary classroom. Offered quarterly. Prerequisites: EDUC 300, 301, 302.

- 334 Teaching Mathematics in the Elementary School - 4 Q.H.**
Teaching competencies such as guiding student inquiry, demonstrating mathematics principles and procedures, and using a variety of instructional aids, are developed in relation to scope and sequences of elementary curriculums. Offered quarterly. Prerequisites: EDUC 300, 301, 302.
- 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: 300, 301, 302. Offered quarterly.
- 352 Integrating Micro-computers in Elementary Education - 4 Q.H.**
Designed for teacher education students to meet technology outcomes and to use instructional media effectively. Prerequisites: 300, 301, 302.
- 369 Introduction to Early Childhood Family Education - 1 Q.H.**
This course is offered to comply with a state mandate which requires successful completion by all persons working (or intending to work) in parent/family education programs. Focusing on both the child and the family, this course introduces an overview of a variety of helpful services through which parents become empowered to learn new skills of parenting, theories of child rearing, realistic expectations of their children, and a support system for building networks to strengthen families. Offered yearly. Grade only.
- 410G Foundations of Early Childhood Education - 4 Q.H.**
History, theory, trends and contemporary issues in early childhood education and the role of the early childhood teacher. Offered yearly. Grade only.
- 413G Development in Infancy - 4 Q.H.**
Genetics, prenatal development, birth, and physical, social, emotional and cognitive development in the first three years. Offered yearly. Grade only. Prerequisite: Education 300.
- 414G Development in Early Childhood - 3 Q.H.**
Explores the social, emotional, physical, and cognitive development from age two through the early elementary years. Offered yearly. Grade only. Prerequisite: Education 300, 301.
- 416G Early Childhood Education I - 4 Q.H.**
Planning the curriculum and developing strategies for teaching young children before kindergarten. Offered yearly. Grade only.
- 417G Early Childhood Education II - 4 Q.H.**
Introduction to philosophies, goals, teaching strategies, and content of programs for young children with emphasis on the kindergarten and primary years. Offered yearly. Grade only.
- 418 Pre-Kindergarten Practicum - 2 Q.H.**
Supervised observation and participation in classroom activities related to pre-kindergarten programs. Offered yearly. Taken with 416G. P/NC Only, for undergraduates.
- 422G Socialization of the Young Child - 3 Q.H.**
Examines the child in the family, parent-child relations, home-school relations, and the social issues that impact on the family. Offered yearly. Grade only.
- 423G Young Children with Special Needs - 4 Q.H.**
Prepares early childhood teachers to meet the special needs of young children with handicaps and/or developmental lags. Offered yearly. Prerequisite: EDUC 416.
- 424G Organization and Administration of Early Childhood Education Programs - 4 Q.H.**
Local and state laws governing various types of early childhood programs are studied. Financial aspects, buildings, personnel and administrative matters pertaining to the establishment of programs are discussed. Offered yearly.
- 427G Development and Remediation of Reading - 3 Q.H.**
Development of reading comprehension, diagnosis, and remediation of reading difficulties focused on middle school learners. Prerequisites: Education 300, 301, 302, 306. Offered yearly. Note: This course meets a middle school licensure requirement for Secondary Education majors.
- 429G Secondary Reading and Teaching Strategies - 4 Q.H.**
Emphasis is on reading comprehension, strategies, study skills in content areas, lesson planning, lesson presentation skills, media techniques appropriate to the instructional process. Prerequisite: 300, 301, 302. Offered quarterly.
- 433G Materials and Methods in Environmental Education - 3 Q.H.**
Curriculum materials relating to the broad topic of human impact upon the environment; group work, field trips, consultants, and lectures. Prerequisites: Ed 300, 301, and 302 for undergraduate or graduate status. Offered yearly. Grade only.
- 434G Remedial Mathematics Methods - 4 Q.H.**
Diagnostic and remediation techniques to facilitate acquisition of basic mathematics skills. Prerequisite: Ed. 334 or consent of instructor. Offered yearly.
- 439G Introduction to Early Childhood Family Education - 1 Q.H.**
This course introduces a study of major components considered essential to the development of effective educators of parents and their families. Offered yearly. Grade only.
- 440G Practicum in Early Childhood/Family Educator-Parent Educator - 4 Q.H.**
A supervised experience in adult education with parents of young children. Offered quarterly. P/NC only.
- 441G Parent Education: Curriculum and Methods - 4 Q.H.**
This course will assist people who intend to teach parent education to adults in Early Childhood Family Education Programs and other parent education programs to obtain the skills and basic understanding needed to be an effective parent educator. This course will teach group facilitation skills, curriculum development, philosophy and methods. This course is intended for persons intending to become certified in the area of parent education and family life education. Prerequisites: Non-education majors: HPER 204, Ed. 301 and Ed. 308. Education majors: Ed. 301. Offered yearly. Grade only.
- 442G The Adult Learner - 4 Q.H.**
This course will focus on the characteristics and development of adult learners. Prerequisites: Non-education majors seeking prekindergarten licensure: No prerequisites. Education majors: Ed. 300, 301, 302. Offered yearly. Grade only.
- 443G Facilitating Parent Education Groups - 4 Q.H.**
This course is designed to give group facilitation skills to parent educators. Prerequisites: Non-education majors: HPER 204, Ed. 301 and Ed. 308. Education majors: Ed. 301. Offered yearly. Grade only.
- 444G Practicum in Early Childhood/Family Education-Family Educator - 4 Q.H.**
A supervised practicum in family education with both parents and their prekindergarten children. Prerequisites: Courses in the parent educator licensure program. Offered quarterly. P/NC only.
- 450G Comparative Education - 4 Q.H.**
A study of the purposes, organization, offerings, and achievements of education in selected foreign countries. Offered yearly. Grade only.
- 459G Professional Topics and Issues - 4 Q.H.**
Designed to familiarize teacher education majors with school organization patterns, legal responsibilities, philosophies of education, professional organizations, and related topics prior to student teaching. Classroom management is a major component. Offered quarterly. Prerequisites: Education 300, 301, and 302; junior or senior status.
- 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.
- 461 Student Teaching - Kindergarten - 8 Q.H.**
Responsibilities for planning and conducting kindergarten activities under supervision. Offered quarterly. P/NC Only.
- 464 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 in a junior high school. Offered quarterly. P/NC Only.
- 465 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.
- 467 Student Teaching Pre-Kindergarten Programs - 4 Q.H.**
Supervised teaching in a pre-kindergarten school program. Students enroll in the 4 credit pre-kindergarten experience. P/NC Only. Offered quarterly.

469G Middle School Philosophy, Organization, and Interdisciplinary Planning - 4 Q.H.

The major focus of this course will be the middle school concept including its philosophy, organization, and methods of interdisciplinary planning. The major objective of this course is to give future middle school teachers a background in the components of the middle school movement, and instructional strategies appropriate for middle level learners. This course is designed for people who seek to be licensed to teach at the middle school level. Prerequisite: Ed 300, 301, 302, 306. Offered yearly. Grade only.

470 Advanced Practicum in Middle School - 8 Q.H.

A supervised practicum in middle level education at a middle school site. Prerequisites: See Education Department regarding prerequisites. 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.

483 Curriculum, Methods, and Resources in Multicultural/Global Education - 4 Q.H.

A systematic approach for understanding and practicing multicultural education with minority and non-minority populations. Offered yearly. Grade only.

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.

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.

499G Workshops and Seminars - 1-4 Q.H.

The subject matter to be developed by the Department and instructor prior to the workshop or seminar to be offered. The student may repeat the course without limitation on the number of credits as long as the subject matter is different. Offered on demand. P/NC Only.

Engineering

Course Descriptions

(All engineering courses are to be taken for grade only.)
(All courses are offered yearly unless otherwise stated.)

205 Engineering Graphics - 2 Q.H.

A lecture-laboratory course. Engineering design process. Visualization and design communication. Engineering drawing standards and conventions. Computer-aided drafting and design (CADD) software will be used throughout the course. Prerequisites: MATH 116 or MATH 120, or placement in MATH 125. Offered quarterly.

225 Statics - 4 Q.H.

Force systems and equilibrium. Applications to simple trusses, frames and machines; distributed loads; properties of areas and masses; laws of friction. Designed to develop the ability to analyze and solve engineering problems. Prerequisites: MATH 125 and PHYS 221.

316 Properties of Materials - 4 Q.H.

Physical and mechanical properties of materials. Physical properties: bonding, crystal structure, imperfections, diffusion, phase diagrams, phase transformations and thermal processing. Mechanical properties: introductory theory of elasticity, plasticity, strengthening mechanisms and failure modes. Emphasizes metallic systems but also incorporates ceramics and polymers. Prerequisites: ENGR 225 and CHEM 213.

345 Thermodynamics I - 4 Q.H.

Equations of state; development of first and second law thermodynamics; non-ideal gas and irreversibility. Prerequisites: PHYS 223 and MATH 329.

346 Thermodynamics II - 4 Q.H.

Thermodynamics of phase and chemical equilibria; a continuation of 345. Prerequisite: ENGR 345.

350 Dynamics - 4 Q.H.

Kinematics: translation, rotational, plane motion and relative motion of particles and rigid bodies. Kinetics of particles and rigid bodies by methods of: force-mass-acceleration, work energy, and impulse and momentum. Prerequisites: ENGR 225, PHYS 222 and MATH 330.

360 Strength of Materials - 4 Q.H.

Concept of stress and strain, internal reactions (stresses and strains) to external load for axially loaded prismatic structural member; torsion members and beams; deformation and buckling of structural and machine elements. Statically determinate and statically indeterminate problems. Prerequisites: ENGR 225 and MATH 126. Offered twice a year.

375 Fluid Dynamics - 4 Q.H.

Pressure and flow measurements, hydrostatic force, continuity and momentum equations, flow in conduits, velocity distribution, drag force, and pump calculations. Prerequisite: MATH 330.

376 Heat and Mass Transfer - 5 Q.H.

Conduction, convection, radiation, energy equation, design and analysis of heat exchangers, boiling and condensation heat transfer, Fick's Law, molecular diffusion in solids, gases, and liquids, and mass balance. Prerequisite: ENGR 375.

377 Transport Phenomena Laboratory - 2 Q.H.

A lecture-laboratory course. Report writing, data acquisition, statistical analysis of data, and the theories of pressure, flow, and temperature measurements. Experiments in momentum, heat, and mass transfer. Prerequisites: ENGR 375 and ENGR 376.

391 Kinetics and Reactor Design - 4 Q.H.

Fundamental concepts of the rate of homogenous and heterogenous reactions, ideal batch and flow reactors and their prospective designs, material and energy balance around chemical reactors, and the rate of reaction of thermosetting resins. Prerequisites: CHEM 213 and MATH 330.

392 Engineering Composites Materials I - 4 Q.H.

Basic concepts and definitions of composite materials. Fabrication, structure, properties, and applications of fibrous materials. Structure and properties of polymer matrix, metal matrix and ceramic matrix materials. Study of interface between fiber and matrix. Fabrication methods, properties and applications of polymer matrix composites, metal matrix composites, ceramic matrix composites and carbon/carbon composites. Prerequisites: ENGR 316 and CHEM 410.

393 Engineering Composites Materials II - 4 Q.H.

Micromechanics of composite materials. Behavior and mechanical properties of unidirectional composites. Study of failure modes, hygrothermal and transport properties. Stress transfer, stiffness and strength properties of short fiber composites. Generalized Hooke's Law and stress-strain relations of an orthotropic lamina. Stiffness and strength criteria of orthotropic composite materials. Prerequisites: ENGR 392 and ENGR 360.

415/416 Composites Manufacturing I/II - 4 Q.H. (each)

General manufacturing issues including: flow of a product through a manufacturing firm, environmental, health and safety issues, learning curve, sampling plans and statistical process control. Fabrication processes specific to the composites industry. Assembly, inspection, testing, and repair of composite structures. "Hands-on" experiences are used throughout the course. Prerequisite: ENGR 392.

445 Computer Integrated Manufacturing - 4 Q.H.

Open system concepts. Manufacturing systems as open systems. Manufacturing system design including: information flow and computer networks, product design and manufacturing, and manufacturing equipment and automation. Computer software is used to simulate system/environment interaction. Prerequisite: ENGR 416. Offered a minimum of every other year.

447/448 Process Design Project I/II - 4 Q.H. (each)

Develop product from requirements definition through prototype fabrication. Including: definition of product requirements, development of product and tooling design, analysis, definition of fabrication process, development of quality assurance plan, fabrication of prototype, inspection and testing. Work is performed in student teams. Prerequisite: ENGR 415.

460 Introduction to Finite Element Analysis - 4 Q.H.

Theory and practice of the finite element method with emphasis on stress analysis in two dimensions by means of assumed displacement fields. Direct stiffness method, variational method, isoparametric formulations, algorithms for construction and solution of the governing equations, numerical errors and convergence, modeling and programming. Prerequisites: ENGR 360, MATH 425 and CS 231.

465 Polymer Processing - 4 Q.H.

Chemical and physical properties of polymers, continuity, energy, and momentum equations, rheology of polymer melts, quantitative modeling of polymer processing techniques, and processes for the production of polymer matrix composites. Prerequisite: ENGR 375.

475 Rheology - 4 Q.H.

A lecture-laboratory course. Stress and strain, Newtonian vs. non-newtonian fluids, rheological equations of state, viscometric flows, viscoelasticity, fluid mechanics of rheometry, plastic melt rheometry, and suspension rheology. Prerequisites: ENGR 375 and MATH 330. Offered a minimum of every other year.

482 Mechanics of Composites - 4 Q.H.

Lamination Theory. Elastic behavior of multidirectional laminates. Stress analysis and strength of multidirectional laminates. Structural design and optimization. Fracture, fatigue, impact and environmental effects on the performance of fiber reinforced composites. Prerequisite: ENGR 393.

483 Mechanical Characterization Laboratory - 2 Q.H.

A lecture-laboratory course. Experimental characterization of composite materials. Determination of density of high modulus fibers and fiber volume fraction. Strain gage measurements. Tension, compression, flexure, shear, stress concentration and fatigue properties of composite materials. Emphasis on technical writing and preparation of laboratory reports. Prerequisites: ENGR 360 and ENGR 393.

484 Composite Characterization Techniques - 4 Q.H.

A lecture-laboratory course. Overview of various thermal, chemical, microscopic and surface characterization techniques and their applications to composite materials. Prerequisite: ENGR 392.

485 Advanced Microscopic Techniques - 4 Q.H.

A lecture-laboratory course. Theory and use of scanning electron microscopes, transmission electron microscopes, field ion microscopes, atomic force microscopes and scanning tunneling microscopes. Comparisons are made to optical microscopy. Explores the relationships between chemistry, microscopic structure and properties of engineering materials. Prerequisite: ENGR 316 and credit or concurrent registration in ENGR 392. Offered a minimum of every other year.

495 Independent Study - 1-4 Q.H.

Undergraduate student research. Subject and credit to be arranged with instructor. Requires approval of the Department of Engineering.

499A/499B Seminar - 1 Q.H.

Varying topics seminar class. Students are required to give presentations on topics pertinent to engineering. Also includes guest speakers from the engineering profession. Students must take both 499A and 499B to receive credit.

English

Course Descriptions

105 English for Non-Native Speakers: Listening to Academic Speech - 4 Q.H.

Intensive practice in understanding lectures. Individualized pronunciation practice and grammar review. Designed to help students function successfully in university classrooms. Offered yearly.

106 English for Non-Native Speakers: Academic Reading and Writing I - 4 Q.H.

Intensive advanced drill in reading and writing English. Designed to prepare the non-native speaker for further English courses. Offered yearly.

107 English for Non-Native Speakers: Academic Reading and Writing II - 4 Q.H.

A continuation of English 106 for students needing more extensive writing practice before advancing to English 110. Offered yearly.

108 Introduction to College Writing - 4 Q.H. (Non-degree Credits)

Intensive writing practice with special focus on the fundamentals of sentence and paragraph structure. Offered quarterly. (Credit does not count towards graduation.)

110 College English I - 4 Q.H.

Expository writing based on experience, direct observation, and reading, with emphasis on critical reading and critical thinking skills, rhetorical strategies, mechanics, and style. Prerequisite for English 115. Offered quarterly.

112 Accelerated College English - 4 Q.H.

Accelerated composition for students scoring high on WSU placement test. Expository writing with focus on analytic reading and critical thinking, library research, and the documentation of supporting evidence. Students receiving A or B exempted from English 115. Offered quarterly.

115 College English II - 4 Q.H.

Continuation of 110 with a stress on analytical and persuasive writing, library research, and the documentation of supporting evidence. Prerequisite: 110. Offered quarterly.

120 Introduction to Literature: Forms and Themes - 4 Q.H. Intensive readings in selected major forms and themes of literature. (Note: This course is offered under a variety of topics which will be announced in the quarterly schedules.)

121 Major British and American Fiction 4 Q.H.

An introduction to British and American fiction. Offered yearly.

125 Masterpieces of Short Fiction - 4 Q.H.

An introduction to the short story and the basic elements of fiction. Offered yearly.

131 Masterpieces of American Literature - 4 Q.H.

An introduction to major works by great American writers, including various forms, and of both the pre-twentieth century and modern periods. Offered yearly.

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.

201 Introduction to Literary Studies - 4 Q.H.

Introduction to literary analysis, focusing upon the major genres of literature: fiction, drama and poetry. All English majors and minors must take and pass this course *before* enrolling in 300 or 400 level English courses. Prerequisites: 110 and 115. Offered yearly. P/NC Option.

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 quarterly. 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.

224 The Bible as Literature - 4 Q.H.

The literary structure and genres of the Hebrew and Christian scriptures with special attention to the cultures that created them and to major translations. Prerequisites: 110 and 115. Offered yearly.

310 Story Writing - 4 Q.H.

Study and practice in the techniques and forms of fiction writing. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

312 Poetry Writing - 4 Q.H.

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, 115, and 201. Offered every two years. P/NC Option.

316 The American Novel - 4 Q.H.

A study of selected major American novels. Prerequisites: 110, 115, and 201. Offered yearly. P/NC option.

331 The British Novel - 4 Q.H.

Examination of some of the masterpieces of the British novel, emphasizing the development of this genre from its birth in the 18th century to its flowering in the early modern period. Prerequisites: 110, 115, and 201. Offered yearly. P/NC Option.

351 American Literature I - 4 Q.H.

The beginning to the Civil War. Not a prerequisite for English 352. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

352 American Literature II - 4 Q.H.

The Civil War to modern times. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

399 Internship - 1-16 Q.H.

Supervised, practical experience in a wide variety of fields. Must be arranged well in advance of registration period. Prerequisites: 110, 115, and 201. Offered quarterly. P/NC only.

402 Teaching Secondary English - 4 Q.H.

A study of the goals and methods of the secondary English teacher and of the content and structure of the secondary English curriculum. Prerequisites: 110, 115, and 201. Offered yearly. P/NC Option.

405G Chaucer - 4 Q.H.

The Canterbury Tales. Prerequisites: 110, 115, and 201. Offered yearly. P/NC Option.

406G Studies in Sixteenth Century Literature - 4 Q.H.

Non-dramatic literature of the Tudor period. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

407G Studies in Seventeenth Century Literature - 4 Q.H.

Non-dramatic literature of the seventeenth century. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

410G Creative Writing: Advanced Theory and Practice - 4 Q.H.

Advanced study of selected authors and the theory of writing. Offered alternately in poetry and fiction/creative prose. A student may take each alternative for credit. Prerequisites: 110, 115, and 201 and, for poetry, English 312; for fiction/creative prose, English 310. Offered yearly. P/NC Option.

414G Shakespeare: Comedies and Histories - 4 Q.H.

Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

417G Shakespeare: Tragedies - 4 Q.H.

Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

418G Stylistics - 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, 115, and 201. Offered yearly. P/NC Option.

420G Introduction to Language Study - 4 Q.H.

An introductory study of language systems and their relationships to the cultures in which they function. Prerequisites: 110, 115, and 201. Offered yearly. P/NC Option.

422G Emerson and Thoreau - 4 Q.H.

An intensive examination of the major works of Ralph Waldo Emerson and Henry David Thoreau. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

424G Modern Drama - 4 Q.H.

An examination of western drama from Ibsen to the present with special attention to female and minority writers. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

425G Modern British and American Prose - 4 Q.H.

Selected work of prose, fiction and non-fiction. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

432G European and Non-Western Literature - 4 Q.H.

An introduction to representative masterpieces of European and non-Western literature. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

435G Literature of the Romantic Era - 4 Q.H.

The Romantic writers and their precursors. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

437G Literature of the Victorian Era - 4 Q.H.

An examination of the major writers of the Victorian period with special emphasis on Victorian poetry. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

439G Technical Writing - 4 Q.H.

A course in the theory and practice of technical writing. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

445G Studies in Eighteenth Century Literature - 4 Q.H.

Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

447G Literary Criticism: Theory and Practice - 4 Q.H.

A study of modern critical theories and their application in original critical evaluations. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

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, 115, and 201. Offered every two years. P/NC Option.

450G Modern British and American Poetry - 4 Q.H.

An examination of representative British and American poets of the modern era, comprising the work of various groups and ethnic derivation. It focuses upon both male and female writers. Prerequisites: 110, 115, and 201. Offered every two years. P/NC Option.

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, 115, and 201. Offered quarterly.

Humanities**140 Approaches to the Film - 4 Q.H.**

A general introduction to the arts of the film, with focus on the non-technical aspects of the art. No prerequisites. Offered yearly.

Foreign Language

Course Descriptions

General

200 Exploratory Foreign Language - 2 Q.H.

Presentation of French, German and Spanish alphabets, pronunciation, basic grammar and syntax, common expressions, idiomatic phrases, geographic and personal names and cultural features in a comparative way so that participants may decide which of the three most commonly taught foreign languages is best suited for them. May be used towards fulfillment of the humanities requirement under general education but does not apply to the different culture category. (Offered when staffing permits.)

209 Foreign Language for Travelers - 1-4 Q.H.

Useful words and phrases in the target language are presented, discussed, and practiced to help beginning and slightly advanced participants prepare for real or vicarious overseas experiences related to customs clearance, shopping, eating out, sightseeing, hotel reservations, auto rental or repairs, medical consultations and other situations travelers may need to deal with. Cultural and historical glimpses of countries in which the language is spoken will also be provided with the help of audiovisual aids. Course may be repeated with different language covered. (Offered when staffing permits.)

220 Applied Foreign Language - 1-4 Q.H.

Variable topics are offered periodically such as the following: Practical Spanish for Medical Personnel, French, German or Spanish for Business, Scientific French, German or Russian, Practical Arabic, Introductory Polish, etc. May be repeated with different topic covered. (Offered when demand warrants and a qualified instructor is available.)

430 Methods of Teaching a Modern Foreign Language - 4 Q.H.

Discussion of foreign language teaching methods with respect to their effectiveness in achieving pedagogical goals. Practical applications are offered. Must be taken before the student teaching assignment. Offered every two years.

French**110 Elementary French I - 4 Q.H.**

Introductory French for students with 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.

213 Intermediate French I - 4 Q.H.

Further development of communication skills. Study of grammar essential to skills. Selected readings in French. Prerequisites: 112 or equivalent of three years of high school French. Offered yearly.

214 Intermediate French II - 4 Q.H.

Further development of communication skills. Study of grammar essential to skills. Selected readings in French. Prerequisite: 213 or equivalent of four years of high school French. Offered yearly.

215 Intermediate French III - 4 Q.H.

Continuation of French 214. Further development of all the skills essential for communication. Further development of understanding written and spoken French. Practice in translation and practice in writing accentuated. Pre-requisite: French 214 or equivalent of five years of high school French. Offered yearly.

303 The French Press - 4 Q.H.

Course explores the French press through the study of French newspapers and magazines. "Le Journal Francais d'Amerique" and "Paris Match," as well as samplings of other major French newspapers and magazines plus the audio cassette series "Champs Elysees" provide exposure to a wide range of cultural, social and political events in France and the world. Offered on a two year cycle.

320 Phonetics and Pronunciation -4 Q.H.

The main emphasis in this course will be French pronunciation, with heavy use of the phonetic alphabet. Video tapes and audio cassettes with films, daily French scenarios, pronunciation drills and radio and television programs will help students perfect their French accent. Relevant aspects of linguistics will also be included. Offered on a two year cycle.

322 French Civilization and Culture - 4 Q.H.

Course presents the French conception of the development of French culture and civilization from the earliest times to the present day as a basis for the advanced study of the language and literature of France. It is taught in French with a French textbook. Students are encouraged to take courses in the history of western civilization to broaden and deepen their understanding of French culture and civilization in its wider context. Offered on a two year cycle.

324 Explication De Texte - 4 Q.H.

Course presents an overview of French literature and criticism through a typically French approach to the investigation of texts. Analyses of representative works of French prose, poetry and drama will be studied, discussed and written. Offered on a two year cycle.

332 French Composition and Conversation I - 4 Q.H.

Course serves as a review and reinforcement of basic French grammar and vocabulary, and as an introduction to new material and forms of expression. The active skills of writing and speaking are emphasized through a variety of drills, themes and imaginative settings. Offered on a two year cycle.

333 French Composition and Conversation II - 4 Q.H.

Advanced course in French writing and speaking that emphasizes the more technical aspects of grammar and vocabulary at the same time that it reviews and reinforces the rudiments of the language. Daily written and oral work in French will increase fluency at a steady pace. Offered on a two year cycle.

425 French Literature of the Middle Ages and Renaissance - 4 Q.H.

Course explores the literature of the Middle Ages and Renaissance in France. The great epic poem "La Chanson de Roland" (author unknown) will launch the study of 600 years of French authors, including major writers such as Chretien de Troyes, Villon, Rabelais, Ronsard and Montaigne. Offered on a two year cycle.

426 Seventeenth and Eighteenth Century French Literature - 4 Q.H.

Course explores the literature of the seventeenth and eighteenth centuries in France. Comedies, drama, poetry and prose by such internationally acclaimed writers as Descartes, Corneille, Racine, La Fontaine, Moliere, Montesquieu, Voltaire and Rousseau will be studied in the context of their literary dramatic, religious and philosophical influence. Offered on a two year cycle.

427 Nineteenth Century - 4 Q.H.

Course focuses on the great French literary figures of the 19th century. Selections will be studied from the major works of writers such as Chateaubriand, Hugo, Flaubert, Baudelaire and Rimbaud as representatives of romanticism, realism, and symbolism.

428 Twentieth Century French Literature - 4 Q.H.

The major historical events of the 20th century and the great diversity of philosophical and spiritual perspectives inspired by both World Wars will be studied and discussed from a literary perspective; including the prose, poetry and drama of the last ninety years. Offered on a two year cycle.

German**110 Elementary German I - 4 Q.H.**

Introductory German for students with 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. Offered when staffing permits.

320 German Readings and Syntax - 4 Q.H.

Study and analysis of the German language on an advanced level. It includes historical and descriptive linguistics, advanced grammar and reading strategies involving complex texts. Prerequisite: 214 or equivalent. Offered on a two year cycle.

322 German Civilization and Culture - 4 Q.H.

The German way of life from past to present, with glimpses of regional differences. Prerequisite: 214 or equivalent. Offered on a two year cycle.

325 The German Short Story - 4 Q.H.

Selected German short stories and novellas will be read and discussed in terms of content, structure, literary significance, and contemporary relevance. Prerequisite: 214 or equivalent. Offered on a two year cycle.

332 Conversation and Composition - 4 Q.H.

Practice in listening and speaking via recorded material and conversation. Development of writing skills. Prerequisite: 214 or equivalent. Offered every two years.

333 Advanced Conversation and Composition - 4 Q.H.

A continuation of 332. German composition with work in stylistics, including common formalized expressions used in letter writing. In addition to German majors and minors, bilingual business and science majors will find this course helpful. Prerequisite: 332 or equivalent. Offered on a two year cycle.

335 Contemporary Topics in German Press - 4 Q.H.

Topics of concern to Germans today are discussed on the basis of articles that have appeared in major West German newspapers and magazines. Prerequisite: 214 or equivalent. Offered on a two year cycle.

370 Lyrics, Ballads and Folk Songs - 4 Q.H.

An introduction to German Poetry. Representative examples from major periods, including lyric poems, folk songs, and ballads are read and discussed as to form and content. Prerequisite: 214 or equivalent. Offered on a two year cycle.

410 Periods of German Literature I - 4 Q.H.

German literary epochs from the early Old High German period to Classicism/Romanticism will be discussed in connection with representative works in the contents of historical and philosophical developments. Prerequisite: 214 or equivalent. Offered on a two year cycle.

411 Periods of German Literature II - 4 Q.H.

Continuation of 410 from Classicism/Romanticism to modern times. Prerequisite: 214 or equivalent. Offered on a two year cycle.

450 Individual German Author - 4 Q.H.

A course dealing with a major individual German author or a small group of authors. May be repeated for credit if different authors are covered. A research project on a particular author or on an entire literary movement may be required of 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. The course topic, requirements, meeting times and places, and the number of quarter hours are to be determined through consultation with the instructor. Repeatable for credit up to a total of 12 quarter hours. Prerequisite: depends on project attempted. Offered only by arrangement when staffing permits. May not be used to replace regular course work for the major or minor.

Japanese**110 Elementary Japanese I - 4 Q.H.**

Introductory Japanese for students with little or no prior Japanese training. Instruction in speaking, listening, reading, and writing through classroom drill, language laboratory, and computer lab work. Offered when staffing permits.

111 Elementary Japanese II - 4 Q.H.

Continuation of 110. Pre-requisite: 110 or one year of high school Japanese or equivalent. Offered when staffing permits.

112 Elementary Japanese III - 4 Q.H.

Continuation of 111. Pre-requisites: 111 or two years of high school Japanese or equivalent. Offered when staffing permits.

213 Intermediate Japanese I - 4 Q.H.

Intermediate Japanese emphasizes the continued development of proficiency in reading, writing, listening, and speaking. Instruction includes vocabulary building and continued exposure to grammatical structures. Pre-requisite: Elementary Japanese 112 or equivalent. Offered when staffing permits.

214 Intermediate Japanese II - 4 Q.H.

Further development of communications skills. Study of grammar essential to skills. Selected readings in Japanese. Pre-requisite: Intermediate Japanese 213 or equivalent. Offered when staffing permits.

215 Intermediate Japanese III - 4 Q.H.

Continuation of Japanese 214. Further development of all the skills essential for communication. Further development of understanding written and spoken Japanese. Practice in translation and practice in writing accentuated. Pre-requisite: French 214 or equivalent. Offered when staffing permits.

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 and availability of staff.

Spanish**110 Elementary Spanish I - 4 Q.H.**

Introductory Spanish for students with 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.

215 Intermediate Spanish III - 4 Q.H.

Continuation of 214. Further development of skills essential for communication. Study of grammar and syntax. Additional practice in reading and writing. Pre-requisite: 214 or equivalent of five years of high school Spanish. Offered yearly.

320 Spanish Linguistics - 4 Q.H.

Ample practice in all sounds of the language with remarks on its development from Latin. Exploration and contrast between the sounds and grammatical structures of English and Spanish. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

332 Spanish Conversation and Composition - 4 Q.H.

Emphasized class discussion and helps to develop critical thinking. Readings to be included are short stories by modern and classical authors. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

333 Advance Composition - 4 Q.H.

Continuation of 332. Overview of semantics and stylistics with special emphasis on the differences between English and Spanish. Training in expository writing. Pre-requisites: Spanish 110 through 215 and 332 or equivalent. Offered every two years.

350 The Culture of Spain - 4 Q.H.

This course is taught in Spanish. It focuses on the successive phases in the development of the culture of Spain. The development of Spanish art, architecture, music, and lifestyle, will be studied as well as the different individualities of the regions of Spain. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

351 The Culture of Latin America - 4 Q.H.

This course is taught in Spanish. It focuses on the cultures of countries such as Mexico, Peru, Argentina, Cuba and Puerto Rico, their Pre-Columbian cultures as well as their development after the Spanish colonization: their art, their traditions and their present life-style and customs. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

360 Don Quijote - 4 Q.H.

Cervantes masterpiece read in the original and studied in detail. Open to students from other departments, who have a reading knowledge of Spanish. This course requires a research paper to be written in English or Spanish. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

425 Medieval through Golden Age Spanish Literature - 4 Q.H.

In depth reading of well know classics, especially the oral epic of "Mio Cid", and excerpts from other texts. The course explores the Picaresque Novel, the Classical sonnet, poetry by the mystics St. John of the Cross and Saint Theresa, as well as important Renaissance plays. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

426 Modern & Contemporary Literature of Spain - 4 Q.H.

The course focuses on the study of the literature of Spain from the end of the nineteenth century to the present day. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

435 The Colonial Through 19th Century Latin American Literature - 4 Q.H.

Survey the epic poem "La Araucana," and early travel accounts from the New World, especially the diary of Alvar Nunez Cabeza de Vaca. Close reading of Lyric poetry by the Mexicans Miguel de Guevara and Sor

Juana Ines de la Cruz. Transition of the gaucho epic from the nineteenth to the twentieth Century. The course closes with works from the modernist movement as outlined by the Guatemalan Ruben Dario and the Cuban Jose Marti. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

436 Modern and Contemporary Latin American Literature - 4 Q.H.

This course covers the major authors of nineteenth and twentieth Century Latin American Literature. Pre-requisites: Spanish 110 through 215 or equivalent. Offered every two years.

Geography

Course Descriptions

110 World Regional Geography - 4 Q.H.

A survey of physical and cultural aspects of world regions including landforms, climate, levels of economic development, cultural diffusion, attitudes toward the land and toward social structure and values.

Offered quarterly. Grade only.

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 introduction to the significance and areal distribution of various physical elements of man's environment with emphasis on climate, landforms, gradational 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 population, cultural origins, language, religion and agriculture. Offered twice each year.

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 twice per year.

233 Geography of the Middle East - 4 Q.H.

Environmental setting, population distribution, important occupations, crossroads, functions, and problems of development. Offered every two years.

270 Introduction to the Geography of Tourism - 4 Q.H.

An introduction to the study of the geography of tourism. This course will study the origin, development, and spread of tourism. Particular emphasis will be placed on the location of tourist areas in the U.S.

Offered every other year.

320 Geography of the United States - 4 Q.H.

An examination of the various regions of the United States with emphasis on the ways in which physical geography, sources of economic activity and cultural heritage combine to produce the unique character of each region. Offered twice each year.

323 Geography of the Orient - 4 Q.H.

A study of the physical and cultural features of the Far East. Offered every other year.

326 Geography of Europe - 4 Q.H.

A study of nations, regions, and economies of Europe with special attention to current problem areas. Offered every other year.

332 Geography of Canada - 4 Q.H.

A detailed examination of Canada's geography with special emphasis on developmental problems. Offered every other year.

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 every other year.

370 The Geography of Tourism: Advanced Study - 4 Q.H.

An in-depth study of tourist locations world wide. Detailed examination and classification of tourist types and locations will be emphasized. Offered every other year.

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. Offered every other year.

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: Consent of instructor. Offered every other year.

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 by arrangement.

Geology

Course Descriptions

100 Minnesota's Rocks and Waters - 4 Q.H.

Introduction to Minnesota's geological history focusing on such topics as: Minnesota's rock record and history, fossils, mining, soils, lakes, rivers, and ground water. Lecture, no laboratory. Optional field trips. Offered on demand.

101, 102 Introduction to Geology I and II - 4 Q.H. each

An introductory sequence in the principles and processes of geology and the historical development of planet earth. 101 deals with geological principles and earth materials, and processes at work on and within the planet. 102 begins with the origin of the solar system and continues with the changes in the earth and its life forms over the past few billion

years. Field trips are taken in 102. Lecture and laboratory. 101 Offered Quarterly, 102 Offered Yearly.

200 Oceanography - 3 or 4 Q.H.

Introduction to oceans including the ocean floor, marine sediments, composition of sea water, ocean currents, waves and tides, marine biology, and oceanic resources. Lecture. Laboratory optional. No prerequisite. Offered yearly.

220 Astronomy I - 3 or 4 Q.H.

History and instruments of astronomy; Sun and stellar origin, planets and origin of our solar system, origin of the universe. Lecture. Laboratory and observation optional. No prerequisite. Offered quarterly.

221 Astronomy II - 4 Q.H.

Examination of the Universe beyond our solar system and what is known about its origin, structure and evolution. Lecture and laboratory. Prerequisite: Geology 220. Offered alternate years.

230 Meteorology - 4 Q.H.

Study of Earth's dynamic weather system including atmospheric structure, composition, and processes; origin and development of storms and related phenomena. Lecture and laboratory. No prerequisite. Offered yearly.

250 Mineralogy I: Crystallography, physical and chemical mineralogy - 4 Q.H.

Introduction to minerals as naturally occurring inorganic chemical compounds. Crystal morphology, physical and chemical properties of minerals. Theory of optical mineralogy. Lecture and laboratory. Prerequisite: Geology 101. Offered yearly.

251 Mineralogy II: Descriptive and optical mineralogy - 4 Q.H.

Classification and description of minerals, with emphasis on the rock-forming minerals. Optical properties of minerals are determined using petrographic microscope. Lecture and laboratory. Prerequisite: Geology 250. Offered yearly.

315 Geomorphology - 4 Q.H.

Study of the nature and evolution of landforms and materials at or near Earth's surface. Lecture and laboratory. Prerequisite: Geology 101 or consent of instructor. Offered in 1995-1996 and alternate years.

320 Igneous and Metamorphic Petrology - 4 Q.H.

Introduction to major igneous and metamorphic rock types of Earth; mineral equilibria, mineralogical phase rule and metamorphic facies. Rock identification by megascopic and petrographic techniques. Lecture and laboratory. Prerequisite: Geology 251. Offered yearly.

321 Sedimentary Petrology - 4 Q.H.

Description and classification of sedimentary rocks in hand specimen and thin section, and interpretation of factors which control their origin. Sandstones and carbonates are emphasized. Lecture and laboratory. Prerequisite: Geology 251. Offered yearly.

325 Environmental Geology - 4 Q.H.

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. Includes investigation of impact of human activity on natural systems. Lecture and laboratory. Prerequisite: Geology 101 or consent of instructor. Offered in 1994-1995 and alternate years.

330 Quaternary and Glacial Geology - 4 Q.H.

Study of glacier development and movement; erosion and deposition of glacial sediment, and formation of glacial landforms. Includes investigation of Quaternary glacial history and paleoclimatology. Lecture, laboratory and required field trips. Prerequisite: Geology 101 and 102. Offered on demand.

350 Invertebrate Paleontology - 4 Q.H.

Classification, morphology, ecology and evolution of major invertebrate phyla. Lecture and laboratory. Required field trips. Prerequisite: consent of instructor. Offered in 1993-1994 and alternate years.

370 GIS and Imaging Techniques - 4 Q.H.

Techniques of using aerial photographs, remote sensing and GIS for geological applications. Lecture and laboratory. Prerequisite: Geology 101 and 102. Offered on demand.

380 Structural Geology - 4 Q.H.

Study of primary and secondary structures of rocks, mechanics of rock deformation and structural techniques. Principles of plate tectonics and mountain building. Lecture and laboratory. Prerequisite: Geology 250. Offered yearly.

385 Regional Geology of the United States - 4 Q.H.

Study of the physiographic provinces of continental United States with emphasis on geomorphology, structural history, stratigraphy and mineral deposits of each province. Lecture and laboratory. Prerequisite: Geology 320. Offered on demand.

399 Geology Internship - 1-8 Q.H.

Supervised governmental agency, business, industrial or research institution experience designed by Geology faculty advisor, work supervisor, and student. Open only to Geology students with junior or senior standing, Math/Science G.P.A. 2.5 or better, and approval by Geology Department. Offered quarterly.

400G Individual Research Problems - 1-4 Q.H.

Independent study of selected geologic field and/or laboratory problem with subsequent preparation of written report and oral seminar report. May run three quarters concurrently. May be repeated up to 12 credits. Prerequisite: Permission of Department Chairperson. Offered quarterly.

404G Current topics in Geology - 1-4 Q.H.

Analysis of current topics and issues relevant to Earth Sciences. Subject matter will be announced in advance by the department. May be repeated as topics change. Offered on demand.

410 Economic Geology - 4 Q.H.

Origin and geological environment of economic mineral deposits. Lecture and laboratory. Prerequisite: Geology 251. Offered on demand.

414 Sedimentology - 4 Q.H.

Study of physical, biological and chemical processes which affect sedimentation. Depositional systems are analyzed as process-response models. Lecture, laboratory and required field trips. Prerequisite: Geology 102. Offered yearly.

415 Stratigraphy - 4 Q.H.

Interpretation of stratigraphic record and history of Sedimentary basins. Study of stratigraphic nomenclature and correlation, facies models and sequences, eustatic change of sea level, and plate tectonics and fluid flow in basins. Lecture, laboratory and required field trips. Prerequisite: Geology 414. Offered yearly.

420 Hydrogeology - 4 Q.H.

Study of interrelationship of water and earth materials, including ground-water occurrence, movement, and determination of aquifer characteristics. Lecture and laboratory. Prerequisite: Geology 101 and Math 215. Offered yearly.

421 Applied Hydrogeology - 4 Q.H.

Application of hydrologic principles to ground-water flow problems and contaminant studies. Techniques of water-well development, aquifer tests, determination of ground-water chemistry. Use of computer models and other analytical tools. Lecture and laboratory. Prerequisite: Geology 420. Offered yearly.

425 Exploration Geophysics - 4 Q.H.

Theory, models and problems in refraction, reflection and earthquake seismology. Borehole geophysical methods. Theory and models for gravity and magnetic exploration. Lecture and laboratory. Prerequisites: Geology 320 and 380. Offered in 1995-96 and alternate years.

430 Principles of Geochemistry - 4 Q.H.

Application of chemical principles to geological problems. Chemistry of formation of major rock groups with emphasis on aqueous geochemistry. Prerequisites: Chemistry 213 and Geology 320 (the latter may be waived for chemistry majors). Offered in 1994-1995 and alternate years.

475 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.

480 Geological Field Techniques - 4 Q.H.

Basic geologic mapping utilizing alidade, plane table and Brunton compass. Measurement and description of stratigraphic sections including some laboratory treatment of field samples. Prerequisite: consent of instructor. Offered yearly.

Health, Physical Education and Recreation

Course Descriptions

Health and Safety

111 Cardiopulmonary Resuscitation - 1 Q.H.

Basic life support training includes life saving procedures used in respiratory and circulatory emergencies for adults, children, and infants. CPR Certificate can be earned. Offered quarterly.

127 Problems in Health/Wellness - 4 Q.H.

Interprets concepts, purposes, and theories of health education/promotion, analyzes the foundations of the discipline of health education/promotion, recognizes the role of learning and affective experience in shaping patterns of health behavior, investigates career opportunities in all health education/promotion settings, introduces professional organizations and journals. Prerequisite: HPER 204. Offered on demand. Grade only.

204 Personal and Community Health - 4 Q.H.

Addresses individual and community needs for health education/promotion. Identifies behaviors that tend to promote or compromise health, investigate the physical, social, emotional and intellectual factors influencing health behavior, Students complete a behavior change project. Use of alcohol, tobacco, and other drugs, with emphasis on prevention strategies and personal guideline development is specifically addressed as mandated by MN State law 126.06. Offered quarterly. Grade only.

214 Standard First Aid and Personal Safety - 3 Q.H.

American Red Cross standard course. Accident scene management, victim assessment and basic life support knowledge and practice are emphasized. Adult CPR component included. Certification can be earned.

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 on demand.

320 Health Education in the Elementary School - 4 Q.H.

Designing pre-8 educational programs consistent with specified program objectives, includes development of a logical scope and sequence plan for an elementary health education program, Applying individual or group process methods appropriate to given elementary level learning situations. Prerequisite: HPER 204. Offered quarterly. Grade only.

325 Program Planning in Health/Wellness - 4 Q.H.

Concerns the planning, implementation, and evaluation of programs for community, educational and worksite setting. Develops skills in designing program objectives, using educational techniques and evaluation strategies, selecting resources appropriate to needs of the target population. Prerequisite: HPER 204 and 127. Offered on demand. Grade only.

345 Emergency Response for the Professional Rescuer - 3 Q.H.

This course is designed to teach those emergency care skills and the accompanying knowledge which is needed by such emergency care givers as policemen, fire department members, park rangers and other first line care-givers. Upon successful completion of the class, students will be issued American Red Cross "Emergency Care" and "CPR for the Professional Rescuer" cards. This course will not prepare the student to become an Emergency Medical Technician. Prerequisite: HPER 214. Offered yearly. Grade only.

354 Principles of Safety Education - 3 Q.H.

Principles and practices of safety in occupational, community and home settings. Prerequisite: HPER 204 and 214. Offered on demand.

380 Techniques of Emergency Health Care I - 3 Q.H.

An introduction to emergency medical care for lay medical workers. Arranged through department.

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. Arranged through department.

399 Internship in Health - 6 Q.H.

On-the-job supervised work experience in a health agency or organization. Contact HPER department chairperson for requirements.

Prerequisite: Senior standing, and all core courses. Offered quarterly. P/NC Only.

411 Health Education Appraisal - 3 Q.H.

Examines the role of community/school education staff and health care providers in the coordination of health education services, identifies specific K-12 student health needs and issues, and appropriate policies and procedures. Prerequisite: HPER 204, 127. Offered 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. Arranged through department.

425 Organization and Administration of Health Education - 3 Q.H.

Organizational and administrative aspects of an effective health education/promotion program pertaining to budgets, personnel, facilities, legal responsibilities, and the formulation of practical modes of collaboration among educational, community and health care organizations. Prerequisites: HPER 204, 127, 325. Offered yearly. Grade only.

428G Health Science Strategies - 3 Q.H.

Selection of methods and media best suited to implement program plans for specific learners, employs a wide range of strategies for dealing with controversial health issues, assembles educational material of value to the health of individuals and community groups, utilizes computerized health information and retrieval systems effectively. Prerequisite: HPER 204, 127, 325. Offered yearly. Grade only.

429G Community Health - 4 Q.H.

Explores the foundations of public health practice, including health organizational/agency structures, and specific public health concerns of target populations. An overview of epidemiology is included. Prerequisites: HPER 204, 127. Offered yearly. Grade only.

431G Health Problems Workshop - 1-3 Q.H.

Explores recent and relevant issues, trends and programming developments in health education/promotion. Designed for teachers, school nurses, school administrators, undergraduate and graduate students. May be repeated for credit.

432 Health Education Seminar - 1 Q.H.

In-depth study and research on a selected health topic. Review of responsibilities and competencies for entry-level health educators for certified health education specialist credentialing and ethical considerations and standards as outlined by the society of Public Health Educators. Prerequisite: Senior standing. Offered yearly. Grade only.

488G Alcohol and Drug Education - 1-3 Q.H.

Provides overview of changing patterns, problems, perspective and policies of drug use in the United States. Personal chemical use is explored and charted. Includes evaluation of existing drug abuse prevention programs. Prerequisites: Junior/Senior standing. Offered yearly.

Physical Education

206 Exercise and Relaxation - 2 Q.H.

Theories, models and problems of exercise/activity programs that promote relaxation. A relaxation program is designed by each student to meet individual needs.

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. Grade only.

251 Sports Science - 3 Q.H.

The study of anatomical, mechanical, maturational, psychological, and physiological kinesiology as it applies to the practice of coaching. The major focus is to present the scientific principles that constitute the basis for sound athletic coaching practices. Offered twice yearly. Grade yearly.

301 Techniques of Teaching Dance - 3 Q.H.

Theory and practical experience in methods of teaching dance. Prerequisite: 2 quarter hours of dance activity or consent of instructor. Offered yearly. Grade only.

303 Test and Measurements in Health and Physical Education - 3 Q.H.
Theory of measurement in health and physical education, selection and administration of appropriate tests and interpretation of test results by fundamental statistical procedures. Offered yearly. Grade only.

304 Techniques of Coaching Football - 2 Q.H.
Theory and practice of teaching and coaching football. Offered yearly. Grade only.

305 Techniques of Coaching Basketball - 2 Q.H.
Theory and practice of coaching basketball. Offered yearly. Grade only.

306 Techniques of Coaching Track & Field and Cross Country - 2 Q.H.
Theory and practice of coaching track & field and cross country. Offered yearly. Grade only.

307 Techniques of Coaching Baseball and Softball - 2 Q.H.
Theory and practice of coaching baseball/softball. Offered yearly. Grade only.

308 Techniques of Coaching Wrestling - 2 Q.H.
Theory and practice of teaching and coaching wrestling. Offered on demand. Grade only.

309 Teaching Elementary Physical Education - 3 Q.H.
Theory and principles of activity selection, program planning and the teaching of motor skills through various teaching styles. Offered quarterly. Grade only.

310 Techniques of Coaching Volleyball - 2 Q.H.
Theory and practice of coaching volleyball. Offered yearly. Grade only.

312 Techniques of Coaching Gymnastics - 2 Q.H.
Theory and practice of coaching gymnastics. Offered yearly. Grade only.

313 Techniques of Coaching Tennis - 2 Q.H.
Theory and practice of coaching tennis. Offered yearly. Grade only.

315 Developmental/Adapted Physical Education - 4 Q.H.
Methods, techniques and special programs of physical education for the atypical child. Emphasis will be on those disabling conditions most prevalent in the school system and the laws that govern them. Grade only.

317 Curriculum and Methods of Physical Education - 4 Q.H.
Curriculum and teaching methods of Physical Education. Prerequisites: HPER 222 and 309 and one core course. Permission of instructor required. Offered yearly. Grade only.

349 Techniques of Fitness Programming - 3 Q.H.
Practical experiences in the assessment of fitness components and performance variables, and the knowledge to design training programs for improvement of these factors. Prerequisite: HPER 251 or 340. Grade only.

351 Adapted Aquatics for Handicapped and Special Need Populations - 3 Q.H.
Provides fundamental techniques and methods of swimming instruction for the categorically handicapped and/or special need student. A practicum with handicapped students is included. Prerequisites: HPER 211 or HPER 241 or HPER 295. Offered alternate years. Grade only.

400G Perceptual-Motor Development - 4 Q.H.
In-depth examination of contemporary motor developmental theories, principles of normal and abnormal motor development and clinical applications of immature locomotor patterns. Grade only.

406G Coaching Practicum - 3 Q.H.
Directed supervision in coaching. The student will propose the sport and location when he/she is interested in coaching. After approval of the supervising coach, school athletic director, WSU affiliated coach and the HPER Department Chair, the student will be granted a coaching practicum under direct supervision. Graduate credit will be granted only for coaching in higher education. Offered quarterly. Prerequisites: All course work must be completed before practicum. Grade only.

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: HPER 222, 309, 317. Offered twice yearly. Grade only.

417G Physical Education or Recreation Workshop - 1-3 Q.H.
Subject matter determined by department. Course may be repeated when offered with different subject matter, content, and title.

420G The Administration of High School Athletics - 3 Q.H.
Administrative procedures for managing the business affairs of high

school athletic programs and a study of state high school league regulations for boys and girls programs. Offered on demand. Grade only.

435G Assessment in Adapted Physical Education - 4 Q.H.
Instruction in the assessment, prescription and use of instructional methods, materials and equipment relevant to specific handicapping conditions in the adaptive physical education setting. Prerequisites: HPER 303, HPER 400G. Grade only.

436G Programming/Special Populations I in Developmental/Adapted Physical Education - 3 Q.H.
Provides fundamental concepts and skills essential to programming and adaptation of methods, materials, physical activities and facilities to meet the needs of the Learning Disabled, Mentally Handicapped and Emotionally Disturbed in selected activity areas. Laboratory included. Prerequisites: HPER 400G, HPER 435G. Grade only.

437G Programming/Special Populations II in Developmental/Adapted Physical Education - 3 Q.H.
Provides fundamental concepts and skills essential to programming and adaptation of methods, materials, physical activities and facilities to meet the needs of the orthopedically handicapped, sensory impaired and other health disorders. Prerequisites: HPER 315, HPER 435G. Grade only.

438G Developmental/Adapted Physical Education Practicum - 6 Q.H.
The application of skills, knowledge and concepts necessary for planning, organizing and conducting developmental/adapted physical education programs through supervised field experience. Prerequisites: HPER 436G, HPER 437G. Grade only.

445G Motor Learning - 3 Q.H.
Theoretical foundations of motor learning and the practical applications of theories in the teaching of motor skills. Offered yearly. Prerequisites: 303 and 317. Grade only.

470G Mechanical Analysis of Motor Skills - 3 Q.H.
Analysis of sports skills in terms of the fundamental principles of body mechanics. Prerequisites: Biol 211 and 212, HPER 314. Offered yearly. Grade only.

480G Coaching Clinic - Football - 3 Q.H.
Lectures, films, demonstrations, and panel discussions covering offensive and defensive drills, special techniques, pre-season programs, off-season programs, practice sessions, conditioning, and care and prevention of athletic injuries. Offered yearly for undergraduates.

483G Coaching Clinic - Track and Field - 3 Q.H.
The clinic will provide the opportunity for registrants to gain valuable approaches, methods, and techniques from highly qualified men and women track and field coaches in sprinting, hurdling, middle and long distance running, relays, long jump, triple jump, high jump, shot put, discus, javelin, and pole vault. Offered on demand for undergraduates.

490 Independent Study in Health, Physical Education and Recreation - 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. Grade only.

Activity All Students

All activity courses are offered on an optional Pass/No Credit basis except those designated P/NC only. Activity courses required for majors and minors *must* be taken for grade.

101 Basketball - 1 Q.H.
Development of skills and techniques in basketball. Offered on demand.

102 Softball - 1 Q.H.
Development of skills and techniques in softball. Offered yearly.

103 Racquetball - 1 Q.H.
Development of techniques, knowledge of rules, terms, and strategies necessary for recreational participation. Offered quarterly. Student must supply their own racquet and balls.

105 Basic Smallbore Rifle - 1 Q.H.
Skills in shooting the basic four positions for indoor rifle shooting: prone, sitting, kneeling and offhand. Knowledge of target scoring, safe gun handling and an understanding of recreational range operation. Offered yearly. Range fee.

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. Range fee.

113 Personal Fitness - 1 Q.H.

Techniques for acquiring physical fitness. Offered quarterly.

115 Bowling - 1 Q.H.

Skills and knowledge necessary for the recreational purposes of the beginner. (\$9.00 fee). Offered quarterly.

117 Canoeing - 1 Q.H.

Small craft safety, self-rescue, and the fundamental strokes of canoeing. Prerequisite: 211 or demonstrated ability. Offered yearly.

119 Aerobic Dance - 1 Q.H.

An aerobic dance class designed to increase total fitness. Offered yearly or on demand. P/NC only.

120 Aquatic Aerobics/Exercise - 1 Q.H.

A water aerobics/exercise class designed to increase total fitness. Offered yearly. P/NC only.

121 Weight Training - 1 Q.H.

Basic weight training is designed to develop safe and proper weight training through demonstration and hands-on use. Offered yearly.

124 In-Line Skating/Aerobic Exercise - 1 Q.H.

A low-impact aerobic/exercise class designed to increase general fitness with a concentration on building cardiovascular capacity. Offered summer only. P/NC Only. Departmental approval required.

126 Tap Dance - 1 Q.H.

An introduction to tap technique emphasizing musicality, expression and style in performance within the cultural and historical context of the form. Prerequisite: none. Offered once yearly.

151 Volleyball - 1 Q.H.

Skills and knowledge necessary for recreational purposes, power volleyball skills. Offered quarterly.

152 Fencing - 1 Q.H.

Skills and knowledge necessary for recreational purposes of the beginner. Offered yearly.

153 Beginning Skiing - 1 Q.H.

Skills and knowledge necessary for the recreational purposes of the beginner. Offered yearly. Additional Fee.

190 Cross Country Skiing - 1 Q.H.

Focuses on the skills and knowledge necessary for the recreational purpose of the beginner. Offered yearly.

201 Folk Dance - 1 Q.H.

An activity based introduction to folk dances from various countries. Offered yearly.

202 Tumbling - 1 Q.H.

Development of skills in mat and rebound tumbling. Offered on demand.

207 Badminton - 1 Q.H.

Skills and knowledge necessary for the recreational purposes of the beginner. Offered twice yearly.

208 Tennis - 1 Q.H.

Skills and knowledge necessary for the recreational purpose of the beginner. Students must supply their own racquet and balls. Offered twice yearly.

209 Beginning Swimming and Drown-proofing - 1 Q.H.

For non-swimmers. Designed to develop the basic skills and confidence essential for survival and recreational swimming. Offered yearly.

211 Swimming and Diving - 1 Q.H.

For swimmers who can handle themselves in deep water. Designed to develop skill and endurance in the performance of basic swimming strokes and aquatic skills. Prerequisites: 209 or permission of instructor. Offered yearly.

212 Jazz Dance I - 1 Q.H.

This activity based course is an introduction to the basic technique of jazz dance. Additionally, students will develop an understanding of the history of jazz dance and its place among other dance forms.

215 Modern Dance I - 1 Q.H.

Basic techniques of contemporary dance and composition. Offered twice yearly.

218 Intermediate Tennis - 1 Q.H.

Strokes, footwork and strategy of tennis for the player. Prerequisite: 208 or demonstrated ability. Offered yearly. Students must supply their own racquet and balls.

219 Golf - 1 Q.H.

Skills and knowledge necessary for the recreational purposes of the beginner. (Additional Fee). Offered yearly.

220 American Country Dance - 1 Q.H.

Fundamentals of American Square dance. Offered yearly.

230 Ballroom Dance - 1 Q.H.

An activity based course designed to include the foxtrot, waltz, lindy and rumba. Offered yearly.

232 Ballet I - 1 Q.H.

Beginning level ballet technique and theory. An introduction to ballet as a craft and art. Offered yearly.

241 Emergency Water Safety - 1 Q.H.

An activity based course designed to cover personal water safety techniques and skills recommended by the American Red Cross. Culminates with certification. Offered yearly.

253 Intermediate Skiing - 1 Q.H.

A continuation of skills acquired in beginning skiing and tailored to the skill level of the individual. Prerequisite: 153 or demonstrated ability. Offered yearly. (Additional Fee).

295 Water Safety Instructor - 2 Q.H.

Teaching techniques and methods for swimming, diving, basic water safety, and program development. Culminates with certification. Offered twice yearly. Prerequisite: HPER 241 or instructor's permission.

Activity Cores for Physical Education Majors

All courses include comprehensive development of skills, knowledge of rules, strategies, terminology, and participation in the designated activities. Open to physical education majors.

166 Physical Education Activity Core/Badminton, Soccer, Golf - 3 Q.H. Offered yearly. Grade only.

167 Physical Education Activity Core/Tennis, Bowling, Archery - 3 Q.H. Offered yearly. Grade only.

168 Physical Education Activity Core/Track & Field, Softball - 3 Q.H. Offered yearly. Grade only.

170 Physical Education Activity Core/Flag Football/Conditioning - 3 Q.H.

Comprehensive development of skills, strategies, and terms integral to flag football and the conditioning activities of weight training, aerobics and flexibility. Offered yearly. Grade only.

172 Physical Education Activity Core/Tumbling/Rhythmic Activities - 3 Q.H.

Comprehensive development of skills, strategies, and terms integral to tumbling and rhythmic activities. Offered yearly. Grade only.

173 Physical Education Activity Core/Volleyball and Basketball - 3 Q.H. Offered yearly.

Recreation/Therapeutic Recreation

All students entering with advance credit must consult the department for evaluation of credits and assignments of proper classes.

203 Recreational Programming - 3 Q.H.

A study of the planning, leadership and administrative components involved in recreational and TR activity programming. All content matter is practical by design and applicable to the entry level recreational professional.

229 Foundations of Recreation and Leisure Studies - 3 Q.H.

History and Development of recreation, and principles and philosophies of leisure. Offered yearly.

239 Outdoor Pursuits - 3 Q.H.

An overview of the theory and practice of adventure, recreation and challenge education. Classroom as well as experiential involvement. (Additional fee)

240 Trip Camping - River Canoeing - 4 Q.H.

Use of environment for leisure activities and learning camping skills. Several day to month long camping experiences. Offered summer only. Offered on demand. (Additional fee)

245 Therapeutic Recreation and Services - 3 Q.H.

History, philosophy, theories, professionalism of therapeutic recreation; factors influencing service delivery. Grade only.

292 Craft Activities - 3 Q.H.

Survey of craft materials and processes, and activities for elementary and secondary education and youth activities. Offered yearly. Grade only.

302 Tourism-Ecotourism - 3 Q.H.

An overview of the rapidly growing tourism industry in relation to the field of recreation and leisure studies. Course emphasis will be placed on special event/festival management as well as "eco-tourism" which promotes cultural and environmental sensitivity. Grade only.

326 Organization and Administration of Recreation - 3 Q.H.

Principles of supervision and administration as applied to recreation and therapeutic recreation settings. Prerequisite: 229. Grade only.

332 Leisure and Aging in Therapeutic Recreation - 3 Q.H.

Leisure needs and perceptions of the frail elderly. Implications for therapeutic recreation services in clinical and community support programs. Prerequisite: HPER 245. Offered yearly. Grade only.

333 Wilderness Outfitting and Trip Planning - 3 Q.H.

An overview of low impact camping, equipment and techniques as well as administrative and leadership components of organized camping. Grade only.

342 Intervention Techniques in Therapeutic Recreation - 3 Q.H.

Helping strategies, processes and techniques utilized by the therapeutic recreation specialist. Prerequisite: HPER 245. Offered yearly. Grade only.

344 Wilderness First Aid - 3 Q.H.

This class is designed to provide a background of knowledge and experiences which would enable individuals in outdoor leadership positions to carefully examine adventure experience for hazard potential, select appropriate outdoor emergency equipment and to respond appropriately to wilderness health or accident emergencies. Prerequisite: HPER 314. Grade only.

350 Legal & Financial Aspects of Recreation - 3 Q.H.

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. Grade only.

399 Internship in Recreation and Leisure Studies or Therapeutic Recreation - 1-16 Q.H.

The application of skill, knowledge and concepts necessary for planning, organizing and conducting recreation and leisure/therapeutic recreation programs through supervised on-site experience. Prerequisite: Consent of Director of Therapeutic Recreation and Leisure Studies. Prior to placement TR interns must also obtain a copy of his/her intern supervisors current certification status. Offered quarterly. P/N/C only.

414G Recreational Leadership - 3 Q.H.

A study of leadership and group dynamics, theories, principles, practices and techniques. Grade only.

421 Outdoor Education - 3 Q.H.

Exploration the out-of-doors as a medium to enhance cognitive, affective and psychomotor learning for persons of all ages. Outdoor recreation as a component of outdoor education will also be addressed. Offered yearly. Grade only.

426 Recreation Facilities and Area Design - 4 Q.H.

Principles and procedures related to the design, operation and care of leisure resources, areas and facilities. Prerequisite: 229. Junior standing. Offered yearly. Grade only.

444 Recreation for the Well Elderly - 3 Q.H.

Understanding the role of recreation and leisure in the older adult's life. Implications for leisure service programming and professional service providers. Course emphasis will be placed on the independent elder. Prerequisite: HPER 229. Offered yearly. Grade only.

468 Programming in Therapeutic Recreation - 3 Q.H.

An overview of functional problems commonly associated with various diseases and/or disabling conditions. Therapeutic recreation program development, implementation and modification considerations. Prerequisite: 245. Offered yearly. Grade only.

475 Trends and Issues in Therapeutic Recreation - 3 Q.H.

Professional concerns and implications related to contemporary trends and issues in the field of therapeutic recreation. Internship site, selection, and national exam criteria will also be address. Prerequisite: Junior standing. Grade only.

Exercise Science**191 Introduction to Athletic Training - 2 Q.H.**

Evolution of the athletic training profession and the NATA, as well as basic equipment fitting, basic non-electrotherapeutic modalities, and athletic training room policies and procedures. Prerequisite: Department approval Required. Offered yearly. Grade only.

205 Nutrition and Weight Management - 3 Q.H.

Introduction of basic nutritional concepts to those interested in exercise science, physical education, health, or athletics. Relationship of nutrition to physical performance and weight management. A personal dietary analysis is included. Offered quarterly.

280 Psychology of Physical Activity and Sport - 3 Q.H.

Application of selected psychological variables to individual and groups who participate in physical activity and sport. Offered yearly. Grade only.

291 Prevention and Care of Athletic Injuries - 3 Q.H.

Prevention evaluation treatment, and taping of athletic injuries. Lectures, demonstrations, and laboratory experience. Prerequisites: Biology 211 and HPER 214, HPER 251 for non-PE majors. Grade only.

314 Kinesiology - 3 Q.H.

Relationship between anatomical, neurophysiological and mechanical principles that are related to human movement. Range of motion, muscle and joint testing practicum. Prerequisites: BIOL 211 and 212. Grade only.

340 Physiology of Exercise - 5 Q.H.

Major physiological systems of the human body and their response to acute and chronic exercise. Energy systems of exercise, exercise prescription, methods of physical training, body composition and sport nutrition are addressed. Lecture/lab. Prerequisites: BIOL 211 and 212. Offered quarterly. Grade only.

362 Exercise Leader Practicum - 1-3 Q.H.

The corporate wellness and cardiac rehabilitation majors are placed as exercise leaders in fitness classes. The athletic training major is placed in the athletic training facility. Responsibilities of Option A and B majors include direct contact with students enrolled in fitness classes for the design of an individual fitness program; responsibilities of Option C majors include assisting in the treatment and rehabilitation of student athletes. Assessment, prescription and supervision of these populations are stressed. Prerequisites: Option A & B - HPER 349; Option C - 391, 392, 393. Offered yearly. Grade only.

391 Injury Recognition of the Upper Body - 3 Q.H.

Advanced course in the evaluation and recognition of athletic injuries from the lumbar spine upward. Prerequisites: HPER 191, 291. Offered alternate years. Grade only.

392 Injury Recognition of the Lower Body - 3 Q.H.

Advanced course in the evaluation and recognition of athletic injuries from the pelvic region down. Prerequisites: HPER 391. Offered alternate years. Grade only.

393 Therapeutic Modalities - 2 Q.H.

An in-depth view of the theory and application of contemporary therapeutic modalities as they relate to athletic training. Also introduced are various pain theories, their control and the body's responses to trauma. Prerequisite: HPER 291. Offered alternate years. Grade only.

394 Therapeutic Exercise for Athletic Injuries - 3 Q.H.

Knowledge and application of therapeutic exercise for the rehabilitation of athletic injuries. Content covered ranges from immobilization and/or surgical techniques to parameters for safe return to activity. Prerequisites: HPER 291, 391, 392. Offered alternate years. Grade only.

395 Medical Aspects of Athletic Training - 3 Q.H.

Signs, symptoms and treatments of common illnesses and hypo/hyperthermia, pharmacology and drug use/abuse in athletics, eating disorders and conditions specific to female athletes. Prerequisites: HPER 191, 291. Offered alternate years.

399 Internship in Corporate Wellness/Adult Fitness, Cardiac Rehabilitation or Sports Medicine - 1-8 Q.H.

The application of skill, knowledge and concepts necessary for planning, organizing and conducting corporate wellness, cardiac rehabilitation or sports medicine rehabilitation programs through supervised on-site experience. Prerequisite: Consent of Exercise Science Director. Offered quarterly. P/N/C only.

451 Topics in Sports Medicine - 3 Q.H.

Selected topics regarding the science and medicine of sports and exercise participation. Areas to be covered include pharmacologic aspects, pediatric aspects, legal aspects, preventive aspects and special populations. Offered yearly. Grade only.

456G Electrocardiography - 3 Q.H.

Theory and practice in the interpretation of the electrocardiogram. Lecture, Lab, ECG case study review. Offered yearly. Prerequisite: HPER 340. Grade only.

457G Principles and Practices of Exercise Testing and Prescription - 3 Q.H.

Methods, procedures and techniques of functional and diagnostic exercise stress testing will be emphasized. Special consideration will be given to referral procedures, contra-indications, protocol selection, equipment selection, data interpretation, follow-up procedure and exercise prescription. Lecture and lab. Offered yearly. Prerequisites: HPER 340 and 458. Grade only.

458 Laboratory Methods in Exercise Science - 3 Q.H.

A series of experiments designed to achieve competency in research methods, procedures and instruments typically used in human performance laboratories. Prerequisite: HPER 340. Offered quarterly. Grade only.

459 Practicum in University Wellness/Cardiac Rehabilitation/Athletic Training Programs - 3 Q.H.

Service as an exercise leader/wellness educator in the University wellness program or as an exercise specialist in the Phase II and Phase III cardiac rehabilitation programs or as an athletic trainer in the Intramural Sports Program. Responsibilities will include assessment, prescription, supervision and risk intervention techniques. Prerequisite: HPER 349 and 362 or permission of instructor. Offered quarterly. Grade only.

491 Current Issues in Athletic Training - 2 Q.H.

Relevant issues involving the profession of athletic training that are ever-changing. Knowledge in different types of protective padding and the rules and standards of them, the research relating to the controversy over prophylactic knee bracing, structure and public relations of the NATA and many other topics. Prerequisite: HPER 291. Offered alternate years. Grade only.

492 Administration of Athletic Training - 3 Q.H.

Designed to prepare the student athletic trainer for the behind-the-scenes duties that are required to ensure that an athletic training room is functioning efficiently and properly. Areas covered include liability, budgeting, record-keeping and other administrative areas. Prerequisite: HPER 291. Offered alternate years. Grade only.

Dance**110 Introduction to Movement and Music - 2 Q.H.**

A comprehensive, practical study of fundamental dance movement and its relationship with music. Offered yearly. Grade only.

246 Modern Dance II - 3 Q.H.

A continuation of Modern Dance I with more extensive theory and technique emphasizing the development and refinement of movement skills and aesthetic awareness. Prerequisites: HPER 215 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

248 Ballet II - 3 Q.H.

A continuation of Ballet I with more extensive technique and theory. Prerequisites: HPER 232 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

336 Jazz Dance II - 3 Q.H.

A continuation of Jazz Dance I with more extensive theory and technique emphasizing the development and refinement of skills and deepening conceptual understandings in the style and movement principles of form. Prerequisites: HPER 212 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

346 Modern III - 3 Q.H.

Intermediate level modern dance technique and theory emphasizing the development and refinement of movement skills and aesthetic awareness. Prerequisites: HPER 246 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

348 Ballet III - 3 Q.H.

Intermediate level ballet technique and theory. Prerequisites: HPER 248 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

446 Modern IV - 3 Q.H.

Advanced level modern dance technique and theory emphasizing the development and refinement of movement skills and aesthetic awareness. Prerequisites: HPER 346 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

448 Ballet IV - 3 Q.H.

Advanced level ballet technique and theory. Prerequisites: HPER 348 or permission of instructor. May be repeated twice for credit. Offered yearly. Grade only.

485G Dance Clinic - 1-3 Q.H.

Special topics in dance methods, techniques and theories. Curriculum topics will explore current dance trends and artists. Offered on demand.

History**Course Descriptions****120 Western Civilization: to 1500 - 4 Q.H.**

A survey of civilization from its beginnings in Egypt and Mesopotamia through Greece, Rome, and the Middle Ages. Offered quarterly.

121 Western Civilization: 1500-1815 - 4 Q.H.

Survey of the Renaissance Protestant Reformation, development of the nation state, the Enlightenment, Commercial and Industrial Revolution, the French Revolution, and the Napoleonic era. Offered quarterly.

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 China and Japan from the pre-modern era to the present, which emphasizes their traditional institutions and values and their responses to Western imperialism, Japan's Meiji Restoration and expansionism, traditional China's collapse and revolutionary movements, World War II, China's Communist reconstructions, and Japan's re-emergence as a world power. Offered yearly.

125 Classical History - 4 Q.H.

The history of Greece from Homeric time to the time of Plato. Offered yearly.

135 American Military History - 4 Q.H.

A survey of the role of the military and American wars from the colonial period through the Vietnam era. Offered yearly.

165 Latin American History: Columbus to the Contras - 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.

170 African Civilization - 4 Q.H.

African history from prehistoric times to the present emphasizing the 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.

215 Minnesota History - 4 Q.H.

A survey of the history of Minnesota peoples, cultures, and institutions from pre-historic times to the present. Offered as needed.

225 Jewish Communities and Jewish Culture - 4 Q.H.

Explores the diversity of Jewish experience by focusing on the development of distinct Jewish cultures, from the time of the destruction of the Second Temple in Jerusalem (70 A.D.) to the present, in the Middle East, North Africa, Europe and the Americas. Offered as needed.

230 American History: To 1828 - 4 Q.H.

A survey of American history from pre-historic times to the early nineteenth century with emphasis on political development and public policy, the origins of ethnic and cultural diversity and conflict, and the transformation of social and economic systems. Offered quarterly.

231 American History: 1828 to 1900 - 4 Q.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 Q.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 Q.H.

A survey of the history and development of the Mexican nation from pre-historic times until the present, with attention to the Indian and Spanish roots of Mexican culture, and emphasis on the continuing Mexican Revolution.

235 History of the American Indian - 4 Q.H.

Traces the history of the world of the North American Natives since pre-Columbian times. Emphasis is placed on viewing native history through a balanced combination of native historical accounts and fiction to illustrate history. Readings come from primary documents, fiction and anthropological and sociological works as well as history. Traces attitudes and stereotypes surrounding natives and examines their growth as a political entity in American history. Prerequisites: English 110 or consent of instructor. Offered yearly.

240 History of Christianity - 4 Q.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.

298 Historical Methods - 4 Q.H.

An introduction to historical research and criticism that exposes students to the sources, resources and techniques of research and evaluation of research. Prerequisites: History major or minor status and English 110. Limited to 20 students. Offered yearly.

320 North American Indian Civilization - 4 Q.H.

This course examines important issues in the history of North American Natives: prehistory interaction, Native reaction and interaction with early Europeans, cultural issues such as the outlawing of Native languages and Native customs, the American Indian movement, the First Nations Movement and the anti-Columbus protests. It discusses both Canada and the United States in an effort to include all North American Native groups. Prerequisite: History 235. Offered alternate years.

365 American Legal History - 4 Q.H.

An overview of Anglo-American legal history from the time of the Conquest to the present. Emphasis will be placed on the evolution of substantive law, including real property law, business law, family law, and personal injury law. The class emphasizes case analysis. Prerequisites: History 230, 231, and 232 or consent of instructor. Offered yearly.

370 Legal Research - 3 Q.H.

Techniques of Legal Research, the process of judicial review, the extent of legal reporting, and methods of researching court decisions. Prerequisites: admission to the Paralegal Major and advanced sophomore status. Offered yearly.

371 Substantive Law and Ethics - 3 Q.H.

Students will learn the basic rules of contract law, real property law, family law (divorce, separation, paternity), and torts. The class will study ethics and ethical issues arising in all the various substantive areas. Prerequisites: History 370. Offered yearly.

372 Legal Writing - 3 Q.H.

The student will become acquainted with terminology commonly used, the need for precision in meaning, and how courts interpret documents; and a general acquaintance with: deeds, leases negotiable instruments, business agreements, corporate minutes and by-laws, wills, lay preparing, briefs and legal memoranda. Prerequisites: History 371. Offered yearly.

373 Adversary System: Civil Procedure - 3 Q.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. Prerequisites: History 372. Offered yearly.

374 Evidentiary Rules I - 3 Q.H.

Acquaints the student with logic of evidentiary rules, value of first hand evidence, burden of proof, qualification of witnesses, impeachment of witnesses, differentiation between proof and argument, order of proof. Prerequisites: History 373. Offered yearly.

375 Substantive Law and Ethics II - 3 Q.H.

Students will learn the basic rules of family law (divorce, separation, and paternity), probate law, negotiable instruments, bankruptcy, landlord-tenant law, pre-trial discovery and conflict resolution techniques as well as ethical issues associated with each. Prerequisite: History 374. Offered yearly.

376 Adversary System: Criminal Procedure - 3 Q.H.

Supplements the course on the Adversary System - Civil, and covers criminal pleadings, the grand jury system, criminal pretrial discovery, post trial sentencing, requirements of a fair hearing, and constitutional legal defenses. Prerequisite: History 374. Offered yearly.

377 Practical Legal Investigation Techniques - 4 Q.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 371. Offered yearly.

380 Paralegal Internship - 16 Q.H.

Field placement in a selected organization for the purpose of experience and training as a professional paralegal. Prerequisites: History 370, 371, 372, 373, 374, 375, 376 and completion of portfolio. P/N/C Only.

383 Paralegal Institute - 1-4 Q.H.

The Paralegal Institute will cover various specialized topics which directly relate to areas of the Paralegal profession. The specialized institutes will be offered for 1-4 credits and may be repeated to a maximum of 4 credits toward the WSU Paralegal degree.

397 Topics in History - 1-4 Q.H.

In-depth study of topics of current interest and concern in American society and the historical profession. Offered on demand. With different topics, may be repeated to maximum of eight credit hours.

490 Senior Seminar I - 4 Q.H.

In-depth study and research on selected topics. Students will begin research projects that they will complete in 491: Senior Seminar II. Students will report to the class on their progress during the quarter. Credit for History 490 is contingent upon successful completion of History 491: Senior Seminar II. Prerequisites: English 210, History 298, History Major Status and Senior standing, or consent of the instructor.

491 Senior Seminar II - 4 Q.H.

A continuation of History 490 in which students will complete research and writing projects begun in Senior Seminar I. Prerequisite: History 490.

499 Independent Readings in History - 1-4 Q.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

341 Modern Japan - 4 Q.H.

The course traces and analyzes the principle developments that shaped modern Japan. Beginning with examination of 17th- and 18th-century, Tokugawa culture and institutions, the course will then explore the sources and consequences of the revolution Meiji "Restoration." The course will then consider Japan's march toward the Pacific War, and the post-WW II revival. Prerequisites: History 123 and English 115. Offered every other year.

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, Cuba, and Central America. Prerequisite: History 165 or consent of instructor.

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: History 165 or consent of instructor.

Sequence in American History

316 Women in U.S. History: From the Colonial Period to 1890 - 4 Q.H.

A survey of the history of women in the United States, from the colonial period to 1890, the year that ends the first phase of the women's suffrage movement. Topics to be covered include changing ideas about women, the changing nature of the family, sexuality and women's political activity, and the impact of industrialization on women's paid and unpaid work. The course also examines the way in which gender has combined with other social identities - such as race, ethnicity and age - to shape the experiences of both men and women in American History. Prerequisites: History 230 or 231, and English 110. Offered yearly.

317 Women in U.S. History: 1890 to the Present - 4 Q.H.

Continues History 316. Additional topics to be covered include the increasing participation of women in the paid labor force, women's role in the post-industrial economy, the feminization of poverty, the "Second Wave" of the women's movement, and women's issues in contemporary American society. Prerequisites: History 232 and English 110. Offered yearly.

325 American Diplomatic History - 4 Q.H.

Traces and analyzes the major developments in modern American diplomacy. Will examine 19th century traditions, but will focus on the impact of domestic concerns and overseas wars and revolutions on the 20th century global expansion of American interests, ideology and power. Prerequisites: History 231 or 232 or consent of instructor. Offered as needed.

447 The Vietnam War - 4 Q.H.

A Historical survey of the Vietnamese War with the growing involvement and the subsequent American effort to disengage without loss of prestige. The course will include the "study of American objectives in this war and the subsequent impact upon American society." Prerequisite: History 232 or consent of instructor. Offered every other year.

476 The American Revolution - 4 Q.H.

This course examines the origins of the Revolution; the War for Independence; social, economic, and cultural change during the Revolution; and the origins and creation, and ratification of the Constitution of 1787. Prerequisites: History 230 or Consent of the Instructor. Offered every other year.

478G The Age of Jackson - 4 Q.H.

Traces the political, social, intellectual, and cultural development of the United States from the 1820s through the 1840s. Topics include Jacksonian politics, Manifest Destiny and the Mexican War, Northern society, the south and slavery, antebellum reform movements, and Romanticism. Prerequisite: One of the following: History 230, 231, 232. History 231 is recommended. Offered as needed.

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 230 and 231 or consent of instructor. Offered as needed.

480 Industrializing America in the Gilded Age (1877-1900) - 4 Q.H.

Explores late 19th-century corporate, industrial development, and its social, cultural and political consequences. The course pays special attention to both old-fashioned, communitarian and progressive, radical opposition to the new economic order in rural and urban settings, as well as to the mass immigration and new urban political and social structures that economic change generated. The course concludes with consideration of the emergence of the New Empire amidst the Spanish-American War. Prerequisites: History 231, English 115, or permission of the instructor. Offered every other year.

481G American Westward Expansion - 4 Q.H.

Examines the historical West versus the mythical West. Compares stereotypes and popular images of the West and its inhabitants to the cultural, political and social diversity of the American West. Traces the development of Western history from first contact to the present. Prerequisite: History 230, 231 or consent of instructor. Offered as needed.

483G The Progressive Era and the "New Era" 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 other year.

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 other year. Prerequisites: History 232 or consent of instructor.

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: History 232, or consent of instructor. Offered every other year.

486G American Intellectual and Cultural History - 4 Q.H.

The course focuses on the development of basic concepts in American political, religious, philosophical, scientific, and social thought, and on their impact on American culture from the colonial period to the present. Prerequisite: Any two of the following: History 230, 231, 232, or consent of instructor. Offered yearly.

488G American Constitutional History - 4 Q.H.

A study of the origins, growth, and development of the United States Constitution in the context of American social and political history. Prerequisite: Any two of the following: History 230, 231, 232, or consent of instructor. Offered yearly.

Sequence in European History

330 Psycho-history - 4 Q.H.

The application of psychoanalytic theory to history. Part of the course will focus on the study of psychoanalytic theory. The rest of the course will focus on the application of this theory to history. Offered as needed.

350 Historical Attitudes Toward Death - 4 Q.H.

A look at the attitudes toward death of various societies. Prerequisites: English 110 or consent of instructor.

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 as needed.

403G Middle Ages - 4 Q.H.

The decline of the Roman Empire, the Germanic kingdoms, the early Christian Church, the development of feudalism and manorialism, the economic recovery of Europe, civilization of the High Middle Ages, rise of the national monarchies. Prerequisite: History 120, consent of instructor. Offered as needed.

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 as needed.

409G Reformation - 4 Q.H.

A study of religious background of sixteenth century Europe. The rise of Lutherism, Calvinism, Anabaptism, and Anglicanism. The Catholic Counter-Reformation. Prerequisite: History 120, 121, or consent of instructor. Offered as needed.

415G Twentieth Century Europe - 4 Q.H.

The peace settlements, the League of Nations, the rise of totalitarianism, World War II. Prerequisite: History 122, 232, or consent of instructor. Offered as needed.

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 instructor. Offered as needed.

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. Offered as needed.

423G Twentieth Century England - 4 Q.H.

England in the 20th Century from the height of imperial power to a Socialist government. Offered as needed.

434G Soviet Russia (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 as needed.

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 as needed.

International Studies

Course Descriptions

200 Introduction to International Studies - 4 Q.H.

This course introduces students to the value of a global perspective in dealing with various contemporary issues, along with providing a framework from which to view cultural differences.

350 Crosscultural Field Experience - 1-12 Q.H.

The crosscultural field experience is typically part of a WSU approved Study Abroad program. The Field Experience gives students an opportunity to explore cultural issues through experiences outside of the normal classroom situation and to integrate direct cultural experiences with theoretical understanding of cultural issues. May be repeated for up to 12 quarter hours. This course cannot be used to fulfill general education credit. Prerequisite: consent of ISP Director.

400 International Studies Seminar - 4 Q.H.

This course allows students to bring together their individual area of interest and their international perspective. They will examine topics from various disciplines and cultural views.

460 Independent Study - 1-12 Q.H.

Directed independent work on specific topics of interest to the student. The course topic, requirements, meeting times, and number of quarter hours are to be determined through consultation with the instructor. Repeatable for credit up to a total of 12 quarter hours. Prerequisite: depends on the project attempted and consent of ISP instructor. This course cannot be used to fulfill general education credit.

Marketing

Course Descriptions

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, Acct. 201.

330 Consumer Behavior - 4 Q.H.

An application of the behavioral sciences to marketing. Topics include attitudes and beliefs, perception, interpretation, learning, personality, communication, cultural values and norms, social class, and consumer decision-making models. Prerequisite: Mktg 315

332 Marketing Analysis - 4 Q.H.

Market Analysis defines relevant market, analyzes primary and selective demand for the market, segments the market, and identifies potential target markets. This course focuses on analyzing customers, competitors, and the company to provide a basis for developing marketing strategy. Marketing information literacy will be emphasized through the utilization of numerous information sources and computer software applications. Prerequisite: Mktg. 315.

334 Marketing Research - 4 Q.H.

This course analyzes the roles, the functions and the processes that surround marketing research. The basic approach of the course is to consider marketing research as an aid in providing information that facilitates decision making. Emphasis is placed on practical issues related to the successful application of marketing research. Prerequisites: Mktg. 315, Stat 208.

350 Management of Promotion - 4 Q.H.

The nature, scope, and contributions of advertising, personal selling, public relations, and sales promotion in serving as a communication link between the business firm and its target market. Prerequisites: Marketing core.

352 Professional Selling - 4 Q.H.

Learning professional selling concepts and the communications skills to apply them. Topics include prospecting, approaching the customer, determining customer wants and needs sales presentation, overcoming objections, closing the sale, and establishing a post-sale relationship. Prerequisites: Marketing core.

354 Sales Management - 4 Q.H.

An in-depth coverage of determining the types of sales positions, the recruiting and hiring process, training, determining sales territories, methods of compensation and motivation, and control over the sales force. Prerequisites: Marketing core.

360 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: Marketing core.

362 Business to Business Marketing - 4 Q.H.

Business to business marketing considers organizational and industrial markets and marketing processes. An operational treatment of organizational buying behavior, procurement, and marketing management for industrial goods and services is provided. Prerequisites: Marketing core.

364 Retailing and Entrepreneurship - 4 Q.H.

An examination of the procedures and managerial practices of small business retailing. Specific emphasis is given to entrepreneurial subjects such as the legal organization of the firm, financing, franchising, site selection, employee management, buying, and customer support functions. Prerequisites: Marketing core.

381 Strategic Market Planning - 4 Q.H.

A comprehensive course taught from a strategic perspective involving case studies, theory generation and study, class presentations, and writing and communication skills. Prerequisites: Marketing core.

384 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 decisions, marketing mix decisions, and organizational structures are examined. Prerequisites: Marketing core.

387 Marketing of New Products - 4 Q.H.

Essential components of product management are examined, in depth, including practical methods of analysis, strategy formulation, and implementation. Various concepts, models and eclectic approaches generate creative strategies and courses of action. Prerequisites: Marketing core.

390 Topics in Marketing - 4 Q.H.

Various courses offered in conjunction with curriculum needs and the availability of faculty with relevant expertise. Prerequisites: Marketing core.

398 Internship - 1-12 Q.H.

Credits will not be counted in Marketing major, but as general education elective credits. Prerequisite: Marketing core plus consent of instructor. P/NC only.

399 Internship Problem - 4 Q.H.

See department chairperson for a list of requirements. Grade only. Prerequisite: Marketing core plus consent of instructor.

428 Marketing Management - 4 Q.H.

An advanced applied course in marketing management and decision making. Simulation and/or cases are used to present marketing problems and situations requiring students to apply the principles and concepts of marketing to real-world problems and simulations. An emphasis is placed on analysis and decision making. Prerequisites: Any three Marketing electives.

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. Any three Marketing electives and senior standing.

480 Independent Study - 1-4 Q.H.

Offers the advanced student an opportunity to do additional reading and/or research in areas of special interest. Prerequisite: Consent of instructor.

Mass Communication

Course Descriptions

- 030 Mass Comm Computer Applications - 4 Q.H.**
Instruction in the use of Word processing, page layout, data base and spread sheet programs in mass communication applications for the MacIntosh computer.
- 037 Newspaper Activities - 1 Q.H.**
Entry-level responsibilities in information gathering, typesetting, paste-up and photography with the laboratory newspaper.
- 100 Mass Media and Society - 4 Q.H.**
Sociological examination of the interrelationship of mass media and society in contemporary America.
- 110 Visual Communication - 4 Q.H.**
Basic photographic theory, camera handling, darkroom experience as related to graphic communication and mass dissemination. Weekly critiques. Lab required.
- 120 Telecommunication - 4 Q.H.**
History, philosophy, characteristics and impact of radio, television and the developing media.
- 130 News Writing - 4 Q.H.**
Style and structure of news stories; news sources; newsroom practices and procedures; with reporting assignments for publication and broadcast. Prerequisite: English 110.
- 170 Photography - 4 Q.H.**
Science and art of black-and-white photography. Materials, equipment, composition, processing, printing, and display are covered. Requires darkroom work. P/NC option.
- 175 Color Photography - 4 Q.H.**
Introductory course with emphasis on picture-taking skills in a wide variety of situations in a colorful world. P/NC option. Prerequisite: 170 recommended, but not required.
- 176 Color Printing - 4 Q.H.**
Color film processing and printing techniques, with attention to displaying prints, presentation techniques and slide duplication. P/NC option. Prerequisite: 170, 175 or permission of instructor.
- 215 Photocommunication - 4 Q.H.**
Advanced visual and technical skills for black and white photography. Prerequisite: 110.
- 220 Broadcast Writing - 4 Q.H.**
Radio and television writing including commercial copy and feature programs. Prerequisite: English 110.
- 225 Radio Production - 4 Q.H.**
Design, technique, production and presentation of radio programs. Prerequisite: 220 or 360.
- 226 Television Production Planning - 4 Q.H.**
An overview of the television production process with special attention to planning, organizing, scripting, budgeting, equipment and personnel.
- 230 News Gathering - 4 Q.H.**
Interviewing, observation and research as information-gathering methodologies; with reporting assignments for publication and broadcast. Prerequisite: 130.
- 240 Public Relations - 4 Q.H.**
Nature and role of public relations in a democratic society. Case problems and projects.
- 260 Advertising - 4 Q.H.**
Broad study of advertising theory and structure, and its function and purpose in modern society.
- 270 Photography History - 4 Q.H.**
Survey of photography to World War II with emphasis on the significant developments in technology and aesthetics. P/NC option.
- 300 Mass Media Law - 4 Q.H.**
Major issues and survey of current legal status of the media. Prerequisite: 100.
- 305 Mass Media History - 4 Q.H.**
Development of the mass media, including historiography, examination of movements, and current research problems.
- 310 Photojournalism - 4 Q.H.**
The photograph as a means of visual reporting. Lab required. Weekly critique. Prerequisite: 215.
- 317 Photojournalism Practicum - 2 Q.H.**
News photography, processing and publication for laboratory newspaper. May be repeated twice. Prerequisite: 310.
- 319 Studio Photography - 4 Q.H.**
Large-format camera photography with emphasis on studio techniques. Prerequisite: 215.
- 320 TV Production Operations - 4 Q.H.**
Theory and operation of multiple and single-camera television production systems with practical exercises. Prerequisite 226.
- 321 Topics in Television Production - 4 Q.H.**
Theory and techniques of various advanced topics in television production. Prerequisite: 320.
- 327 Topics in Radio Production - 2 Q.H.**
Theory and techniques of various advanced topics in radio production. Prerequisite: 225.
- 330 Feature Writing - 4 Q.H.**
Developing, writing and marketing feature stories to a variety of media. Prerequisite: 230.
- 331 News Editing - 4 Q.H.**
Operation of newsroom - copyreading, gatekeeper decisions, headline writing, makeup. Prerequisite: 230.
- 335 Mass Media Graphics - 4 Q.H.**
Survey of graphics process and illustration technique, design and format trends, and practical creative problems in the mass media. Prerequisite: 110.
- 340 Public Relations Cases - 4 Q.H.**
Public relations problems in industry, government trade association, labor and other groups. Planning and preparation of communications materials for various media, and application of public relations techniques. Prerequisite: 240.
- 345 Public Relations Writing - 4 Q.H.**
Preparing news releases, speeches, profiles, scripts, employee publications, newsletters, brochures, plus other promotional and PR materials. Prerequisite: 230.
- 347 Public Relations Practicum - 2 Q.H.**
On-campus print and public relations tasks, including writing or designing brochures, speech writing, collecting data, and developing strategies. May be repeated twice. Prerequisite: 240.
- 360 Advertising Copywriting - 4 Q.H.**
Effective messages for newspapers, radio, television and other mass media. Emphasis on copywriting with coordination of visual and verbal concepts to achieve objectives. Prerequisites: 260, ENG 115.
- 361 Advertising Media Selection - 4 Q.H.**
Theories, problems and practices related to advertising media evaluation and selection. Prerequisite: 260.
- 367 Advertising Practicum - 2 Q.H.**
Students prepare broadcast and print advertising materials. May be repeated twice. Prerequisite: 335, 360.
- 399 Internship - 4-16 Q.H.**
Departmentally approved, supervised practical experience in mass communication.
- 400 Mass Communication Theory - 4 Q.H.**
Theories of mass influence on society and culture. Prerequisite: 100.
- 405 Mass Media Issues and Ethics - 4 Q.H.**
Introduction to perspectives on ethics, applied to case studies and issues in journalism, advertising and public relations. Prerequisite: 100.
- 408 Research in Mass Media - 4 Q.H.**
Investigation and interpretation of mass media survey research; introduction to procedures for studying media control, content, audiences, and effects; problems in application of theoretical concepts. Junior status; 130 and two of following: 317, 340, 345, 360, 361, 367, 437; or one 300-level course and permission of instructor.
- 409 Independent Study - 2-4 Q.H.**
To meet the needs of the individual student. By previous arrangement only. Prerequisite: Junior status. May be repeated to a total of 8 hours.
- 419 Senior Seminar in Photojournalism - 4 Q.H.**
A capstone experience in photojournalism which utilizes the breadth of previous knowledge gained in identifying and researching a selected issue appropriate to the field. Prerequisite: Senior status and 317.
- 420 Electronic Media Management - 4 Q.H.**
Techniques and organization for management of commercial, non-commercial and industrial television and radio. Prerequisite: 120.

430 Specialized Reporting - 4 Q.H.

Interpretive writing, investigative reporting, editorial persuasion, and other topics. May be repeated once for credit on a second topic. Prerequisite: 230.

435 Reporting Public Affairs - 2 Q.H.

Covering legislative, judicial and executive processes for news media. Prerequisite: 230.

437 Newspaper Practicum - 2 Q.H.

Editing laboratory newspaper with responsibilities in story generation, copy editing and production. May be repeated twice. Prerequisite: 235.

440 Public Relations Campaigns - 4 Q.H.

Implementation of theory and processes of public relations into business practices by analyzing situations, planning strategies, and facilitating public relations activities based on specific objectives. Prerequisites: 340, 345.

460 Advertising Campaigns - 4 Q.H.

Consideration and implementation of principles of advertising in actual situations. Development of situation analysis, marketing strategy and multi-media advertising campaigns to achieve specific objectives. Study of measurement of communication cost. Prerequisite: 335, 360, 361, MKTG 315.

470 Multi-Image Production - 4 Q.H.

Theory and technique of producing multi-screen audiovisual presentations using slides and film and synchronized sound. Prerequisite: 110.

475 Commercial Photography - 4 Q.H.

The photograph as a means of persuasion, particularly in advertising and public relations. Emphasis on studio and studio equipment. Prerequisite: 215.

Mathematics and Statistics

Course Descriptions

All courses are offered yearly unless indicated differently.

Mathematics

111 Contemporary Mathematics - 4 Q.H.

Topics are selected from intermediate Algebra, Statistics, Management Science, Geometry of Size and Shape, and Social Choice. The approach of the course is to present the subject matter through contemporary applications. Grade only.

113 Intermediate Algebra - 4 Q.H. (Non-degree Credits)

A study of basic algebra for the student who has not successfully completed two years of high school algebra. MATH 113 is a non-degree credit course and will not count towards meeting minimum total credit requirements for graduation. Grade only.

115 Precalculus I - 4 Q.H.

The first course of a 2-course sequence designed to provide students a solid foundation for the study of calculus. Content is similar to a standard college algebra course, but emphasis is on functions and graphing. Prerequisite: Qualifying score on mathematics placement exam or MATH 113.

116 Precalculus II - 4 Q.H.

A continuation of the study of functions and graphs. Trigonometric functions of real numbers are studied as well as ideas from analytic geometry, sequences and series, mathematical induction, and the Binomial Theorem. Prerequisite: MATH 115.

120 Precalculus with Functions and Graphs - 5 Q.H.

A condensing of MATH 115 and MATH 116. For the student with a very strong high school background. Prerequisite: Qualifying score on mathematics placement exam.

121 Introductory Mathematics with Applications - 4 Q.H.

Topics in algebra, probability and statistics for students in business, economics, psychology, the life sciences and social sciences. Prerequisite: Qualifying score on the mathematics placement exam or MATH 113.

122 Calculus for Non-Mathematics Majors - 4 Q.H.

An intuitive approach to calculus for the non-mathematics major. Emphasis is on applied problems. Prerequisite: MATH 115 or MATH 121.

123 Matrix Algebra and Linear Programming - 4 Q.H.

An introduction to matrix algebra and linear programming with applications to problems in business and economics. Prerequisite: MATH 122 or MATH 125.

125, 126, 127 Calculus I, II, III - Each 5 Q.H.

Analytic geometry, differential and integral calculus of a single variable. Three quarters in sequence. Prerequisite: Qualifying score on the mathematics placement exam, or MATH 115 and MATH 116 or MATH 120.

217 Linear Algebra I - 4 Q.H.

Introduction to matrix algebra and elementary vector spaces with emphasis on computation. Prerequisite: MATH 115.

218 Introduction to Discrete Mathematics - 4 Q.H.

Introductory discrete mathematics including systems of equations, arrays, sets, relations, symbolic logic, and combinatorics with applications to business and computer science. Prerequisite: MATH 115 or MATH 121.

289 Special Topics - 1-4 Q.H.

Exposure to lower division mathematical topics not included in other courses. Prerequisite: Determined by topics. On demand.

316 Foundations of Mathematics - 4 Q.H.

Logic, methods of proof and applications. Prerequisite: MATH 120 and MATH 218 or equivalent. Fall, Spring.

317 Abstract Algebra - 4 Q.H.

Axiomatic development of groups, rings and fields. Prerequisite: MATH 316. Winter.

329 Multivariable Calculus - 5 Q.H.

A continuation of MATH 127. Partial differentiation and multiple integration are studied. Prerequisite: MATH 127. Fall, Winter.

330 Differential Equations I - 4 Q.H.

Solution techniques for ordinary differential equations including boundary/initial value problems. Topics include linear homogeneous and nonhomogeneous differential equations and the Laplace transform. Prerequisite: MATH 127. Winter, Spring.

331 Differential Equations II - 4 Q.H.

Builds upon MATH 330. Topics include series solutions of second order linear equations, systems of first order linear equations, nonlinear differential equations, partial differential equations, and boundary value problems. Prerequisite: MATH 330. Offered alternate years.

357 Number Theory - 4 Q.H.

Study of the properties of the natural numbers. Prerequisite: MATH 126 and MATH 316. Spring.

408G History of Mathematics - 4 Q.H.

General view of the historical development of the elementary branches of mathematics. Prerequisite: MATH 126 and MATH 316. Fall.

417 Linear Algebra II - 4 Q.H.

A continuation of MATH 217 with emphasis on more general vector spaces. Additional topics include linear transformations, inner product spaces, eigen systems, diagonalization of matrices, and canonical forms. Prerequisite: MATH 217 and MATH 316. Strongly recommended: Completion of MATH 125, MATH 126, and MATH 127 prior to enrollment. Offered alternate years.

425G Numerical Analysis I - 4 Q.H.

Numerical solution of equations, numerical interpolation, differentiation, and integration, numerical linear algebra, numerical solution of differential equations with an emphasis on algorithms and related software. Same as CS 425G. Prerequisite: CS 231 or 234 and MATH 329. Fall.

426G Numerical Analysis II - 4 Q.H.

Continuation of the topics in MATH 425 with an emphasis on the analysis numerical algorithms. Same as CS 426G. Prerequisite: CS 231 or 234 and MATH 329. Offered alternate years.

432 Theory of Functions of a Complex Variable - 4 Q.H.

Analytic functions, complex integration, residue theorem and other topics. Prerequisite: MATH 329. Offered alternate years.

440G Operations Research I: Linear Programming - 4 Q.H.

An introduction to linear programming, including the simplex method. Other topics chosen from duality, sensitivity analysis, and the transportation and assignment problems. Prerequisite: MATH 122 or MATH 125. Recommended: MATH 217. Offered alternate years.

441G Operations Research II: Modeling - 4 Q.H.

This course emphasizes mathematical modeling: problem identification and model construction. Topics chosen from among network models, nonlinear programming, queuing theory, simulation, integer programming, and Markov chains. Prerequisite: MATH 122 or MATH 125 or MATH 440G or permission of the instructor. Recommended: Introductory course in probability and statistics. Offered alternate years.

445 Introduction to Topology - 4 Q.H.

A study of indexed families of sets, mappings, diagrams, continuity, neighborhoods, limit points, open and closed sets. Prerequisite: MATH 127 and MATH 316. Offered alternate years.

460, 461, 462 Advanced Calculus I, II, III - Each 4 Q.H.

A systematic approach to differential and integral calculus of functions and transformations in several variables. Prerequisite: MATH 316 and MATH 329.

470 Real Analysis - 4 Q.H.

Measurable sets, measurable functions, and the theory and methods of the Lebesgue integral. Additional topics at the discretion of the instructor, e.g., summability, L2 theory of Fourier series, orthogonal expansions in L2, famous theorems in analysis. Prerequisites: MATH 461. Offered alternate years.

488 Mathematics Projects - 2-6 Q.H.

Practical experience in working on real problems or research under the supervision of a faculty member. Prerequisite: Consent of instructor. Offered on demand.

489G Special Topics - 1-4 Q.H.

Exposure to mathematical topics not included in other courses. Prerequisite: Determined by topics. Offered on demand.

490 Independent Problems in Mathematics - 1-6 Q.H.

An opportunity to continue study of selected topics. Prerequisite: Consent of instructor. Offered on demand.

Mathematics Education

110 Mathematics for Elementary Teachers I - 4 Q.H.

The study of concepts and properties of operations essential to mathematics in the elementary grades. Prerequisite: A score on the mathematics placement test that would qualify for waiver of the mathematics basic skills requirements, or successful completion of MATH 113.

120 Mathematics for Elementary Teachers II - 4 Q.H.

Decimals, percents, real numbers, data gathering, display and interpretation, basic probability, introduction to Euclidean geometry will be among the topics studied. Open only to elementary education majors. Prerequisite: MTED 110. Yearly.

201 Geometry for Elementary Teachers - 4 Q.H.

Explorations in geometry to provide students with foundations needed to teach geometry in the elementary school mathematics curriculum. Prerequisite: MTED 110.

289 Special Topics - 1-4 Q.H.

Exposure to lower division mathematics education topics not included in other courses. Prerequisite: Determined by topics. Offered on demand.

290 Independent Problems in Mathematics Education - 4 Q.H.

An opportunity to study selected lower division topics in mathematics education. Prerequisite: Consent of instructor. Offered on demand.

320 Teaching of Mathematics in the Secondary Schools I - 4 Q.H.

Aims, organization and method of teaching mathematics in junior and senior high school. Required for the B.S. Major (Options A and B), does not count toward the B.S. Major (Option C) or the B.A. Major (Track A, B, C, and D). Requirements of the course include a one quarter teaching assistantship either at the Winona Middle School or within the Department of Mathematics and Statistics. Prerequisite: MATH 127, MATH 316, EDUC 306, and EDUC 429.

322 Modern Geometry - 4 Q.H.

This course is designed to give the prospective teacher of high school geometry an exposure to the concepts of several geometries, their relation to, and their impact on high school geometry. Prerequisite: MATH 127 and MATH 316. Spring.

420 Teaching Mathematics in the Secondary Schools II - 4 Q.H.

Course is an extension of MTED 320 with emphasis on teaching strategies, learning theory related to mathematics, and research and current issues in mathematics education. Prerequisite: MTED 320. Offered yearly.

489G Special Topics - 1-4 Q.H.

Exposure to mathematics education topics not included in other courses. Prerequisite: Determined by topics.

490 Independent Problems in Mathematics Education - 1-6 Q.H.

An opportunity to continue study of selected topics. Prerequisite: Consent of instructor. Offered on demand.

Statistics

208 Fundamentals of Statistics - 4 Q.H.

Introductory statistics with emphasis on applications. NOTE: Students who have completed MATH 122 or MATH 125 should take STAT 279 instead of STAT 208. Prerequisite: Basic skills mathematics (MATH) requirement.

219 Exploratory Data Analysis - 2 Q.H.

Techniques for summarizing, analyzing, and interpreting large sets of data. Emphasis on practical problem solving with real data sets using appropriate computer software packages. Prerequisite: STAT 208 or equivalent.

255 Introduction to Statistical Software Packages - 1 Q.H.

An introduction to statistical packages used in business and industry. The statistical programs examined will vary but students will be exposed to such packages as SAS, S-plus, XLISP-STAT, SYSTAT, SPSS, MINITAB and others. The emphasis of the course will be on basic use, however subsequent courses in statistics, such as STAT 411, STAT 412 and STAT 479, will build upon this knowledge.

279 Statistics - 4 Q.H.

First course in statistics for students with a strong mathematics background. Prerequisites: MATH 122 or MATH 125.

289 Special Topics

Exposure to lower division statistical topics not included in other courses. Prerequisite: Determined by topics. On demand.

303 Introduction to Engineering Statistics - 4 Q.H.

Introduction to statistics and quality control concepts and techniques. Topics include graphical techniques, descriptive statistics, probability distributions, hypothesis testing, control charts, process capability studies, and additional topics in total quality management. Credit will not be given for both STAT 279 and STAT 303. Prerequisite: MATH 125.

305 Biometry - 4 Q.H.

An introductory course of statistical applications to the biological sciences. Data reduction, sampling, techniques of estimation, hypothesis testing, and model verification procedures are included. Diversity indices, techniques of species sampling, and other specific biometric methods will be covered. Prerequisite: MATH 115 or consent of instructor. (Can not be used as a MATH or STAT elective for mathematics, mathematics education, or statistics majors.)

309 Intermediate Statistics - 4 Q.H.

A second course covering regression, measures of association, and analysis of variance. Interpretation of computer output and applications will be emphasized throughout. Prerequisite: STAT 208, STAT 279, STAT 305, PSY 231, or equivalent. Credit will not be given for STAT 309 if the student has completed STAT 411 or STAT 412. Offered alternate years.

310 Statistical Quality Control - 4 Q.H.

An introduction to the basic philosophy of quality control and statistical tools used in quality control. Tools to include control charts, Ishikawa fishbone charts, Pareto charts, histograms, stem-and-leaf plots and dot plots. There will be industrial case studies and tours of local industries (when available). Prerequisite: An introductory statistics course (preferably STAT 279). Offered alternate years.

311 Industrial Design of Experiments - 4 Q.H.

An introduction to applications of statistical methods used by industrial researchers to aid in the solution of certain types of industrial problems. Methods to include analysis of means, analysis of variance, factorial designs, fractional factorial (screening) designs. There will be industrial case studies and actual (hands-on) experience at local industries (when available). Prerequisite: An introductory statistics course (preferably STAT 279). Offered alternate years.

318 Probability - 4 Q.H.

Introduction to basic ideas and fundamental laws of probability and statistics. Prerequisites: MATH 122 and MATH 218 or MATH 126. Fall.

403 Nonparametric Statistics - 4 Q.H.

Statistical methods based on runs, the empirical distribution function, and ranks. Topics will include one and two sample tests, ANOVA, goodness of fit tests, rank regression, correlation, and confidence intervals. Both applications and theory emphasized. Prerequisite: STAT 208 (or STAT 279) and STAT 318. Offered alternate years.

409G Design of Samples and Surveys - 4 Q.H.

Practical problems of surveys. Design of optimal surveys. Questionnaire design. Practical problems of sampling. Design of optimal sampling procedures. Adapting standard statistical techniques to specialized sampling design. Prerequisites: An introductory statistics course (preferably STAT 279) and MATH 115 or MATH 120 or MATH 121. Offered yearly.

411G Applied Statistics: Multiple Regression - 4 Q.H.

Simple linear regression, multiple regression, hypothesis testing, analysis of residuals, stepwise regression. Interpretation of computer output will be emphasized. Prerequisites: An introductory statistics course (preferably STAT 279) and MATH 115 or MATH 120 or MATH 121; completion of or concurrent enrollment in MATH 123 or MATH 217 is recommended. Offered Fall quarter.

412G Applied Statistics: Analysis of Variance - 4 Q.H.

One-way Analysis of Variance, planned comparisons, post-hoc procedures, two- and three-way Analysis of Variance, experimental design, Analysis of Covariance. Interpretation of computer output will be emphasized. Prerequisites: An introductory statistics course (preferably STAT 279) and MATH 115 or MATH 120 or MATH 121. STAT 411G is recommended. Winter.

415 Multivariate Analysis - 4 Q.H.

Statistical analysis of multivariate data. Topics will include: preparation of data for analysis, selection of techniques appropriate to research questions, measures of association for continuous and discrete variables, Hotelling's T, MANOVA, MANCOVA, discriminant analysis, principal

component, and factor analysis. This is a computer orientated course with emphasis on application. Prerequisites: STAT 411, 412 or permission of the instructor. MATH 217 is recommended but not required.

418, 419 Introduction to Mathematical Statistics I, II - Each 4 Q.H.

A mathematical approach to statistics. Prerequisites: MATH 329 and STAT 318. Offered alternate years.

450G Epidemiology - 4 Q.H.

A general introduction to the concepts and methods of epidemiology as they are applied in a variety of disease situations. Topics include modeling the disease process in a population; retrospective, prospective and observational studies; rates, ratios and data interpretation; and evaluation of epidemiological information. Prerequisite: An introductory statistics course. Offered alternate years.

466 Stochastic Processes - 4 Q.H.

An introduction to stochastic processes. Topics will include underlying probability theory, random variables, conditioning, Markov chains, exponential distribution, and Poisson processes. Both applications and theory will be emphasized. Prerequisite: STAT 318. Offered alternate years.

479G Statistical Computing - 4 Q.H.

An introduction to the use of the computer as a powerful tool in data analysis. Topics will include statistical graphs, advanced regression techniques, curve fitting and smoothing, general additive models, cross-validation and bootstrapping. Additional topics that may be covered are random number generation, regression trees and Monte Carlo simulation methods. Prerequisite: MATH 126, CS 231, and STAT 411G. Offered alternate years.

488 Statistics Projects - 2-8 Q.H.

Practical experience working on real problems under the supervision of a faculty member experienced in statistics. Prerequisite: Consent of instructor. Offered on demand.

489G Special Topics - 1-4 Q.H.

Exposure to statistical topics not included in other courses. Prerequisite: Determined by topics. Offered on demand.

490 Independent Problems in Statistics - 1-6 Q.H.

An opportunity for continued study of selected topics. Prerequisite: Consent of instructor. Offered on demand.

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. Prerequisite: Permission of instructor. Open to B.S. Option C Statistics majors only. Pass/No Credit Only. Offered on demand.

Music

Course Descriptions

001 Concert Attendance

Majors - attendance at 80% of concerts (12 quarters)

Minors - attendance at 40% of concerts (6 quarters)

Applied Music Classes

234 Piano Class - 2 Q.H.

Note reading and fundamentals of piano playing. Offered quarterly. P/NC Option.

235 Piano Class - 2 Q.H.

Continuation of 235. Further development of keyboard skills. Short piano pieces. Offered upon demand. P/NC Option.

236 Voice Class - 2 Q.H.

Classification of voice, English diction, fundamentals of vocal techniques. Offered alternate year.

361 Accompanying - 1-2 Q.H.

Survey of accompanying techniques and styles. Assignment to specific accompanying duties. May be repeated up to total of 6 credits. Prerequisite: consent of department. Offered quarterly.

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.

261 Piano - 2 Q.H.

262 Voice - 2 Q.H.

263 Strings - 2 Q.H.

264 Woodwinds - 2 Q.H.

265 Brass - 2 Q.H.

266 Percussion - 2 Q.H.

267 Organ - 2 Q.H.

268 Harpsichord - 2 Q.H.

271 Piano - 3 Q.H.

272 Voice - 3 Q.H.

273 Strings - 3 Q.H.

274 Woodwinds - 3 Q.H.

275 Brass - 3 Q.H.

461 Piano - 4 Q.H.

462 Voice - 4 Q.H.

- 463 Strings - 4 Q.H.
 464 Woodwinds - 4 Q.H.
 465 Brass - 4 Q.H.
 466 Percussion - 4 Q.H.
 467 Organ - 4 Q.H.
 468 Harpsichord - 4 Q.H.

Ensembles

Open to all students by audition. Repertory selected to acquaint the student with representative literature from all periods. Students enrolled in ensembles designated 2 q.h. per year become eligible for first credit in second quarter of participation. May be repeated for credit. Offered quarterly.

- 241 Symphonic Wind Ensemble - Per Quarter: 1 Q.H.
 242 Orchestra - Per Quarter: 1 Q.H.
 243 Concert Choir - Per Quarter: 1 Q.H.
 244 Jazz Ensemble - Per Quarter: 1 Q.H.
 245 String Ensemble - Per Year: 2 Q.H.
 246 Brass Ensemble - Per Year: 2 Q.H.
 247 Woodwind Ensemble - Per Year: 2 Q.H.
 248 Varsity Band - Per Year: 2 Q.H.
 249 Madrigal Ensemble - Per Year: 2 Q.H.

History and Literature

109 Introduction to Music - 4 Q.H.

Study of the elements of music, fundamental techniques and formal patterns. Stylistic traits of Baroque, Classic, Romantic, and Modern Periods. Brief biographies of outstanding composers. Acquisition of familiarity with representative works through recordings. Offered quarterly.

110 History of American Jazz - 4 Q.H.

A history of jazz in America; its African influences; its emergence as recognizable style in the 19th century; and its present-day varieties. Offered yearly.

114 World Music - 4 Q.H.

A survey of selected world music cultures. Cultures covered will be chosen from Africa, India, China, Japan, Southeast Asia, Indonesia, and the Americas. Designed for the general student as well as the music major and minor. Offered alternate years.

115 Music of the East - 4 Q.H.

A survey of the music found in the main cultures of Asia with special emphasis on India, China, Southeast Asia and Japan. Designed for the general student as well as music major and minor. Offered alternate years.

116 Music of the Native American - 4 Q.H.

A survey of Native American music cultures found in different regions of the Americas. Emphasis will be placed on examining the music and its role in Native American culture. Designed for the general student as well as the music major and minor. Offered alternate years.

351 Music of the Middle Ages and Renaissance - 3 Q.H.

Study of the development of music in the Medieval and Renaissance periods. Heritage and central concepts of medieval music theory, and rise of individual composers in the Renaissance. Prerequisite: 109 or 202 or equivalent. Offered yearly.

352 Music of the Baroque and Classic Periods - 3 Q.H.

Study of the development of music in the Baroque and Classic periods. Significant works of the growing art-music repertoire from operas origins through the rise of the symphony, and careers of important composers. Prerequisite: 109 or 202 or equivalent. Offered yearly.

353 Music of the Nineteenth and Twentieth Centuries - 3 Q.H.

Study of the development of music through the Romantic, Modern, and postmodern periods. Changing roles of form and harmonic language, proliferating responses to the changing role of art music. Prerequisite: 109 or 202 or equivalent. Offered yearly.

440G American Music - 4 Q.H.

Music in America from the time of the Puritans to the present day. 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.

445G Music of the Twentieth Century - 4 Q.H.

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. Designed for the general student as well as for majors and minors. Prerequisite: 109 or equivalent. Offered summer only.

455 Opera Literature - 4 Q.H.

The development of opera from Florentine Camerata to the present day. Principal styles and tendencies illustrated by study of representative works. Offered occasionally.

456 Music Theatre Production - 1-4 Q.H.

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.

459 Brass Literature Seminar - 2 Q.H.

A survey of music for brass ensembles and solo repertory for trumpet, horn, trombone and tuba. Whenever possible, the music will be performed by class members. Primarily for music majors and minors. Offered alternate years.

471 Survey of Vocal Literature I (Italian) - 2 Q.H.

Songs and Arias of the 17th and 18th centuries. Offered alternate years.

472 Survey of Vocal Literature II (German) - 2 Q.H.

Lieder of Schubert, Schumann, Franz, Mendelssohn, Brahms, Strauss, Hugo Wolf, and others. Offered alternate years.

473 Survey of Vocal Literature III (French) - 2 Q.H.

Representative French songs of Faure, Duparc, Chausson, Debussy, Poulenc and others. 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 or 3 Q.H.

Half recital (1 Q.H.) or full recital (3 Q.H.) of representative literature. May be repeated for credit. Prerequisite: 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. Offered alternate years.

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

298 Introduction to Music Education - 2 Q.H.

An overview of the foundations and principles of music education. Prerequisite: 203 or consent of instructor. Offered alternate years.

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 fundamentals of music and techniques of teaching music in the kindergarten and elementary grades. Students with an adequate background in music should consider Music 322 as an alternate to this course. Prerequisite: Admittance into Professional Education Sequence. 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. Offered yearly.

322 Elementary Music Methods - 4 Q.H.

Study of material and methods for music instruction in the elementary grades. Not applicable toward the B.A. degree. Prerequisites: 298, successful completion of guitar and piano proficiencies and admittance into professional education sequence. Offered yearly.

323 Secondary Music Methods - 4 Q.H.

Study of materials and methods for music in the secondary school. Not applicable toward the B.A. degree. Prerequisites: 298, successful completion of guitar and piano proficiencies and admittance into professional education sequence. Offered yearly.

324 Recreational Music - 3 Q.H.

Introduction to music techniques and fundamentals necessary for recreation programs. No prerequisites. Offered yearly.

332 Elementary Music Methods II - 3 Q.H.

Advanced study of materials and methods for elementary music instruction. Development and application of skills and techniques needed to successfully teach elementary general music. Prerequisite: 322.

341 Woodwinds Methods II - 2 Q.H.

Continuation of the study of woodwind instruments. The course will emphasize pedagogical principles and materials available for the beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: 311.

344 Brass Methods II - 2 Q.H.

Continuation of the study of brass instruments. The course will emphasize pedagogical principles and materials available for beginning level through high school including solo literature and small ensemble repertoire. Prerequisite: 314.

399 Music Internship - 16 Q.H.

Supervised experience in music business or industry designed by music faculty advisor, work supervisor and student. Completion of required music and business courses with a 2.5 GPA or better. Prerequisites: Successful completion of all music and business courses. Offered quarterly. P/NC only.

410G 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.

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 - 3 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 - 3 Q.H.

Arranging and editing materials for high school orchestras. Organizational and rehearsal procedures. Offered every three years.

425 Marching Band 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.

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.

Theory**120 Introduction to Music Theory - 4 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 and inversions. Offered yearly.

202 Theory II - 4 Q.H.

Two, three, and four-part writing, diatonic sevenths, decorative pitches. Aural skills. Prerequisite: 201. Offered yearly.

203 Theory III - 4 Q.H.

Continuation of four-part writing, chromatic harmony, modulation, binary and ternary forms. Aural skills. Prerequisite: 202. Offered yearly.

204 Theory IV - 4 Q.H.

Augmented sixths, tertian structures greater than the octave, rondo and variation forms. Aural skills. Prerequisite: 203. Offered yearly.

205 Theory V - 4 Q.H.

Fugue and development forms, early nineteenth-century styles. Aural skills. Prerequisite: 204. Offered yearly.

206 Theory VI - 4 Q.H.

Late nineteenth-century styles, impressionism, twentieth-century styles. Aural skills. 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.

252 Jazz Improvisation - 2 Q.H.

A study of the basic tools of jazz improvisation including scales, modes, chord terminology, the blues, jazz forms and chord changes. Prerequisite: 120, 201 or consent of instructor. Offered alternate years.

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.

307 Computer Uses in Music - 2 Q.H.

An opportunity to survey computer applications in the music field including composition and analysis. Offered alternate years.

402 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.

403 Counterpoint - 4 Q.H.

Strict counterpoint in 16th Century style, study of species. Prerequisite: 203. Offered alternate years.

406 Conducting II - 2 Q.H.

Advanced techniques of conducting choral and instrumental groups. Offered alternate years.

Nursing

Course Descriptions

260 Women's Health Issues: Making a Decision - 4 Q.H.

A study of contemporary issues in women's health focusing on historical aspects, current significance and future trends of each issue. Focus is on preparing students to make their own health care decisions. Offered yearly or on demand. P/NC Option.

****302 NLN Mobility Profile II: Care of the Adult Client - 8 Q.H.**

Includes questions which focus on the nursing care of clients in a variety of settings and at various stages of the wellness-illness continuum. Items are also included in this exam which assess nursing skills in meeting physiologic and psychosocial needs of clients with stable conditions.

****304 NLN Mobility Profile II: Care of Client During Childbearing - 8 Q.H.**

Focuses on nursing care during the antepartal, intrapartal, and neonatal periods. Emphasis is on the normal, although some common complications are included.

****306 NLN Mobility Profile II: Care of the Child - 8 Q.H.**

Is concerned with nursing care of children of all ages and at various stages of health and illness.

****308 NLN Mobility Profile II: Care of the Client with a Mental Disorder - 8 Q.H.**

Consists of questions which reflect the broad spectrum of psychological wellness-illness. The content includes psychosocial assessment and intervention strategies to support the client's strengths.

(**For Diploma and ADN graduates of non-NLN accredited schools.)

310 Nurse-Client Interaction - 3 Q.H.

This course introduces the use of self in nurse-client relationships. Emphasis is on communication skills, self-awareness, values clarification, assertiveness and group process. Course includes a laboratory experience. Prerequisite: admission to nursing major.

320 Nursing Process - 8 Q.H.

This basic clinical course introduces the nursing process and assists the student to use it in planning nursing care. There is a focus on interpersonal, observational, and problem-solving skills. The philosophy and conceptual framework of WSU's College of Nursing are introduced, with the pervasive and progressive concepts defined as essential components to be integrated into the students' practice of nursing. Gerontological nursing and the use of the nursing process as it relates to basic human needs are practiced by students in long term care clinical settings. Basic accountability, quality assurance, and ethical and legal practice are presented. The course also has a strong psychomotor skills component. Course includes a clinical lab experience and a skills lab experience. Prerequisite: Admission to Nursing Major. N310 is pre or co-requisite.

*** 325 Basic Concepts for Professional Nursing - 2 Q.H.**

This course introduces the WSU nursing curriculum and organizing framework to the RN student. It explores the historical and professional development of nursing, defines the concept of health and assists the student to select personal learning goals. Prerequisite: Admission to the RN Option of the Nursing Major.

327 Introduction to Public Health - 4 Q.H.

This course is designed to introduce public health concepts appropriate for students in health care fields. These concepts will be applied to present health care delivery systems, community planning, health and disease of population groups. The political, economic, and social aspects of health care will be considered. NOT OPEN TO NURSING MAJORS.

330 Nursing and Health Problems - 4 Q.H.

This course is a study of health problems as evidenced by various characteristics and influenced by various bio-psycho-social-spiritual processes. It builds heavily on the required natural and social science courses. Concepts from those courses provide a foundation for understanding altered health states and appropriate nursing care. The pathophysiological concepts are built on in subsequent nursing courses.

The basis of treatment modalities and nursing care for selected health problems is included. Prerequisite: Admission to the Nursing Major.

340 Nursing Practice: Health Restoration I - 8 Q.H.

The purpose of this course is to assist the students in using the nursing process to address the needs of the client and family with altered health states in the acute care setting. Classes and clinical experiences focus on the concepts of holistic person, systems, health, coping, and nursing. Students work collaboratively with other health care workers as they carry out multiple roles of the nurse including provider of care, teacher, consumer of research and client advocate. The pathophysiological concepts and behavioral skills are built on in subsequent nursing courses. Course includes a clinical lab experience and a skills lab experience. Prerequisites: N310, N320, N330; Pre or co-requisite N360, N375.

360 Pharmacology: Nursing Applications - 2 Q.H.

A course designed to study the general principles related to drug therapy. Actions, side effects, and clinical nursing application of drugs will be identified. Prerequisites: Admission to nursing major on consent of instructor.

*** 365 Accountability in Nursing Practice - 4 Q.H.**

Application of critical thinking and decision-making skills to the nursing process and teaching-learning process to document accountability in professional nursing practice. Through inquiry, the student will analyze the impact of moral/ethical/legal issues on their professional role in nursing. Prerequisite: Admission to RN Option, N325.

375 The Holistic Person - 2 Q.H.

Study of variables that contribute to the wholeness of persons and impact on health status. Variables include biologic, behavioral, spiritual, cultural, sexual, family, and lifestyle. A holistic approach to nursing practice is emphasized. Prerequisites: Admission to nursing major or consent of instructor.

380 Junior Seminar - 2 Q.H.

Focuses on the analysis of the relationships between the major pervasive and progressive concepts in the nursing curriculum. Emphasis is placed upon helping students integrate these concepts into their professional practice through case studies. Prerequisite: N310, N320, N330, N340, N360, N375; Pre or co-requisite N390, N445.

*** 385 Nursing Practice: Life Processes - 8 Q.H.**

Introduces the major concepts used in assessing individuals throughout the life cycle. Students will use these concepts in a variety of settings to evaluate their own effectiveness in nursing-client relationships. Prerequisite: N325 pre- or co-requisite; N365 pre- or co-requisite.

390 Nursing Practice: Health Attainment - 6 Q.H.

Assists the student to use the nursing process for health promotion activities among families with children. Students will work with individual families to promote life style patterns which enhance their sense of well being. Course includes a clinical lab experience and a skills lab experience. Prerequisites: N310, N320, N330, N340, N360, N375; N445 (pre or co-requisite).

392 Cardiac Risk Prevention - 4 Q.H.

Lecture course designed to identify risk factors that can lead to cardiovascular disease. The major risk factors will be analyzed, and strategies for modifying each will be developed. Health information sources and their reliability for health promotion information will also be discussed. P/NC Option.

400 Nursing Practice: The Child and Family - 4 Q.H.

This course focuses on the use of the nursing process to address the holistic needs of the child with an acute or chronic health problem. A family-centered approach is used. The clinical component of the course uses a pediatric unit in an acute care hospital. Course includes a clinical laboratory experience. Prerequisites: N310, N320, N330, N340, N360, N375, N380, N390, N440 (pre or co-requisite), N445.

410 Nursing Care of The Aged - 4 Q.H.

The focus of this course is the bio-psycho-social-spiritual and holistic care of the elderly, given within the nursing process framework. The uniqueness of the aged person is considered as students plan the care and

management of altered health states including chronic and high risk pathophysiological conditions. The course is designed to increase the students' awareness and understanding of the aging process. The strengths and life experience of the aged client are recognized and reinforced to encourage their maximal coping abilities. Course includes a clinical laboratory experience.

412 Critical Care Nursing - 4 Q.H.

This course is designed to introduce the student to care for critically ill persons. Emphasis is on rapid assessment, setting priorities, rapid decision-making and nursing interventions for the critically ill. Course includes a clinical laboratory experience. Prerequisites: N330, N340, N440, or RN Licensure. P/NC Option.

420 Nursing Practice: Mental Health - 4 Q.H.

This course focuses on the theoretical basis for Nursing in the Psychiatric/Mental Health setting, as well as direct application of the Nursing Process to clients/families with psychiatric/mental health needs. Course includes a clinical laboratory experience. Prerequisites: N310, 320, 330, N340, N360, N375, N380, N390, N445.

422 Principles of Operating Room Nursing - 4 Q.H.

Students will learn the nurse's role during the intraoperative phase of patient care. Experiences include circulating and scrub nurse roles. Course includes a clinical laboratory experience. Prerequisites: N330, N340, N440 or RN Licensure. P/NC Option.

430 Nursing Practice: The Childbearing Family - 4 Q.H.

This course identifies the bio-psycho-social-spiritual needs of the childbearing family. It assists the student to develop a concept of family-centered nursing care during the childbearing cycle. Course includes a clinical laboratory experience. Prerequisites: N310, 320, 330, N340, N360, N375 (pre or co-requisites).

*** 435 Nursing and Health Care Delivery - 4 Q.H.**

This course examines the management and leadership roles of the professional nurse, analyzing current nursing practices as well as applying the change process to a nursing situation. Prerequisite: N325 pre- or co-requisite.

440 Nursing Practice: Health Restoration II - 6 Q.H.

Continuation of previous restoration course utilizing the nursing process with acutely and/or chronically ill patients with multiple variables and unpredictable outcomes. Course includes a clinical lab experience and a skills lab experience. Prerequisites: N340, N375, N390, N310, N320, N330, N340, N360, N375, N380, N390, N445.

445 Nursing Practice: Health Assessment - 4 Q.H.

This course provides an opportunity for students to acquire knowledge and skills needed to assess the health status of an individual. Students will use the health history and physical examination techniques in the laboratory setting. Course includes a laboratory experience. Prerequisite: N340, R.N. status or consent of instructor.

450 Nursing Practice: Health Maintenance - 6 Q.H.

The content of this course focuses on maintaining health of individuals, groups, and communities. The health care needs of persons in all age groups are considered. A major focus of the course is the care of the

chronically ill client in the home. Clinical experience is gained in community health nursing agencies and other community settings. Course includes a clinical laboratory experience. Prerequisites include completion of junior year, N430 and N440.

*** 455 Nursing Practice: Continuity of Care - 8 Q.H.**

Application of the nursing process to the hospitalized client with emphasis on continuity of care from an acute care perspective. Laboratory experience will provide opportunities for client/family teaching, discharge planning, and evaluation of client adjustment. Prerequisite: N325, N365, N385, N375, and N435 as pre- or co-requisite.

465 Professional Practice Issues - 3 Q.H.

Students will analyze issues in current professional practice and synthesize the progressive and pervasive concepts of the curriculum. Prerequisite: Can only be taken during final quarter of nursing sequence. N420, N470 (pre or co-requisite for generic option) N485 pre or co-requisite for RN option.

470 Nursing Leadership - 9 Q.H.

Focuses on management and leadership roles of the professional nurse. In clinical settings students will analyze, synthesize and evaluate current practices and theories, initiate appropriate change, make decisions based on predictable and unpredictable results. Course includes a clinical laboratory experience. Prerequisites: N450, 475, N465 (co-requisite).

475 Research in Nursing - 3 Q.H.

Basic concepts of research are introduced to develop critical thinking skills and assist the student to read, interpret, and evaluate nursing research. The application of research findings to nursing practice is emphasized. Prerequisite: Appropriate for continuing education for RN's. Part-time generic students need consent of instructor. Introductory statistics course with "C" or above.

*** 485 Nursing Practice Community Health Nursing - 8 Q.H.**

This course focuses on the roles and functions of community health nurse in a variety of settings. Laboratory experiences in community health increase the students' ability to use the nursing process in maintaining health. Prerequisite: N325, N365, N375, N385, N435, N445, N455 or consent of instructor.

490 Independent Study in Nursing - 1-3 Q.H.

Offers an opportunity for nursing students to do independent study or research in nursing in an area of special interest. Pre-requisite: consent of instructor and senior standing. Written objectives and evaluation required.

495G 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.

496G Feminist Perspectives in Nursing - 3 Q.H.

This seminar explores the relationship of the feminist movement, feminist theory, and gender issues for nursing history and practice.

*** RN Option courses only**

Orientation

Course Descriptions

100 Introduction to Higher Education - 1 Q.H.

The course provides incoming first year students with an appropriate introduction to college. There will be several components to the course. Students will acquire information acquisition skills in the library, and put those skills to practical application in the computer laboratory. The course will also introduce new students to the academic challenges presented by the University, including the high expectations of the professors. Offered each fall quarter. P/NC Only.

101 First Year Experience Seminar - 1 Q.H.

This course is required in the fall quarter of all freshman living in Lourdes Hall. 101 provides both an introduction to the nature of university education and general orientation to the functions and resources of the University as a whole. Offered each fall quarter. Grade Only.

Philosophy

Course Descriptions

110 Critical Thinking - 4 Q.H.

This computer-assisted, self-mastery course teaches one how to employ good reasoning skills and how to avoid being fooled by bad reasoning and rhetorical tricks. Competencies acquired in the course include argument identification, evaluation, and construction, informal fallacy identification, and validity testing of syllogisms and propositional arguments. Practice exercises, exams, and the final exam are done in the Critical Thinking Lab. Offered at least twice each year. P/NC Option.

120 Introductory Philosophy - 4 Q.H.

An introduction to major areas by considering some of the fundamental problems and concepts in philosophy. Issues taken up typically include some of the following: existence of God, what we can know, what reality is, how mind and body are related, whether we have free will, what makes actions right or wrong. Offered quarterly. P/NC Option.

130 Moral Problems - 4 Q.H.

A practical course in moral philosophy involving concrete moral issues. Topics may include: abortion, euthanasia, sexuality and sexual morality, feminism, discrimination and affirmative action, capital punishment, pornography and censorship, animal rights, world hunger, war and terrorism. Offered at least twice each year. P/NC Option.

201 Classical Philosophy - 4 Q.H.

A study of the major philosophical ideas of the classical world, concentrating on ancient Greece: nature of the universe, knowledge, politics and morals in the Presocratics, Socrates and Plato. Offered at least twice each year. P/NC Option.

202 Aristotle and Late Classical Philosophy - 4 Q.H.

Studies Aristotle's most important views on reality, knowledge, morals and politics; and examines late classical philosophies such as Epicureanism and Stoicism. Offered each year. P/NC Option.

210 Inductive Reasoning - 4 Q.H.

Introduction to inductive reasoning and how not to be tricked by for instance, faulty scientific claims and arguments. Students study and practice using experimentation and observation to critically test theoretical, statistical, and causal hypotheses. Famous discoveries in the history of science are used as illustrations. Other topics include elementary probability theory and the concepts of causation and correlation. Offered each year. P/NC Option.

220 Philosophy of Democracy - 4 Q.H.

An introductory course in political philosophy, the course investigates various issues concerning liberal democracy. Topics that may be taken up include: social-contract theory, notions of natural rights, the moral virtues of democracy, voting paradoxes, limitations of and various critiques of democracy. Offered as appropriate. P/NC Option.

230 Moral Theory - 4 Q.H.

A study of major ethical theories and problems in ethical theory, e.g.: Kantianism, utilitarianism, ethical relativism, concepts of justice, human rights, moral responsibility and free will. Offered each year. P/NC Option.

240 Philosophy of Science - 4 Q.H.

Examines basic issues in the philosophy of science, such as the testing of hypotheses, the construction and confirmation of theories, the nature of scientific explanation, and the concept of laws of nature. The course also investigates the distinction between science and pseudoscience, and asks to what extent each of these has driven recent public policy on environmental issues and school curricula. Offered each year. P/NC Option.

250 Symbolic Logic - 4 Q.H.

An examination of methods for putting ordinary deductive reasoning into symbols, in order to test its validity. Topics include ways to translate English into symbols, uses of truth tables, rules for deduction in propositional and predicate logic, models for showing invalidity, and tips for constructing proofs. Offered each year. P/NC Option.

260 Problems in Philosophy - 4 Q.H.

A variable-content course considering salient problems in philosophy. May be repeated as problems change, but may not be repeated for General Education. Offered as appropriate. P/NC Option.

301 Early Modern Philosophy - 4 Q.H.

Examines the main themes of early modern philosophy by investigating the views of some of the principal European philosophers of the 17th and 18th centuries: the rationalism of such philosophers as Descartes, Spinoza and Leibniz, and the empiricism of such philosophers as Locke, Berkeley and Hume. Prerequisite: one philosophy course. Offered each year. P/NC Option.

302 Nineteenth Century Philosophy - 4 Q.H.

After considering the philosophical system of Kant, the course investigates subsequent themes as they develop in such European philosophers as Hegel, Schopenhauer, Kierkegaard, Nietzsche, Mill, and Marx. Prerequisite: one philosophy course. Offered each year. P/NC Option.

303 Twentieth Century Philosophy - 4 Q.H.

The course examines some of the major philosophical movements and issues of the twentieth century. Movements discussed may include logical positivism, ordinary language analysis, phenomenology, existentialism, and post-structuralism. Issues may include theories of knowledge and justification, conceptual and ethical relativism, and the philosophy of language. Prerequisite: one philosophy course. Offered each year. P/NC Option.

330 Biomedical Ethics - 4 Q.H.

Ethical issues in health care, e.g.: abortion, termination of treatment, euthanasia, truth telling and confidentiality, medical experimentation and informed consent, transplant surgery, artificial insemination, surrogate pregnancy, the allocation of medical resources. Offered each year. P/NC Option.

331 Business Ethics - 4 Q.H.

Ethical issues in business, e.g.: truthful advertising, bribery, whistleblowing, product liability, employee privacy, hiring and promotion practices, environmental issues, multi-national corporations and exploitation, alternative versions of capitalism and socialism. Offered each year. P/NC Option.

332 Philosophy of Law - 4 Q.H.

Consideration of a variety of issues in the philosophy of law. Topics may include the nature of law, concepts of responsibility and liability, theories of punishment, causation in the law, discrimination and equality, relation of law and morality, the obligation to obey the law, civil disobedience, liberty and privacy, theories in private law (tort, contract, property). Offered each year. P/NC Option.

335 Constitutional Philosophy - 4 Q.H.

At the crossroads of political philosophy and philosophy of law, this course investigates the philosophical foundations of the American constitution and contemporary philosophical issues arising from constitutional law. Topics covered may include: natural law theory, the separation of powers, theories of constitutional interpretation, theories of free speech, privacy doctrine, equal protection and affirmative action, criminal due process, and the constitution's relation to American society. Offered as appropriate. 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: one Philosophy course and consent of instructor. Offered by arrangement.

430 Topics in Social and Political Philosophy - 1-4 Q.H.

A variable-content course, considering issues in social and political philosophy. May be repeated as topics change. Offered as appropriate. P/NC Option.

460 Great Philosophers - 4 Q.H.

An intensive study of a single philosopher. May be repeated for different philosophers. Prerequisite: one Philosophy course and consent of instructor. Offered as appropriate.

Photography

(See Mass Communications)

Physics

Course Descriptions

115 Conceptual Physics - 4 Q.H.

Many demonstrations and everyday applications are used to make physics principles understandable to the general education student. Non-mathematical approach. No prerequisites. Not open to students with credits in higher numbered non-aviation physics courses. Offered quarterly.

184 Energy: Principles, Our Life Style and Alternatives - 4 Q.H.

The course presents the physical laws related to energy use. Energy topics such as oil, natural gas, nuclear energy and the cost of energy as it applies to transportation, heating and cooling. Energy alternatives such as solar, geothermal, etc. will be discussed. Lecture and demonstrations. Not open to students with credits in higher numbered non-aviation physics courses. No prerequisite: Offered yearly.

201 General Physics I - 4 Q.H.

Principles of mechanics for those contemplating the study of biology, medicine, etc. or seeking a general education course in the physical sciences. Lecture and laboratory. Prerequisite: Mathematics 120 (or 115 and 116). Offered twice a year.

202 General Physics II - 4 Q.H.

A continuation of 201. Principles of Electricity and Magnetism. Lecture and laboratory. Prerequisite: Physics 201. Offered twice a year.

203 General Physics III - 4 Q.H.

A continuation of 202. Principles of waves, optics and modern physics. Lecture and laboratory. Prerequisite: 202. Offered twice a year.

221 College Physics I - 5 Q.H.

Similar to 201, but aims to meet the specific requirements of students who expect to major in physics, mathematics, chemistry, or engineering. Lecture and laboratory. Prerequisite: Mathematics 125. Offered twice a year.

222 College Physics II - 5 Q.H.

A continuation of 221, covering thermodynamics, sound, and electricity. Lecture and laboratory. Prerequisite: 221 and Mathematics 126. Offered twice a year.

223 College Physics III - 5 Q.H.

A continuation of 222, covering magnetism, optics and special topics in modern physics. Prerequisite: 222. Offered twice a year.

302 Electrical Circuits and System - 4 Q.H.

DC circuit analysis, magnetic field concepts, inductance, AC circuit analysis, Network analysis. Prerequisite: Physics 223 and Math 329. Offered yearly

310 Science and Technology in Litigation - 5 Q.H.

Designed to provide a working knowledge of investigative procedures; basic science, especially dynamics, sound, and radiation; and recent technological advances employed in litigation in the areas of automobile collisions, accidents and product liabilities. Grade only. Offered yearly. Prerequisite: History 365, 370, and 377, or permission of the instructor.

311 Science Teaching Methods - 4 Q.H.

The application of current research trends in science education are used to prepare science majors for the teaching of secondary school science content and process. Prerequisite: acceptance in the Education Department, two years of coursework in a science major, and Physics 201 or 221. This course is a prerequisite to student teaching. Offered yearly

328 Electrical Circuits and Measurements I - 5 Q.H.

Physical principles underlying the modeling of circuit elements, two and three terminal resistive elements, Kirchoff's Laws, simple resistive circuits, linearity in circuits, storage elements, first order circuits, and with an introduction to computer-aided circuit analysis. Lecture-laboratory course. Prerequisite: Physics 202 or 222, Mathematics 126. Offered yearly.

329 Electrical Measurements and Circuits II - 5 Q. H.

A continuation of Physics 328 covering multiphase systems, magnetically coupled circuits, complex frequency approach, and the application of Laplace and Fourier transform techniques with a continued emphasis on computer analysis and design of linear circuits. Lecture and laboratory. Prerequisite: Physics 328. Offered every two years.

330 Electronics - 5 Q.H.

A lecture-laboratory course in solid state electronics including circuit theory, diodes, transistors, power supplies, amplifiers, wave-form generators and integrated circuits. Prerequisite: Physics 222 or 202, Mathematics 126, 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, sequential circuits, sequence detectors, memory units and control units. Prerequisite: Physics 202 or 222 or Computer Science 250. Offered yearly.

333 Microprocessor Electronics - 5 Q.H.

A lecture-laboratory course on the programming and interfacing of the Z80 microprocessor. Analog and digital conversion, input/output devices, data transmission and data manipulation will be covered. Examples will be programmable interface chips, UART, and microcomputer interfacing. Prerequisite: Physics 332 Offered yearly.

334 Logic Design and Microprocessor Electronics - 6 Q.H.

A lecture laboratory course in fundamentals of Boolean algebra, logic circuits, counters, registers, arithmetic-logic units, memory, microprocessor programming, interfacing, and the interrupt structure. Credit will not also given in 332. Prerequisite: CS 250. Offered on Demand.

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: Physics 203 or 223 and Mathematics 127. Offered yearly.

345 Thermodynamics - 4 Q.H.

Equations of State, first and second law, equilibrium, irreversibility, and mixtures. Prerequisites: Physics 203 or 223 and Math 127. Offered every two years.

350 Mechanics I - 4 Q.H.

Fundamental laws of mechanics of particles and rigid bodies, including vibrations. Prerequisite: 201 or 221 and Mathematics 126. Offered every two years.

370 Optics - 4 Q.H.

Geometrical Optics. Wave theory of light, interference, diffraction, polarization, Magneto-and Electro-optics, Lasers and Holography. Lecture-laboratory course. Prerequisite: Physics 203 or 223 and Mathematics 126. Offered every two years.

400G Seminars - 2-4 Q.H.

This course consists of one or more seminars offered from time to time on a variety of topics of physics. Students may repeat the course under a different topic. Prerequisite: Consent of the Instructor. Offered on demand.

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. Lecture-laboratory course. Prerequisite: 203 or 223 or consent of the instructor. Offered every two years.

405G Mechanics II - 4 Q.H.

A continuation of physics 350 including central force field, scattering, and Lagrangian and Hamiltonian mechanics. Prerequisite: Physics 350. Offered every two years.

420 Analog and Digital Control - 4 Q.H.

An introduction to the design, analysis and behavior of mechanical and electronic control systems including study of the input and output characteristics and interactions of the functional blocks which comprise the system. Prerequisites: Physics 203 or 223, Math 330. Offered yearly.

425 The Physics of Semiconductors - 4 Q.H.

A study of the physics of semiconductors, pn junctions and transistors, fabrication of semiconductor devices including integrated circuits; and the electrical characteristics and behavior of these devices. Prerequisite: Physics 340. Offered every two years.

430G Electromagnetic Theory I - 4 Q.H.

Electrostatics including Gauss's Law and Laplace's Equation. Magnetostatics. Introduction to Maxwell's Equations. Prerequisites: Physics 203 or 223 and Mathematics 330. Offered every two years.

431G Electromagnetic Theory II - 4 Q.H.

A continuation of 430 with applications of Maxwell's equations to waveguides, optics, and special relativity. Prerequisite: Physics 430. Offered every two years.

435G Statistical Physics - 4 Q.H.

An introduction to the concepts and laws of the kinetic theory, thermodynamics, and classical and quantum statistical mechanics; Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein distribution functions. Prerequisite: Physics 223. Offered every two years.

440G Mathematical Methods in Physics I - 4 Q.H.

Partial differential equations of mathematical physics. Orthogonal functions. Fourier series. Prerequisite: Physics 203 or 223 and Mathematics 330. Offered on demand.

441 Mathematical Methods in Physics II - 4 Q.H.

Eigenvalue problems Sturm-Liouville Theory. Matrix theory. Calculus of residues. Special functions. Laplace and Fourier transforms. Prerequisite: Physics 440. Offered on demand.

451 Quantum Mechanics - 4 Q.H.

A continuation of Physics 340. Interpretation of wave functions. Systems in one dimension. Hermitian operators and angular momentum. Electron spin. Systems in two or three dimensions. Prerequisite: 340. Offered every two years.

460G Advanced Laboratory I - 2 Q.H.

A study of the experimental techniques used in modern physics. Experiments are from such fields as mechanics, optics, solid state physics, atomic and nuclear physics, with an emphasis on the quantum character of matter. Prerequisites: 28 Q.H. of Physics. Offered yearly.

461G Advanced Laboratory II - 2 Q.H.

A continuation of Physics 460. Offered yearly.

490G Individual Problems in Physics - 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. Prerequisite: consent of the physics advisor. May be repeated to a total of 5 credits. Offered on demand as an arranged class.

Aviation Courses**200 Fundamentals of Aviation - 6 Q.H.**

Fundamentals of aviation provides the student with the knowledge that is necessary to complete the F.A.A. Private pilot written examination as well as a general overview of aviation to include the physical principles involved in flight. Offered quarterly. No prerequisite.

204 Private Flight Laboratory - 5 Q.H.

This course equates to the FAA Practical Test Standards and covers airplane operations and the use of radio for voice communications; emphasis on basic piloting techniques such as stalls, landings, short and soft field operation; and cross-country flight procedures. Student must enroll in course in order to earn credit. Offered yearly.

300 Fundamentals of Instrument Flight - 6 Q.H.

Provides the student with the 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. Offered yearly.

301 Instrument Flight Laboratory - 5 Q.H.

This course equates to the FAA Practical Test Standards and covers ground and airplane operations 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. Student must enroll in the course to receive credit. Offered yearly.

380 Seminars in Aviation Organization - 1-4 Q.H.

Seminars on topics relevant to 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.

381 Corporate Operations - 3 Q.H.

This course covers aircraft operations as they relate to U.S. business for both the chief executive officer as well as corporate aviation personnel. Major areas covered are proposals, utilization, operations, insurance and legal aspects of FAR 91 & 135 operations. Taught by staff and adjunct industry personnel. Prerequisite: Physics 200 and BA 310 or consent of instructor. Offered every two years.

382 Airline Operations - 3 Q.H.

An overview of the U.S. airline industry covering historical background, regulations and current operational entities and procedures for U.S. Flag carrier airlines. Taught by staff and adjunct industry personnel.

Prerequisite: Physics 381 or consent of instructor. Offered every two years.

383 Air Traffic Control - 4 Q.H.

An overview of the U.S. and Canadian airspace system. Special emphasis on the enroute and terminal environment and Pilot/Controller actions and responsibilities. Taught by staff and ATC adjunct faculty. Prerequisite: Physics 200 or consent of instructor. Offered yearly.

384 Airport Operations - 3 Q.H.

A study of airport administrative functions, planning, development and operations. Special emphasis on regulations, financing, revenue, security and environmental/economic impacts. Taught by Airport operations adjunct faculty. Prerequisite: Physics 200 and BA 310 or consent of instructor. Offered every two years.

387 Flight Safety - 4 Q.H.

This course covers the certification process for FAR 23 & 25 aircraft. Flight deck management objectives and procedures and the study of human factors for flight and ground personnel. Taught by staff and adjunct industry personnel. Prerequisite: Physics 200 or the consent of instructor. Offered yearly.

388 Legislative and Legal Aspect of Aviation - 2 Q.H.

This course covers an overview of the role of governmental bodies, their policies and procedures on aviation. To include a brief overview of aviation litigation for airlines, general aviation, and airports. Taught by staff and adjunct industry personnel. Prerequisite: Physics 200 and BA 310 or consent of instructor. Offered yearly.

401 Advanced Fundamentals of Aviation - 6 Q.H.

Provides the student with 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 crew and maintenance crews. Offered yearly.

402 Commercial Flight Laboratory - 5 Q.H.

This course equates to the FAA Practical Test Standards and covers all airplane operational areas for commercial flight. Emphasis on advanced piloting techniques for commercial operations such as aircraft maneuvers, takeoffs and landings, passenger comfort, cross-country flight, voice and radio navigation, night operation, primary instrument flight and safety. Students must enroll in this course to earn credit. Offered quarterly.

410 Turbojet-Prop. Transport Seminar - 1-4 Q.H.

This course fulfills the FAA's ground requirements for pilots of heavy, sophisticated aircraft. Basic aircraft systems theory, design, function, operation and procedures are covered in depth. Prerequisite: Physics 300 and 401 or equivalent. Offered yearly. May be repeated.

411 Cessna Citation Pilot School - 4 Q.H.

This FAA approved course covers the equipment knowledge, training and competencies necessary to qualify as pilot or second in command of the Citation I or II jet aircraft. Prerequisite: Physics 301 and 402 or consent of instructor. Offered on demand.

412 F-27 Pilot School - Initial - 6 Q.H.

This FAA approved course covers the equipment, knowledge, training and competencies necessary to qualify as pilot in command or second in command of the Fairchild or Fokker F-27 as provided under FAR 121 or B5B. Prerequisite: Physics 301 and 402 or consent of instructor. Offered as required.

Political Science and Public Administration

Course Descriptions

103 Introduction to Political Science - 4 Q.H.

A study of both modern and enduring issues and problems common to political systems and the analysis and methods employed by political scientists to understand and solve these issues and problems.

123 Politics and Society in the Mediterranean 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 and nations and on the politics of the Mediterranean Middle East. May be used in General Education under Different Cultures or Social Science area if course is not being used in the major. Offered twice yearly. 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. May be used in General Education under Different Cultures or Social Science area if course is not being used in the major. Offered twice yearly. P/NC Option.

125 Politics and Society in Asia - 4 Q.H.

A course designed to introduce the student to China, Japan and India with secondary attention to Korean Peninsula and the Republic of China or Taiwan. The course will focus on the relationship between political culture and the recruitment, coalition building, and policy making process in these political systems. Can be used to meet General Education requirement for Different Culture category if course is not being used in the major. P/NC Option.

126 Politics and Society in Sub-Saharan 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. May be used in General Education under Different Cultures or Social Science area if course is not being used in the major. Offered yearly. P/NC Option.

130 Introduction to International Relations - 4 Q.H.

A general introduction to world affairs, the major actors involved, and the key concepts employed to understand them. Can be used to meet General Education requirement for Social Science category if course is not being used in the major. Offered quarterly.

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. The 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 on demand. P/NC Option.

220 American Government and Politics - 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. Offered quarterly.

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 twice yearly.

222 Politics and Society in the Persian/Arabian Gulf (C) - 4 Q.H.

Discussion of cultural and historical factors affecting policies adopted by Persian/Arabian Gulf countries regarding issues such as oil policy, North-South negotiations, women's status, the status of religious and

ethnic minorities etc. May be used in General Education under Different Culture or Social Science area. Offered yearly. P/NC Option.

228 Introduction to 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.

235 Comparative Political Systems (C) - 4 Q.H.

Comparative study of politics in different countries with a view to determine how well they respond to their problems and why some countries fare better than others. Prerequisite: POLS 103. Offered yearly. Grade only.

240 Politics of International Economic Relations - 4 Q.H.

An introduction to the relationship between international politics and international economics, and to the theories of international political economy. The topics cover the following: the politics of trade, investment and foreign-aid between nations; the consequences of the multi-national corporations for international relations and the issue of their political role; economic foreign policy-making and its implications for domestic and international politics. Offered every two years. Prerequisite: PS 130 or consent of instructor.

260 Development of Political Thought (T) - 4 Q.H.

Political ideas from ancient Greece and from the Judaeo-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 two years.

280 Introduction of Political Research (T) - 4 Q.H.

An introduction to the methods used for research in political science. Emphasis will be placed on secondary research and familiarizing students with professional journals, usage of statistics and computers as research tools, simulations and gaming, as well as traditional, institutional, philosophical and legal approaches to the study of politics. A strong background in mathematics and/or statistics is recommended but not required. Prerequisite: PS 103 and PS 220 or consent of instructor. Offered yearly.

290 Comparative Politics - Third World (C) - 4 Q.H.

A comparative study of the political, ideological, social and economic development in selected countries from the Third World. Countries covered will vary each time the course is offered. They will include examples from Asia, Africa, Latin America and the Middle East. Offered every other year. Prerequisites: Sophomore status.

310 Criminal Justice System (A) (L) - 4 Q.H.

An introductory study to the administration of criminal justice. This course will examine society's efforts to limit the conduct of its members through definition 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 yearly.

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. Prerequisite: 220 or consent of instructor. Offered every two years.

316 Medieval Political Theory (T) - 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 societies and their thought. Prerequisite: Sophomore status. Offered every three years.

320 Constitutional Law (A)(L) - 4 Q.H.

Judicial function in constitutional cases; division of powers between the nation and the states, and within the national government: powers of the President, limitations on the powers of government; separation of powers; protection of individual rights. Prerequisite: 220. Offered twice yearly.

321 The 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. Prerequisite: 220. Offered every other year.

322 American Political Parties and Pressure 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 finance, elections, voting behavior, and the role and techniques of interest groups. Prerequisite: 220. Offered every two years.

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, 221.

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. Prerequisite: Sophomore status. Offered every two years.

329 Intergovernmental Relations (A) - 4 Q.H.

Management, planning, and implementation of decisions of municipal administrations and organizations; and the relationships between local, state and national levels of government. Prerequisites: 220, 221. Offered every two years.

330 Race and American Politics - 4 Q.H.

A study of the impact, effects, and consequences of race and racism in American politics. Emphasis is placed on the origins, definitions and political consequences of race and racism within American politics. Prerequisite: 220 or consent of instructor. Offered annually.

332 European Political Systems (C) - 4 Q.H.

A comparative study of the political, ideological, social and economic development in European political systems with emphasis on the British, French, and German systems. Emphasis is placed on cultural and institutional aspects with a systems approach. Offered every other year. Prerequisites: Sophomore status.

333 Media and Politics - 4 Q.H.

An examination of the role, process, and power of the mass media in American politics. Includes an examination of media impact and effects at the individual, group, institutional, and cultural levels in American politics. Prerequisite: 220 or consent of instructor. Offered annually.

335 Political Systems of Latin American Countries (C) - 4 Q.H.

A comparative study of the structure and dynamics of Latin American politics and governments. Prerequisite: Sophomore status. Offered every two years.

336 Comparative Communist and Post-Communist Systems (C) - 4 Q.H.

A comparative study of ideological, political, social, cultural and economic development, as well as ethnic factors in selected communist political systems. Emphasis will be placed on the Soviet Union and the East European countries. Prerequisites: Sophomore status. Offered every two years.

337 Asian Political Systems (C) - 4 Q.H.

A comparative study of the principles, structure and operation of contemporary Asian political systems. Emphasis on the systems of India, Pakistan, China and Japan. Prerequisite: Sophomore status. Offered every two years.

338 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; and contemporary problems of this region in relation to world politics. Prerequisite: Sophomore status. Offered on demand.

340 Environmental Policy Analysis - 4 Q.H.

A seminar in environmental policy analysis. Students will examine and assess a variety of global, national, local, and intergovernmental environmental problems, such as air and water pollution, erosion, toxic wastes, species loss, and population growth. Offered yearly.

341 Politics of Health Care - 4 Q.H.

An analysis of the politics of health care. Special emphasis is placed on the policy making problems of the American political system in meeting the demands for health care reform. Students will assess and compare health care systems in the United States, as well as those in selected industrialized nations. Prerequisite: 220. Offered every two years.

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; and transnational legal problems. Prerequisite: 130 or consent of instructor. Offered twice yearly.

347 International Organization (I)(L) - 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. Prerequisite: 130 or consent of instructor. Offered every two years.

360 Congress and the Policy Process - 4 Q.H.

An examination of how Congress makes laws, and how its rules and procedures shape domestic and foreign policy. Prerequisite: 220. Offered every other year.

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.

410G Political Analysis (T) - 4 Q.H.

The various primary research approaches utilized in the study of the political process. Emphasis is placed upon methods available for the collection and analysis of data and on problem solving and critical thinking. A strong background in statistics is recommended but not required. Prerequisite: 103; 220; 280 and junior status. Offered yearly.

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. Prerequisite: 220 and junior status. Offered every two years.

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.

420G Administrative 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 and 320. Offered twice yearly.

422G American Foreign Policy (A) (I) - 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: 130 or consent of instructor, and junior status. Offered every other year.

425 Public Policy Analysis (A) - 4 Q.H.

An introduction to the evaluation of the public policy. Models and criteria for evaluating public policy are presented. Topics include: selecting evaluative criteria, policy formation, implementation, change, and the ethics of policy analysis. Offered yearly.

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. Prerequisite: 220 and 228. Offered every other year.

428 Public Policy Making (A) - 4 Q.H.

Major policy functions performed by the American federal system in such areas as education, ecology, business, and labor; examination of the policy process. Prerequisites: P.S. 220 and 228.

429 Public Policy Implementation (A) - 4 Q.H.

Strategies and problems of implementing the public policy discussion will include agenda building, actors, impact of interest groups, the budget, policy evaluation, and policy termination. Prerequisite: 220, 228. Offered every other year.

430 Public Personnel Administration (A) - 4 Q.H.

The civil service movement; staffing, the human factor, position and pay classifications, terms of public employment and separation, and related administrative functions. Prerequisite: Sophomore status, 220 and 228. Offered every other year.

434 Foreign Policies of the Developing States (I) - 4 Q.H.

Examination of objectives of foreign policy in Third World countries, the factors which hinder or facilitate their realization, and the comparison with foreign policies of the advanced industrialized states. Prerequisite: PS 130 or consent of instructor. Offered every two years.

450G Politics of Revolution and Modernization (T) or (C) - 4 Q.H.

A description of major problems of developing nations in regard to their internal affairs and international relations. Interplay between economic

levels and patterns of politics and the processes leading to social, political, economic and cultural revolutions. Prerequisite: 130 and sophomore status. Offered every two years.

460 North American Relations (I) - 4 Q.H.

A comparative study of the principles, structure and operation of the contemporary political systems of the United States, Canada and Mexico. Emphasis will be on the policy making process in each political system and their interrelationship in the North American political system. Prerequisite: 220. Offered every three years.

488 Issues in International Politics (I) - 4 Q.H.

The purpose of the course is to acquaint students with several major international issues and problems. Topics will include superpower rivalry, the Arab-Israeli conflict, terrorism, fundamentalism, non-violence, international debt, human rights, resource scarcity. This course is recommended for juniors and seniors, others must obtain instructor's permission. Prerequisite: 130. Offered every two years.

499G Seminar - 1-4 Q.H.

The subject matter of which is to be arranged by the instructor prior to the course being offered. The student may repeat the course without limitation on the number of credits as long as the subject matter is different. Offered yearly on demand.

Psychology

Course Descriptions

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. P/NC option except for majors and minors.

231 Statistics I - 4 Q.H.

An overview of the theories, procedures, and applications of descriptive, correlational and inferential statistics in the behavioral sciences. Topics include central tendency, variability, correlation, special correlational procedures, linear regression, parametric and non-parametric tests of significance. Prerequisite: 210. Offered quarterly.

250 Developmental Psychology - 4 Q.H.

Development and decline of emotional, social, intellectual, and physical characteristics from conception to death. Prerequisite: 210. Offered quarterly.

275 Psychology of Women - 4 or 5 Q.H.

A survey of scientific research into female behavior as contrasted with male behavior and implications for modern living. Included are psychological issues related to gender similarities and differences, gender roles, personality development, problems of adjustment, health issues, sexuality, biological influences and violence against women. Prerequisite: 210. May be offered with (5 Q.H.) or without (4 Q.H.) a discussion/writing laboratory. Offered quarterly. P/NC option except for majors and minors.

298 Health Psychology - 4 Q.H.

Explore psychological factors in maintenance of wellness, treatment of illness and recovery from or adjustment to ongoing health problems. Study theory, research methods and clinical applications in health psychology. Prerequisite: 210. Offered yearly.

301 Behavior Modification: Classical and Operant Conditioning - 4 Q.H.

Theory and application of basic conditioning procedures. Topics include reinforcement, punishment, extinction, generalization, discrimination, observational learning and motivation. Prerequisite: 210. Offered yearly.

303 Brain and Behavior - 4 Q.H.

A survey of how the structure and workings of the human brain guides behavior. Topics include: functional neuroanatomy, emotions, consciousness, social behavior, psychological disorders, amnesia and epilepsy. Prerequisite: 210. Offered quarterly.

305 Theories of Personality - 4 Q.H.

A survey of historical and current perspectives on personality theory. Topics include major theories—Psychoanalytic, Humanism, Behaviorism. Prerequisite: 210. Offered quarterly.

308 Experimental Psychology - 5 Q.H.

Introduction to the scientific methods and research techniques in psychology. Laboratory experiences are included. Prerequisites: 210, 231. Offered twice yearly.

325 Social Psychology - 4 Q.H.

Problems, issues and theories in social behavior including: social perception, attitude formation and change, prejudice, interpersonal attraction, social influence, prosocial behavior, aggression, social exchange, proxemics, sexuality and the applications of social psychology. Prerequisite: 210. Offered quarterly.

330 Psychology and the Law - 4 Q.H.

Psychological analysis of the legal system, focusing on the perceptual, memory and decision-making processes by individuals in the system. Topics will include forensic psychology, the trial process, jury deliberations, sentencing and punishment, and other current issues. Prerequisite: 210. Offered yearly.

350 Psychological Testing & Measurement - 4 Q.H.

Problems, issues and techniques in psychological testing and measurement with emphasis on the principles of test construction, administration and interpretation. Intelligence, achievement, aptitude, vocational interest, psychomotor ability, and personality testing are covered. Prerequisites: 210, 231. Offered twice yearly.

360 Psychology in Business and Industry - 4 Q.H.

Personnel selection techniques, performance rating procedures, training, work group dynamics, supervisory leadership, employee motivation, human factors engineering, fatigue, safety, and physical working conditions. Prerequisite: 210. Offered yearly.

365 Consumer Psychology - 4 Q.H.

Analysis and review of consumer behavior concepts, theories and research methods applicable to strategic and tactical problems in marketing, advertising and social policy decision-making from a multi-theoretical perspective. Offered yearly.

369 Cognitive Psychology - 4 or 5 Q.H.

Contemporary approaches to human cognitive processes: pattern recognition, attention, memory, language, imagery, reasoning, problem-solving, and concept formation. May be offered with (5 Q.H.) or without (4 Q.H.) a laboratory. Prerequisite: 210. Offered yearly.

375 Theories of Learning - 4 Q.H.

Behavioral, associative, and cognitive theories of learning and memory are reviewed. Prerequisite: 210. 308 recommended. Offered yearly.

400G Independent Study or Research - 1-4 Q.H.

Independent study or research for credit under the guidance of a staff member with prior consent. May be repeated. Teaching assistantships and field experiences are available on a P/NC basis only. Prerequisite: 210. Offered quarterly.

408 Advanced Experimental Psychology - 4 Q.H.

Theory and methods of advanced research techniques in psychology. Individual student research projects are conducted. Prerequisites: 210, 231, 308. Offered yearly.

410 Sensation and Perception - 4 Q.H.

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. Emphasis on vision and audition. Prerequisite: 210. Offered yearly.

414G Psychology of Mental Retardation - 4 Q.H.

Causes, diagnosis, problems, and treatment of mental retardation. Personal, social, and educational adjustment of retarded persons. Prerequisite: 210. Offered biannually.

418G Behavioral Pharmacology - 4 Q.H.

Survey of current strategies for the pharmacological treatment of psychological disorders, new drug development, and chemical dependency. This course does not meet teacher certification, but is designed for non-education majors. Prerequisite: Psy 210 or Biol 201 (Psych 303 strongly recommended). Offered yearly.

420G Abnormal Psychology - 4 Q.H.

The origins, development and treatment of abnormal behavior. Topics include mood, anxiety and schizophrenic disorders, as well as selected topics, which may include somatoform and dissociative disorders, life-span related disorders, substance use disorders, organic disorders, psychological aspects of illness, and prevention. Prerequisite: 210 and 4 additional credits in psychology. Offered quarterly.

421G Cognitive Behavior Therapy - 4 Q.H.

Current methods, principles and therapeutic interventions of behavior modification are discussed as applied to the behavior of individuals and groups in school, hospital, community, and interpersonal situations. Prerequisites: 210, 420. Offered yearly.

423G Psychopathology of Childhood - 4 Q.H.

Examines classification of disorders of children and adolescents. Topics include: Eating Disorders, Psychosomatic Disorders, Autism, Psychosis, Phobias, Developmental Deviations. Therapy issues will be discussed. Prerequisite: 210, 250, and 420G. Offered yearly.

424G Women and Mental Health - 4 Q.H.

Issues of women's mental health may include guilt, depression, dependence, anger, autonomy, identity, integration of marriage and career, lesbianism, poverty, consciousness raising and gender role development. Traditional and alternative therapeutic approaches will be discussed in light of socioeconomic changes affecting women. Current issues related to needs of women will be addressed. Prerequisites: 210, and 12 credits in psychology or permission of instructor. Offered yearly.

425G Organizational Psychology - 4 Q.H.

Organizational socialization, decision-making, organization-individual interaction, dynamics of motivation in organization, leadership and the utilization of power and authority, communication, organizational change, and the evaluation of organizational effectiveness. Prerequisite: 210. Offered yearly.

431 Introduction to Counseling and Clinical Psychology - 4 Q.H.

Issues and methodologies used in attempts to produce changes in human behavior. Practice in interviewing strategies as a part of clinical assessment is included. Prerequisites: 210 and 420. Offered yearly.

433 Neuroscience - 5 Q.H.

Exploration of contemporary theories, research methods and knowledge of brain neurophysiology and its role in behavioral and psychological disorders. Topics include: neurophysiological and neuroanatomical bases of memory, aggression, emotion and psychological disorders. Lecture and laboratory. Offered once or twice yearly. Prerequisites: 12 credit hours in Psychology or 12 credit hours in Biology.

434 History and Systems of Psychology - 4 Q.H.

An historical overview of psychology and its antecedents are considered to provide an understanding of psychology as an evolving, conceptual system. Prerequisite: At least 16 Q.H. in psychology or permission of instructor. Offered twice yearly.

435 Psychology of Adulthood and Aging - 4 Q.H.

Current theory and research dealing with psychological development from early adulthood to old age. Prerequisites: 210, 250 or permission of instructor. Offered biannually.

498G Seminar in Psychology - 4 Q.H.

Topics will be specified for each separate course offering. The intent is to provide in-depth study of one specialized subject area. Prerequisite: 210. Offered yearly.

Residential College

Course Descriptions

101 First Year Experience - 1 Q.H.

This course is required in the Fall Quarter of all freshmen living in Lourdes Hall. It provides both an introduction to the nature of university education and general orientation to the functions and resources of the University as a whole. Prerequisite: Freshman in Lourdes Hall. Offered every Fall Quarter.

201, 202 Tuesday Night Topic Seminar - Each 2 Q.H.

Explore content and strategies presented by guest speakers/performers. This seminar is not meant to focus on any traditional specialty area, but rather to develop a way to effect a greater mix of disciplines. Reflective journals will be required. Prerequisite: Completion of 201 for 202. Offered Winter Quarter.

Sociology and Social Work

Course Descriptions

Sociology

150 Human Society - 4 Q.H.

An introduction to sociology as a social science concerned with the systematic study of human society; consideration of individuals, groups, and relationships. Offered quarterly.

201 Scandinavian Culture I: Norway & Denmark - 4 Q.H.

One of two sociology courses dealing with the culture and society of the Nordic countries. This course focuses on the culture and social institutions of Norway and Denmark. Sociology 201 and 202 may be taken in any order. Offered every two years.

202 Scandinavian Culture II: Sweden & Finland - 4 Q.H.

One of two sociology courses dealing with the culture and society of the

Nordic countries. This course focuses on the culture and social institutions of Sweden and Finland. Sociology 201 and 202 may be taken in any order. Offered periodically.

205 Social Interaction - 4 Q.H.

A study of human interaction, symbolic interaction and socialization. Recommended Prerequisite: 150. Offered quarterly.

212 The Family - 4 Q.H.

Analysis of the family as a group, historical, cultural, and institutional aspects including the analysis of group processes. Recommended Prerequisite: 150. Offered quarterly.

216 Social Problems - 4 Q.H.

The nature, characteristics and proposed solutions for selected social problems. Recommended prerequisite: 150. Offered quarterly.

334 Sociology of Education - 4 Q.H.

An analysis of the American educational system in terms of its functions, formal and informal organization, and effects on social stratification and change. A selection of contemporary educational issues will be considered from a sociological perspective. Prerequisite: 150. Offered every two years.

340 Social-Cultural Anthropology - 4 Q.H.

The varieties and range of human behavior examined through comparative study of different cultures. Prerequisite: 150. Offered yearly.

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 introductory course in the use of social research methods. Basic knowledge and skills are developed that will enable a person to critically evaluate all phases of the social research process. Special sections of this course are taught by the social work faculty. These sections cover the same content but provide a specific social work focus and emphasize evaluation of the professional social workers practice (check section numbers in schedule). Prerequisite: 150 and for B.A. Sociology majors, Math/Stat. 208 or Psychology 231. Limited to 30 students. Offered quarterly.

377 Sociological Theory and Methods - 4 Q.H.

The examination of major schools of sociological theory with consideration of the interrelationship of theory with research methods. Prerequisites: 150, Math/Stat: 208 or Psy. 231, Soc. 376 and admission to the B.A. Sociology program. Limited to 25 students. Offered yearly.

378 Laboratory in Social Research - 4 Q.H.

A "hands-on" experience in the collection and interpretation of research data and the preparation of an empirical research report. Prerequisites: 150, Math/Stat. 208 or Psy. 231, Soc. 376, 377 and admission to the B.A. Sociology program. Limited to 25 students. Offered yearly.

411 Sociology of Religion - 4 Q.H.

An analysis of religious beliefs, institutions and symbols and their role in society. Prerequisite: 150. Offered every three 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. Limit to 25 students. Offered yearly.

421 Urban Sociology - 4 Q.H.

Growth, structure, and function of cities, spatial patterning, neighborhoods and ethnic groups; social life of city dwellers and urban social change. Prerequisite: 150. Offered yearly.

423G Race Relations and Minority Groups - 4 Q.H.

This course examines race and ethnic relations. It explores the concepts pertaining to such relations, e.g., discrimination, minorities, prejudice. It looks at the theories which attempt to explain prejudice and discrimination. It looks at the various minority groups from both current and historical perspectives. Finally, the course looks at oppression and the impact of oppression on people's lives. Prerequisite: Soc 150. Offered every quarter.

425 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 three years.

427 Social Change - 4 Q.H.

An analysis of planned change within society with emphasis on issues such as theories of change, levels and spheres of change, organizing for change, the role of the change agent, change strategies and resistance to change. Prerequisite: 150. Offered every three years.

428 Small Towns and Non-Metro 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 three years.

430 Political Sociology - 4 Q.H.

The organization of power into political structures and the social dynamics of this process. Prerequisite: 150. Offered every three 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 periodically.

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: 150, 212. Offered yearly.

437G The Sociology of Large Scale Organization - 4 Q.H.

Analysis of alternative models of organizations with an emphasis on the characteristics which vary across them. Prerequisite: 150. Offered yearly.

440 Sociology of Dying and Death - 4 Q.H.

An examination of various aspects of dying and death from a sociological perspective. Emphasis is on dying and death in American society, but a cross-cultural perspective is included. Prerequisite: 150. Offered yearly.

450G Sociology of Aging - 4 Q.H.

Gerontology is the analytical examination of the aging process. Using a sociological perspective, this course studies the changing roles of the aged, problems confronting the aged, and other important issues. Prerequisite: 150. Offered yearly.

465 Contemporary Issues in Dying and Death - 4 Q.H.

This course will focus on the sociological analysis of selected contemporary social issues pertaining to dying and death, primarily in American society. Specific issues will be designated for research each time the course is taught. Recommended prerequisites: Sociology of Dying and Death (Soc. 440), or consent of instructor. Offered every 1-2 years.

488G Health and Human Services Organizations - 4 Q.H.

Analysis of patterns, regularities, design and behavior in organizations providing health and human services. Prerequisite: 150. Offered yearly.

499 Senior Seminar in Sociology - 4 Q.H.

A culminating experience for senior sociology majors designed to synthesize, integrate, and assess what students have learned with respect to the stated goals of the B.A. Sociology program. Prerequisites: 150, Math/Stat. 208 or Psy. 231, Soc. 376, 377, 378, admission to the B.A. Sociology program, and Senior standing.

Sociology - Field Courses**385 Field Experience - 4-8 Q.H.**

An introductory field experience designed to acquaint students with professional responsibilities in an organization relevant to sociological practice. Open to sociology majors and minors only. Soc. 385 and 460, separately or in combination, may be taken for a *total* of eight (8) credits within the B.A. Sociology major; an *additional* eight (8) hours may be taken and applied as electives toward graduation. Prerequisites: Soc. 150, Math/Stat. 208 or Psy. 231, Soc. 376, 377, 378 and admission to the B.A. Sociology program. Arranged.

460 Field Instruction - 1-16 Q.H.

An intensive, professionally supervised placement within an organization relevant to sociological practice. Emphasis is placed on the student assuming professional responsibilities and applying relevant knowledge and skills within the organization they are placed. Soc. 385 and 460, separately or in combination, may be taken for a *total* of eight (8) credits within the B.A. Sociology major; an *additional* eight (8) hours may be taken and applied as electives toward graduation. Prerequisites: Soc. 150, Math/Stat. 208 or Psy. 231, Soc. 376, 377, 378 and admission to the B.A. Sociology program. Arranged.

Sociology: Criminal Justice**210 Introduction to Criminal Justice - 4 Q.H.**

An introductory examination of the criminal justice system from a practitioner's perspective. This course provides an applied framework for the study of criminal justice by examining and analyzing the agencies of justice and the procedures they use to identify and manage criminal and juvenile offenders. Offered twice yearly.

315 Criminology - 4 Q.H.

An analysis of the theory and measurement of crime. Prerequisites: Soc. 210 and/or permission of instructor. Limited to 30 students. Offered twice yearly.

405G Models and Strategies of Intervention - 4 Q.H.

An in-depth study of therapeutic methodologies and skills used in the correctional services. Special emphasis is on directive models to assist individual clients and small groups with behavioral changes. Prerequisites: SOC 210 and/or permission of instructor. Limited to 20 students. Offered three times a year.

414G Juvenile Delinquency - 4 Q.H.

In-depth analysis of juvenile delinquency, its development, control, treatment, and prevention. Prerequisite: 210, 315: and/or permission of the instructor. Limited to 30 students. Offered twice yearly.

415 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 yearly.

416 Corrections - 4 Q.H.

An analysis of the systems and functions of corrections including the areas of administration programs and security. Limited to 30 students. Prerequisite: Soc. 210. 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. Prerequisites: Soc. 210 and/or permission of the instructor. Limited to 30 students. Offered yearly.

418 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. Prerequisites: admission to Sociology Criminal Justice Corrections or L.E. tracks; Soc. 210 and/or permission of instructor. Limited to 30 students. Offered twice yearly.

419 Offender Assessment & Management - 4 Q.H.

This course addresses the knowledge and skills required in *assessing* offender custody and program needs and the *management* of offenders in institutions and the community. Prerequisites: Admission to Corrections program and permission of instructor. Limited to 20 students. Offered yearly.

420 Minnesota Criminal Code - 4 Q.H.

This course deals with an analysis of the Minnesota Criminal Code and review of P.O.S.T. requirements. Limited to students seeking P.O.S.T. certification. Limited to 15 students. Prerequisites: admission to Sociology Criminal Justice L.E. track; Soc 315, 418; PolSci 228; and/or permission of instructor. Offered yearly.

445G Reality Therapy - 4 Q.H.

An in-depth study, comparison and application of Reality Therapy used in the helping professions to assist individuals and systems in learning specific skills to meet individual and social needs. Prerequisite: Senior standing and consent of instructor. Offered yearly.

461 Criminal Justice Internship - 16 Q.H.

An intensive, professionally supervised placement in a selected criminal justice organization for the purpose of providing the student with an experience that integrates knowledge, methodology, and skills in a practical setting. Prerequisites: admission to Sociology Criminal Justice Corrections or L.E.L.P. tracks; at least junior standing; and/or permission from instructor. Offered quarterly.

478 Seminar in Law Enforcement - 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: Sociology 461 and permission of instructor. Offered yearly.

490 Correctional Administration - 4 Q.H.

An analysis of current topics in correctional administration. The interaction between correctional organization types and management styles will be examined relative to their impact on critical areas of contemporary correctional policy. Prerequisites: admission to Sociology Criminal Justice corrections and permission of instructor. Limited to 20 students. Offered yearly.

491 Crime Prevention - 4 Q.H.

An analysis of crime prevention in the public and private sectors including a proactive response to crime. Examines the principles of planning, research, and evaluation. Prerequisites: admission to L.E. program and/or permission of instructor. Limited to 25 students. Offered twice yearly.

492 Victimology - 4 Q.H.

This course focuses on the victims of crime and their role in the criminal process. Areas examined include victimization, susceptibility, and differential risk levels associated with these factors, and utilization of victim surveys to measure the nature and extent of criminal behavior. Prerequisites: admission to Sociology Criminal Justice program and/or permission of instructor. Limited to 30 students. Offered yearly.

Criminal Justice Field Courses**385 Field Experience 4-8 Q.H.**

An introductory experience designed to acquaint students with the structure, processes, and policies involved in professional human services agencies. Open to Sociology: Criminal Justice majors only. May be repeated once. Arranged placement. Prerequisite: Soc 150. Offered quarterly. P/NC only.

461 Criminal Justice Internship - 16 Q.H.

An intensive, professionally supervised placement in a selected criminal justice organization for the purpose of providing the student with an experience that integrates knowledge, methodology, and skills in a practical setting. Prerequisites: admission to Sociology Criminal Justice Corrections or L.E. tracks; at least junior standing, and/or permission of instructor. Offered quarterly.

*These courses are open to all Sociology majors and minors.

Social Work**375 Introduction to Social Welfare Social Work - 4 Q.H.**

An introduction to the history of social welfare, the ecological perspective of the profession, and social work as it is practiced in diverse fields. Prerequisite: Soc. 150. Offered quarterly.

380 American Social Welfare Policy - 4 Q.H.

American social policy has shaped the nature and function of income, health, education, employment, housing, and personal social services in the democratic state. The ecological perspective, the principles of social welfare, and the concepts of power and justice are used to evaluate the redistribution of the nations resources among citizens. Prerequisites: SW 375. Offered quarterly.

390 Methods I - 4 Q.H.

An introduction to the ecological perspective, knowledge base and defined values of the social work profession. The focus of the course is on the development of interpersonal skills, the ability to critically analyze social situations, and student responses to social needs. Students will learn skills of a social work generalists with specific focus on the problem solving process. Prerequisites: SW 375 and completion of SW foundation courses or permission of instructor. Limited to 25 students. Offered quarterly.

395 Methods II - 4 Q.H.

Students will expand social problems solving skills through increased social work knowledge and a well defined system of social work values. Students will develop the ability to plan effective social programs, appropriate social interventions and deliver needed resources. Students will learn to critically evaluate the social service process for effectiveness from a perspective that is holistic, pragmatic and political. Prerequisites: SW 390 and conditional acceptance into Social Work program or permission of instructor. Offered quarterly.

401 Social Work Methods III - 4 Q.H.

Social work skill development in working with human systems with focus on intervention skills for working with individuals, families, groups and communities. Combines classroom skills and laboratory experiences. Prerequisites: SW 395 and formal acceptance into the Social Work Program or permission of instructor. Limited to 25 students. Offered quarterly.

402 Social Welfare Policy Analysis - 4 Q.H.

Public policy is subjected to the conventions of policy analysis and evaluation. Students learn to think critically about the impact of the socio-economic and political system on the development and implementation of public policy and discover the relationship of federal, state, local and social agency policy to good services for people. Prerequisite: SW 380. Offered quarterly.

403 Law and Social Work - 4 Q.H.

The laws which pertain to social work practice and the development of agency policy; the organization and conventions that govern the courts and legal aid societies; the relationship of the law to the titles of the welfare state, to social work, and to the lives of the people that this profession serves. Prerequisite: SW 375 or permission of the instructor. Offered annually.

404 Human Behavior in the Social Environment - 4 Q.H.

An introduction to systems theory and the ecological perspective in the understanding of human behavior. Provides the means for analyzing the person as system, key systems (the family, groups, organizations, etc.) in networks of personal settings and cultural systems. Prerequisites: SW 375, Psy. 210 and 250; Soc. 150 and 205, Biol. 117 or permission of instructor. Junior class standing minimum. Offered quarterly.

454 Child Welfare Services - 4 Q.H.

Child Welfare Services, historically the major field of social work practice, is critically examined by focusing on services to children whose basic needs are not met and/or by the community support services available to all children. Services covered include child protection; foster care, adoption services, and institutional care; homemaker and day care services. Prerequisite: SW 375 or consent of instructor. Offered annually.

455 Aging: Policies and Services - 4 Q.H.

Knowledge is gained in the skills and values that are important to providing appropriate, ethical and effective services to the elderly. Topics include the history of public policy and entitlements, theories and contemporary practices in serving the elderly. Offered annually.

479 Seminar in Social Work - 4 Q.H.

In-depth discussion and examination of practice dilemma, issues, and policies in professional social work practice. This course taken concurrently with 462 Practicum. Offered quarterly.

Social Work - Field Courses**385 Field Experience - 4-8 Q.H.**

An introduction to agency-based social work practice. Emphasis on agency policies, programs, resources and strategies. The student is actively involved in the service delivery activities of the agency as differentiated from merely observing. Requirements: 100 hours of

agency service; ten hours a week for one quarter. The agency is selected based on availability and student interest, and approved by the field coordinator (see the Field Instruction Manual for the application process). Open to social work majors only. Arranged placement. Pre- or co-requisite: Introduction to Social Work, SW 375. Field Experience, SW 385, can also be taken concurrently with Methods I, SW 390. Students may arrange for a second 4-credit field experience if they choose, for a total of 8 credits. Offered quarterly. P/NC only. Students must apply the quarter prior to placement.

Practicum

458 Pre-Practicum - 4 Q.H.

462 Practicum - 16 Q.H.

Field placement in selected social service agencies under professional instruction. Emphasis on knowledge base, generic skills, and professional development.

The social work pre-practicum and practicum are divided over two quarters during the senior year. The first quarter, Pre-practicum, SW 458 is utilized by the agency to familiarize the student with the agency setting and agency practice (100 hours). The second quarter, Practicum, SW 462, the student is involved in the agency as a practicing professional social worker with intensive educational supervision by the agency and field liaison (400 hours).

SW 458 Pre- or co-requisite: completion or completing of social work major requirements; formal admission to the program; 2.5 GPA; arranged placement (see Field Instruction Manual for the application process); offered quarterly. P/NC only. Students must apply the quarter prior to placement.

SW 462 Pre-requisites: completion of all coursework in the social work major, satisfactory completion of pre-practicum requirements; offered quarterly, P/NC only.

Students register for SW 479, Seminar, concurrently with SW 462.

Sociology/Social Work**480G Variable Topics in Sociology or Social Work - 1-4 Q.H.**

A seminar course that analyzes selected topics and problems from the sociological or social work perspective (subject to be chosen by instructor and announced before registration.) Prerequisite: 16 hours of sociology or social work or consent of instructor. Offered on demand. Grade Only.

485 Independent Readings in Sociology and Social Work - 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 and Social Work - 1-4 Q.H.

For the student interested in pursuing an independent research project in sociology or social work. By arrangement. Offered quarterly.

Special Education**Course Descriptions****200 Academic Anxiety Reduction - 2 Q.H.**

A course to develop ability to control emotional blocks to learning and testing in mathematics or other content. Students learn the physiological conditioning aspects of anxiety and how to develop personal procedures to recondition for success experiences, including studying and test-taking.

400G Education of Exceptional Children and Youth - 4 Q.H.

An overview of information to assist human service professionals in understanding the needs of speech impaired, learning disabled, emotionally disturbed, behaviorally disordered, deaf, blind, mentally handicapped, physically handicapped, health impaired, gifted, and culturally diverse students from preschool through post-school ages. Offered quarterly.

405G Student Management Systems - 4 Q.H.

A study of management systems designed to accommodate the special educational needs of both mainstream and special education students through applied behavioral analysis. Additional meeting times outside classtime required. Offered quarterly.

410G Introduction to Assessment/Methods - 4 Q.H.

An introduction to the basic components of special education assessment, curriculum, instruction, and IEP development. Standardized and informal assessment procedures and their relationship to direct instruction are emphasized. Prerequisites: SP ED 400, 405, ED 334 or MATH 110, ED 328 and ED 306. Concurrent enrollment in SP ED 411. Offered twice yearly.

411 Practicum I - 4 Q.H.

Practical application and guided practice in effective teaching procedures for the mildly handicapped. Involves placement in a special education classroom for two hours daily. (Prerequisites: Admission to the special education program; Concurrent enrollment in 410; SP ED 400, 405, ED 300, 301, 302, advance application, departmental permission to enroll). Offered twice yearly.

420G Special Education Administrative Procedures - 4 Q.H.

An overview of special education delivery models including finances, legislation, philosophic considerations and least restrictive alternative approaches, parent inclusion and due process safeguards considerations. (Prerequisite: SP ED 400). Offered twice yearly.

425G Mainstreaming - 3 Q.H.

Procedures for modification of the regular classroom curriculum (Language Arts, Math, Social Studies, Science, etc.) to meet the individual needs of students with special learning problems at early childhood, elementary, and secondary levels. Special attention to professional collaboration with regular educators. (Prerequisites: Educ. 302, SP ED 400). Offered yearly.

430G Learning Characteristics of the Mildly Handicapped - 4 Q.H.

This course is designed to provide the student with an understanding of the learning characteristics of students who are mentally retarded, learning disabled, or emotionally/behaviorally disordered, and their implications for both regular and special educational programming. This course is intended for students seeking licensure in LD or MMMH. (Prerequisites: Completion of Phase I; concurrent enrollment in SP ED 431. Offered twice yearly.

431 Practicum II - 4 Q.H.

A supervised practical experience for future special education teachers in providing intensive direct instruction in a tutorial setting, and engaging in parent conferences, teacher consultation, and collaborative team planning. This practicum is held two days per week after school and serves children from area schools. (Prerequisites: Advance application; concurrent enrollment in SP ED 430; recommendation from Practicum I; departmental permit to enroll.) Offered twice yearly.

440G Assessment/Methods for the Mentally Handicapped - 4 Q.H.

Knowledge and skills for professional entry-level assessment and program development/adaptation for students with mild to moderate mental handicaps in school programs. (Prerequisites: Phase II; concurrent enrollment in SP ED 441. Offered yearly.

441 Practicum III MMMH - 12 Q.H.

Demonstration of competencies by the student teacher in professional entry-level knowledge and skills in assessment and program development/adaptation for students with mild to moderate mental handicaps in

day-long supervised elementary and secondary school settings.

(Prerequisites: Phase II; concurrent enrollment in SP ED 440; advance application; formal recommendation; departmental permit to enroll). Offered yearly.

445G Assessment/Methods for the Learning Disabled - 4 Q.H.

Advanced skills and understanding of academic, process, and behavioral assessment for planning the least restrictive educational program for students with learning disabilities. (Prerequisites: Phase II; concurrent enrollment in SP ED 446). Offered at least yearly.

446 Practicum III LD - 12 Q.H.

Demonstration of competencies by the student teacher in professional entry-level knowledge and skills in assessment and program development/adaptation for students with learning disabilities in full-day supervised school settings at the elementary and secondary levels. (Prerequisites: Phase II; formal recommendation; concurrent enrollment in SP ED 445; See SP ED 445 prerequisites; advance application; departmental permit to enroll.) Offered at least yearly.

470 Senior Seminar - 1 Q.H.

A synthesis of coursework and practicum experiences for seniors in special education licensure programs, including emerging trends in professional practice and professional employment issues. (Prerequisites: Practicum III or concurrent enrollment in Practicum III). Offered yearly. To be taken during the year of final spring quarter enrollment. Can be taken while student teaching.

479 Education of Emotionally Disturbed and Socially Maladjusted Children and Youth - 3 Q.H.

Characteristics of disturbed and maladjusted children and youth and the implications of these characteristics for educational objectives, curriculum, and methods. Offered on demand.

490 Seminar Workshop**499 Individual Study**

Statistics

(See Mathematics and Statistics)

Theatre and Dance

001 Theatre Activities - 1-2 Q.H.

Active participation in a major theatre production as actor or technician. Credit to be arranged. Course may be repeated to 8 Q.H. Limit of 4 credits may be taken for General Education. Offered quarterly.

007 Theatre Practicum I - 1 Q.H.

Study of non-performance aspects of theatre: general operating procedures, costuming, safety and rigging, and stage management. Required of theatre majors in their first Fall quarter of residence. Offered yearly.

008 Theatre Practicum II - 1 Q.H.

Continuation of 007: covers scenic studio procedures, publicity, electrics, and painting. Offered yearly.

009 Theatre Practicum III - 1 Q.H.

Continuation of 008: covers sound, box office and front of house management, properties, and make up. Offered yearly.

100, 200, 300 - Each 4 Q.H.

Creations of theatrical productions for public performance as performer or technician. Open only to Theatre majors or Minors. Prerequisite: permission of instructor; permission and completion of 100 for 200; permission and completion of 200 for 300. Offered quarterly.

111 Introduction to the Theatre - 4 Q.H.

Designed for the general student who wishes to become familiar with theatre. Not open to THDA majors or minors. Offered quarterly.

115 Dance Appreciation - 4 Q.H.

Analysis and appreciation of theatrical dance styles and 20th century trends through historical and theoretical roots. Emphasis on kinesthetic involvement as a basis for response to the dance experience via film, video, and movement. Offered yearly.

119 Playscript Analysis - 4 Q.H.

Practice in applying analytical methods to various kinds of playscripts. Offered yearly.

137 Dance Repertory I - 3 Q.H.

The creation of new dances or reconstruction of previous faculty repertory for public performance, ranging from solos to large ensemble work. Prerequisite: CTA 235 or HPER 146 or permission of instructor. Offered yearly. May be repeated once.

141 Oral Interpretation I - 4 Q.H.

Study of prose, poetry and drama through performance. Brings to life the printed symbol. Offered yearly.

201 Play Production - 4 Q.H.

Study of the procedure and planning involved in the presentation of a stage play from audience analysis to play selection, casting, design, direction, business management, through performance and post-performance analysis and critique. Offered yearly.

207 Introduction to Design - 4 Q.H.

The study and practice of the aesthetic principles and graphic skills involved in scenery, lighting, and costume design. Development of the student's abilities in external research, mechanical drawing, frechand sketching, and rendering. Prerequisite: Sophomore standing. Offered yearly.

210 Theatre History - 4 Q.H.

A survey of western and classical Asian theatre. Progressing chronologically, each major period or movement is discussed in overall cultural context and analyzed in terms of its practices, practitioners, playing space, and audience. Prerequisite: Sophomore standing and History 121. Offered yearly.

211 Survey of Dramatic Literature I - 4 Q.H.

Survey of the works of major Western playwrights through 1650. Offered yearly.

212 Survey of Dramatic Literature II - 4 Q.H.

Survey of the works of major Western playwrights from 1650 to 1950. Offered yearly.

213 Greek and Roman Drama - 4 Q.H.

Readings, lectures and discussions about Greek and Roman drama, 460 B.C. - 30 A.D. Emphasizes uses of materials, themes, historical development and tragedy and comedy and influences upon later playwrights. Offered every two years.

231 Acting - 4 Q.H.

Theory and practice of acting. Exercises in pantomime and scenes from classical and modern drama. Prerequisite: 141. Theatre majors should enroll concurrently in 235. Offered yearly.

235 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. Theatre majors should enroll concurrently in 231.

237 Dance Repertory II - 3 Q.H.

The creation of new dances or reconstruction of previous faculty repertory for public performance, ranging from solos to large ensemble work. Prerequisite: 137. May be repeated once. Offered yearly.

239 Creative Dramatics for Children - 4 Q.H.

Study and application of techniques to enable teachers to vitalize literature through dramatic activity. Offered yearly.

290 Creativity Across the Curriculum - 4 Q.H.

Study and practice of skills to improve teaching and learning; emphasis on creative thinking, bringing information to life, and fostering conditions favorable to participatory learning. Offered yearly.

307 Scenic Design - 4 Q.H.

Principles and practice of designing scenery for the theatre. Prerequisites: Art 118 or 218 or 318; CTA 119, 207 and 210. Offered every two years.

308 Stage Lighting - 4 Q.H.

Study of the function, use, and control of stage-lighting instruments and accessories in various types of control systems. Theories of stage lighting, including color in light. Prerequisites: Art 118 or 218 or 318; CTA 119, 207 and 210. Offered every two years.

309 Stage Management - 2 Q.H.

Study of the non-performance aspects of play production. Prerequisites: 201 or 207 and 231. Offered by arrangement.

321 Directing I - 4 Q.H.

Study of problems in play selection, casting and rehearsals. Prerequisite: 119, 210 and 211 or 212; or 201 and 211 or 212. Offered yearly.

322 Dance Composition I - 4 Q.H.

Compositional theory, methods, and conceptual approaches to traditional and non-literal choreography. Relationships between form, content, technique and projection of the dance image are explored. Offered yearly. Prerequisites: CTA 235 or permission of instructor. Dance minor requirement.

331 Acting II - 4 Q.H.

Advanced study in the theory and practice of acting. Exercises in pantomime and scenes from classical to modern drama. Prerequisite: 231. Offered yearly.

337 Dance Repertory III - 3 Q.H.

The creation of new dances or reconstruction of previous faculty repertory for public performance, ranging from solos to large ensemble work. May be repeated once. Prerequisite: 237. Offered yearly.

395 Topics in Theatre - 1-4 Q.H.

Study of a specific topic in dramatic theory or literature or theatre history. Topics and course credits vary. May be repeated as topics change. Prerequisites: 20 credits of required theatre major or minor courses or permission of instructor. Grading: P/N/C option. Offered on demand.

399 Internship - 1-16 Q.H.

Supervised work experience designed by advisor, student, and employer. P/N/C. Prerequisite: consent of instructor and a minimum GPA of 2.5 in courses taken for THDA major. Offered on demand.

405 Project in Design - 4 Q.H.

Design and supervision of the execution of scenery or lighting. Offered yearly. Prerequisite: 307 or 308.

425 Directing II - 4 Q.H.

Full responsibility for the selection, analysis, casting, and direction of a one-act play. Offered yearly. Prerequisite: 321 and consent of staff.

435 Project in Acting - 4 Q.H.

Organization, rehearsal, and public performance of a thirty-minute acting recital. Prerequisites: 331, senior standing and consent of staff. Offered yearly.

437 Dance Repertory IV - 3 Q.H.

The creation of new dances or reconstruction of previous faculty repertory for public performance, ranging from solos to large ensemble work. Prerequisite: 337. May be repeated once. Offered yearly.

495 Theatre Senior Seminar - 4 Q.H.

Topic varies; advanced study of a specific issue or period in dramatic theory, literature, or theatre history emphasizing student presentations and integration of material from other courses. Offered yearly. Grade only. Prerequisites: Senior standing and either 231 or 307 (or 308) or 321.

499G Independent Studies in THDA - 1-8 Q.H.

Offers the advanced student an opportunity to study independently in an area of special interest to him/her. May be repeated to a total of 8 quarter hours. Prerequisite: consent of instructor. Offered on demand.

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- ***Judy M. Gernander**, Professor, Business Administration; B.A., Mankato State University; J.D., University of Minnesota-Twin Cities; 1970
- ***Michael Gieske**, Professor, Economics/Finance; B.S., Iowa State University of Science and Technology; 1972 -
- ***Kenneth L. Gorman**, Dean, College of Business; B.S., M.S., Ed.D., Northern Illinois University; 1980 -
- ***Paul H. Grawe**, Professor, English; B.A., Carleton College; M.A., Ph.D., Northwestern University; 1968 -
- ***I. Lee Gray**, Professor, Educational Administration; B.S., University of Nebraska; M.S., Ed.D., University of Minnesota-Twin Cities; 1989 -
- ***Tom Grier**, Director of Public Information; B.A., Winona State University; 1991 -
- ***Gail Grimm**, Assistant Professor, Health, Physical Education & Recreation; B.S., University of Wisconsin-Platteville; M.S., University of Wisconsin-Madison; 1989 -
- ***Gary Grob**, Professor, Health, Physical Education and Recreation; B.S., M.S., Winona State University; Ph.D., University of Utah; 1965 -
- ***George Gross**, Assistant Professor, Mathematics and Statistics; B.S., M.A., University of South Dakota; 1987 -
- ***Yogesh Grover**, Associate Professor, Political Science; B.A., M.A., University of Delhi (India); Ph.D., University of Missouri-Columbia; 1988
- ***Robert Gunner**, Professor, Health, Physical Education and Recreation; B.S., M.A., Michigan State University; P.E.D., Indiana University; 1962 -
- ***Mary Jane Guy**, Assistant Professor, Educational Leadership; B.A. George Washington University; M.A. Ongwood College; Ph.D. Virginia Poly Inst & State University, 1993 -
- ***David E. Hamerski**, Professor, Physics; B.S., St. Mary's College of Minnesota; M.S., University of Minnesota-Twin Cities; Ph.D., Washington University (Missouri); 1961 -
- ***Craig Hansen**, Associate Professor, Philosophy; B.A., Rice University; M.A., Ph.D., University of Texas-Austin; 1989 -
- ***David Harrison**, Assistant Professor, English; B.S., University of Wisconsin-Oshkosh; M.A.T., St. Mary's College of Minnesota; 1987 -
- ***Richard D. Hastings**, Professor, Library; B.S., M.S.L.S., Wayne State University; 1967 -
- ***Timothy Hatfield**, Professor, Counselor Education; A.B., Harvard University; Ed.M., Harvard Graduate School of Education; Ph.D., University of Minnesota-Twin Cities; 1980 -
- ***Jacqueline Hatlevig**, Assistant Professor, Nursing; B.S.N., Winona State University; M.S.N., University of Wisconsin-Madison; 1987 -
- ***Julie Haugen**, Assistant Professor, Psychology; B.A., Bethel College, St. Paul; Ph.D., University of Minnesota-Twin Cities; 1992 -
- ***Linda Heath**, Assistant Professor, Nursing; B.S. University of Wisconsin-Madison; M.S.N. University of Wisconsin-Madison, 1993 -
- ***Donna Helble**, Associate Professor, Education; B.A., Simpson College, Iowa; M.S., Winona State University; Ed.D., University of Northern Colorado; 1988 -
- ***Peter V. N. Henderson**, Associate Professor, History; B.A., J.D., Vanderbilt University; Ph.D., University of Nebraska-Lincoln; 1989 -
- ***Robert Hermann**, Assistant Professor, Education; M.A. University of South Dakota; Ed.D. University of South Dakota, 1993 -
- ***Michael Herzberg**, Sports Information Director; B.A., Winona State University; 1992 -
- ***Carol Higham**, Assistant Professor, History; B.A. Wellesley College; M.A. Yale University; Ph.D. Duke University, 1993 -
- ***Donna Heyer**, Assistant Registrar; B.S., Winona State University; 1985
- ***James S. Hoch**, Associate Professor, Music; B.M., University of the Pacific, Stockton (CA); M.M., D.M.A., University of Colorado; 1992 -
- ***Thomas Hosier**, Assistant Professor, Health, Physical Education & Recreation; B.A., DePauw University; M.S., Indiana University; March, 1990
- ***Judy Hovelson**, Assistant Professor, Nursing; B.S.N., University of Vermont; M.S.N., University of Minnesota-Twin Cities; 1984 -
- ***James F. Hurley**, Associate Professor, Accounting; B.S., M.A., Ph.D., University of Nebraska; 1983 -
- ***Matthew Hyle**, Associate Professor, Economics/Finance; B.A., Indiana University; Ph.D., University of Maryland; 1988 -
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- ***Frederic Ihrlke**, Professor, Accounting; B.S., Bemidji State University; M.B.T., University of Minnesota-Twin Cities; J.D., William Mitchell College of Law; 1981 -
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- ***Ned A. James, Jr.**, Advising & Retention Projects Coordinator/Assistant Football Coach; B.S., University of New Mexico; M.A., Texas Christian University; 1992 -
- ***Nancy Jannik**, Professor, Geology; B.S., College of William & Mary; M.S., Rutgers State University; Ph.D., New Mexico Institute of Mining & Technology; 1986 -
- ***Richard Jarvinen**, Professor, Mathematics/Statistics; B.A., St. John's University; M.A.T., Vanderbilt University; Ph.D., Syracuse University; 1989 -
- ***Carol Jefferson**, Professor, Biology; B.A., St. Olaf College; Ph.D., Oregon State University; 1976 -
- ***Goldie Johnson**, Assistant Professor, English; B.S., M.S., University of Wisconsin-Superior; 1988 -
- ***J. Paul Johnson**, Assistant Professor, English; B.S., Valley City State University; M.A., University of North Dakota; 1987 -
- ***Lola Johnson**, Assistant Professor, Nursing; B.S.N., Mankato State University; M.S.N., Washington University (Missouri); 1989 -
- ***Mary Joyce**, Assistant Professor, Education; B.A., College of St. Catherine; M.S., Winona State University; 1986 -
- ***Stephen Juairc**, Professor, Health, Physical Education and Recreation; B.S., M.S., Winona State University; Ph.D., Florida State University; 1975 -
- ***John Kane**, Vice President for Student Affairs/Facilities Management; B.S., University of Wisconsin-La Crosse; M.S., Winona State University; Ed.D., Oregon State University; 1960 -
- ***Jeanette Karjala**, Associate Professor, Business Education; B.A., M.A., Western Washington University, Bellingham; Ph.D., University of North Dakota (ND); 1992 -
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- ***Darlene Kern**, Professor, Nursing; B.A., M.S., Winona State University; M.S.N., University of Wisconsin-Madison; Ph.D., University of Texas-Austin; 1978 -
- ***David W. Kesler**, Professor, Economics/Finance; B.S., Pacific Lutheran University; M.A., M.B.A., University of Kansas; 1984 -
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- ***Alan King**, Assistant Professor, Theater Arts; B.F.A., M.F.A., University of Texas-Austin; 1991 -
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- ***Jon P. Kosidowski**, Admissions Counselor; B.S., Winona State University; M.S., Bemidji State University; 1984 -
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- ***Darrell Krueger**, President; B.A., Southern Utah State College; M.Ed., Ph.D., University of Arizona; 1989 -
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- ***Frederick Lee**, Assistant Professor, Political Science; A.B., University of New Orleans; A.M., Ph.D., University of Michigan; 1992 -
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Fred Naas, Comptroller/Director of Major Gifts; B.S., Illinois Institute of Technology; 1989 -
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 ***Hossain Najmaic**, Professor, Business Administration; B.A., M.A., Tehran University; Ph.D., Iowa State University of Science and Technology; 1987 -
 ***Roy Nasstrom**, Professor, Educational Administration; B.A., M.A., Ph.D., University of California-Berkeley; 1976 -
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 ***Wade Nelson**, Professor, Educational Administration; B.A., Coe College; M.A., Ph.D., University of Iowa; 1989 -
Robert Newberry, Assistant Professor, Marketing; B.S., M.B.A., University of Wisconsin-La Crosse; 1992 -
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 ***Daniel Nicholls**, Associate Professor, Nursing; M.S.N., M.Ed., University of Texas-El Paso; Ed.D., Montana State University; 1988 -
 ***Ann Eljenholm Nichols**, Professor, English; B.A., St. Mary's College-Notre Dame; M.S., Ph.D., University of Washington; 1981 -
 ***James W. Nichols**, Professor, English; B.A., University of Missouri-Columbia; M.A., University of Birmingham (United Kingdom); Ph.D., University of Washington; 1968 -
 ***Dennis N. Nielsen**, Dean, College of Science & Engineering; B.S., Gustavus Adolphus College; M.A., Ph.D., University of North Dakota; 1970 -
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 ***Frederick Otto**, Associate Professor, Physics; B.A., B.S., Humboldt State University; Ph.D., University of California-Berkeley; 1990 -
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 ***Hugh F. Ouellette**, Professor, Mathematics & Statistics/Computer Science; B.S., Western Montana College; M.A., University of Illinois; M.A., Ball State University; Ed.D., University of Northern Colorado; 1972
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Dennis H. Pack, Professor, Mass Communication; B.S., University of Utah; M.A., Northwestern University; 1978 -
 ***Lynelle Palmer**, Professor, Special Education; B.M., M.M., Southern Methodist University; Ph.D., University of North Texas; 1977 -
William F. Palzer, Assistant Professor, Library; B.A., College of St. Thomas; M.A.L.S., University of Minnesota-Twin Cities; 1970 -
 ***Seho Park**, Associate Professor, Art; M.A.T., Whitworth College; M.F.A., Ph.D., University of Minnesota-Twin Cities; 1988 -
 ***Fariborz Parsi**, Assistant Professor, Engineering; B.S., M.S., Ph.D., University of South Carolina, Columbia; 1992 -
 ***Felino G. Pascual**, Assistant Professor, Mathematics/Statistics; B.A., Ateneo de Manila, Philippines; M.Sc., Ph.D., University of Minnesota-Twin Cities; 1992 -
Daniel Pecarina, Director of Academic Computing; A.A.S., University of Minnesota-Crookston; July 1988 -
Gregory Peterson, Assistant Director, Financial Aid; B.S., M.Ed., University of Wisconsin-La Crosse; 1988 -
Nancy Peterson, Director of Grants and Sponsored Research; B.S., Southern Illinois University-Carbondale; M.P.A., Indiana State University; 1990 -
 ***Mary Ann Pevas**, Associate Professor, Economics/Finance; B.A., Dominican College; M.A., Manhattan College; Ph.D., University of Notre Dame; 1990 -
 ***Christine E. Pilon-Kacir**, Associate Professor, Nursing; B.S.N., Mercy College of Detroit (MI); M.S.N., University of Michigan; Ph.D. University of Missouri-Columbia, 1992 -
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- Cheryl Quinn**, Associate Professor, Mathematics and Statistics; B.S., Luther College; M.S., Winona State University; 1986 -
- Frances Ragsdale**, Assistant Professor, B.S. Eastern Oregon State; M.S. Southeastern Louisiana University; Ph.D. University of Idaho, 1993
- Lillian Ramos**, Associate Professor, B.A. Seattle University; M.A. University of Washington; Ph.D. University of Washington, 1993 -
- ***Sara B. Rasch**, Associate Professor, Business Administration; B.A., Earlham College; M.A., Ball State University; M.B.A., Ph.D., University of Kansas; 1988 -
- ***Robert W. Raz**, Professor, English; A.B., University of Michigan; A.M., Wayne State University; Ph.D., University of Michigan; 1970 -
- Joseph Reed**, Student Activities/Programmer Advisor; B.S., St. Mary's College of Minnesota; 1989 -
- ***Lawrence Reuter**, Professor, Biology; B.A., Saint Mary's College of Minnesota; Ph.D., Princeton University; 1979 -
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- ***Dominic Ricciotti**, Professor, Art; B.F.A., Washington University; M.A., City University of New York-Hunter College; Ph.D., Indiana University; 1985 -
- ***Robin K. Richardson**, Assistant Professor, Biology; B.S., Michigan State University; M.S., Central Michigan University, Mt. Pleasant; Ph.D., University of Oklahoma, Norman; 1992 -
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- ***David J. Rislove**, Professor, Chemistry; B.A., Winona State University; Ph.D., North Dakota State University; 1968 -
- Susan Rislove**, Assistant Professor, Education; B.S., Moorhead State University; M.S., Winona State University; November, 1981 -
- ***David E. Robinson**, Professor, English; B.A., Hamilton College; M.A., Ph.D., Duke University; 1971 -
- ***Frank Rocco**, Professor, Special Education; B.S., Clarion College; M.Ed., Boston College; Ph.D., Michigan State University; 1971 -
- ***Robert Rois**, Assistant Professor, Foreign Languages; A.B., University of California, Berkeley; M.A., San Francisco State University; M.A., Ph.D., University of California-Los Angeles; 1992 -
- Sandra R. Roraff**, Associate Director, Financial Aid; B.A., College of Saint Teresa; March, 1976 -
- Judy Routh**, Director, AV Services, March, 1989 -
- Nicholas Ruiz**, Assistant Professor, Counselor Education; B.A., University of Minnesota-Twin Cities; 1989 -
- Vartan Safari**, Professor, Business Administration; B.S., Pahlavi University, (Iran); M.S., M.B.A., Indiana University; 1983 -
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- ***Don E. Scheid**, Professor, Philosophy; B.A., Colorado College; M.A., J.D., University of Utah; Ph.D., New York University; 1986 -
- Judy W. Schlawin**, Professor, Art; B.S., University of Minnesota-Twin Cities; M.S., Winona State University; 1965 -
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- Don L. Schmidlapp**, Associate Professor, Art; B.F.A., University of Kansas; M.F.A., Indiana University; 1981 -
- Catherine Schmidt**, Assistant Professor, Music; B.S., M.S., University of Illinois, Urbana; 1991 -
- ***Gregory G. Schmidt**, Associate Professor, History; B.A., M.A., Ph.D., University of Illinois-Urbana; 1984 -
- Richard Schneider**, Professor, Accounting; B.B.A., Wisconsin State University-Eau Claire; M.S., Arizona State University; Certified Public Accountant (CPA), 1974-80; 1981 -
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- Debra Schuffenhauer**, Residence Hall Director; B.S. College of Saint Thomas, 1994 -
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- ***R. Stephen Schwartz**, Professor, Sociology; B.S., M.S., University of Oklahoma; Post-graduate Certificate in Education, University of Zambia (University of London, external); Ph.D., The University of Iowa; 1973 -
- Terry Schwarze**, Associate Professor, Mass Communication; B.F.A., University of Minnesota-Twin Cities; M.A., University of Northern Iowa; 1988 -
- ***Susan B. Sefkow**, Professor, Psychology; B.A., Yale University; M.S., Ph.D., University of Massachusetts-Amherst; 1978 -
- ***Linda Seppanen**, Associate Professor, Nursing; B.S.N. St. Olaf College; M.S.N., The Catholic University of America; Ph.D., University of Alabama; 1990 -
- Stewart Shaw**, Registrar; B.A., Coe College; Ph.D., Columbia University; April, 1990 -
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- ***Janice Sherman**, Associate Professor, Education; B.S., State University of New York-Buffalo; M.S., Colorado State University; Ed. D., University of North Dakota; 1989 -
- ***Thomas Sherman**, Professor, Education; B.S., State University of New York-Buffalo; M.Ed., Colorado State University; Ed.D., University of North Dakota; Ed.D., University of Colorado; 1989 -
- ***Richard H. Shields**, Professor, Physics; B.S., M.S., Eastern Illinois University; Ph.D., University of Missouri-Rolla; 1973 -
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- Scott Smedberg**, Child Care Teacher; B.A., University of Minnesota; 1988 -
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Application**

Winona State University

Admissions Office
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Winona, Minnesota 55987-5838

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187

Type or print in ink
Term and year of
beginning enrollment

_____ Social Security Number _____ - _____ - _____

Full Legal Name

_____ Last _____ First _____ Middle _____ Previous _____

Permanent Address

_____ Street _____ City _____ State _____ Zip _____ County _____

Telephone Number

(_____) _____ Date of Birth _____
Month _____ Day _____ Year _____

How long have you lived there?
(If less than 1 year, please
explain.)

_____ years _____

Present Mailing Address
(If different from above)

_____ Street _____ City _____ State _____ Zip _____ County _____

Current Telephone Number
(If different from above)

(_____) _____

Check One

Citizen of U.S.A.
 Permanent Resident Alien Alien Registration Number _____ Home Country _____
 International Student Home Country _____ Native Language _____
Veteran No Yes (If yes, send DD214) Dates of Active Duty From MO./YR. _____ to MO./YR. _____

Intended major
(In order of preference, if unsure,
write "Undecided")

1. _____ 2. _____ 3. _____

Have you previously applied?

No Yes For what term? _____ Did you enroll in classes? No Yes Dates of Attendance _____

Have you attended any other
college or vocational school?

No Yes _____
Dates of Attendance _____

Are you related
to a WSU Graduate?

No Yes Name _____ Relationship _____

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(Names of high schools,
colleges, and technical schools
attended. If more than three,
list on separate page)

School	City	State	Degree Granted	Date Attended
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

If you did not graduate from high school, have you earned a GED certificate? No Yes. You must submit a copy of your GED score report.

WSU is an affirmative action - equal opportunity educational institution.

Sex: Female Male
Disabled: No Yes. If yes, please indicate handicap and special assistance needed. _____
Ethnic Background (Check one): American Indian Asian Black Caucasian Hispanic

Optional Information
This information is optional and will
be used for accounting and
reporting purposes only.

**I certify that the information I have provided on this application and on all other admission
materials is complete, accurate and true to the best of my knowledge.**

Signature

X _____
Applicant Signature Date

Name of parent or guardian _____

Relationship _____

Address
 Street _____ City _____ State _____ Zip _____

Occupation
 Father _____ Mother _____

Activities/ Organizations _____ Number of Years _____ Awards/Offices Held/Achievements _____

School and community organizations in which you have been active

Activities and organizations in which you wish to participate at Winona State University

Employment and service record
 Date _____ Employer or Agency _____ Address _____ Type of work _____

(List most recent activities first, include military or government service, travel, or special training. Account for all periods of time since high school graduation not indicated on front.)

Please list senior courses

Semester I		Semester II	
Course Title	Credit	Course Title	Credit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Preparation Requirements

Minnesota State University System

This page must be completed prior to submitting the application. Failure to complete this page will delay a decision on admission. Please refer to the guidelines on page 4 when completing this page. Courses indicated should include all courses which will be completed in grades 9-12.

	Name	Social Security #	
	Last First Middle	_____	
<i>Please list coursework which will be completed by graduation.</i>	<p>English</p> <p style="text-align: right;">Total (English) _____ Years</p> <p>Mathematics</p> <p style="text-align: right;">Total (math) _____ Years</p> <p style="margin-left: 20px;">Algebra I _____</p> <p style="margin-left: 20px;">Geometry _____</p> <p style="margin-left: 20px;">Algebra II _____</p> <p style="margin-left: 20px;">Trigonometry _____</p> <p style="margin-left: 20px;">Pre-Calculus _____</p> <p style="margin-left: 20px;">Other _____</p> <p style="text-align: right;">Total (science) _____ Years</p>	<p>Social Studies</p> <p style="text-align: right;">Total (social studies) _____ Years</p> <p style="margin-left: 20px;">U.S. History _____</p> <p style="margin-left: 20px;">Geography _____</p> <p style="margin-left: 20px;">Other _____</p> <p style="margin-left: 20px;">Other _____</p> <p style="margin-left: 20px;">Other _____</p> <p>Electives</p> <p style="text-align: right;">Total (elective) _____ Years</p> <p style="margin-left: 20px;">World Language _____</p> <p style="margin-left: 20px;">World Culture _____</p> <p style="margin-left: 20px;">Computers _____</p> <p style="margin-left: 20px;">Arts: Music _____</p> <p style="margin-left: 20px;">Theatre/Drama _____</p> <p style="margin-left: 20px;">Visual Arts _____</p> <p style="margin-left: 20px;">Dance _____</p>	

To be completed by High School Official for Freshman Applicant

Applicant ranks _____ (from top) in class of _____ students (end of junior year acceptable).

ACT

English _____	Mathematics _____	Reading _____	Sci. Reas. _____	Comp. _____
Use./Mech. _____	Rhet. _____	Elem./Alg. _____	Alg./Geom. _____	Geom./Trig. _____
		Soc. Sci. _____	Arts/Lit. _____	

SAT

(Standard Score)

Verbal _____ Math _____

Applicant meets does not meet the preparation standards requirement for the state of _____ MN WI IL IA

Signature of certifying official

X _____ () _____
 Title Phone Number Date

Office Use Only		NEF for _____			
Honors _____	Regular _____	Adv.Stndg _____	Other _____	Denial _____	
RM _____	RTS _____	NM _____	NM(recip) _____	Def _____	Date _____
Complete _____	Fhst _____	Adm test _____	Other _____	Date _____	Initialed _____

College Preparation Standards: Guidelines for completing this form

Preparation Standard Requirements: This page describes Minnesota State University System (MSUS) preparation requirements. This form will help you determine which of your high school courses count for college preparation. **The following are only examples to help you. If you aren't sure if a course meets the requirements, ask your counselor.** Complete the form as accurately as you can and get it signed before sending in your application.

English: four years. English courses help you learn to read, write, and speak in English. Appropriate courses emphasize English usage, writing, style, theory analysis, understanding, evaluation, research, and public speaking. Courses that focus only on technical applications (for example, graphics and layout or speed reading) do not generally count. Examples of appropriate courses include modern fiction, world literature, American literature, composition, college writing, public speaking, and speech.

Mathematics: three years. Preparation for college requires two years of algebra (at or above the level of beginning algebra or algebra 1) and one year of geometry. Appropriate math courses help you learn to solve problems, use reasoning skills, and understand statistics and computational processes.

Science: three years. Science courses that meet this requirement should help you learn how to use scientific facts, analyze problems, and develop a scientific vocabulary. They should focus on theory, knowledge, principles, and methods and their application. At least one course must be in a biological science and one in chemistry or physics. All courses should include laboratory experiences. Examples of appropriate courses are anatomy and physiology, biology, botany, zoology, astronomy, earth science, chemistry, physics, physical science and geology.

Social Studies: three years. Social studies courses teach you about the nations and cultures of the world and provide skills to help you participate in a democracy. Appropriate

courses will focus on the knowledge, theories and methods of the social sciences; teach research writing skills; and foster a tolerance for conflicting viewpoints. At least one course in US history is required and one course or its equivalent in geography is highly recommended (if a high school does not offer such a course, a student is still eligible for admission provided all other preparation requirements have been satisfied). Examples of appropriate courses are US history, world history, civics, political science, government, economics, geography, psychology, and sociology.

World Language: two years. Appropriate courses focus on listening, speaking, reading, and writing skills; provide conversational experiences; and foster an understanding and knowledge of the culture. Any language, including American Sign Language (ASL), is acceptable. "Sampler" or language review courses do not meet this requirement.

Specific elective: one year. To be prepared for college and participation in our global society, you need to understand and appreciate diverse cultures and be able to express yourself in diverse ways. Appropriate electives may come from the following:

- **World Cultures.** These are non-language courses which teach about other cultures, provide a global perspective, and foster an understanding of other cultures. Examples of appropriate courses are area studies (such as Asian studies), Russia/China, international relations, and ethnic studies (such as African-American studies).
- **The Arts.** Appropriate art courses focus on creating or performing; teach about the history of an art form and its place in cultures; and foster aesthetic appreciation. Ideally, these courses will include both creative expression and history/criticism. Appropriate courses include music (vocal, instrumental, theory, composition), theater and drama (performance, production), dance (performance, choreography), visual arts (photography, painting, drawing, sculpture), and survey courses (art history, music history, history of the theater).
- **Computer Science.** Courses should focus on computer applications, theory, and or programming. Keyboarding and word processing do not meet this elective requirements.

Before a decision can be made on your application for undergraduate admission to Winona State University the following must be sent to:

**Admissions Office
Winona State University
P.O. Box 5838
Winona, MN 55987-5838**

- A completed four page Application for Undergraduate Admissions.
Failure to complete page 3 will delay the application process.
- \$15 non-refundable application fee. Make check payable to Winona State University.
- An official High School transcript showing rank and admission test scores (ACT or SAT). (While an admission decision may be made on class rank alone, an ACT score must be on record for enrollment and registration purposes.)
- Proof of immunization against measles, rubella, mumps, diphtheria, and tetanus must be sent to WSU Health Services.**

As you complete this application, remember to start planning for financing your education. When visiting the campus, the Financial Aid Office can provide appropriate information.